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A HARD LOOK IN THE MIRROR:
RECONCILIATION THROUGH COLLABORATIVE INTROSPECTION

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Abstract

Canadian education is often characterized as inclusive and multicultural; However, it remains deeply intertwined with colonial structures that have sought to suppress Indigenous knowledge systems for generations. This ongoing colonial legacy is reflected in the continued marginalization of Indigenous ways of knowing, doing, learning, and teaching within provincially-mandated education systems. Despite recent calls for reconciliatory change to include Indigenous perspectives, these changes are often superficial, leaving systemic racism and pedagogical inequities intact. This study explores the perceived challenges faced by non-Indigenous educators in bridging Indigenous ways of knowing and doing into their teaching practices, with a focus on self-reflexivity and introspection as tools for fostering a deeper awareness of power, privilege, bias and unacknowledged racism. Utilizing critical participatory action research, this study examines whether professional development centered on collaborative introspection can reduce the perpetuation of colonial ideologies within teaching pedagogy. By engaging in self-reflective practice, non-Indigenous settler educators can begin to acknowledge their colonial underpinnings and build meaningful relationships with Indigenous knowledge systems. This study aims to contribute to the development of more inclusive, equitable, and culturally responsive educational practices, supporting the bridging of Indigenous knowledge in ways that honor its complexity and significance. Through this work, the research seeks to promote a shift in pedagogical considerations that foster an educational environment where all learners, particularly First Nations, Métis, and Inuit students, can thrive.

Keywords: Indigenous Education, Critical Participatory Action Research, Collaborative Professional Development, Introspection, Self-Reflexivity

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Conceptual and Operational Definitions

Throughout this manuscript a number of terms will be used to describe the concepts and definitions utilized within my manuscript. These definitions will develop throughout this process.

Aboriginal: The Canadian government's official terms for Indigenous peoples in Canada, including First Nations, Métis, and Inuit. Aboriginal Peoples moved into popularity as the correct collective noun for First Nations, Inuit and Métis and was widely adopted by government and many national groups. The term "Indigenous" is increasingly replacing the term "Aboriginal", as the former is recognized internationally, for instance with the United Nations' Declaration on the Rights of Indigenous Peoples. However, the term Aboriginal is still used and widely accepted (Charron, 2019, As retrieved from https://www.national.ca/en/perspectives/detail/no-perfect-answer-first-nations-aboriginal-indigenous/). When referenced in literature, I have chosen to honour the term Aboriginal.

Bias: Cause to feel or show inclination or prejudice for or against someone or something:

Blended Learning: A combination of face-to-face instruction augmented by online learning tools.

Bridging: refers to the act of creating a connection or overcoming a gap between two entities. Describes the process or technique of creating a link between two knowledge systems.

CPAR: Critical Participatory Action Research

Emergency remote teaching: A temporary shift of instructional delivery to an alternate mode due to crisis circumstances.

Equity: The quality of being fair and impartial in the distribution of resources and opportunities.

FNMI: First Nations, Métis, Inuit. This acronym recognizes the 3 distinct groups of Indigenous Peoples within Canada. This term is being used when referencing First Nations, Métis, and Inuit educational initiatives.

Hybrid Learning: A combination of face-to-face course delivery supplemented with online synchronous and asynchronous activities.

Inclusive learning: recognizes all student's entitlement to a learning experience that respects diversity, enables participation, removes barriers and anticipates and considers a variety of learning needs and preferences. The design and delivery of teaching, learning and assessment methods that allow all students to engage meaningfully with the curriculum and achieve their full potential.

Indigenous: Culturally distinct ethnic groups who are descendants from the first known inhabitants of a particular region. A collective name for the original peoples of North America and their descendants. By recognizing First Nations, Inuit and Métis as Indigenous Peoples, the Canadian government is acknowledging their internationally legal right to offer or withhold consent to development under the United Nations Declaration of the Rights of Indigenous Peoples. The term "Indigenous" is increasingly replacing the term "Aboriginal", as the former is recognized internationally, for instance with the United Nations' Declaration on the Rights of Indigenous Peoples. However, the term Aboriginal is still used and accepted (Charron, 2019, As retrieved from https://www.national.ca/en/perspectives/detail/no-perfect-answer-first-nations-aboriginal-indigenous/). When referenced in literature, I have chosen to honour the term Aboriginal instead of Indigenous.

Indigenous Cultures: Refers to the specific cultural traits of the earliest known inhabitants of a place.

Indigenous Ways of Knowing and Doing: Complex and diverse methods of learning and teaching that encompass not only human interactions but interactions with all physical, spiritual, emotional, and intellectual elements.

K-12: A short form of publicly supported school grades prior to tertiary education. K refers to Kindergarten (designed for 5-6 year olds) and 12 refers to grade 12 or year 12 (designed for 17-18 year olds).

Non-Indigenous: A person not belonging to or descended from the earliest known inhabitants of a place.

Perfect Stranger: a term used to describe the way in which non-Indigenous educators protect themselves from the ethical vulnerability of working with Indigenous knowledge, histories, and peoples through denial, objective positioning, and dehumanization of Indigenous peoples lived experiences.

PD: Professional Development. Can refer to any kind of ongoing learning opportunity for teachers and other education personnel whereby an individual acquires or enhances the skills, knowledge and/or attitudes for improved practice.

Power: the capacity or ability to direct or influence others or the course of events:

Privilege: a special right, advantage, or immunity granted or available only to a particular person or group of people.

Settler: A person who is not Indigenous, and whose ancestors came and settled in a land that was already inhabited by Indigenous peoples. In a settler-colonial framework, immigrants are also considered to be settlers.

Settler Educator: A teacher whose educational pedagogy is underpinned by Eurocentric ideologies born out of the belief in the educational superiority of European cultures. In this study, all participants white settler educators although I recognize that numerous contemporary settler educators may not identify as white.

TRC: Truth and Reconciliation Commission of Canada

Unacknowledged Racism: refusal to acknowledge prejudice, discrimination, or antagonism by an individual, community, or institution against a person or people on the basis of their membership of a particular racial or ethnic group, typically one that is a minority or marginalized.

Chapter 1. Introduction

In an effort to position myself within this research, I must first respectfully acknowledge that I live and work on the traditional and territorial lands of the people of the Treaty 7 region of Southern Alberta. This includes the Blackfoot Confederacy, which encompasses the Siksika, Piikani, and Kainai First Nations, the Îethka Nakoda Wîcastabi First Nations made up of the Chiniki, Bearspaw, and Wesley First Nations, and the Tsut'ina First Nation, and the homeland of the Métis Nation of Alberta and the Otipemisiwak Métis government. I was raised in a city where the two rivers meet, which the Indigenous nations of Alberta refer to as Moh-kins-tsis, Wîchispa Oyade, Otos-kwunee and Guts-ists'i. My education was such that I was not taught any history of this area prior to the arrival of Europeans, so to me, it has always been known as Calgary. As a young child, I lived near a sacred space known by many as Nose Hill. This place, which holds many memories of a happy and loving childhood, shows the scattered remnants of old stone circles which were once used to secure tipis along lookout points to the rolling hills below. These hills came to represent a place of comfort, of home, and of family. In this place where the two rivers meet, which is sacred to so many, I began my learning journey.

My positionality as an educator was shaped early within my career. Growing up in a family of teachers, I often emulated the methods I saw used by those closest to me. These methods which were shaped by the social understandings prevalent within Alberta during the 1970's, were reflective of the colonized viewpoints and pedagogical implications of the dominant western society. One of my first teaching positions was as an elementary generalist in a large urban center. Armed with the knowledge I had gleaned from my university training, I was committed to imparting my wisdom on the students, and sharing my love of learning. Utilizing the guidance offered by seasoned teachers both in my professional and personal environments, I

decided to create a cross-curricular learning opportunity whereby we would learn about Indigenous history while making a musical drum. My lack of knowledge and understanding surrounding the significance of these actions will forever shape how I view my role as a teacher. As a novice educator teaching in a classroom with a strong majority of Indigenous learners, I was unprepared for the disbelief and anger that followed my ignorant actions. I didn't understand what I had done wrong, but I realized very quickly that I had lost the respect of some of my students and their families. Utilizing my collegial relationships, I asked for advice on this issue and was given very little. Many of the teachers I spoke with also could not understand what I had done wrong. However, this experience had changed my classroom environment and I was determined to find out why.

This is where my research journey began. Unable to forget what I considered to be my failure as a teacher, I began to read about the significance of Indigenous drums and how they link not only to the spiritual and emotional elements of Indigenous culture, but to the very heart of their identity. As I researched more about Indigenous cultures and current issues, I began to realize that I was part of the problem. My ignorance had caused me to offend many of my students and I chose then to change how I approached teaching and learning. This experience, along with many others, has led me to this research study. Throughout my years as a teacher, I have seen many Indigenous learners struggle to navigate an educational system designed to serve a colonized agenda. Traditional Indigenous methods of teaching and learning were dismissed in favour of the more regimented Eurocentric forms of education. From my own experiences, I saw many Indigenous learners strive to gain a deeper understanding of concepts which in no way reflected their lived realities. Their perseverance and commitment to succeed on their own terms

showed me how important it was for educators to develop a strong pedagogical approach that caters to the diverse cultures that are represented in the classroom.

Education in Canada

Education in Canada continues to be both a target and a tool of colonialism. This formalized colonial structure was initially designed to destroy and diminish the legitimacy of Indigenous knowledge systems, and replace them with schooling designed to promote imperialist ideological objectives (Pihama & Lee-Morgan, 2019). As defined by Horvath (1972), colonialism involves a process of reduction in which only a select few variables are significant. Domination through cultural homogeneity or heterogeneity are often used in the pursuit of establishing and maintaining control of a group, while simultaneously exploiting their peoples and resources. Battiste and Henderson (2009) state Eurocentric knowledge has "ignored, neglected, or rejected Indigenous knowledge as primitive, barbaric and inferior …to European methodologies and perspectives" (p. 6). The colonial agenda has dominated education in Canada for decades, producing educators who perpetuate these harmful imperialistic ideologies through their educational practice. Non-Indigenous educators, whose educational pedagogy can often be underpinned by Eurocentric ideologies born out of the belief in the educational superiority of European cultures, play a significant role in the education of youth in Canada. Non-Indigenous, or often referred to as settler educators, were schooled within educational structures that disregarded the traditional knowledge systems of the Indigenous peoples that have held place within this land for centuries. Settler educators in Canada often perpetuate an ignorance that has been taught, and embedded in the curriculum. Donald (2021) states that "a significant curricular and pedagogical challenge faced by educators in Canada today is how to facilitate a new story that can repair the inherited colonial divides and give good guidance" (p. 53).

The colonial education of Indigenous peoples continues to be a contentious issue in Canada. As reported by Statistics Canada (2016), the First Nation, Métis, and Inuit population has grown by 42% since 2006. From the period of 2016 – 2021, an additional population growth rate of 9.4% has been recorded for Indigenous nations in Canada, however, growth in the education of these learners has been slow to materialize (Statistics Canada, 2022). Provincial and territorial ministries of education are responsible for the organization, delivery, and assessment of educational outcomes in Canada. While each provincial and territorial education system is governed under the national umbrella, each has the autonomy to decide what knowledge and curricular outcomes are essential for their school age demographic (Koehler, 2024). As stated by the Council of Ministers of Education, Canada (2023), "there are also significant differences in curriculum, assessment, and accountability policies among provinces and territories that express the geography, history, language, culture, and corresponding specialized needs of the populations served" (As retrieved from https://cmec.ca/299/Education-in-Canada-An-Overview/index.html). Provincial education is often characterized by Eurocentric, colonialized versions of knowledge which place Indigenous ways of knowing, doing, learning, and teaching as supplementary knowledge to the mainstream understandings that are prevalent in schools across the country. When the Truth and Reconciliation Commission of Canada published 94 calls to action in 2015, the education system did not remain unscathed with calls directed specifically for the inclusion of Indigenous perspectives in curricula. Age-appropriate curriculum on the history of residential schooling, national and provincial treaties, as well as both the historical and contemporary contributions to Canada made by Indigenous communities were deemed to be necessary first steps on the path of reconciliation. Changes in response to these directives have been slow to materialize in education with teachers still relying predominantly on traditional western

understandings of knowledge and teaching (Sokal et al., 2020; Webb & Mashford-Pringle, 2022).

This chapter details the statement of problems currently faced when educators attempt to bridge Indigenous education into their pedagogy, the purpose of this study, the research questions, as well as the significance of this study to the field of education. The chapter will then explore the theoretical paradigm, and my positioning as the researcher.

Current Educational Context

Colonial education systems in Canada are structured in ways that rarely include, let alone honour, Indigenous ways of knowing and doing. The systemic reliance on standardized testing, benchmarks, and exemplars are used to measure student achievement levels, without considering learners unique educational needs. Canadian settler educators are predominately taught and often rely heavily on pedagogical considerations that align with Eurocentric standards and dismiss the traditional Indigenous instructional methods that have been utilized for generations (Poitras Pratt & Danyluk, 2017). Canadian education is characterized by a capitalistic, settler colonial worldview which often excludes the diverse histories, knowledges and contemporary issues of Aboriginal peoples (Howell & Ng-A-Fook, 2022). Colonized epistemology, history, and language are constructed as the universal norm, and imposed upon other cultural groups whose knowledge and worldviews differ from those regarded to have a positive relationship with westernized culture (Higgen et al., 2015). This systemic racism results in very little representation within the curriculum of Indigenous ways of knowing and doing (Gebhard, 2018). What little representation exists is taught through a westernized lens and often lacks the authentic understandings of traditional Indigenous knowledge systems (Webb & Mashford-Pringle, 2022). Gebhard's (2018) study clearly indicated that many Indigenous students felt there was "nothing

in [the] school system for First Nations kids" which led to feelings of discomfort, isolation, and an overarching sense that they did not belong within that environment (p. 764). This in part is due to the "Teacher Diversity Gap" (Vangool, 2020). As stated by Hamilton (2024), and supported by Vangool (2020), although diversity is increasing in Canadian schools, the racial identification of educators, administrators, curriculum writers, and school officials remains predominantly white. Recent surveys administered by the Alberta Teachers Association identified that over 90% of educators in Alberta identify as white, with only 5.4% of teachers being members of a community of colour, and 3.6% of teachers identified as Indigenous (Berg, 2023). Supported by Dubinski (2020), a survey of one Ontario school board revealed that approximately 89% of educators identify as white, and approximately two thirds of preservice teachers attending Western University identify as "white, middle class, and Christian" (As retrieved from https://www.cbc.ca/news/canada/london/london-ontario-black-teachers-1.5608255). Canadian teachers, predominantly made up of white European origin, seem to often have difficulty incorporating Indigenous teaching methods into their everyday instruction. The current reality of education for Indigenous youth is one of neglect, disenfranchisement, inequality, and under-education (Gebhard, 2018).

Racism in Canadian Education

The term racism is often described as a hatred or intolerance of one race against another. Racism revolves around the idea that one's own race is superior to others, and has the right to rule others based on their assumed superiority (Reading, 2013). The concept of racism in Canadian education is not new, with its roots dating back to the early 19th century. The current, and also historical, national mythology of multiculturalism in Canada claims that racism is not an issue. However, a study conducted through the Angus Reid Institute for independent research, in

collaboration with the University of British Columbia, found that approximately 34% of Canadians believe that "Canada is a racist country" (Korzinski, 2021a, p. 1). Building off this initial data, further studies showed that Canadian schools continue to be a strong center of activity for racism against Indigenous and visible minority learners (Tsang & Eizadirad, 2024). As Korzinski (2021b) states, Indigenous students are three times as likely to experience racial abuse in school compared to their majority counterparts. According to Fletcher (2021), 58% of Canadian school youth aged 12-17 have seen students bullied, excluded, or insulted based on their race or ethnicity. Students who have experienced or witnessed racism within the education system say that teachers try to discourage racist behaviour through discussion, suspension or detention. However, approximately 23% of students claim that teachers ignore racist behaviour or are unaware of it (Fletcher, 2021; Korzinski, 2021b). Lorenz's (2017) study explored how educators within Alberta responded to the concept of race, and discovered that teachers significantly "lack understanding of the sociopolitical history of race as a term" which links to how they understand race as a concept (p. 88). Many non-Indigenous educators within Alberta do not understand how Eurocentric colonialized norms are maintained within curricula or how "deeply embedded colonialism is within education…[and] the mythology of the nation as a whole" (p. 91). The mythical images of Indigenous peoples in Canada are so deeply ingrained into the historical and social makeup of society, that teachers are either afraid to disrupt this national narrative, or are oblivious to the misrepresentation and miseducation of an entire race of people. Bennett (2021), a Nahva/Zapoteca educator/scholar from Mexico, has witnessed several educators who prefer not to "rock the boat" (p. 2) and instead distance themselves from acknowledging the uncomfortable truth of racism in Canada. Attempts by Indigenous colleagues to correct the racist or problematic behaviour of non-Indigenous educators has resulted in

accusations of being verbally "attacked" which manifest into union complaints of feeling unsafe in their school environments (Bennett, 2021, p. 3). Unacknowledged racism, often referred to as the social and cultural conditioning to believe that someone is inferior based on race or ethnicity (Warren, 2020), is a significant element that holds teachers back from truly understanding and embracing Indigenous understandings and ways of doing and learning.

The national narrative that Canadian educators are well-intentioned, and hardworking caregivers aiming to educate all learners out of poverty and ignorance pervades our social media conversations, and classrooms (Howell & Ng-A-Fook, 2022; Poitras Pratt & Danyluk, 2017). This belief merely perpetuates the unacknowledged racism that is exhibited within the education system. Gebhard (2020) and Sritharan (2024) claim that non-Indigenous settler educators believe they are impartial, loving, colourblind, and treat all their students equitably. Some, but not all, settler educators "firmly believe themselves to be benevolent saviours of children of colour in urban schools" (Gebhard, 2020, p. 206). Due to the lack of recognition of Indigenous needs in the Canadian education system, the Truth and Reconciliation Commission of Canada's Calls to Action (2015) demanded the incorporation of Indigenous knowledges, histories, and practices within Canadian education systems as a necessary first step towards reconciliation. Educational authorities responded by incorporating cultural revitalization within the schools, a conciliatory adjustment meant to placate governing bodies demanding change.

Westernized approaches to cultural revitalization can be interpreted as additive studies of Indigenous content offered to learners through the lens of the Eurocentric Canadian education system (Gebhard, 2018; Thomas, 2022). This predominant discourse regarding First Nations, Métis and Inuit educational change is supported at the highest levels of educational administration and works as a "Band-Aid solution" in the absence of serious integrative

considerations (Gebhard, 2018, p. 768). Thomas (2022) asserts that cultural revitalization in the education system is a gap-filler and that "labour, arts and cultural knowledge [are] treated as a resource to be extracted and used for desired ends by the [government]' (Thomas, 2022, p. 1). Indigenous cultural revitalization in the education system has extractive undertones, as additives rarely differ from an artistic representation. Songs, dances, pictures, and stories form the basis of the cultural inclusions deemed acceptable within the colonialized curricula. Hamilton (2024) claims that many diversity, equity, and inclusion initiatives involve "bringing in a limited number of 'diverse' texts or perspectives in the classroom, while not questioning the systemic issues of white power and privilege in educational institutions" (p. 162). As supported by Thomas (2022), Indigenous knowledge and practices that align with the Eurocentric ways of thinking are interpreted and applied through the lens of western educational systems. Donald (2013) asserts that many educators in Alberta feel their task is to "incorporate" and "infuse" their lessons with Indigenous difference, but fail to see how integrating these knowledges into the colonized Eurocentric curriculum is perpetuating an understanding of knowledge superiority (As retrieved from https://legacy.teachers.ab.ca/News%20Room/ata%20magazine/Volume-93/Number-4/Pages/Teachers-aboriginal-perspectives.aspx). Cultural revitalization in the Canadian education system is rarely a risk to white knowledge identity as it does not disrupt the colonialized notions of teaching and learning that are prevalent in the classrooms (Gebhard, 2018). Government-supported educational authorities claim the lack of culture in the classroom is the explanation for the educational attainment gap between Indigenous and non-Indigenous learners. However, when the cultural approach shows no measurable improvement in achievement objectives, it is attributed to "disrespectful Indigenous students or the lack of knowledge about cultural teachings" (Gebhard, 2018, p. 764).

Milne (2016) claims that the education system could be seen as a continued form of assimilation for Indigenous students as teachers are currently transmitting and legitimizing dominant colonial narratives through content, teaching methods, and an unacknowledged implicit bias of indigeneity. As Oloo and Kiramba (2022) assert, teachers must strive to change, or the process started by residential school will continue. Authentically bridging Indigenous ways of knowing, doing, learning and teaching in provincial curriculum is an ongoing endeavor; however, currently practicing teachers are rarely instructed on how to effectively and authentically bridge Indigenous ways of knowing and doing into their classroom practice, and address the unacknowledged bias and racism that is perpetuated by the colonialized system. Bissell and Korteweg (2016) also support this view asserting that ministry-certified curriculum rarely recognizes the intricacies of Indigenous ways of knowing and doing, and often ignores First Nations, Métis, and Inuit communities' knowledge and perspectives of their lived realities. On inspection of provincial school systems, scholars Poitras Pratt and Danyluk (2017) state that teachers practice a purposive and willful ignorance around the histories and current issues of Indigenous peoples in Canada, often resulting in inequity of opportunity for these learners in any K-12 setting. The current educational attainment of Indigenous youth is far below that of their non-Indigenous counterparts, as these unique learners are unable to relate the educational content offered in school to their lived experiences (Mackay, 2024; Tsang & Eizadirad, 2024).

Within Alberta, the curriculum renewal process began in 2019 with revisions being drafted in the subjects of English Language Arts and Mathematics for K-6 learners. Increased content of Indigenous knowledge, history, and perspectives were highlighted as important features within the new curriculum, and mandatory implementation began in September 2023. In March 2024, a draft of the revised K-6 Social Studies curriculum was released with

implementation set for September 2024. The curriculum renewal process still continues within Alberta with revisions for grades 7-12 due in the 2026/2027 school year (as retrieved from https://www.alberta.ca/junior-and-senior-high-school-curriculum-development). However, what the curriculum renewal process failed to consider was not what we teach, but how and why we teach it. Passive content delivery through the settler educators' lens will not change the systemic racism and colonial agenda between Indigenous and non-Indigenous knowledges. L'nu Mi'kmaq scholar Battiste (2002) asserts that the main purpose of bridging Indigenous knowledge into the curriculum is to balance the education system, but before that balance occurs, we must first "acknowledge that Canadian schools teach a silent curriculum of Eurocentric knowledge by the way teachers behave and the manner in which they transmit information" (p. 30). Kirkness (1999) supports this claim stating that teaching Indigenous knowledge in Alberta must begin with a shift in process rather than content. Many teachers feel unable, or are unwilling, to include an authentic representation of Indigenous ways of knowing and doing in their pedagogical methods, or address the deeply seated beliefs that form their understandings of Indigenous peoples across Canada. Focusing instead on the inclusion of cultural decorations of Indigeneity, many fail to cater to the learning needs of First Nations, Métis, and Inuit learners (Dion, 2016; Marom, 2016; Milne, 2016; Poitras Pratt & Danyluk, 2017). The Alberta Teachers Association (ATA) has been instrumental in providing training for educators on the inclusion of Indigenous content in the curriculum. Koehler (2024) claims that the success of this training hinges on teachers' ability to shift their colonized perspective to more inclusive considerations. Non-Indigenous educators are operating with a knowledge base that often perpetuates the power imbalance between Eurocentric and Indigenous knowledge systems. While teachers are attending professional development sessions on content, training in understanding their own colonized

epistemological underpinnings has yet to be addressed. Scholars Csontos (2019) and Lorenz (2017) both attest that there is a significant lack of understanding of how deeply settler colonialism is embedded in teachers' pedagogical considerations. Koehler (2024) points out that non-Indigenous educators within Alberta need the time and skill development to understand their own positionality before they can begin to address the methods through which they bridge Indigenous knowledge systems in their own classrooms.

Purpose of the study

The purpose of this study was to explore the perceived challenges, barriers, and reactions faced by non-Indigenous educators when bridging Indigenous ways of knowing and doing in a blended K-12 classroom. I wanted to discover if the experiences of other seasoned settler educators were similar to my own when working with Indigenous ways of knowing, doing, learning, and teaching. My study aimed at promoting self-reflexivity and introspection as methods of raising awareness among non-Indigenous teachers of their own power, privilege, bias, and unacknowledged racism within teaching pedagogy. Indigenous ways of knowing and doing could be generally defined as complex and diverse methods of learning and teaching that encompass not only human interactions but interactions with all physical, spiritual, emotional, and intellectual elements (Tanaka, 2016). These ways of knowing and their unique educational advantages will be discussed in greater detail in chapter 2. This study sought to foster self-reflective professional development to assist non-Indigenous teachers in expanding their teaching pedagogy to include strategies compatible with Indigenous ways of teaching and learning, and to discover whether these collaborative professional development discussions could reduce the occurrence of non-Indigenous educators' propensity to adopt the Perfect Stranger persona when implementing Indigenous ways of knowing and doing in their blended teaching practice (Dion,

2016). Dion's concept of the "perfect stranger", which can be defined as "a lack – or an abdication – of relation, understanding, and responsibility to the Aboriginal other" will be further explored in chapter 2 (Burton, 2019, p. 173). As a K-12 blended teacher, I have struggled with the incorporation of Indigenous ways of knowing and doing in my own practice. I acknowledge this process will be a lifelong endeavor, and I aim to take an active role in contributing to educational change through this research and through active critical reflective practice. Considering the perceived barriers that many non-Indigenous educators face in acknowledging their deeply held beliefs related to Indigenous knowledge, I sought to learn whether collaborative self-reflection and introspection could provide an opportunity to address the implicit bias and unacknowledged racism that many teachers avoid acknowledging. The purpose of this study was not to provide a formula or teachers' guide concerning the incorporation of Indigenous knowledge and perspectives, but rather, to offer the opportunity for self-reflexivity in teacher practice through which non-Indigenous Canadian educators can begin acknowledging their own implicit understandings of Indigenous knowledge, histories, and peoples in Canada. By providing this opportunity, this study further aimed to support teachers to begin building relationships from a local level and start making connections to the knowledges and teaching practices of Indigenous nations throughout Canada. Participant teachers' contributions to the study were collected to determine whether these collaborative professional development discussions could potentially reduce the occurrence of non-Indigenous teachers' adoption of the perfect stranger persona as a way of distancing themselves from Indigenous ways of knowing and doing, and how self-reflective practice may have shifted the teaching pedagogy of non-Indigenous educators. The purpose of this study was to determine whether self-reflective

professional development discussions could potentially lead to a more equitable learning environment for all First Nations, Métis, and Inuit learners across Canada.

The Importance of Indigenous Collaboration

When working with truth and reconciliation initiatives, it is important to bridge and uplift Indigenous perspectives and voices. New directives from the Canadian Research Coordinating Committee (2020) promote the inclusion of Indigenous perspectives at every point within a research study, including the co-development of research questions and agendas, establishing mutually beneficial relationships, and respecting Indigenous protocols and ethics. As the Canadian Research Coordinating Committee (2020) states, this "represents a significant step forward in ensuring all voices are heard in the search for new knowledge and understanding" (p. 1). In an effort to respect the traditional protocols involved in research with Indigenous education perspectives, I consulted with Jen Copithorne, a member of the Métis Nation of Alberta, who works as an educational psychologist with the Calgary Board of Education. Her invaluable advice around Indigenous protocols helped me make strong connections with members of the Indigenous Education team, and guided me in the development of personal introspective practices in my own pedagogy. Within this study, I chose to promote a deep collaboration with Indigenous perspectives by engaging in this research with an Indigenous education colleague. As a means of respect for the knowledge and teachings that have been bestowed upon me, I acknowledge the teaching and support offered by this person. On the basis of professional guidance, this Indigenous education colleague chose to remain anonymous within this study. This decision was not made lightly, but rather took careful consideration within their professional sphere. Working alongside participants from various school divisions within Alberta, issues of professional conflict arose causing them to consider their position within this

study. I was informed that systemic pressure had been applied to limit their participation within any research study to their employing school board. They were informed that collaborating in a research study that was not designed by their employing school board would undermine the initiatives that were being developed, and would be cause for possible re-evaluation of their role. Fearing possible termination but feeling the necessity for this research, they chose to continue but made the decision to remain anonymous to avoid any professional pushback with their participation in this research. Alo, a chosen Indigenous name meaning 'one who is to guide' is dedicated to advancing an equitable pedagogical framework within education. Alo guided me along a path of truth and understanding through Indigenous teachings and took a collaborative role within this study. Alo brought a multifaceted viewpoint to the study through a blending of western knowledge and Indigenous teachings. Having spent many years working in Indigenous Education, they were able to seamlessly weave Indigenous ways of knowing and doing into teaching pedagogy, and use their knowledge and experiences to help other educators develop a more inclusive pedagogical framework. Within this research, I, along with Alo, aimed to create a space for the bridging of western and Indigenous ways of knowing to aid understanding and solve problems within Canadian educational pedagogy, beginning with the teacher-participants in this Critical Participatory Action Research study. Supported by Wright et al. (2019), we promoted "ethical exchanges between Indigenous and non-Indigenous people" (p. 1). As I felt it was imperative to understand the different perspectives involved in this research study, I engaged with Alo in every step of the research process. Through collaboration with interview questions, the sharing of educational setbacks and triumphs, and through continued collaborative and targeted support for research participants, we encouraged a deeper understanding of Indigenous knowledges and attempted to raise awareness of teacher power, privilege, bias, and

unacknowledged racism within the participants' educational pedagogy (Government of Canada, 2022). Alo's participation offered an authentic representation of blending Western and Indigenous educational perspectives, and provided an opportunity for the research participants to begin shifting their pedagogical understandings to a more equitable inclusion of Indigenous ways of knowing and doing within the blended classroom.

The Blended Learning Classroom

Blended learning can be conceptualized and defined in a number of ways. The terms blended learning and hybrid learning are often used interchangeably within the education sector and can encompass multiple combinations of face-to-face and online learning experiences.

Definitions

According to Garrison and Kanuka (2004) blended learning is defined as the thoughtful integration of face-to-face and online learning experiences. Similarly, Graham (2006) defines blended learning as systems that combine face-to-face and computer-mediated instruction. Hybrid learning, as exemplified by Hall and Davison (2007), is described as being a combination of face-to-face instruction augmented by online learning tools. The terms blended and hybrid learning often refer to the same phenomenon with hybrid learning being more frequently used in practice than research (Hrastinski, 2019). For the purpose of this research study, I will define a blended learning classroom as an environment where instruction is provided through face-to-face interactions augmented with online learning experiences, following Hall and Davison (2007).

Types of Blended Learning Classrooms

Most blended learning classrooms are organized into four different models within the K-12 sector of education in Canada. Staker and Horn (2012) categorize the first model as a

rotational arrangement where students alternate between modalities with one modality being online learning. Other modalities could potentially include face-to-face instruction, individual tutoring, and/or group work. The second model as described by Samura and Darhim (2023) is the Outside-In blended learning environment where learning starts from a physical and digital environment and ends in the classroom. This model, similarly described by Hrastinski (2019), incorporates learning where students split their time between face-to-face instruction and learning remotely in an online setting. The Flex learning environment, a third blended learning model, provides students with more autonomy allowing them to learn primarily online while also providing the option for face-to-face support through small group instruction and individual training (Hrastinski, 2019). Finally, the Blend model offers the traditional face-to-face learning environment while supplementing instruction through online learning modules and/or experiences (Graham, 2006). Garrison and Kanuka (2004) acknowledge the complexity of the blended learning environment claiming that no two blended learning environments are identical. Within K-12 education in Canada, blended learning aligns with multiple models and can be designed to cater to the needs of unique learning environments. Many scholars assert that the aim of blended learning should be for face-to-face and online instruction to complement each other, offering students the advantages of learning beyond the classroom (Bicen et al., 2014; Cakir & Bichelmeyer, 2016; Deschacht & Goeman, 2015).

Emergency Remote Teaching and the Blended Classroom

In the spring of 2020, 90% of schools worldwide were forced to move to remote instruction as the physical buildings were closed off due to the Covid-19 pandemic. This sudden shift to online teaching was the largest learning experience of distance education the world has ever experienced (UNESCO, 2020). Emergency Remote Teaching (ERT) emerged as a response

to school closures, and forced students to learn through digital platforms. Hodges et al. (2020) define emergency remote teaching as a model of online teaching that incorporates both synchronous and asynchronous instructional and learning strategies during a time of societal upheaval. This "temporary shift of instructional delivery" involves the use of fully remote teaching solutions for instruction or education (Hodges et al., 2020, p. 6). In Alberta specifically, schools closed on March 16, 2020 and remote teaching began on March 20, 2020 (Nagle et al., 2020). The rush to implement remote teaching resulted in educators relying on online videos and virtual platforms to offer instructional opportunities for students (Brown et al., 2022). However, without the careful planning required to successfully engage online learners, emergency remote teaching was met with mixed results.

O'Hara et al. (2021), along with Darling-Hammond and Hyler (2020) both concede that one benefit that arose from emergency remote teaching was the increased collaboration amongst educators. With varying degrees of digital knowledge, collaboration in the development of online classrooms and instructional strategies was prevalent during this time. Educators would rely on the technical skills of one another to guide instruction through multiple digital platforms and share knowledge which helped to develop professionally competent technical skills. Brown et al. (2022) asserts that teachers not only increased their digital footprint through online instructional strategies, but also developed a wider repertoire of methods utilized for task completion. Emergency remote teaching "encouraged practitioners to continue working with digital technologies in their classrooms often providing alternate options for task completion through video recordings, audio recordings or a method through which students could express their understanding of the objectives" (Brown et al., 2022, p. 75). As stated by An et al. (2021),

approximately 73% of educators felt comfortable teaching in an online environment, calling for additional professional development to increase their knowledge of digital resources.

While some educational practitioners flourished during emergency remote teaching, barriers to learning also arose within this remote setting. One significant barrier that researchers have identified is the digital divide, generally referred to as a gap in internet and technology access (Ahmmed et al., 2022). Scholars across Canada have identified three distinct layers within the digital divide: accessibility (Ferreira et al., 2021), inequality of skills (Koch, 2022), and the efficiency of using internet technologies to meet learning objectives (Scheerder et al., 2017). Emergency remote teaching exacerbated the digital divide, drawing marked attention to the disparity of access to digital devices and internet technologies (An et al., 2021). Brown (2022) asserts that "limited technological know how" and "availability of devices" often hindered the success of emergency remote teaching, which led to a decline in student engagement and support (p. 73). During emergency remote teaching, learners' engagement levels were reported to have declined due to insufficient support from teachers and parents (Bergdahl & Bond, 2021), lack of social interaction and collaboration (Bray, et al., 2020), and connectivity issues (Brown et al., 2022). As many educators were thrust into emergency remote teaching within a matter of days after school closures in Canada, instructional ramifications and planning for online learning were not considered before opening virtual classrooms. Many educators simply transferred their face-to-face teaching methods into a synchronous videoconferencing modality in order to avoid missing teaching time. Su et al. (2023) claim that student engagement was reduced due to issues of time management. Although online learning sessions allowed for instructional activities to take place, many educators designed their classes to mimic instructional time in a face-to-face environment. Sessions lasting up to three hours in duration were common during emergency

remote teaching, often far surpassing the concentration limit of many learners and even teachers (Su et al., 2023). A recently published article by Palalas et al. (2022) states that temporal considerations are essential for any type of online instructional activity. Ideal instructional time lasts from "30 to 90 minutes" with shorter sessions often being "more productive than those of a longer duration" (Palalas et al., 2022, p. 11). Studies have shown that teacher self-efficacy regarding digital technologies played a vital role in facilitating and maintaining engagement during emergency remote teaching, with digital struggles of learners often resulting in disengagement and boredom being exhibited by learners (Bergdahl & Bond, 2021; Salmela-Aro, et al., 2016). Learning supports designed to reduce student disengagement were often not provided effectively through online instruction, resulting in less collaboration, communication, and social interaction among teachers and students during emergency remote teaching (Bray et al., 2020; Brown et al., 2022).

What emerged from the experiences of emergency remote teaching were multiple variations of the contemporary blended classroom. With digital tools seamlessly intertwined within the social and cultural makeup of society, humans are expected to function and use technology as a foundation from which to distribute tasks and manage our daily lives (De Cremer & Kasparov, 2021). In the realm of education, engaging learners through digital platforms has become the norm, rather than the exception. Blended learning models are transforming education; weaving the benefits of traditional face-to-face instruction with the personalized educational opportunities offered through digital tools. Blended classroom models such as the supplemental model, replacement model, emporium model, buffet model, hyflex model, and the multimodal model are just a few of the recent blended innovations being utilized in today's K-12 classrooms. The supplemental model focuses on supplementing face-to-face

instruction with out-of-class activities (Graham, 2021; Su et al., 2023), whereas the replacement model seeks to reduce in-class time with online instructional activities that students can utilize in any time and space (Su et al., 2023). Similarly, the emporium model (Su et al., 2023) encourages the substitution of all in-person meetings with online materials, but offers an on-demand option for personalized assistance. The buffet model offers more autonomy for learners. This model seeks to maintain fixed educational goals and objectives and offers flexible online resources that students can utilize (Su et al., 2023). Student autonomy is an integral aspect of the Hyflex model. Teaching in this model is designed to offer both face-to-face and online instruction simultaneously, allowing students the choice of attending physically or virtually (Graham, 2021). Lastly, the multimodal model uses varied strategies to achieve social, emotional, collaborative, and evaluative learning objectives through online and/or face-to-face modalities (Graham, 2021; Su et al., 2023). Su et al. (2023) assert that these models, along with those utilized before emergency remote teaching, "involve extra learning time, instructional resources, and course elements" to meet the needs of learners in today's blended K-12 classrooms (p. 4).

Indigenous Knowledge in the Blended Classroom

Digital technology and the internet have contributed to an upsurge in Indigenous understandings available for educators across Canada. As a way to maintain the traditional orality of Indigenous ways of knowing and doing, Aboriginal Knowledge Keepers, Elders, and scholars have recorded their teachings and posted them to online platforms for teachers and learners across the country. "Digital Bundles" as termed by Wemigwans (2018), an Anishnaabekwe professor from Wikwemikong First Nation, refer to First Nations, Métis, and Inuit knowledges that are shared through an online platform following the ethics and protocol necessary for Indigenous ways of knowing and doing to be represented in a sacred, authentic,

and respectful manner (p. 34). Incorporating oral and visual storytelling, educators can use these resources to bridge Indigenous ways of knowing and doing into their blended classrooms. However, non-Indigenous educators tend to rely on these digital bundles to distance themselves from the complicities of teaching a predominantly Eurocentric curriculum. Digital bundles offer non-Indigenous educators a path to "easy reconciliation" (Bascuñán et al., 2022, p. 4) by allowing them to rely on the digital narratives of First Nations, Métis, and Inuit peoples to reinforce cultural inclusiveness within the blended classroom. These "moves to innocence" (Bascuñán et al., 2022; Tuck & Yang, 2012) begin through teachers' attempts to avoid trespassing on Indigenous ways of knowing and doing but result in the reinforcement of Indigenous knowledges as cultural decorations for the Eurocentric curricula within Canada. Further elucidation on these concepts will be addressed in chapter 2.

Teaching Indigenous Knowledges as a Quality Standard.

In February 2018, a ministerial order signed by education minister David Eggen officially changed the teaching quality standard within Alberta. Responding to the Truth and Reconciliation Commission of Canada's Calls to Action (2015), Alberta Education revised teaching competencies to reflect their commitment to the acknowledgement, inclusivity, and truth of Indigenous knowledges within teaching pedagogy. The teaching quality standard is a document "which applies to teacher certification, professional development, supervision and evaluation, and which is supported by descriptors of selected knowledge, skills and attitudes appropriate to teachers at different stages of their careers" (Government of Alberta, 2023). Implemented in September 2019, competency one, which focuses on fostering effective relationships, now includes a subsection on inviting Indigenous family members, Knowledge Keepers, Elders, advisors, and community members into the classroom to promote and develop

intercultural understandings. Competency two, engaging in career-long learning, encourages newly certified and currently practicing educators to "enhance understanding of First Nations, Métis and Inuit worldviews, cultural beliefs, languages and values" (Alberta Education, 2020). Competency five requires all practicing educators to apply foundational knowledge about Indigenous groups within their classrooms. According to this ministerial order, teachers within Alberta are now legally required to bridge Indigenous knowledge into their teaching pedagogy. However, what the government failed to consider is *how to educate teachers* in methods which make the inclusion of Indigenous ways of knowing and doing an authentic and respectful experience. Recent changes to the Alberta curriculum include the concept of land literacy, which very generally is described as "Land is a text that can be read for multiple meanings and understandings" (Alberta Education, 2023). The new Alberta curriculum uses the examples of pictographs, petroglyphs, totems, and Inukshuks to promote land literacy. However, without the necessary professional development to engage in a deeper understanding of the cultural, historical, familial, and individual aspects encompassed in these Indigenous representations, settler teachers may inadvertently reduce these icons to cultural decorations, as I have explored previously in this chapter.

My Study

In order to address some of the issues discussed in the previous sections, I conducted a study that explored the perceived barriers faced by non-Indigenous educators in bridging Indigenous ways of knowing and doing in a blended K-12 classroom. My exploratory critical participatory action study, which will be expanded upon in the following section, began by examining non-Indigenous teachers' experiences in their blended classrooms, with particular emphasis being placed on the difficulties or hurdles they feel they may have experienced, or

continue to experience, incorporating Indigenous ways of knowing and doing in their practice. Identifying the perceived challenges and barriers that non-Indigenous educators have experienced, the central focus of this study was to promote self-reflexivity and introspection through an exploration of participants' pedagogical practices, focused on raising awareness of power, privilege, bias, and unacknowledged racism within their classrooms. Within this study, I promoted professional development discussions aimed at combating educators' "moves to innocence" (Tuck & Yang, 2012, p. 3) or the adoption of a "perfect stranger" persona (Burton, 2019, p. 173). Guided by Alo, as the researcher, I encouraged collaborative discussion aimed at sharing different perspectives on pedagogical considerations that could be implemented in the classroom. With the aim of promoting self-reflexivity and the acknowledgement of power in teachers' educative considerations, the participants and I strived to promote the sustained bridging of Indigenous ways of knowing and doing in our pedagogical practice.

My study commenced with one-on-one conversations to elicit the sharing of professional experiences of bridging Indigenous ways of knowing and doing in the blended classroom. These conversations were followed by focus group sessions where Alo shared suggestions and resources on teaching and learning in a predominantly Eurocentric educational setting. Encouraging the practice of self-reflexivity and introspection, the study aimed to raise awareness of power, privilege, bias, and unacknowledged racism in teacher pedagogy in order to begin decolonizing instructional methods to improve teaching and learning for Indigenous students. Research participants were given the opportunity to expand their pedagogical considerations through the concentrated implementation of Indigenous ways of knowing and doing in their practice. Offering guidance and support through successive focus group sessions, Alo and I provided a pathway for research participants to begin shifting their pedagogical perspectives to

become more equitable and inclusive while also raising awareness of teacher bias and unacknowledged racism. Through individual and collaborative reflection, data in the form of participant journals and conversation transcripts were analyzed to address the research questions. As a participant within my own study, in my methodological approach, I aimed to alleviate the barriers that exist between me, as researcher, and my study participants. Utilizing my insider knowledge, I sought to optimize this insider position to form a collaborative and authentic understanding of the perceived barriers experienced by K-12 blended classroom teachers. This methodological approach will be expanded upon in Chapter 3. My study addressed the research questions detailed below by considering the factors that influence non-Indigenous educator's consideration of Indigenous ways of knowing and doing in a blended K-12 classroom. In response to the TRC's Calls to Action, I sought to raise awareness and acknowledgement of power, privilege, bias, and unacknowledged racism through the deep introspection and self-reflexivity of teachers' pedagogical practice.

The Importance of Self-Reflexivity in Education

Oskineegish (2015) claims that self-reflection in education refers to the active examination of teaching pedagogy to determine how to improve or build upon student successes in the classroom. Taking the time to critically reflect as an educational practitioner helps to develop an authentic understanding of the strengths and weaknesses present within an individual's teaching practice. Self-reflection is a "constructive process" whereby teachers examine their thoughts and feelings of the content they deliver, and also the methods used to teach the material (Gallop et al., 2023, p. 27). When bridging Indigenous content, non-Indigenous educators are encouraged to critically reflect on their own ingrained, colonially-entrenched beliefs and attitudes in relation and in contrast to Indigenous ways of knowing and

doing. As Oskineegish (2019) states, non-Indigenous educators must first be aware of their positionality; how their experiences have shaped their perceptions of knowledge systems other than their own, their beliefs and attitudes of race and racism, and how this informs their teaching approach in the classroom. Developing self-awareness through deep introspection and acknowledging one's own frame of reference is the first step to addressing the growth opportunities available for each educator. In education, practitioners must address the unique learning needs of each student. Being able to critically reflect on "what is working" and adjust when lessons do not go as planned leads to greater growth opportunities for practicing teachers (Oskineegish, 2015, p. 13). Louie and Prince (2023), members of the Nee Tahi Buhn and Nadleh Whut'en First Nation and the Likh Tsa Mis Yu Clan respectively, further add that when addressing Indigenous content in the classroom, it is critical to reflect on the implications of colonization, especially at the pedagogical level. Addressing not only the content, but the methods through which it is communicated is essential to developing an awareness of how dominant discourses are perpetuated through teacher action. In order to create safe and respectful learning environments, non-Indigenous educators must be cognizant of how their actions and words may reflect their implicit bias against other learning approaches than those with which they are familiar. As Rose (2013) so clearly states "the work of a teacher has always entailed more than delivering instruction, but even more so today, when teachers are also expected to serve as counsellors, behavioural managers, technicians, mentors, and job coaches" (p. 73). Educators are often regarded as exemplars for others to follow and must therefore reflect on how their experiences and understandings of the world can either engage or alienate their learners. Constructing knowledge and understanding during moments of silent reverie is a laudable goal for Canadian educators. However, the demands of day-to-day routines, lessons, and

extracurricular activities make independent self-reflective practice difficult to schedule into the day. Collaborative reflective practice amongst colleagues offers educators the opportunity to address concerns and share ideas and resources to address the needs of all learners. As Wallin and Tunison (2022) claim, schools that participate in professional discussions alongside reflective practice show "improved outcomes for all students, and Indigenous learners in particular" (p. 87).

Critical Participatory Action Research

Critical Participatory Action Research (CPAR) (Kemmis et al., 2014) is an essential tool that was utilized within my research study. As an active educator within the Canadian Prairies, I felt that it was imperative to critically self-reflect on my own teaching practice while also co-constructing social understandings of the perceived challenges faced by non-Indigenous educators when bridging Indigenous ways of knowing and doing in the blended K-12 classroom. CPAR is unique in that it rejects the notion of researcher impartiality, instead utilizing the lived experiences of researchers and participants in order to shape and reflect upon the data gathered throughout the study. As the researcher, I, together with non-Indigenous teacher participants, had the opportunity to develop a collaborative self-critical reflective learning journey whereby we examined our own and each other's pedagogical practices to determine how best to support and mentor each other when addressing greater inclusivity and equity within our teaching pedagogy. Together, the research participants and I studied the nature and consequences of our teaching practice, deliberated and explored the concerns and challenges with bridging Indigenous knowledges, and critically reflected on our own colonial underpinning in educational pedagogy. Through critical self-reflection and introspection, the research participants and I explored our individual teaching practices in an effort to develop a deeper awareness of power, privilege, bias,

and unacknowledged racism in our professional pedagogy. The cycle of critical participatory action within this study will be explicitly detailed in chapter 3.

Research Questions

This CPAR study was developed from the research questions below, with the provision for participants to modify some aspects during the various phases of the study.

Main Research Question:

- How could collaborative professional development promote self-reflexivity when bridging Indigenous ways of knowing and doing in a K-12 blended classroom?

This main research question was supported by the following sub questions:

- How might deeper self-introspection lead to an increased awareness and acknowledgement of settler power, privilege, bias and unacknowledged racism in teacher pedagogy?
- To what extent can professional development focused on bridging Indigenous ways of knowing and doing in teacher pedagogy reduce the occurrence of settler teachers' 'moves to innocence' or the adoption of the 'perfect stranger' persona?
- How might collaborative professional development encourage greater self-reflexivity within K-12 blended teaching pedagogy in the context of disrupting colonialized teaching approaches?

Why the Blended Classroom

I chose to conduct my study within a blended K-12 classroom because I felt that blended learning classrooms have the potential to be pedagogically transformational. Studies have shown

that blended learning allows teachers the opportunity to personalize the learning experience through programming designed to meet learners at their educational level (de Freitas et al., 2022). Incorporating digital programs such as Starfall and Mathletics allows teachers to set scaffolded lessons that build upon each learner's personal strengths and abilities. Students are offered choice in their learning activities while still focusing on the attainment of structured objectives. This "freedom of choice" has positive effects on student's perceived skills in the use of digital technologies (Bergdahl & Bond, 2021, p. 2640), promotes independent learning (Shand & Farrelly, 2018), and increases initiative for task completion (Brown et al., 2022). These benefits often result in the attainment of higher learning outcomes (Thai et al., 2020). According to An et al. (2021), blended learning offers "more opportunities to have real-world learning experiences" that may not be offered or available in a face-to-face environment (p. 2605). Aligning with Kolb's (1984) theory of experiential learning, which maintains that knowledge is created through experience and reflection, blended learning offers students opportunities to meet program objectives through online or face-to-face modalities, utilizing students' connections with family, community, and nature. The nature of experiential learning is that students must first participate in learning experiences and then reflect on those experiences. Learning is a personal process and students often need multiple and varied passes through curricular content in order to construct effective knowledge (Shand & Farrelly, 2018). Experiential learning is a fundamental pedagogical approach to teaching and learning within Indigenous knowledge systems. As Battiste (2002) states, Indigenous experiential learning values a learner's ability to independently make meaning and gain understanding through observing, listening, and participating with minimal instruction or intervention. Experiential learning encourages teachers to use a variety of teaching methods to engage their students and often promotes the

development of educational pedagogical approaches through trial and error. Similarly, blended learning environments encourage learners to experiment with different learning modalities in order to develop a well-rounded understanding of the concepts being taught. By effectively weaving online and face-to-face components through synchronous and asynchronous modalities, blended teachers are able to offer learners the opportunity to experience knowledge from multiple perspectives. Blended learning improves the quality of the learning experience and offers students varied reflective opportunities to achieve learning objectives.

As well as offering students a more personalized learning experience, blended learning also has the potential to make education a more inclusive experience. Flexibility of learning opportunities allows learners who cannot attend face-to-face classes on a regular basis the opportunity to engage with other learners. As An et al. (2023) claim, blended classrooms consider the circumstances of the learners themselves. Creating an environment of inclusivity, blended classrooms can adapt to the learning needs of all learners, while simultaneously encouraging professional growth in educators as they need to rely on flexible lesson design when circumstances demand adaptation (Bergdahl & Bond, 2021). Shi et al. (2021) have also proposed that blended learning needs to be taken into consideration when discussing student engagement, as today's learners are becoming less and less engaged with traditional methods. The dependence on digital devices to maintain engagement is well documented in recent literature, with many scholars claiming that traditional Eurocentric teaching methods are interpreted as undemanding and boring (Bergdahl & Bond, 2021; Brown, et al., 2022; Shand & Farrelly, 2018). Driven by mobile technologies, 21st century learners seek to be simultaneously engaged through digital devices and face-to-face instructional activities. I chose to complete my research study within a

blended K-12 classroom setting as I felt it represented a more contemporary understanding of the pedagogical considerations of today's learners.

Significance of the study

The significance of this study lies in providing a small step in the direction of acknowledgement of non-Indigenous educators' power, privilege, bias, and unacknowledged racism in teacher pedagogy. Addressing the Truth and Reconciliation Commission of Canada's Calls to Action (2015), I aimed to address calls 63ii, & iv

> ii. Sharing information and best practices on teaching curriculum related to residential schools and Aboriginal history.
>
> iv. Identifying teacher-training needs relating to the above.

Using self-reflective and introspective techniques, the professional development discussion sessions offered non-Indigenous educators a pathway for acknowledgement and truth. These discussion sessions aimed to be both authentic and respectful of Indigenous ways of knowing and doing while attempting to raise awareness about settler power in education. They sought to offer the opportunity for non-Indigenous Canadian educators to reconcile their own deeply held beliefs of Indigenous knowledge, history, and peoples. My research is significant in that it addresses the needs of currently practicing non-Indigenous educators who struggle to bridge Indigenous methods of teaching and learning in their blended practice, by offering them a pathway to critically reflect on their pedagogical approaches and address any deeply held beliefs that may hinder their pedagogical growth. The results of this study will provide non-academic audiences, such as administrators, learners, parents, and educational policy makers with the tools

to reflect on the current perceived struggles faced by non-Indigenous educators concerning training requirements and the continued bridging of Indigenous ways of knowing and doing in the blended classroom.

Theoretical Paradigm

Theoretical paradigms attempt to offer various explanations as to how we understand the way our knowledge is created, and how we know what we know. In educational research, the interpretivist and transformative paradigms are often utilized when trying to understand the subjective world of an educational experience. Interpretive and transformative approaches focus on action and future change, recognizing that human behaviour is intentional as humans make sense of the socio-spatial, socio-cultural, and socio-temporal contexts in their own terms (Cohen et al., 2018). Social Constructivism, a branch of constructivism, has people actively seeking out these understandings through social contexts and interactions, claiming that it is only through our interactions with society that certain types of learning can occur. Cohen et al. (2018) assert that social constructivism fits naturally into an educational setting, as concentrated interaction and communication is a prevalent occurrence in classrooms and schools. This branch of constructivism allows for participation in collaborative inquiry with the aim of practical change and reflection (Creswell & Poth, 2018). Drawing on the interpretive and transformative paradigms, my study focused on providing an opportunity for introspective self-examination of beliefs, attitudes and biases among non-Indigenous educators in order to better understand, accept, and incorporate Indigenous ways of knowing and doing into their teaching approaches, processes, and practices.

Positioning

My positionality continues with respectful acknowledgement of my parents and ancestors. Researching my family history has always been of particular interest to me and through this research I have discovered a long line of ancestors who made their living off the land. From the coal miners in Wales, to the farm labourers in Cornwall, to the fisheries in the Outer Hebrides of Scotland, my family has gravitated to making a living on what the earth has provided. Descending from a long line of Celtic peoples whose attachment to the land has been steadfast offers me a sense of kinship with others who value the unique gifts that nature has to offer. This positionality provides me with a deeper understanding of Indigenous perspectives on "Land as teacher" because I was taught that if you take care of the land, it will take care of you (Bell, 2020). This environmental consciousness transfers to all areas of my life as I value the learning that can be provided within our natural environment. As a second-generation Anglo-Celtic Canadian, my family has blessed me by encouraging the pursuit of knowledge through formal education, but also through knowledge of the land. This knowledge has led me to where I am today, a K-12 teacher in western Canada.

As a non-Indigenous researcher engaging in a study involving Indigenous ways of knowing and doing, it is important to position myself in relation to my participants, as well as the research question. As this study focused on non-Indigenous educators and their implementation of Indigenous teaching methods in their blended K-12 classrooms, I related to the perceived struggles that many of these teachers face. Knowing how to bridge Indigenous knowledge into my classroom is an ongoing learning journey, but one that I am committed to within my practice as an educator. I continually ask myself what my responsibilities are in this time of reconciliation, and how I can assist and encourage my fellow teachers to join this journey with

me. Growing up and being educated in the colonial epistemologies of Canada, I engage with Indigenous teachings carefully, and with the mentorship of many strong Indigenous teachers who guide me to understandings of truth and inclusion. Through these teachings, I feel that my role is to challenge the dominant Eurocentric discourses and find ways to create a more inclusive and reconciliatory type of education in the K-12 context. This statement has been contentious to some. In my time as a teacher on the Canadian prairies, I have often been confronted with the thoughts and opinions of others. Expressions of displeasure and avoidance from fellow educators, administration, and parents when I have attempted to bridge Indigenous knowledges and teachings in my practice have been abundant. Responses of 'Why should you care, you're white?' or 'You're not native, so you don't know anything!' have at times pervaded the dialogue in which I attempted to engage. Fellow colleagues have expressed anger at my persistence in discussing Indigenous issues, and are often dismissive of any attempts to raise an awareness of colonial privilege. Although at times set back, I have never waivered in my commitment to pursuing a more equitable type of education for all my students. It is important to state that I am committed to moving beyond decolonizing as a metaphor (Tuck & Yang, 2012) and taking an active role in resisting colonialism in the education system. I chose to complete this research through an active participatory lens, as my learning journey is similar to that of many other non-Indigenous educators in Canada. I embraced my engagement in this research as a road to knowledge, and valued the reflective aspect of my own perspectives of inclusive teaching.

As a cisgender woman of European ancestry, I share identity markers with a strong majority of educators in Canada. I acknowledge that I have been advantaged by the system for the colour of my skin, and have been complicit in the colonial ideologies that have framed teaching and learning in Canada. Throughout my teaching career, my own personal experiences

have shaped how I view equity in education. As a newly certified teacher, many activities seemed apolitical, such as singing O' Canada, reading a traditional European fairy tale, or completing sheet work in assigned rows of desks. However, as my experience grew, so did my acknowledgement of a system that overmanaged some students as compared to others. My teaching practice became a tool for upholding the oppressive ideologies of good teaching that fit the parameters of colonialized education. My unlearning in education will never be a straightforward process, but one that takes turns designed to show me the true nature of teaching and learning in Canada. I acknowledge this process will be a lifelong endeavor, and I aim to take an active role in contributing to educational change through this research and through active critical reflective practice.

I often face the censoring and avoidance of my thoughts and opinions on Indigenous teachings from those around me. As a non-Indigenous person, I acknowledge that trying to work against racism will never be as difficult as systemically experiencing it. However, I know this is the path for me and I travel this journey with the support of those committed to reconciliation and who value the complexities of my identity and legitimacy as a researcher and a teacher. The practices I utilize in my classroom are engaged with respect for those who have taught me, as well as respect for what I have learned. I make no claims of expertise in Indigenous teachings or knowledges, but rather fully acknowledge that I am learning and am committed to expanding my understandings throughout my career. I acknowledge and am grateful for the knowledge and leadership of Indigenous peoples who continue to work against colonialism and racism, and I follow their guidance for deeper reconciliatory education.

Chapter Summary

In an attempt to promote deeper introspection and self-reflexivity in teacher pedagogy, my study focused on creating an opportunity for non-Indigenous educators to critically self-reflect on their own beliefs, values, biases, and unacknowledged racism when bridging Indigenous ways of knowing and doing in teaching pedagogy. Through the use of action and reflection, my research addressed specific points from the Calls to Action of the Truth and Reconciliation Commission of Canada, for the incorporation of Indigenous knowledge in Canadian education systems. Drawing on an interpretive paradigm, educators participating within my study acknowledged and reflected on their social interpretations of Indigenous ways of knowing and doing, and attempted to create a raised awareness and acknowledgement of settler power, privilege, bias and racism in teacher pedagogy. Chapter 2 offers a thematic analysis of contemporary literature regarding Indigenous education in Canada, with specific references to challenges encountered since the TRC's Calls to Action (2015). Chapter 3 explores the theoretical framework, research methodology, data analysis techniques, and the ethical considerations for my critical participatory action research study. Chapters 4 through 6 address the study processes, challenges, data collection, emergent themes, and an interpretive analysis of the research data. The final chapter will draw conclusions, address the study limitations, and offer considerations for areas of future research.

"Knowledge linked to power, not only assumes the authority of the 'truth' but has the power to make itself true" (Foucault, 1979, p. 27)

Chapter 2. Literature Review

This chapter provides a contemporary exploration of the literature published outlining the documented challenges faced when bridging Indigenous ways of knowing and doing in the blended K-12 classroom. Studies about the misrepresentation and underrepresentation of Indigenous knowledges are analyzed followed by research detailing the lack of professional development offered to currently practicing educators. These factors coalesce in the adoption of the perfect stranger persona (cite here because it's a new chapter) by many non-Indigenous teachers. The chapter continues by delving into the literature surrounding the perfect stranger persona and concludes with an examination of Indigenous ways of knowing and doing as explored through the lens of current Indigenous teaching frameworks within Canada.

Teachers in 21st century classrooms are responsible for navigating through a wide variety of issues that result from the current multicultural makeup of Canadian society. Social, political, cultural, and religious consideration must be offered to all students in order to create an equitable learning environment. Despite the increasing diversity in Canadian K-12 classrooms, teaching methods have remained predominantly homogenous, focusing on the Eurocentric mode of curriculum delivery (Friedel, 2011; Ramachandran, 2024; Vidwans & Faez, 2019). In 2015, the Truth and Reconciliation Commission of Canada enacted 94 calls to action with four of those specifically referring to changes in education (Truth and Reconciliation Commission, 2015). Article 62iii specifically calls for the inclusion of Indigenous teaching methods in the classroom, though no direction was offered on how to educate currently practicing teachers in this endeavor. Current K-12 educators are struggling to bridge Indigenous ways of knowing and doing in the

classroom due to the lack of guidance offered through governing bodies (Howell & Ng-A-Fook, 2022; Morcom & Freeman, 2018; Poitras Pratt & Danyluk, 2017). This study addressed the question of how collaborative discussion and reflection as a professional development strategy could promote self-reflexivity when bridging Indigenous ways of knowing and doing in K-12 blended teaching pedagogy. This chapter will explore the contemporary literature detailing the challenges associated with non-Indigenous educators bridging Indigenous ways of knowing and doing in the K-12 Canadian classroom.

In conducting the review, I used several databases to identify relevant literature on non-Indigenous educators' experiences teaching Indigenous cultures, histories, politics, and current affairs in the K-12 classroom. Initial Boolean search terms of Teaching, Indigenous, and Settler led to several hundred results. I then utilized limiters to indicate research conducted in a Canadian context, written in English, and published no earlier than 2015. I used the resulting articles for analysis in this review. I extracted four main themes from the literature to describe the experiences of non-Indigenous educators when attempting to bridge Indigenous knowledges within their teaching pedagogy. In the sections below, I explore each theme individually; namely: misrepresentation in education, underrepresentation in education, dearth of professional development opportunities, and the adoption of the perfect stranger persona. Through this exploration, I will attempt to form an understanding of current non-Indigenous educators' experiences in a blended K-12 classroom.

Misrepresentation in Education

The misrepresentation of Indigenous knowledges, histories, and teachings was a common theme within the literature published since 2015. Many educators relied on media influences to

inform their understandings of Indigenous peoples, lands, and histories. Societal misrepresentation leads to stereotypes of Indigenous peoples, knowledge, and teaching methods.

Stereotypes of Indigenous Learners

According to Bissell and Korteweg (2016), Indigenous youth have reported being stereotyped into one homogenous grouping of Aboriginal learner. These youth are targeted by racism fostered by ongoing colonized viewpoints that are prevalent in school culture, curriculum, and society. Harmful stereotypes such as the "lazy Indian", the "money grubbing" Indian, and the "whiners who just can't get over the past" are prevalent in mainstream social media and political discourse within Canada (Howell & Ng-A-Fook, 2022, p. 10). As stated by Poitras Pratt, a member of the Métis Nation of Alberta, and Danyluk (2017) teachers have a strong tendency to rely on stereotypical representations of First Nations, Métis, and Inuit learners rather than getting to know each student individually. Prevalent discourses of native people who live in teepees, carry tomahawks, and wear war paint produce a romantic mythical illusion of Indigenous peoples rather than an accurate representation of Indigenous life (Dion, 2016). As Dion (2016), a Lenape and Powatemi scholar, states, "Canada positions real Indians as primitive and uncivilized people" in order to justify past relations (p. 469). These preconceived ideas of Aboriginal learners often lead to lower teacher expectations of learning capabilities, and harsher admonishment of negative behavioral incidents by Aboriginal learners than that meted out to non-Aboriginal learners (Darwin, 2024; Hamilton, 2024; Sritharan, 2024). Stereotypical misrepresentations of Indigenous youth lead many educators to express fear and apprehension to teaching in Aboriginal communities, believing that they would be run down, substandard educational institutions, similar to teaching in "squalor" (Poitras Pratt & Danyluk, 2017, p. 15).

Racism in Schools

Racism is a general term used to describe the hatred or intolerance of another race usually involving the idea that "one's own race is superior and has the right to rule others" (Reading, 2013, p. 1). This social injustice is based on the deeply embedded assumptions that one race of people is socially inferior to another. Racial segregation in Canadian education continued with the implementation of the residential schooling system. According to Carleton (2021) residential schooling was "likened to a humanitarian – even sacred – enterprise designed to save Indigenous communities from extinction in the face of an ostensibly higher form of civilization" (p. 468). What resulted from residential school was a legacy of "cultural genocide" aimed at "kill[ing] the Indian in the child" (Carleton, 2021, p. 467). Reported instances of poor nutrition, disease, abuse, and even death were overlooked as the Canadian education system adopted the approach of denialism to defend the overall conditions faced by approximately 150,000 Indigenous youth (Bryce, 1922). This system, which ran from 1883-1996 resulted in the deaths of thousands of Indigenous children, and a system fundamentally tainted by the Eurocentric colonialized ideals of racism. Though the last residential school closed in 1996, Indigenous youth are still targeted by racial inequality within the Canadian education system, often resulting in the deteriorating health and wellness of Indigenous peoples. Racism in Canadian school systems is exemplified through overt and covert acts, with structural and institutional frameworks designed to protect the superior colonized knowledge systems that pervade education.

Overt racism, according to Saucier et al. (2017), are intentional and deliberate actions directed at a person of another race, and can potentially include name calling, hateful speech and/or gestures, and stereotyping. Overt racial tension and discrimination are more marked in Alberta than the rest of Canada, with Alberta showing an increase in police-reported hate crimes

since 2018 (Mosleh, 2022). Milne and Wotherspoon (2022) report that racial lines, especially against Indigenous peoples, have held a prominent presence in Alberta for several decades. These racial tensions are clearly seen within the education system, where a strong majority of Indigenous learners have reported racism as being a daily occurrence within schools (Nixon et al., 2022). Name calling, physical aggression, and derogatory comments provides a limited scope of overt racial attacks against visible minorities in the Canadian education system. Milne and Wotherspoon (2022) detail an incident of overt racial aggression aimed at an Indigenous learner who states "The boys used to sneeze when I walked by, because they were allergic to dogs, because that's what Native people are to them" (p. 59). These overt displays interpersonal of racism are but one form of discriminatory behaviour that Indigenous peoples must contend with in Canadian schools (Reading, 2013).

Covert racism is a much more subtle and insidious form of racism present within the Canadian education system. Defined as exclusion, rejection, marginalization, stigmatization and even exploitation, it can be likened to subtle nuances in conversations and/or structural barriers that exist to maintain a level of supremacy of one racial group over another (Loppie, et al., 2014). Implicit racial bias, which is often linked to forms of covert racism, does align with specific groups attributing particular qualities to a person based on their race. In the Canadian education system, incidents of teachers' implicit bias towards the "unintelligent" Indigenous student were clearly exemplified in recent literature (Oskineegish, 2019, p. 85). Oskineegish (2019) reported that educators often became easily frustrated with Indigenous learners, often "brushing them off [or] disregard[ing] them completely" (p. 85). Nixon et al. (2022) support this claim asserting that certain students are perceived differently based on stereotypical racial assumptions pervaded through mainstream media and culture. These forms of racism often

manifest in school administrators and teachers simply "look[ing] the other way" and not addressing the racial incidents as they happen (Nixon et al., 2022, p. 139). Milne and Wotherspoon (2022) reinforce this conclusion claiming that teachers often ignore racial comments if there are no Indigenous students present in their class. The ongoing invisibility of Indigenous peoples lived experiences not only perpetuates and sustains a system of settler colonialism, but is linked to the poor mental health outcomes, substance abuse, depression, and erasure of Indigenous youth (Cisneros, 2022; Gallop, 2023; Milne & Wotherspoon, 2022; Watts, 2024).

Marom (2018) expresses concern that the mythical images of First Nations, Métis and Inuit learners deeply tokenize the lived experiences of Aboriginal peoples in Canada and decontextualize their perspectives in the realm of education. Woodroffe (2020) supports these claims stating that teachers' negative stereotypes diminish the pride and confidence of Indigenous learners which leads to challenges with self-esteem, mental health, and well-being. These stereotypes are not only harmful but have a systemic impact on school performance (Bissell & Korteweg, 2016), completion of credentials, and the hiring of Aboriginal youth in Canada (Marom, 2018). As Marom (2018) observes, many fully qualified First Nations, Métis, and Inuit educators are currently working as educational supports in K-12 education due to the stereotypical attitudes and presumptions about the lack of rigour in Indigenous training programs. These stereotypical attitudes lead to the systemic racism and obstacles faced by Indigenous educators in Canadian K-12 schooling.

Indigenous Knowledge

The current settler Canadian social imagery of Indigenous knowledge and peoples are put forth through derogatory mythological images represented in social media and through the biased

opinions of popular culture (Howell & Ng-A-Fook, 2022; Tupper, 2019). Indigenous learners' complex and intersectional identities are reduced to the inclusion of a singular story in the current teaching context or exhibited through multicultural fairs which reduce Aboriginal experiences to a song or dance (Gorski, 2016; Hamilton, 2024). As Gorski (2016) claims, these cultural activities serve only to reinforce the existing stereotypes surrounding Aboriginal learners and their marginalized communities. These mythical representations are also appropriated by immigrant educators; as Marom (2018) notes:

> Many new arrivals in Canada received very little information about the history of Aboriginal people and, in particular, of the devastating effects of government policies such as residential schooling; therefore, through no intention of their own, they (the new immigrants) were often left with stereotypes and the negative images of popular culture as the basis for their knowledge about Aboriginal people. (p. 25)

Current Canadian curricula as explored by Watson and Currie-Patterson (2018) also lends itself to mis-education of Indigenous knowledges through the minimal inclusion of Indigenous histories, and biased content about Indigenous peoples. Indigenous knowledge and history are exemplified through scattered cameos by Indigenous Knowledge Keepers or Elders, with the predominant narrative being White-Canadian (Marom, 2018). Hamilton (2024) asserts that stereotypes are further perpetuated under the guise of multiculturalism as it "allows a 'tokenized' version of 'diversity' to be presented in classrooms while masking the reality that whiteness remains unnamed at the center" (p. 162). Trends indicating the educational disparity of Indigenous learners in Canada can be attributed to policy, curriculum, agency, educators, and a sense of powerlessness for Indigenous learners. Mullen (2021) states that provincial ministries of education have been responding to directives for change, but the inclusion of "Aboriginal-related

content" in K-12 curricula merely perpetuates the stereotype of Indigenous knowledges being "antiquated" and promotes the agenda of "neo-colonialism" within Canadian curricula (p. 3488). Kovach (2009), a Nehiyaw and Saulteaux researcher, supports this claim by stating that Ontario's science curriculum is "used to support an ideological and racist justification for subjecting Indigenous cultures and ways of knowing" by promoting the Euro-western ideals of modern science (p. 77). Atwood et al., (2024) support this claim stating that Indigenous research in science "has been confined within the ethnocentric epistemological parameters of qualitative, quantitative, and mixed methods, as defined in contemporary social science" (p. 770). The authors continue to state that even curriculum designed to address the relationality of [Indigenous] knowledge is insufficiently addressed by Western science. This misrepresentation and mis-education of First Nations, Métis, and Inuit knowledge is further exacerbated by the lack of appropriate teaching methods to engage Indigenous learners in the classroom.

Teaching Methods

The contemporary Canadian educational context tends to emphasize culture in order to deemphasize inequity in our classroom teaching techniques. Gorski (2016) states that teachers "make culture the center of the conversation thus comforting privilege rather than discomforting inequity" (p. 224). According to Hamilton (2024) and Poitras Pratt and Danyluk (2017) many educators' approach Indigenous learners with a saviour mentality and their education with "unidirectional missionary tendency" (Poitras Pratt & Danyluk, 2017, p. 4). The existing mainstream educational structure is ill-equipped to support the intricacies of Indigenous ways of knowing and doing, placing teachers in the position of adding Indigenous difference into their own onto-epistemological teaching methods (Marom, 2018). Inclusivity is tokenized, as dominant narratives of the romanticized, mythical other are prominent within Canadian curricula

(Howell & Ng-A-Food, 2022). These dominant narratives are placed upon Aboriginal learners, attributing cultural traits to all Indigenous students with no consideration for the intricacies of each unique Aboriginal nation (Gorski, 2016). Canadian teachers, as exemplified by Poitras Pratt and Danyluk (2017), make educational assumptions based upon racist stereotypes without considering the unique instructional methods that have been utilized for generations amongst Indigenous peoples. Teaching methods and expectations have a causal effect on Indigenous students' educational outcomes and place these learners at a disadvantage which, as Oloo and Kiramba (2022) state "could potentially widen racial achievement gaps" (p. 335). Colonized Canadian educators understand the expectations of what acceptable teachings will deem them to be "good teachers" (Gebhard, 2020, p. 212). Incorporating cultural aspects of the First Nations, Métis, and Inuit peoples into current colonialized teachings is seen as "evidence that equity is being achieved" (Gebhard, 2018, p. 762). Hamilton (2024) asserts that "this form of 'box-ticking' education perpetuates stereotypes rather than challenging them, or the systems that uphold them" (p. 162). While there is value in the inclusion of minoritized cultural traditions, these are often incorporated in superficial ways which lead to an impression on the part of Indigenous learners of cultural appropriation, and can potentially reinforce the inequality that cultural inclusion is meant to combat (Ramachandran, 2024). In education, racial inequality is commonly understood as differences between white students and other visible minorities (Gebhard, 2020). In Canada, there is a pervasive belief amongst white citizens that the perpetrators of racism would never be white educators (Gebhard, 2020). They are seen as the innocent party whose sole objective is to raise the Indigenous learner from their struggles to a life of responsible citizenship and prosperity (Hamilton, 2024; Sritharan, 2024). The superior understandings of the Eurocentric educational model are seen as the tools by which the

Indigenous populations will advance themselves. These viewpoints often lead many non-Indigenous educators to disregard the traditional knowledge and teachings of First Nations, Métis, and Inuit communities, resulting in the underrepresentation of Indigenous knowledge, perspectives, and teaching techniques in Canadian K-12 classrooms.

Erasure in Education

The underrepresentation of Indigenous knowledge in the literature was expressed through the sub themes of lack of Indigenous representation in the current Canadian curriculum, lack of Indigenous educators across K-12 education in Canada, and the denigration of Indigenous Teacher Education programs in school social contexts. These sub themes will be examined in the following paragraphs.

Lack of curricular representation

An important point that Marom (2016) shares is that Indigenous content remains a very contentious topic in Canadian education. Discussion surrounding the inclusion and exclusion of perspectives, facts, and dominant theory are topics which, as yet, have no resolution. Oloo and Kiramba (2022) claim that the education of First Nations, Métis, and Inuit learners still tends to be monopolized by the perspectives of the dominant white society. These colonialized views are clearly outlined in current educational teaching methods, texts, and resources. The scholars continue to detail that integrating Indigenous perspectives into the curriculum is a new development, as historically there was no consideration given for the inclusion of alternate viewpoints. Marom (2016) asserts that "whiteness matters" in education because it "limits and impacts the everyday conditions, practices, and knowledge" that is expressed (p. 332). First Nations, Métis, and Inuit learners are offered education that caters to the colonized viewpoints,

rarely considering current realities of Indigenous life. Morcom, an Ardoch Algonquin First Nation scholar, and Freeman (2018) delineate teachers' struggle to familiarize students with the realities of Indigenous knowledge, history, and culture due to the lack of representation in the Canadian curriculum. This lack of curricular representation often leads to the aforementioned stereotypes of Aboriginal learners, and limits knowledge and assessment to the dominant Eurocentric model. Indigenous ways of knowing and doing are watered down into "curriculum decorations" (Marom, 2016, p. 331) as they challenge the very nature of colonized education.

The underrepresentation of Indigenous knowledge in Canadian curricula is also in the hands of white educators themselves. Gillies (2021), a Métis and multiracial Canadian scholar, details that many settler Canadian teachers resist incorporating Indigenous ways of knowing and doing in the classroom because they feel pressured to do so. The additional time, the lack of consideration for students from other nations, the focus on multiculturalism, and their inability or unwillingness to link curricular outcomes to Indigenous knowledges are just a few of the reasons for this resistance (Ramachandran, 2024). Howell and Ng-A-Fook (2022) state that teachers "often point to deficits of resources, time, and support to explain their resistance to teaching intergenerational impacts of colonialism and Indigenous perspectives, histories, and /or contemporary issues" (p. 19). Working alongside non-Indigenous educators' unwillingness or inability to incorporate Indigenous perspectives into their everyday teachings is the resistance felt from parents and students alike. Gebhard (2018) relates incidents of outright refusal by non-Indigenous parents to "allow their children to attend assemblies with First Nation dancers and drummers" (p. 767), while non-Indigenous student resistance is exemplified through their outright racism and suspicion of authenticity. Building upon Gebhard (2018), Douglas et al. (2020) detail scenes of non-Indigenous students' rejection of Aboriginal knowledges as

inaccurate, as they were offered by non-Indigenous educators. This suspicion of lack of authenticity, described by Douglas et al. (2020) as a "disbelief in non-Indigenous educators' capacity to speak on the topic" due to their non-Indigenous ancestry, is another form of resistance against acknowledging Indigenous ways of knowing and doing in the Canadian curriculum (p. 315). Many non-Indigenous students reflected on the bias of the teacher, and felt that this was just one aspect of a crusade orchestrated by multiple educational authorities. Lack of trust in a non-Indigenous educators' ability to speak on topics related to First Nations, Métis, and Inuit historical and contemporary issues leads non-Indigenous students to question the content offered, as well as refuse to participate in educational opportunities offered to increase knowledge and understanding (Douglas, et al., 2020; Gebhard, 2018). This resistance to the educational opportunities presented to familiarize non-Indigenous learners to the contemporary and historical implications of Canadian relations with Indigenous communities causes many school authorities to abandon the justifiable inclusion of Indigenous knowledges and teachings, instead contenting themselves with the cultural decorations that provide the appearance of acceptance and equality.

Lack of Representation of Indigenous Teachers

Due to a number of barriers, Indigenous learners often struggle to complete credentials within the predominately Eurocentric provincial educational systems. Some of these barriers are standardized assessment measures that cater to the normalization of a colonized curriculum, a strong reliance on Eurocentric instructional techniques, and a lack of representation of Indigenous teachers within the education systems. As scholars Tsang and Eizadirad (2024) write, standardized assessment methods and Eurocentric instructional techniques often perpetuate the whiteness of education offered in Canada. Bissell and Korteweg (2016) also attest that standard

assessment measures are used to determine how far students are located from the normalized center of curriculum.

Whereas First Nations, Métis, and Inuit learners approximate 30% of each provincial school population in Canada, the percentage of Indigenous educators, while varying by province, typically constitutes less than 10% of the teaching population. This underrepresentation of Indigenous educators in Canada seriously hinders the vision and progress of First Nations, Métis and Inuit learners as they cannot see themselves and their current realities reflected in the education system. As emerged in Marom's (2018) study, there is very little representation of Indigenous teachers in Canadian schools. First Nations, Métis, and Inuit teachers want to be as visible as possible so that Indigenous learners can identify and recognize these educators as belonging to Indigenous nations. However, being visible in Canadian education is not a comfortable endeavor, given the prevalence of covert racism. Professionalism in schools is typically conveyed through western middle-class norms and values which are not neutral and preclude dressing in an identifiably Indigenous manner (Marom, 2018; Tsang & Eizadirad, 2024).

The education system is typically the domain of white educators who place a low value on both the educational attainment of Aboriginal educators and the content and perspectives they address in their classrooms (Marom, 2018; Woodroffe, 2020). Indigenous Teacher Education programs (ITE) have developed from the need to incorporate First Nations, Métis, and Inuit knowledge, perspectives, and teachings into the mainstream Eurocentric educational model that is practiced in Canada. Some non-Indigenous educators view the ITE institutions as remedial programs that cater to the perceived lower intelligence levels of the Indigenous peoples and do not demand the same rigor as other educational institutions (Marom, 2018). This racist

perception manifests itself in school cultures where ITE graduates are ridiculed, devalued, and demoted to lower positions regardless of the full accreditation of a bachelor's degree (Marom, 2018; Oloo & Kiramba, 2022; Poitras Pratt & Danyluk, 2017). Buffalo (2024) perfectly articulates this stance when stating that

> The requirements to meet the colonial standards of what constitutes knowledge and knowing are part of the process of reproducing the colonial system. Thus, Indigenous people are constantly being asked by employers and institutions to enhance their education and credentials, and despite doing so, they will likely never be deemed 'qualified' in the eyes of the settler academy. (p. 35)

Teacher Professional Development

Current tertiary education faculties and teacher professional bodies in Canada have acknowledged a responsibility to expand the knowledges and understandings of Indigenous culture for all educators (Watson & Currie-Patterson, 2018). Strong links have been drawn between Indigenous student performance and the need for teacher improvement, claiming that an educator's lack of knowledge and understanding limits the abilities of Indigenous learners to exemplify their understandings of the concepts covered in the K-12 classroom (Burm & Burleigh, 2017; Bissell & Korteweg, 2016; Marom, 2018; Woodroffe, 2020). In 2019, Alberta implemented new professional practice standards which included the development and application of Indigenous knowledges as a competency which teacher candidates must meet to gain certification (Milne & Wotherspoon, 2022). However, what Alberta failed to consider was how to address this need with currently practicing educators and teacher educators. These discrepancies occur through the privileging of white knowledge, an educators' lack of

knowledge of Indigenous content, as well as the dearth of mandatory professional development to address these concerns.

Privileging 'Colonized' knowledge

Burm and Burleigh (2017) assert that settler educators are the "product of a system that privileges certain ways of knowing over others" (p. 42). That system, according to Madden (2017) bases itself upon the assumption that European education is the standard against which every other education system must be judged. These systems are designed mainly for traditional age, non-Indigenous learners whose knowledge of Indigenous issues is limited to the superficial or stereotypical events portrayed through social media platforms (Bissell & Korteweg, 2016; Marom, 2018; Poitras Pratt & Danyluk, 2017). Non-Indigenous educators rarely challenge their own cultivated ignorance but instead try to squeeze Indigenous learners into settler-stream curricula in an attempt to make them resemble their more 'successful' settler peers (Bissell & Korteweg, 2016). According to Howell and Ng-A-Fook (2022), non-Indigenous educators adhere to an epistemology of ignorance which promotes mythical ideals of colonialized normativity. Buffalo (2024) claims that educational institutions fantasize about the possibility of 'Indigenization' or "brown-washing what is inherently white", but this rarely alters the lived curriculum of settler colonial culture (p. 45). Similarly, Marom (2018) claims that whiteness defines what counts as valid knowledge and experience, and that Indigenous ways of knowing and doing are often marginalized into the outer realms of teacher education programs. As supported by Braithwaite et al. (2022) educational institutions uphold colonialized knowledge systems, which in turn perpetuates the oppression and racism of minorities that exists in different spaces. These authors go on to state that "evidence of Indigenous-specific racism and oppression under dominant white ideologies [continue to] remain" (Braithwaite, et al., 2022 p. 3). Poitras

Pratt and Danyluk (2017) warn that the privileging of colonized knowledge "limits the ability of novice and practicing teachers to break the cycle of discrimination within and outside of their classrooms" (p. 7). Buffalo (2024) supports this by stating that "teacher education is just one way colonialism and white supremacy culture gets replicated and reproduced intergenerationally" (p. 45). Most non-Indigenous educators have very limited knowledge of the current and historical issues which impact Indigenous communities, reflecting the hegemonic Eurocentric ideologies of colonized society in their K-12 classrooms (Bissell & Korteweg, 2016; Howell & Ng-A-Fook, 2022; Poitras Pratt & Danyluk, 2017).

Lack of Indigenous knowledge

Teachers in Canada have a responsibility to teach all students regardless of age, gender, race, and social class, in a manner that is respectful, professional, and effective. The lack of knowledge and understanding about the current and historical issues surrounding Indigenous peoples in Canada severely limits the ability of educators to teach in a manner that is sensitive to First Nations, Métis, and Inuit learners. The impact of educators' ignorance and complacency regarding this knowledge hinders the social, emotional, physical, and cognitive development of Indigenous learners in the K-12 classroom (Cochrane & Maposa, 2018; Oloo & Kiramba, 2022; Poitras Pratt & Danyluk, 2017). Howell and Ng-A-Fook (2022) detail that many non-Indigenous educators hold a "distressingly limited" knowledge of the significance of Indigenous relations in Canada (p. 20). This is supported by Milne and Wotherspoon (2022) who claim that teachers who have taught for numerous years have received a negligible amount of training or education regarding Indigenous issues. Korteweg and Fiddler (2018), a member of the Weagamow and Onigaming First Nation, assert that many educators feel Indigenous knowledges have little personal relevance unless you live in a region with a large Indigenous population. Douglas et al.

(2020) claim the lack of knowledge is due to Indigenous perspectives and knowledges being labeled as "difficult knowledge" against the colonial norms prevalent within the Canadian educational system (p. 307). As reinforced by Battiste (2005), a L'nu Mi'kmaq scholar, Indigenous ways of knowing and doing are framed as difficult because they challenge the Eurocentric colonialized underpinnings of education. Although the inclusion of Indigenous content has slightly improved in the Canadian educational context, Morcom and Freeman (2018) assert that many K-12 educators who were trained prior to the call to Indigenize Canadian education, reported by the Truth and Reconciliation Commission (2015), may not possess the knowledge or skills required to teach Indigenous learners. This claim is also emphasized by Bissell and Korteweg (2016) and supported by Poitras Pratt and Danyluk (2017) who state that teachers are ill-informed and ill-equipped to engage with Aboriginal cultural identity, teaching methods, and perspectives in order to effectively capture the essence of the content. Watts (2024), a Haudenosaunee scholar from Six Nations of the Grand River Territory, doesn't place the entirety of the blame on currently practicing educators. She states that

> Part of our responsibility as educators is to have a wholistic understanding of the history of the lands we are on and to communicate that understanding when working with students. This becomes difficult when we consider how educators have been brought up in a system which minimized, misrepresented, and erased the true histories of Indigenous peoples on Turtle Island. (p. 58)

Within Alberta, teacher qualification standards were updated in 2019 to address the necessity of integrating Indigenous knowledge into teaching pedagogy, however teachers certified before this date received little to no formal training. Many educators feel unprepared to represent Indigenous perspectives adequately (Milne, 2017; Milne & Wotherspoon, 2022; Scott & Gani, 2018) which

stems from the lack of training in "culturally appropriate practices" (Oskineegish, 2015, p. 3). This apathy of the inequity of educational experiences in the classroom is clearly demonstrated through the lack of engagement with professional development opportunities catering to the bridging of Indigenous ways of knowing and doing in the classroom (Oloo & Kiramba, 2022).

Dearth of Mandatory Professional Development

Watson and Currie-Patterson (2018) along with Burm and Burleigh (2017) affirm that educators are expected to recognize their responsibility to educate all students in their classrooms about Indigenous histories, cultures, and perspectives; not solely because it is provincially mandated through the curriculum, but because we have a responsibility as settler Canadians who benefit from the treaties negotiated throughout Canada, and also from areas that are not bound with treaty agreements. The lack of knowledge and understanding of Indigenous issues pervades the socio-cultural makeup of non-Indigenous educators throughout the country. Professional development is essential to the unsettling and eventual deconstruction of the colonized educational model that is prevalent in K-12 classrooms. As Poitras Pratt and Danyluk (2017) warn educators, without an understanding of how colonialism affected and is currently affecting Indigenous peoples, educators will be "ill equipped and quite likely ineffective" to address the needs of Aboriginal learners in the classroom (p. 8). Milne and Wotherspoon (2022) assert that professional development needs to involve

> the parallel examination of settler privilege and the weaving of indigenous knowledge and experiences into the curriculum and a space to address the deeper challenges associated with the work of unsettling the privileged status of western knowledge systems and the institutional structures in which they are embedded (p. 65)

Oloo and Kiramba (2022) suggest that Canadian teachers must be the first to change in order to bring positive educational outcomes to fruition. However, the choice of which professional development topics they undertake is at the discretion of the educators themselves. Professional development is a personal endeavor undertaken to increase the skills of an educator in whatever manner they experience deficits. Many educators choose to focus on alternate professional development opportunities, while avoiding or delaying Indigenous development, thus perpetuating the apathy and complacency of educational inequity for Aboriginal learners.

Within many Canadian school divisions, there is a dearth of mandatory professional development around the incorporation of Indigenous ways of knowing and doing in the classroom. Although the inclusion of this knowledge is provincially mandated, educational institutions and governing bodies are not authorizing compulsory training to address the deficiencies in teachers' knowledge and understandings of Indigenous education. As addressed by Oloo and Kiramba (2022) teachers show significant resistance in the inclusion of Indigenous perspectives in their teaching. This could be the result of teacher fear, denial, or resistance against Indigenous ways of knowing, as it would lead to a shift acknowledging their own privilege and compliance with the inequity of educational opportunities offered to Aboriginal learners. Poitras Pratt and Danyluk (2017) claim that Canadian "educators are increasingly being asked to consider their role in closing the educational gap between Aboriginal students and other learners" which would involve a process of revisiting and questioning perspectives on how they understand, feel, and honour Indigenous knowledges (p. 3). Cochrane and Maposa (2018) state that development programs that are culturally competent can foster success in teaching and lead to the increased development of Indigenous youth. This is reaffirmed by Preston (2017) who asserts that instances of professional development that occurred on the land led educators to an

increased understanding of Indigenous perspectives and values with regards to land-based education.

The integration of Indigenous ways of knowing and doing in education began in earnest after the Truth and Reconciliation Commission of Canada instituted the 94 Calls to Action in 2015. The demand for inclusive and reconciliatory practice went nationwide with many school authorities insisting on integration within a matter of months. Consideration for the professional development of current educators incorporating these alternate methods of instruction and assessment were peripherally acknowledged with a strong emphasis to 'just do it' (Dion, 2016). However, Howell and Ng-A-Fook (2022) note that many educators feel that "Aboriginal education is shoved down our throats at every opportunity, but no one is ever clear on how to actually teach it" (p. 20). The lack of mandatory professional development, and the underrepresentation and misrepresentation of Indigenous knowledges, histories and peoples has led many educators to abandon inclusive initiatives through fear of failure, denial, resistance, and a desire to remain untainted by past and present Indigenous issues.

Perfect Stranger

Susan Dion, a First Nations researcher and teacher, has coined the term "perfect stranger" to describe the way in which non-Indigenous educators protect themselves from the ethical vulnerability of working with Indigenous knowledge, histories, and peoples (Dion, 2016, p. 469). According to Burton (2019) the perfect stranger is "informed simultaneously by what teachers know, what they do not know, and what they refuse to know" (p. 173). Dion's concept of the perfect stranger is premised on the argument that non-Indigenous Canadians continue to dehumanize First Nations, Métis, and Inuit peoples through stereotypical representations, refuse to acknowledge how past historical relations with Indigenous peoples relate to the contemporary

issues faced by Aboriginal peoples, and that non-Indigenous Canadians refuse to listen to stories of the past because they are too difficult and nothing can be done to remedy those atrocities (Dion, 2004; Douglas et al., 2020). Dion (2007) claims that teachers know that the stereotypical images of Indigenous learners that dominate the education system are inadequate, and through the fear of offending, appropriating, or introducing controversial material they distance themselves from the material and thus align with the perfect stranger stance. Distinctions of "us" versus "them" continue to separate non-Indigenous from Indigenous with questions of "Who are they? What do we call them?" dominating discourses amongst educators in Canada (Korteweg & Fiddler, 2018, p. 263). Many non-Indigenous Canadian educators gravitate to the perfect stranger stance when teaching Indigenous content as they are aware of the stereotypical representations that are present in the curriculum but move to relieve the feelings of responsibility or guilt when addressing the content (Burton, 2019; Marom, 2016). Howell and Ng-A-Fook (2022) claim that "perfecting such dispositions of strangerness enables teacher[s] to absolve themselves, to deny the implicatedness, while remaining respectful, hardworking, and successful professional characters within the grand narratives of 'Canada the good'" (p. 18). This objective positioning ultimately allows the educator to remain perfect and unchallenged in their knowledge, while upholding the epistemological and ontological hegemonies that contribute to the inequity and injustice faced by Aboriginal learners; all on their own terms (Burton, 2019; Margonis, 2019). The value placed on objectivity, according to Burton (2019), allows Canadian teachers to reproduce the mythical discourses surrounding Indigenous learners without questioning their accuracy. This willful obtuseness continues to be the structure of relations between Aboriginal peoples and Canada (Marom, 2016). Bissell and Korteweg (2016) state that cultivated ignorance is

> an ignorance that has been taught, and embedded in the curriculum. Many settler teachers are "perfect strangers" to their FNMI students, in that they do not know who their students are, claiming innocence while reproducing the mainstream of settler-colonialism in their teaching and curriculum (p. 3).

Higgins, Madden, and Korteweg (2015) demonstrated that an alarming majority of non-Indigenous educators were upholding the position of the perfect stranger in their K-12 classrooms. Many teachers use this stance to insulate themselves from the lived realities of their First Nations, Métis and Inuit students, abdicating their responsibilities in understanding the current issues faced by these learners (Burton, 2019; Margonis, 2019). With Canadian schools working on centering equity in the classroom, the cultural nomenclature that is the perfect stranger offers teachers a way out of that commitment (Gorski, 2016). Gorksi (2016) reemphasizes this abdication of responsibility claiming that Canadian teachers move to focus on cultural diversity rather than equity in the classroom. However, this shift of cultural competence is merely a diversion and often leads to the forced stereotyping of entire Aboriginal nations into a singular culture. This shift to innocence is the result of non-Indigenous educators' hesitancy of cultural appropriation, the fear of giving offense by saying or doing the wrong thing, or of teaching the material incorrectly (Dion, 2016; Korteweg & Fiddler, 2018). In order to distance themselves from acknowledging the continued benefits of colonialism that they experience, educators adopt the perfect stranger persona to maintain their power and privilege. Rice et al. (2022) argues that

> Settler ignorance is not neutral or incidental…[it is] not passive or haphazard but a profoundly purposive and willful ignorance. Settler ignorance allows, and indeed

> scaffolds, this dual reality, living in Canada, unaware of so much of Indigenous settler history and current realities (p.24).

Throughout education, there continues to be sentiments of entitlement, denial, and resistance to change when educators are confronted with the intergenerational effects of colonialism.

As stated by Howell and Ng-A-Fook (2022) different defensive reactions are utilized when other's worldviews do not coincide with the dominant Eurocentric narrative. This resistance produces a form of whiteness that is coded, veiled, intentional, and privileged (Howell & Ng-A-Fook, 2022; Madden, 2017; Marom, 2018). When faced with teaching Indigenous perspectives, Dion (2016) reports that

> some teacher[s] insist that they cannot teach 'this content' because: 'I know nothing about Indigenous people, I have no friends that are Indigenous, I didn't grow up near a reserve, I didn't learn anything when I was in school. I am a perfect stranger to Indigenous peoples' (p. 470).

This is also supported by Gebhard (2018) who writes that many non-Indigenous educators do not know any "stuff" about Indigenous ways of knowing and doing and thus refuse to teach information with which they are unfamiliar (p. 763). It is the pain and questioning that teachers seek to avoid (Margonis, 2019). By claiming little or no experience with Indigenous peoples, educators are relying on the dominant discourses present in the curriculum in order to protect their power and render themselves innocent of all historical wrongdoings (Howell & Ng-A-Fook, 2022; Madden, 2017; Margonis, 2019). This avoidance, as termed by Burm and Burleigh (2017), is a conscious strategy of refusal to unlearn the intergenerational impacts of colonialism and racism that are prevalent in the lived experiences of Aboriginal peoples. This resistance and

denialism can be seen through the reliance on Indigenous 'experts' in the blended K-12 classroom. Korteweg and Fiddler (2018) profess that non-Indigenous educators' distance themselves from Indigenous ways of knowing and doing by relying on Knowledge Keepers or Elders to teach the content "correctly" (p. 263). Non-Indigenous educators claim that Indigenous knowledge should be left to Indigenous peoples and should only be shared by Aboriginal Elders, Knowledge Keepers, or artists (Woodroffe, 2020). Marom (2016) professes that educators avoid teaching Indigenous topics because they feel they do not have enough expertise, and that Indigenous perspectives should be covered by Aboriginal peoples. This feigned reliance on First Nations, Métis, and Inuit experts permits teachers to ignore their civic and professional obligations in the inclusion of Indigenous ways of knowing and doing in their teaching practice, and limits their discomfort when acknowledging the histories, perspectives, and contemporary issues of Aboriginal peoples (Howell & Ng-A-Fook, 2022). Avoidance through the adoption of the perfect stranger persona cultivates ignorance in non-Indigenous learners and prevents Indigenous students from achieving educational success (Morcom & Freeman, 2018).

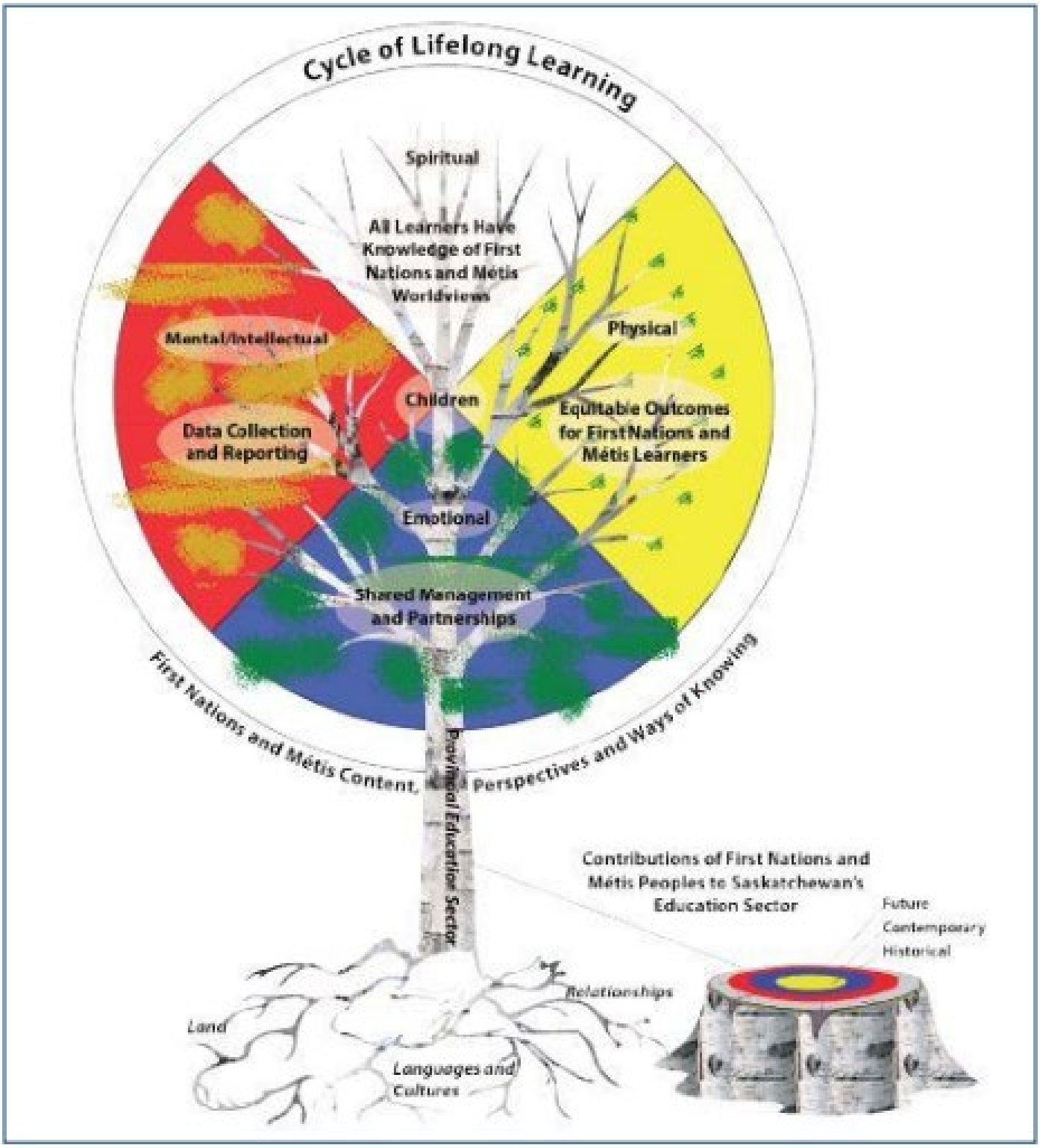
Indigenous Ways of Knowing and Doing

Indigenous ways of knowing and doing could be generally defined as complex and diverse methods of learning and teaching that encompass not only human interactions but interactions with all physical, spiritual, emotional, and intellectual elements (Tanaka, 2016). Martineau (2018), a Cree/Métis scholar from Alberta, claims that Indigenous knowledge is both "content and process" which is "exemplified by accumulated wisdom, technology, and experience" (p. 42). It is tied to space and place and grounded in relationships with the self, the spirit, and the unknown (Martineau, 2018). These elements all possess a relational accountability to each other, in that you cannot master interactions with one element over another, as the

relationships between are essential for the holistic understandings of Indigenous ways of knowing and doing. Indigenous ways of knowing and doing begin in the self, live within people, and are built through relationships with the physical, spiritual, emotional, and cognitive interactions one has with the world. School authorities throughout Canada have implemented holistic Indigenous frameworks that incorporate these elements as a measure to address the current inequities faced by non-Indigenous learners. These frameworks are designed to be used across curricula, and utilized for the education of all students. Figure 1 shows the Indigenous Responsibility Framework implemented by the Saskatchewan school board in which a white birch tree is utilized to show the relationships between the physical, spiritual, emotional, and intellectual responsibilities. Indigenous knowledge of land, culture, language, and relationships form the roots of this tree as they are the basis upon which all other knowledge is built. The inner rings represent the historical, contemporary, and future contributions of Indigenous ways of knowing and doing upon the education sector.

Figure 1

The White Birch Tree

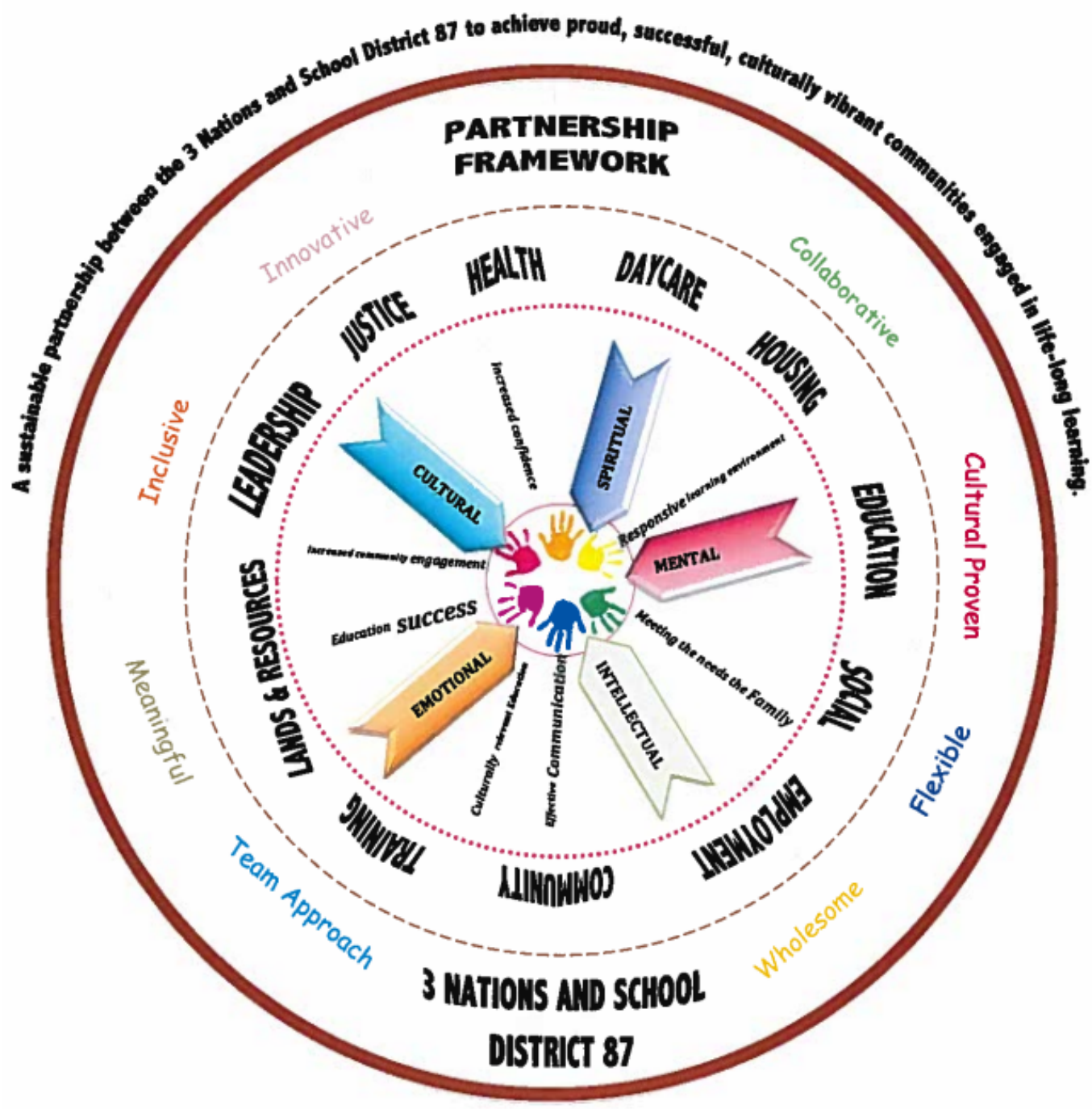


Note. Saskatchewan School Board Indigenous Education Responsibility Framework as retrieved from https://saskschoolboards.ca/wp-content/uploads/IERF-Final-June-2022.pdf

Similarly, the Toronto district school division has implemented a policy framework which promotes the building of relationships to address the current needs of Aboriginal learners within the greater Toronto area. According to the Toronto District School Divisions Indigenous Education Annual Report (2021) relationship building through “community engagement” (p. 16), the “Dish with one Spoon” analogy to draw attention to the physical and spiritual relationships between the land and other beings (p. 25), as well as sharing circles to address trauma-informed support for Indigenous learners (pp. 9-16) are just a few examples of how this framework develops teachings around the physical, spiritual, emotional, and intellectual elements of Indigenous ways of knowing and doing. In British Columbia, school district 87, serving one of the largest geographical areas surrounding Stikine, has developed an educational governance structure which encompasses these four main elements of these other school authorities, while also promoting culture as an essential element for educational success.

Figure 2

3-Nations and school district 87 Education Governance Structure



Note. 3 Nations and School District 87 Partnership Framework. (2023). As retrieved from https://www.sd87.bc.ca/wp-content/uploads/2023/02/3N_Final_Signed.pdf

Mamàhtawisiwin: The Wonder We Are Born With, an Indigenous education policy framework developed by the Manitoba School Boards Association (2022) and shown in Figure 3, aligns with the aforementioned governance structure in that it caters to the personal experiences of the learner in order to develop strong relationships between the four essential elements of Indigenous ways of knowing and doing.

Figure 3

Mamàhtawisiwin: The Wonder We Are Born With—An Indigenous Education Policy Framework

Note. The visual draws on the First Nations Mental Wellness Continuum Framework (Health Canada—see https://thunderbirdpf. org/wp-content/uploads/2015/01/24-14-1273-FN-Mental-Wellness-

Framework-EN05_low.pdf) and reflects the Honourable Murray Sinclair's four fundamental questions.

Manitoba School Boards Association. (2022). Mamàhtawisiwin: The Wonder We Are Born With—An Indigenous Education Policy Framework, as retrieved from https://www.edu.gov.mb.ca/iid/docs/mam%C3%A0htawisiwin_en.pdf

When considering the incorporation of Indigenous knowledges in the blended K-12 classroom, non-Indigenous educators should consider acknowledging the different elemental relationships that exist with regards to Indigenous understandings, and attempt to incorporate teachings that address one or more of these relationships. Rather than foregoing all westernized teachings, Indigenous education seeks to create a balanced representation of knowledges with equal acknowledgement being offered to both. As clearly articulated by Nardozi et al. (2014) "Indigenous education draws on an organic metaphor for learning that includes diversity as an asset, creating spaces to value and nurture multiple forms of knowing and ways of being in the world" (p. 110). Thomas (2022) iterates the principle of "Two-Eyed Seeing" or "Etuaptmumk", developed by Mi'kmaw Elder Albert Marshall, which centers on learning that can be taken from both the Indigenous and western perspectives to form a strength-based understanding of knowledge (p. 4). Offering the "gift of multiple perspectives" would provide a more authentic representation of information within school curricula (Thomas, 2022, p. 4). In Marshall's own words "Two-Eyed Seeing refers to learning to see from one eye with the strengths of Indigenous ways of knowing and from the other eye with the strengths of Western ways of knowing and to using both of these eyes together" (Barlett et al. (2012), p. 335). Teachings through the land, community building, and cultural events are methods through which non-Indigenous educators can incorporate Indigenous ways of knowing and doing in their classrooms. Douglas et al. (2020) emphasize that Indigenous ways of knowing and doing are complex relationships that exist between human knowledge and consciousness and can rest not only in the individual, but also

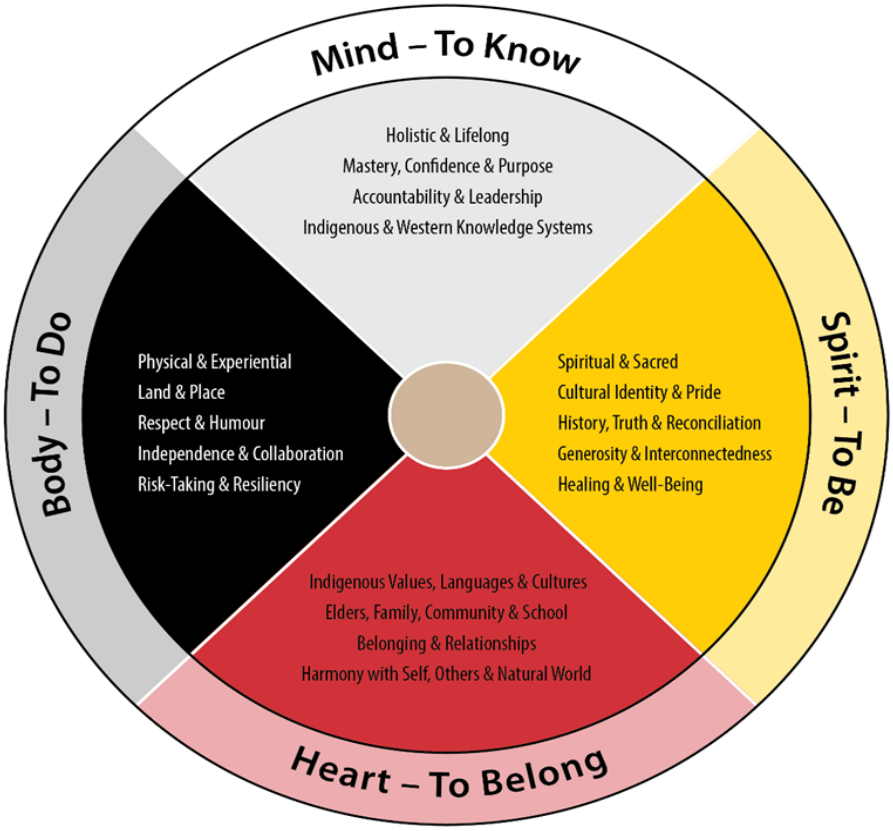
with the community as a whole. Similarly, the Blackfoot concept of Níksókowaawák generally refers to a collective method for Indigenous research methods to stand alongside Western qualitative and quantitative methods and highlights the value of collective methods in collaborative research (Atwood et al., 2024). Within Alberta, the Golden Hills School Division has utilized the concept of Two-Eyed Seeing in their I' kanaatsi Experience. This place-based learning program, designed in consultation with six different Indigenous Elders from within the Blackfoot confederacy was created for grades 5 and 6 students to offer the opportunity for learners to develop a deeper connection and relationship to the land. This program acknowledges and attributes the concept of Two-Eyed seeing to the Mi'kmaq peoples, and respectfully frames this concept within a Blackfoot worldview.

Indigenous Education Teaching Frameworks in Alberta

As this study takes place within Alberta, I feel it is prudent to draw attention to a small sample of the teaching frameworks that are currently being utilized within the province. Alberta houses over 67 distinct public, separate, and francophone school districts in over 660,000 square kilometres of land. Each school district follows a unique educational framework designed to cater to the learning needs of Indigenous learners within their own communities. Alberta's educational frameworks also encompass the four main physical, spiritual, emotional, and cognitive elements inherent within Indigenous ways of knowing and doing while also integrating many aspects of the seven sacred teachings in their holistic teaching frameworks. The Calgary Board of Education's Holistic Lifelong Learning framework, as shown in figure 4, reflects these essential elements through the development of personal attributes and knowledge that learners could acquire within their classrooms.

Figure 4

Indigenous Holistic Lifelong Learning Framework



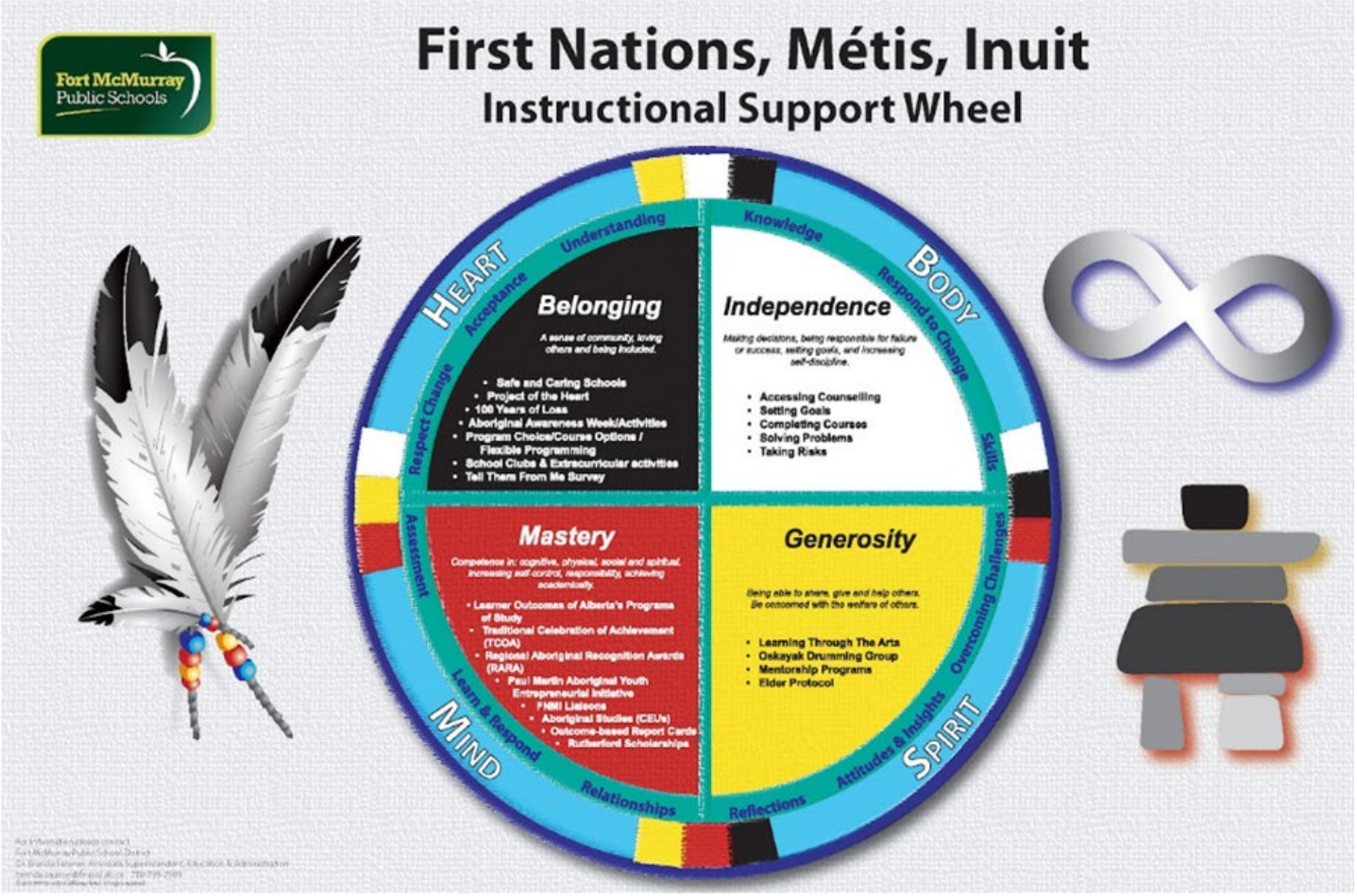
Note. Calgary Board of Education. (2021). Indigenous Education Holistic Lifelong Learning Framework, as retrieved from https://insite.cbe.ab.ca/teaching/student-supports/indigenous-education/Documents/IEHolisticLifelongLearningFramework.pdf

The Calgary Board of Education serves the students from the Piikani, Kainai, and Siksika First Nations, the Îethka Nakoda Wîcastabi First Nations, and the Tsuut'ina First Nations, along with members of the Métis Nation of Alberta. A recent census confirmed that over 35,000 people in Calgary identified as Indigenous from "Nations in every province and territory – from the Inuit in Nunavut, to Tlignit in northern British Columbia, Cree from Saskatchewan, Mohawks in Ontario, Mi'kmaq in the Maritimes and every nation in between" (As retrieved from https://www.calgary.ca/communities/indigenous/groups-in-calgary.html). Aligning with the

Calgary Board of Education, the Fort McMurray public school division utilizes an instructional support wheel to integrate Indigenous knowledges through teaching and learning. The Fort McMurray public school division serves five first nations communities, namely the Mikisew Cree First Nation, Athabasca Chipewyan First Nation, Fort McKay First Nation, Fort McMurray No. 468 First Nation and Chipewyan Prairie Dene First Nation, as well as six Métis Nation of Alberta locals. As exemplified in figure 5, this educational support wheel encourages independent risk taking, acceptance, problem solving skills, and much more through the lens of Indigenous ways of knowing and doing.

Figure 5

First Nations, Métis, and Inuit Instructional Support Wheel



Note. Fort McMurray Public School Division, First Nations, Métis, and Inuit Instructional Support Wheel, as retrieved from https://sites.google.com/fmpsd.ab.ca/fmpsdindigenous/education-documents

Chapter Summary

As demonstrated in this review, existing literature suggests that K-12 educators often adopt the perfect stranger persona due to lack of knowledge, fear, misrepresentation, and the underrepresentation of Indigenous ways of knowing and doing in the Canadian curriculum. A lack of professional development opportunities, and a dependence of colonized knowledge, leads many educators to be unsure of how, when, where, and if teaching Indigenous perspectives is appropriate in their classrooms. Many school

divisions promote the inclusion of Indigenous teaching frameworks for educators, but fail to provide the necessary hands-on training for non-Indigenous educators to incorporate Indigenous ways of knowing and doing in an authentic and respectful manner. Consequently, it is necessary to address these issues through professional development discussions to create opportunities for educators to critically self-reflect on the perceived barriers they face, as well as their own implicit biases about Indigenous ways of knowing and doing. This study will provide an opportunity to begin to address teachers' moves to innocence, and allow for an introspective approach to the acknowledgement of power, privilege, bias, and unacknowledged racism when integrating Indigenous understandings in the blended K-12 classroom.

Chapter 3. Methodology

Introduction

This chapter provides a description of the theoretical framework, research design, methods of data collection and analysis, as well as the role of the researcher in the study. The chapter aims to demonstrate how the chosen research methodology uncovered a response to the main research question, as well as addresses the results of the sub questions simultaneously. Ethical considerations for the research participants are discussed, as well as the limitations this study identified.

Theoretical Framework

In educational research, critical theory is described as interpretive and transformational, the purpose of which is not merely to understand phenomena in educational contexts but to change them (Cohen et al., 2018; Creswell & Poth, 2018; Kemmis et al., 2014). It seeks to redress inequality and promote inclusive designs in education and society. Critical theory argues that the educational behaviours that are prevalent in our classrooms are the result of illegitimate, dominant, and repressive discourses that seek to create power dynamics. Cohen et al. (2018) asserts that to transform education we must eradicate the methods that seek to offer legitimacy of one's power over another. This agenda, as detailed by Habermas (1972) and referenced in Cohen et al. (2018) seeks first to understand situations through participants' interpretations with the premise that each participant's reality is socially constructed. Social facts must be understood in their cultural context and involve the fusion of socially constructed understandings between participants (Cohen et al., 2018). The transformation occurs when education moves from oppression and inequality towards distributive social justice and equal opportunities for all learners. This call to action in educational research urges participants to transcend the constraints

placed upon their understandings and envision new possibilities for social and educational change (Fay, 1987).

This research study utilized a critical theoretical framework as it first sought to understand the contextual nature of non-Indigenous teachers' struggles to bridge Indigenous ways of knowing and doing into their teaching practice. The epistemological underpinnings of this study revolved around acknowledging that all teachers have implicit understandings of their knowledge and teaching methods, and what constitutes and validates their own choices in the classroom. My study focused not on eradicating those beliefs systems, but on expanding non-Indigenous educators' understandings of Indigenous ways of knowing and doing and how these teachings are socially justified as beneficial for all learners in the blended K-12 classroom. Ontologically speaking, incorporating alternate methods of instruction allowed non-Indigenous educators to acknowledge that differing instructional methods are just as valid and useful as current colonialized approaches to instruction. This led to the beginnings of respect, and the promotion of social equity in the educational context.

Research Methodology

Critical Participatory Action Research (CPAR) has attracted attention worldwide for its advocacy and emancipatory capabilities. CPAR (Kemmis et al. 2014) makes a dramatic shift from researching on or about participants and asserts participants' rights to research "with" academics (Fine & Torre, 2021, p. 3). Fine and Torre (2021) claim this commitment is transformational as it offers academic researchers the opportunity to gather data from within their research demographic rather than drawing "outsider" conclusions (p. 3). CPAR creates research conditions where the participants and researcher can collaborate in search of authentic understandings of a specific phenomenon. Once an understanding has been socially constructed,

the aim of CPAR is to improve the social practice by having participants work together to improve both themselves and each other. It is deliberately practical in nature, seeking to improve communities by establishing collaborative self-critical learning opportunities (Cohen et al., 2018). The critical aspect (*C*) focuses on questions of power that exist within our own epistemologies in an attempt to illustrate the inequities that prevail within the research. This often includes an acknowledgement of personal beliefs and biases and how they affect the choices we make. Within my study, the critical aspect focused on questioning the deeply rooted social understandings of colonialism, and how these understandings shaped our pedagogical considerations regarding Indigenous ways of knowing and doing. Rich and deep participation (*P*), explained in greater detail in chapter 4, was utilized to ensure all understandings were visible and that privilege did not take a leading role in the data collection. Acknowledgement of personal beliefs and biases through articulated and non-articulated introspection helped participants develop a deeper awareness of socially constructed understandings which hindered equitable pedagogical approaches from being sustained in the classroom (Hahn &Gawronski, 2019). Within this study, action (*A*) represented the teaching that occurred to build theory and understanding from the lived experiences of non-Indigenous educators in the blended K-12 classroom, and research (*R*) was a commitment to democratic knowledge production with the aim of transforming educational inequities within non-Indigenous educators' teaching practice. Critical Participatory Action Research, as described by Kemmis et al. (2014) is unique as it offers the researcher "special access to how social and educational life and work are conducted in local sites by virtue of being 'insiders'" (p. 5). Being an insider allows participants and researchers the ability to investigate their own practices, and how those practices are conducted from within an organization. CPAR creates conditions for the researcher and participants to

speak a shared language and create socially-constructed forms of action and interaction which are utilized in practice. As elaborated by Kemmis et al. (2014) only critical participatory action research

> creates conditions for practitioners [and researchers] to participate in and develop the communities of practice through which the practice is conducted, both in the relationships between participants in a particular site or setting of practice, and (in the case of a professional practice) in the relationships between people who are collectively responsible for the practice (whether as members of a professional body or as professional educators or as researchers into the practice) (p. 5).

Critical participatory action research rejects the notion of objectivity for the researcher in favour of critical self-reflection which actively interrogates the participants' and researchers' practices, understandings, and conditions under which they discover whether their actions and practices are unjust or unsustainable. Researchers and participants are actively engaged in the cyclical nature of CPAR, taking a thoughtful approach to changing themselves, their practices, and the conditions under which they practice. This collaborative research methodology adds a layer of experiential learning (Kolb, 1984) for both the participants and the researcher by offering them the opportunity to act on new information (Laurillard, 2012). As stated by Laurillard (2012) working for a clear end-point "promote[s] further reflection and the reorganization of each [participant's] initial construct" (p. 57). The cycle of planning, acting, observing, and reflecting allows participants and researchers time to analyze and interpret the evidence they collect, reflect upon their analyses, and reformulate their strategies to meet the needs of all learners.

The most successful CPAR in the realm of education, as illustrated in Figure 6 below, is conducted within networks of experienced educators who are concerned about education

(Kemmis et al., 2014). According to Lewin (1946) the steps of planning a change, putting the plan into action, observing the results, and readjusting the plan to account for unforeseen circumstances is how change in education is achieved. For the purpose of this study, Critical Participatory Action Research has been utilized to address the gaps and challenges experienced by non-Indigenous teachers in incorporating Indigenous ways of knowing and doing in blended K-12 classrooms. As the researcher, my intent was to

1. Create safe spaces to enable and encourage non-Indigenous teacher participants to uncover and express the challenges and barriers they perceived when bridging Indigenous ways of knowing and doing in their practice.
2. Provide opportunities to confront deeply rooted colonial understandings of educational practice.
3. Discuss and collaborate with the intent of developing pedagogical growth through critical self-reflection.
4. Advance understanding, knowledge, and awareness through the introduction of various pedagogical strategies compatible with Indigenous ways of knowing and doing.
5. Observe, record, and reflect on participant reactions to perceived barriers in incorporating Indigenous ways of knowing and doing in the classroom.
6. Create a safe space which allowed participants to deeply reflect on and analyze their experiences during the study.

Figure 6 offers a graphic representation of the Critical Participatory Action Research cycle that took place during the study. Each stage will be explored in greater detail in the following section.

Figure 6

Critical Participatory Action Research Cycle

Note. Critical Participatory Action Research Plan: 5 Stage Cycle. Own Work. Created using Canva design software.

Stages of the study

Reconnaissance.

Drawing on a participant pool gathered from purposive sampling, which will be expanded upon later in this chapter, I interviewed five settler teacher participants to determine the challenges and perceived barriers that they initially felt they faced in implementing Indigenous ways of knowing and doing in the blended K-12 classroom. An introduction to the participants will be provided later in this chapter. I interviewed research participants individually to determine which aspects of Indigenous knowledges they found difficult to understand, how they attempted to bridge Indigenous knowledge into their teaching practices, the challenges they feel they faced, as well as a reflective exploration of their responses to implementing Indigenous ways of knowing and doing in their teaching practice. If 'moves to innocence' or 'perfect stranger' perspectives were identified, I guided participants through reflective practice aimed at distilling the reasoning behind these responses. Drawing on the expertise of Alo, participants began exploring their preconceived notions of Indigenous ways of teaching and learning, and delved deeply into how these ideas were constructed. Looking at the social construction of their own beliefs, I aimed to determine if the participants' adoption of the perfect stranger persona arose from a lack of relationship with Indigenous individuals, or was built through the institutional structures that venerate a colonized understanding of Indigenous knowledges. Participants were asked to consider how self-reflection plays a role in their teaching pedagogy. Discussion surrounding the importance of what constitutes effective self-reflection, how self-reflection is a required skill for personal growth (Dishon et al., 2017), and the importance of self-reflection for understanding one's own beliefs and values was undertaken. The role of the participants during this stage was to examine and identify their perceived barriers to incorporating Indigenous ways of knowing and doing in their blended teaching pedagogy. Safe spaces were created for settler teacher participants to explore their experiences within the

individual interview sessions, as well as the focus group sessions. In order to create a safe environment for this research, I focused on the participants' well-being. I wanted to reduce any stress or anxiety that the participants may have felt by facilitating a culture of respect and openness and the free exchange of ideas. Maintaining ethical conduct and integrity, I re-emphasized that these discussions were spaces where concerns could be shared without the fear of judgement or reprisal, and discussions could be used to delve deeply into instances of bias or unacknowledged racism. These processes fostered a sense of community among the participants, myself included, and led to more robust and impactful conversations.

My role as the researcher was to create an environment within which my participants could feel safe to express their thoughts, emotions and previous experiences. In my study, building trust was critical. Participants were asked to examine and analyze their beliefs, social understandings, and biases of Indigenous knowledges. They were asked to explore their own positions of power, and how that power manifests within their pedagogical approaches. As a way to build trust between myself and the research participants during these individual interviews, I exposed and shared my own experiences and vulnerabilities with regards to Indigenous ways of knowing and doing, providing the participants with the opportunity to understand how and why I chose to explore this area of research. Being open and vulnerable with my research participants showed them that I acknowledged my power as both a researcher and a participant, but also showed them that I sought to build collaborative learning opportunities aimed at the continued growth and development of my teaching pedagogy. The focus group dynamics offered participants the opportunity to share their felt concerns with other participants in a safe and respectful environment. Through the sharing of my own personal experiences and vulnerabilities during both the individual interviews and the focus group sessions, I aimed to create an

environment that values and respects differences, acknowledging that each participant has their own journey to truth and reconciliation. Being supportive and free of judgement allowed the participants and I to create relationships of trust, and promote a sense of understanding and acknowledgement of the lived experiences being shared.

During this stage, Alo's role was three-fold. First, they openly listened to the experiences that were shared during the individual interviews and first focus group session. According to Gilligan and Eddy (2021), listening is a method of creating trust between those who are sharing their voices, and those who open themselves to understanding alternate experiences. I had initially discussed with Alo the decision to virtually attend these interviews. With the possibility of these sessions being imbued with emotionally charging descriptions and potentially harmful and racist viewpoints, Alo decided to refrain from virtually attending and preferred to simply watch a recording of the interview. In an effort to protect Alo's well-being, I asked if they were still comfortable participating, and they responded that they were. During this time, I asked Alo to record the barriers that they heard being identified in the interview recordings. Taking into consideration both the Indigenous education and settler perspectives helped me develop a more authentic understanding of the perceived barriers that exist in bridging Indigenous ways of knowing and doing in teacher pedagogy. Alo then provided me with a list of the barriers they had identified while listening to the individual interviews. These barriers were then explored and discussed with the research participants in our first focus group session. In order to begin shifting teacher perceptions about instruction, assessment, and reflection, I aimed to raise awareness of knowledge gaps, as well as the unconscious reliance on colonialized pedagogical methods within the classroom during this first session.

Planning.

Utilizing Indigenous pedagogical approaches to teaching and learning, our first focus group session incorporated virtual talking circles as they helped to build dialogue and encourage the participants to openly listen to other viewpoints and perspectives (Barkaskas & Gladwin, 2021). Barkaskas, a member of the Métis nation of Alberta, and Gladwin (2021) state that utilizing pedagogical talking circles promote the Indigenous methodological approaches of situated relatedness, respectful listening, and reflective witnessing which help to transform "normative colonial institutional knowledge structures and practices" and allow for greater Indigenization within pedagogical approaches (p. 20). In an effort to destabilize and rewrite the Eurocentric narrative of interview protocol, I attempted to build relationality and mutual respect for social discourse by openly sharing in a space that encouraged active listening, compassion, and empathy to the lived experiences of all participants (Kovach, 2021). As this study focused on creating a deeper awareness of power, privilege, bias and unacknowledged racism in participants' teaching pedagogy, I encouraged deep introspection through an exploration of past lessons, assessments, and activities. During this stage, I asked participants to bring in samples of their previous lessons and assessments to discuss collaboratively. Each participant openly shared their reasoning behind their pedagogical choices and if they felt those choices were effective in meeting the desired learning goals. Using the identified barriers that were distilled from the individual interviews, participants were asked to consider whether those barriers were present in their teaching pedagogy. Drawing attention to the perceived barriers that may exist within their own lessons, and how those affected their pedagogical choices, aided in developing a deeper awareness of power, privilege, bias, and unacknowledged racism about Indigenous ways of knowing and doing. Allowing time for self-reflection was essential during this stage. Participants were given a short break between the planning and action stages to think deeply about the

foundations of their own teaching pedagogy, and how that has shaped their response to, and understanding of, Indigenous ways of knowing and doing.

During the planning stage, my role as the researcher was to provide a starting point through which participants could begin to examine and explore the choices they had made in their teaching pedagogy. Through discussion and collaboration with Alo, I began to help the research participants seek a deeper understanding and acknowledgement of their own values, beliefs, biases, and unacknowledged racism which presented itself within their teaching pedagogy. Collaborative discussions offered the greatest opportunity for participants to engage in self-reflection of their own teaching practice, and offered ways to address misunderstanding or lack of knowledge with regards to Indigenous ways of knowing and doing. Providing the opportunity for self-reflexivity during the planning stage provided these non-Indigenous educators with a pathway to examine their teaching practice and time to understand the foundations of their own teaching pedagogy.

As we prepared to move into the action stage, collaborative discussions around the deeper and more thoughtful implementation of Indigenous ways of knowing and doing were undertaken with written guidance being offered by Alo. The research participants and I discussed future pedagogical plans, and offered advice or resources we felt were beneficial. A list of these resources can be found in Appendix C. The study participants and I each offered alternate pathways for consideration in meeting learning objectives. Again, I must emphasize that this stage was not to provide a recipe for integrating Indigenous ways of knowing and doing into classroom instruction. Rather, it was to provide a pathway for participants to begin exploring different perspectives in their instructional choices in an effort to develop a deeper awareness of

their own colonialized pedagogical underpinnings, and to develop deeper introspective practice to move forward from their current positions.

Action.

Through collaboration with the research participants, a length of approximately three months was given for a focused effort in shifting teaching pedagogy to include a more sustained effort to bridge Indigenous ways of knowing and doing in their classrooms. In order to encourage deep introspection, participants were asked to maintain a reflective journal detailing their successes, failures, challenges, and growth opportunities that occurred within their classroom. The aim of this stage was to raise awareness of power, privilege, bias, and unacknowledged racism, and how that may have affected pedagogical choices within their teaching pedagogy. During the action stage, the role of the participants was to consider how to bridge Indigenous ways of knowing and doing into their daily pedagogical considerations, based on their introspective experiences in the interviews and focus groups. With the goal of bridging Indigenous ways of knowing and doing into their daily routine, participants were encouraged to consider how they internalized Indigenous knowledges, and how that lead to a deeper understanding of themselves, their students, and equity within their pedagogical framework. During this stage, participants were encouraged to reflect on their experiences using the reflective prompts in Appendix A. Each participant was asked to reflect on

a. Their weekly pedagogical choices
b. The inclusiveness of their own personal teaching pedagogy
c. Whether different aspects of their practice have changed, or remain unchanged
d. How their pedagogical choices affect others involved in their teaching
e. Thoughts and feelings around incorporating Indigenous ways of knowing and doing

f. Their knowledge gaps or misunderstanding

g. Their own personal beliefs, values, and biases

Each participant was encouraged to include as much evidence as possible to support their contributions, and where evidence was lacking, the participant was permitted to make speculations but was required to record these as such in their reflective journals. Over the course of the action period, monthly focus group sessions were scheduled for participants to share their felt concerns or to promote dialogue with others. These collaborative sessions were used to share successes or challenges that were faced within the classroom. As a way to continuously build mutual trust and understanding, participants were encouraged to share their struggles, as well as offer suggestions and advice to fellow participants on bridging Indigenous ways of knowing and doing in their teaching pedagogy.

The focus group sessions explored scenarios of how to shift participants' current teaching pedagogy for a more sustained incorporation of Indigenous ways of knowing and doing. Drawing on their vast experience over twenty-five years working in Indigenous education, Alo shared different methods and resources to help participants develop a more equitable teaching pedagogy to utilize within the classroom. These sessions were not designed to provide resources or tangibles that participants could use every day, but rather to begin shifting their understanding and perspectives to a deeper consideration of Indigenous ways of knowing and doing as a fundamental tool to meet learning objectives. During this stage, Alo's role was to suggest alternative ways to meet learning objectives with the aim of shifting teaching pedagogy away from the predominant Eurocentric framework. Focusing on collaboration among all participants, all members were encouraged to share ideas and methods they had success with during these sessions.

Alo's role during this stage, as well as mine as researcher, was to offer support, guidance, and encouragement for deeper reflection on pedagogical choices. We both were available to provide alternate pedagogical suggestions for meeting learning objectives, as well as considerations on how to bridge knowledge gaps, and misunderstandings that may have presented themselves while incorporating Indigenous ways of knowing and doing. Focused on promoting introspection around pedagogical choices, we encouraged participant educators to consider Indigenous ways of knowing and doing with an open heart in an effort to raise awareness of personal bias and/or unacknowledged racism. Our collaborative role during this stage was to encourage growth and reflection among the teacher participants, and to help them develop a more inclusive pedagogical framework. During the monthly focus group sessions, Alo and I promoted discussion through open-ended prompts which can be found in Appendix B.

Observation.

The observation stage occurred simultaneously with the action stage for the individual participant observations. In order to gain as authentic an observation as possible we made our observations by recording notes on participants' pedagogical choices, lesson plans, assessments, teaching dynamics, student responses, and any feelings or behaviours we observed in the recorded interviews and focus group sessions. As the researcher, I acknowledged that my own personal socially-constructed understandings could potentially influence how I saw and recorded the observations. Using a bridling technique, I attempted to restrain my personal understandings of the data in an effort to make observations in a manner closer to what I observed. As a way to gain a more authentic and well-rounded understanding of the data, I encouraged Alo to record their observations as well. Both Alo and I analyzed the data. Over the three-month action stage, we observed the participants three times. As a way to encourage progressive growth, we offered

reflective feedback to the research participants in order to encourage a raised awareness of power, and promote a shift in acknowledgement and perspective of Indigenous ways of knowing and doing. Observing the "sayings, doings, and relatings" of the participants' individual practices offered the opportunity to determine whether the participants' teaching practice was evolving or staying stagnant (Kemmis et al., 2014, p. 107). The aim of the observation stage was to record an account of what happened and what was emerging as dispassionately as possible.

Reflection.

This stage was meant to offer participants the opportunity to analyze, synthesize, interpret, explain, and draw conclusions about their experiences in the study (Kemmis et al., 2014). The goal of the reflection stage was for each participant to discover and record what happened in relation to their professional teaching pedagogy, the successes and challenges they experienced bridging Indigenous ways of knowing and doing in their blended K-12 teaching practice, and to what extent, if at all, their participation in this study raised their awareness of power, privilege, bias, and/or unacknowledged racism. The reflection stage allowed participants the opportunity to examine the constraints and/or barriers they experienced, achievements in their changing practice, as well as the anticipated or unanticipated outcomes of their experiences. Once each participant had reflected on their individual progress with bridging Indigenous ways of knowing and doing, one-on-one interviews were scheduled to discuss these experiences. During these interviews, discussions were held to discern whether deeper understandings of Indigenous knowledges had taken place, what conditions led to these changes, any challenges and/or barriers that were encountered, achievements, and their own personal reflections on their participation in the study. Evidence was gathered from the participants' reflective journals, individual one-on-one interviews, as well as the focus group sessions.

Participants, Location, and Time Frame

In order to make the research practicable, research participants were selected by purposive sampling. A purposive sample was chosen due to the nature of the study. Research participants were willing and interested in expanding their understandings of Indigenous ways of knowing and doing, how Indigenous knowledges could help expand their teaching pedagogy, as well as possessing an openness to exploring their beliefs, values, biases and unacknowledged racism to Indigenous ways of knowing and doing. The aim of this study was to sample approximately three to seven participants from a variety of teaching disciplines. I employed two-stage purposive sampling to access knowledgeable participants who had in-depth experience teaching in a blended K-12 classroom. A detailed explanation of the sampling process is provided in chapter 4. With the intent to achieve as varied a sample as possible, I acknowledge that it was more important that participants have a strong interest and willingness in exploring their pedagogical underpinnings. Personal introspection and self-awareness are often uncomfortable and difficult, and it was essential that participants were willing and open to exploring the own beliefs, values, biases, and instances of unacknowledged racism. Becoming self-aware and gaining knowledge about oneself takes courage, persistence, and a willingness to acknowledge uncomfortable truths (Pope et al. 2023). Due to the nature of this study, I aimed to recruit participants who were open-minded, had a strong desire to develop their pedagogical practice, and who were unafraid of confronting their own personally held biases and racially stigmatized beliefs.

In consideration of the extensive involvement required of the chosen participants, the incentive of in-depth professional development, supplemented with a gift card to purchase necessary educational resources, was offered to all research participants within the study. At the

close of the study, a random draw was held for a digital tablet which could be used for either personal or educational use. A sample of five settler educators, plus myself as the researcher, made up the initial participants of this study.

Individual Participants.

Here I will introduce the five participants and provide information about their roles and qualifications as teachers within Alberta. As this research study deals with sensitive topics and in an effort to respect the privacy of the participants, I have chosen to use pseudonyms when discussing these individuals. The first participant was Jordan who, at the time of this study, was employed as a middle school teacher in southern Alberta. Jordan identified as a white cisgender person who is between the ages of 30 and 40 years old. Jordan was granted their Bachelor of Education degree from the University of Lethbridge and was certified to teach within Alberta in 2016. At the time of their participation in this study, Jordan was working on their Master's degree in educational psychology and expressed their belief in inclusive and equitable opportunities for all their learners. Their main role within their school is as a grade 6 generalist. They also volunteer in various extracurricular opportunities within their school community.

The second participant was Casey, who at the time of this study worked as a bilingual French and English music educator within central Alberta. During our initial interview, Casey identified as white between the ages of 25 and 35 years old. Casey was granted their Bachelor of Education degree from Lakehead University in Thunder Bay, Ontario in 2013. They began teaching in Alberta in 2015 and they held the position of music educator for grades 1-6 within their school. Casey expressed a passion for bilingual education and recently completed a Masters in Linguistics education. Casey enjoyed bringing enthusiasm for music into their classroom

setting and encouraged students to expand their appreciation of music through a variety of genres.

Participant three was Parker who, at the time of the study was employed teaching Grade 9 social studies in central Alberta. Parker identified as a non-binary white person and was a strong advocate for the Gay Straight Alliance (GSA) in their school community. Parker preferred the use of they/them pronouns and expressed their desire to be referred to as such in this report. Parker gained their educational credential from the University of Alberta in 2018, and was certified as an educator that same year. Parker expressed a strong passion for inclusive teaching methods and felt that inclusive opportunities should be integrated at an early age. During the initial interview, Parker indicated their desire to remove themselves from the process, and therefore their thoughts and opinions will not be shared in this report.

The fourth participant was Robin, who at the time of the study was employed as a science teacher for grades 10-12 in southern Alberta. Robin identified as a white cisgender person between the ages of 35 and 45 years old. Robin attended the University of Lethbridge in the early 2000's and was granted both a Bachelor of Science and Bachelor of Education degree with Great Distinction. Robin was certified in 2009 and has since gained a Masters degree in Educational Leadership through Gonzaga University. Robin expressed their commitment to offering students as many opportunities as possible and was a strong spokesperson for the Environmental Club, as well as the Visible Minority Alliance (VSA) at their school.

The fifth participant was Taylor who, at the time of the study held the position of physical education and mathematics instructor in high school. Taylor has been a teacher for 25 years within Alberta and was certified in 1999. Alongside their teaching responsibilities, Taylor coached both football and rugby which they felt offered players opportunities to develop

sportsmanship and respect. After our initial interview, Taylor expressed the desire to leave the study as the time commitment required proved to be incompatible with their other commitments. Upon request, Taylor's initial interview data will not be included within this study. Thus, of the initial five participants recruited, three remained and completed the study, in addition to me.

Alo - Indigenous Education Colleague.

Alo participated as an Indigenous education colleague at the time of this study, and was a collaborative member of their school-based Indigenous Education team within southern Alberta. They utilized their knowledge of Indigenous ways of knowing and doing to engage with critical professional development aimed at drawing attention to the holistic nature of Indigenous knowledges. Throughout their career, they have led other educators in the development of their teaching pedagogy through their role in Indigenous Education. Alo's steadfast commitment to creating inclusive and equitable educational experiences for learners was demonstrated through the integration of a breakfast program in their current placement, as well as in the development of a cooperative education program aimed at creating unique learning and working opportunities for exceptional learners in multiple First Nations communities in Ontario. Alo has dedicated much of their life to championing change in education with the inclusion of Indigenous knowledges and promoting academic success of Indigenous learners. They were committed to leading by example and hoped that this research endeavor would plant the seeds of change for the educators and learners of the future. In consideration of the time and collaboration that Alo brought to the study, their knowledge and experiences have been honoured through the commitment to publish a future research article, as well as the provision of a gift card with which to purchase any resources deemed necessary for the continued growth of their teaching pedagogy.

I chose to focus on a small sample size as my intention was to investigate personally perceived challenges or barriers that educators face when bridging Indigenous ways of knowing and doing in teacher pedagogy. As emphasized by Staller (2021), I cannot assume that all educators' experiences, interactions, and beliefs are similar. Rather, I sought to gather a small pool of willing participants who were engaged in exploring their teaching pedagogy. Selecting a smaller sample provided me with a richness in data, and offered insights and a deeper understanding of non-Indigenous perspectives. Staller (2021) asserts that "cases are chosen because they contribute to creatively solving the puzzle under investigation and present as convincing a case as can be mustered with the resources to hand" (p. 898). In my research study, I aimed to show the acknowledgement of power, privilege, bias and racism in teaching pedagogy through the bridging of Indigenous ways of knowing and doing.

The overall time frame for the completion of this research was five to six months. The initial interviews to identify the challenges when bridging Indigenous ways of knowing and doing were conducted during the reconnaissance stage of the study. Once the challenges and/or perceived barriers were identified, the research participants, along with Alo and myself, engaged in professional enrichment discussions to encourage self-introspection within professional teaching pedagogy. The planning stage focused on identifying Eurocentric pedagogical practices, discussing the acknowledgement of power, privilege, bias, and unacknowledged racism in the participants' teaching pedagogy, and engaging in discussions to promote a shift to bridging Indigenous ways of knowing and doing in a more authentic and meaningful manner. The action stage, where participants began a concentrated effort to bridge Indigenous ways of knowing and doing into their daily teaching pedagogy lasted approximately three months. Ongoing Indigenous consultation through successive focus groups occurred. During this stage, participants were

asked to self-reflect in their journals a minimum of three to five hours a week. The observation stage occurred simultaneously with the action stage. Once the action and observation stages were completed, a two-week period of critical self-reflection for all participants was given. During this final phase, focus group and individual interviews took place to collaboratively reflect on the experiences of this study. Data in the form of participant journals and interview transcripts was collected and analyzed to address the proposed research questions in the section below. Figure 7 offers a diagrammatic representation of the proposed timeline for this critical participatory action research study.

Figure 7

CPAR Study Timeline

Note. Critical Participatory Action Research Cycle Timeline. Own work. Created using Canva design software.

Research Questions

The initial study proposal aimed to address the following research question:

- How could collaborative professional development promote self-reflexivity when bridging Indigenous ways of knowing and doing in the K-12 blended classroom?

This main research question was supported by the following sub questions:

- How might deeper self-introspection lead to an increased awareness and acknowledgement of settler power, privilege, bias and unacknowledged racism in teacher pedagogy?
- To what extent can professional development focused on bridging Indigenous ways of knowing and doing in teacher pedagogy reduce the occurrence of settler teachers' 'moves to innocence' or the adoption of the 'perfect stranger' persona?
- How might collaborative professional development encourage greater self-reflexivity within K-12 blended teaching pedagogy in the context of disrupting colonialized teaching approaches?

Research Methods

Interviews

Semi-Structured one-on-one interviews and focus group sessions were used to gauge teachers' experiences bridging Indigenous ways of knowing and doing in their blended K-12 classrooms. I utilized a standardized open-ended questioning technique, with prompts being sent to the research participants in advance of our one-on-one sessions. Each participant was aware of the topics and questions beforehand, which left the interview open for new thoughts and opinions to emerge from gentle prompting. These prompts were provided to the respondents, but only utilized where further depth or clarification was needed. I asked for respondent validation of the transcribed interviews to ensure the accuracy of the data collected. As this study was participant driven, I hand coded all the raw data, and I utilized the personal reflections of the participants to identify the complex, and socially constructed, understandings of the research data. Nelson et al. (2021) suggest that social science researchers feel computer-assisted content coding methods do not consider the interpretivist nature of data collected through participant driven research, often

overlooking the "ill-defined boundaries, such as populism, rationality, ambiguity, and inequality" (p. 204). I personally believe that the nuanced and complex understandings of the transcribed data were better served through manual thematic coding, allowing for the development and exploration of the content in its surrounding context (Saldana, 2016).

As I worked very closely with my participants in this critical participatory action study, I analyzed the transcripts to determine the challenges and/or perceived barriers that K-12 teachers face when bridging Indigenous ways of knowing and doing in their blended practice. I consulted them with any conclusions that I had drawn and interpreted to determine whether these were the participants' intended meanings. The semi-structured interviews allowed participants to share their experiences while also leaving the interview open so that they could talk freely, emotionally and with candor to create an authentic representation of their experiences (Cohen et al., 2018). In order to ensure deep and meaningful participation, focus group sessions were scheduled to address any questions or shared concerns that the participants had regarding the research study and subsequent data collection.

Critical Reflective Journaling

Critical reflective journaling is a pedagogical method used to develop critical thinking skills, professional growth, and the synthesis of knowledge (Hwang et al., 2018). Critical reflective journaling promotes self-awareness, acknowledgement of professional growth opportunities, and serves as an avenue to understand one's own ontological belief system. Collecting data from the participants over the course of the study granted me, the researcher, a more fulsome picture of the successes and challenges experienced by participants when implementing Indigenous teaching methods in their blended K-12 classrooms. Over the course of the three-month action stage, participants were asked to critically reflect on their experiences

through self-reflective journaling in the modality of their choice. These journals were free form and used to document and collect the breadth of experiences from the participants throughout the research study. Participants were asked to critically reflect for a minimum of three to five hours a week, and encouraged to reflect on any notable events or growth experiences they encountered with themselves or with their classes. I collected, transcribed, and analyzed these journals in order to address the main research question. I used member checking to provide respondent validation to determine the accuracy of any conclusions drawn from analysis of the reflective journals.

Ethical Considerations

Confidentiality and Anonymity

The main ethical consideration of this study surrounds confidentiality. As research participants were active throughout the planning, action, observation, and reflection stages of the study, it was essential that confidentiality be offered to the participants whilst also acknowledging their contributions to the data. During the reconnaissance stage, participants were asked if they would like to remain anonymous throughout the study. Although anonymity between the research participants was not possible due to the nature of the study, all documentation from transcripts or reflective journals removed any identifiable markers. I provided each participant with an alias and their locations were generalized in order to protect their identities. Gender identifiers were excluded and an age range for each participant was provided. Gender neutral names were utilized when assigning aliases to the research participants. It was imperative that the content, operation, and ownership of the data be agreed through consultation with all participants, and that each participant was protected from harm within their professional sphere. As the research study focused on teachers examining their teaching

practices, it was not necessary to gain informed consent from the students as they were not part of the research group. This study involved tracking changes to settler teachers' pedagogy; Therefore, the potential of harm to any student was limited to that which would occur in everyday teaching scenarios.

Avoidance of Harm

Locke et al. (2013) describes the "affective principle" as a method of validating the whole person in critical participatory action research (p. 114). It is essential that a researcher considers methods by which to preserve a participant's self-esteem, educational thoughts and opinions, and professional reputations throughout the research study. It was vital in this research study that each participant felt valued for their collaborative abilities and their open and honest opinions were considered equally in the study. Within my study, there was the possibility of harmful and intimate information surrounding personally-held beliefs of Indigenous ways of knowing and doing being disclosed. During the reconnaissance stage, participants were explicitly told that my ethical code was to protect the privacy of all individuals, and that sensitive information was not to be discussed with anyone outside of this research study. Confidentiality agreements were discussed and signed in an effort to protect the privacy of all research participants. Once the data had been collected, transcribed, and analyzed, participants were given the opportunity to verify the information, as well as any conclusions that had been drawn, through member checking to determine its closeness to their intent. What constitutes a significant risk of harm is a matter of judgement (Hammersley & Traianou, 2015). As this critical participatory action research study may generate benefits as well as harms, informed consent was required from all participants to make them aware of the potential risks of their participation within the study.

Mutual Trust and Mutual Vulnerability

As this research group was inclusive of the researcher, it was important that the participants understood that it would be difficult to maintain anonymity within the group due to the collaborative nature of the study. The process of collective self-reflection made participants vulnerable to one another as they learned and grew from each other's experiences. As participation played a significant role within this research study, mutual responsibility and trust were addressed. All participants acknowledged a shared responsibility when protecting the anonymity of all individuals, as well as any sensitive information that may have been disclosed. In order for all participants to agree on the mutual challenges and needs to be addressed within this study, a strong sense of trust was developed around the disclosure of personal learning experiences within the research. Reciprocal trust and vulnerability were addressed within the initial focus group sessions, and re-emphasized during the one-on-one interviews and each successive focus group session.

Data Retention and Storage

In consideration of data retention, all data analyzed from the one-on-one interviews, focus group sessions, and the participant journals will be retained for a minimum of five years in keeping with the recommendations of the Research Ethics Board at Athabasca University. Within this CPAR study, formal data sharing will occur as the individual participants will retain the original copy of their reflective journals. Alo has also undertaken to retain their observation notes and any other written data that was compiled through the course of the study. The data that I compiled throughout the study will be retained for the purposes of future research publications, as well as for research integrity inquiries. During this retention period, data will be stored in an

encrypted file on an external hard drive. The external hard drive will remain locked in a desk drawer in my locked, private home office.

Data Analysis

Data from this CPAR study was generated through semi-structured one-on-one interviews, focus group sessions, and the critical reflective journals of individual participants. Once transcribed, each form of data required a specific approach to analysis, with an overall focus on thematic interpretations.

Managing and Organizing the Data

The initial stage of data analysis consisted of transcribing the raw data collected from the interview and focus group sessions. Using a critical theoretical lens, it was imperative that data be transcribed to reflect the participants' socially-constructed interpretations of the process in order to keep the data as authentic as possible. According to Bailey (2008), contextual data helps the researcher to transcribe settings, expressions, and mannerisms which may be relevant to the analysis. Within the CPAR study, I transcribed the raw data collected from the interviews into individual participant files. Taking ethical considerations into account, as mentioned earlier, each transcript was assigned a gender-neutral alias in order to limit the possibility of data being identifiable (Creswell & Poth, 2018). Once the data was prepared and organized, I used manual thematic coding, the process of which will be described in detail in chapter 4. As I preferred to be as close to the data as possible, I chose to complete the data analysis manually as this gave me the opportunity to analyze contextual information that provided alternative interpretations of the transcripts. Nelson et al. (2021), along with Saldana (2016), assert that computer assisted content coding software is generally effective for data management, but often inadequate for the nuanced

and complex work of data analysis. This point is clearly articulated by Saldana (2016) who claims that software "gave us style, but not substance" (p. 28).

Recording Emergent Ideas

I continued data analysis by reading the entirety of the transcripts several times in order to immerse myself within the data. As a way to explore the raw evidence, I endeavored to write notes, or memos, within the transcripts to record my initial thoughts and reflections on the information that was presented. Miles, Huberman, and Saldana (2014) claim that memos "are an attempt to synthesize [the data] into higher level analytic meanings" (p. 95). Exploring the transcripts in their entirety provided me the opportunity to reflect upon the data as a whole before I began to break it down into specific thematic sections. Creating initial memos helped me track the development of my ideas, thoughts, and interpretations in relation to the data.

Developing Interpretations

Interpreting the data involved making carefully considered judgements about the meaning of the information that had been mined from the research study. Viewing the data through a critical theoretical lens, I drew interpretations from the coded statements to address the related research question. Initial interpretations focused on identifying responses to the research study questions with careful acknowledgement given to surprising or conceptually unusual information. As the data evolved from the socially-constructed viewpoints of participants, I utilized a bridling approach for data analysis (Vagle, 2009). Within a critical participatory action research study, separating the researcher's experiences completely may not be feasible or realistic as subjective experiences, and the articulation of these, is critical to gathering rich and authentic data. Critical participatory action research seeks to remove the barriers that exist

between the researcher and the participants, and create a collaborative understanding of the phenomenon being studied. While bracketing out personal experiences to look at the research data with a fresh perspective is laudable, utilizing bridling was more practicable within my research study. Stutey et al. (2020) illustrated two key purposes of bridling. The first seeks to restrain the pre-understandings of the researcher in order maintain an open perspective to the data. The second involves building a gradual, continual, and collective understanding of the data throughout the entire research study. Vagle (2009) asserts that bridling offers the researcher the opportunity to acknowledge and restrain their assumptions within the research project, while also considering how those assumptions cultivate their understanding of the phenomenon. With this in mind, I endeavored to balance my own personal understandings with those of my research participants to create an authentic and rich representation of the data (Creswell & Poth, 2018). This process provided the opportunity for in-depth reflection, from both a personal and professional stance, which Tufford and Newman (2012) claim leads to a more profound and multifaceted analysis of the data.

Representing the Data

As I focused on manual thematic coding in this study, general themes will be discussed in detail in relation to the research question in chapter 5. I utilized hierarchical tree diagrams to display the analysis of the raw data, narrowed the data into specific codes, and developed overarching themes. Discussion of each theme and its relation to the research study will be addressed in later chapters, and examples of this process are provided in Appendices (E, F, & G).

Role of the Researcher

Throughout the study, I was an active participant in the planning, actioning, observing, and reflective stages of the research study. As a non-Indigenous educator who has personally struggled with the bridging of Indigenous teachings in my blended K-12 classroom, I am very aware of my personal assumptions and opinions regarding this research. Utilizing bridling techniques designed to limit my own personal bias and experience, while at the same time providing "insider" insights, I endeavored to analyze the data with a fresh perspective. However, this did not preclude me from reflecting on my own personal experiences throughout the research study within my reflective journal. I saw value in acknowledging any growth opportunities or setbacks that arose during my participation, and I felt those learning experiences provided valuable insights into the challenges of incorporating Indigenous ways of knowing and doing into classroom instruction. Acknowledging that the research community may consider the collection of my own personal data to be biased, I employed mutual understanding strategies to demonstrate the accuracy of my information.

Mutual Understanding

In order to determine mutual understanding of the evidence collected from both myself and the research participants, I employed several strategies to facilitate my understandings of the research findings as discussed below.

Triangulation.

According to Cohen et al. (2018), triangulation is an attempt to explain the richness and complexity of the human experience from more than one perspective or "standpoint" (p. 265). In this study, evidence gathered from all research participants was analyzed to build coherence and justification for the establishment of themes. Participant reflections and interview transcripts

were reviewed in order to include multiple perspectives on the data collected within this study. This analysis technique added concurrent validity for the themes generated from the data.

Member Checking.

The final report, which will include specific descriptions and themes pulled from the data, was given to the participants for review. The participants contributed to the determination of the findings and had the opportunity to comment on or question the information being presented. As well as reviewing the final report, member checking in the form of narrative accuracy checks and interpretive mutual understanding (Kemmis, et al., 2014), was utilized throughout the stages of the study in order to clearly define thoughts, perceptions, and intent of the shared experiences and reflections. Each participant was offered the opportunity to revise and edit any statements that may have led to inaccurate conclusions in the research data when they read through their transcripts.

Acknowledgement of Bias.

Reflexivity on the part of the researcher created an open and honest narrative of the evidence gathered from the study (Creswell & Creswell, 2018). I analyzed my own personal comments and reflection based on my gender, history, and socioeconomic origins. I considered these reflections an authentic representation of teacher experiences, and subjected this data to bridling methods in an effort to analyze the data from other participants from a clear perspective.

Presentation of Negative or Discrepant Information.

As this is a critical participatory action study, different perspectives of participants' experiences must be acknowledged. Evidence that supports as well as contradicts the general

perspective of a theme was discussed among participants in an effort to make the research more authentic and collaborative.

Study Limitations

1. Limited provincially. The research study was conducted within Alberta as I could not feasibly travel throughout Canada to conduct the study.

Study Delimitations

1. Exclusion of Indigenous educators. I chose not to include participation of Indigenous K-12 teachers as this study focused on the challenges faced by settler teachers in bridging Indigenous ways of knowing and doing in the classroom. I did not make the assumption that all Indigenous K-12 teachers were well versed in Indigenous teachings, but felt it would be inherently colonial to try to teach my understandings of Indigenous ways of knowing and doing to Indigenous colleagues.
2. Educators who were certified after 2019, or were working in solely face-to-face or solely online educational scenarios, were outside the scope of this study though they may benefit from some of the findings. After the publication of the TRC's Calls to Action, the education sector implemented changes within tertiary education fields to address the lack of knowledge provided to pre-certified educators. In 2019, teacher qualification services implemented a fifth teacher competency designed to address the need for integration of Indigenous teaching within an educator's pedagogy. No additional tertiary training was offered for teachers who had gained their certification before 2019. Therefore, this study was designed to explore the challenges experienced by educators certified before 2019 with incorporating Indigenous ways of knowing and doing in a blended K-12 classroom.

Chapter Summary

Following a critical participatory action research plan, my study focused on identifying the perceived barriers and challenges that K-12 non-Indigenous teachers in blended learning environments face when implementing Indigenous ways of knowing and doing in their pedagogical practice. Through discussion and reflection, research participants began the process of introducing initial implementation strategies based on their emerging understandings of Indigenous ways of knowing and doing within their teaching pedagogy, and engaged in introspective activities to increase their acknowledgement of power, privilege, bias, and unacknowledged racism in their pedagogical approaches. A small sample size of five non-Indigenous educators was taken from the province of Alberta with myself, as the researcher, also taking an active role in the process. Grounded in a critical theoretical framework, I analyzed the data collected through manual thematic coding to address the main question of how collaborative professional development could promote self-reflexivity when bridging Indigenous ways of knowing and doing in K-12 blended teaching pedagogy.

Chapter 4. Study Processes, Challenges, and Data Collection

Introduction

In this chapter, I aim to provide a detailed description of the processes used within each unique stage of the study. Beginning with ethics approval, I describe the activities I engaged with in each phase, time frame adjustments, as well as any challenges that were encountered. Additionally, I describe my data collection techniques along with my approach to data analysis. The emergent themes of this study will be explored in chapter 5.

Stages of the Study

I undertook this study as a way to discover if my own lived experiences of bridging Indigenous knowledge systems in my classroom were similar to that of other non-Indigenous educators within Alberta. I wanted to understand whether the challenges and barriers that I experienced during my fifteen years as an educator were also experienced by other teachers in blended K-12 education. While developing the research question, I believed in the importance of implementing Indigenous perspectives in classroom pedagogy but felt isolated from my professional colleagues in my desire to do so. My personal introspective journey led me to question whether collaboration with other educators would provide a pathway to a deeper awareness of my own power, privilege, bias and unacknowledged racism bias within my pedagogy, and whether collaborative professional development would promote deeper self-reflexivity when addressing the bridging of Indigenous ways of knowing and doing in the classroom among other non-Indigenous educators also. The research question emerged from this reflection and the study was developed as a result. After defining the focus of this study, I knew I wanted to explore my own experiences as well as those of other teachers within the education system. Searching for the appropriate research methodology took time, but I found a connection

with participatory action research, as it allowed me to engage with my research participants as both a colleague and a researcher. This unique opportunity gave me the advantage of having both an insider perspective, as well as that of the researcher. There is research supporting the notion that communicative action happens when people pause what they are doing to question whether their methods or attitudes are legitimate or appropriate within their lived circumstances (Kemmis & McTaggart, 2005). This study developed when non-Indigenous educators began to pause and consider whether their pedagogical considerations were the result of their own power, privilege, bias, and unacknowledged racism, or whether they were a result of the western Eurocentric structures that are prevalent in Alberta education or both of these, and perhaps other considerations as well.

Process Timelines

The stages of this study were guided by the timeline shown in Figure 7 in chapter 3. The following table shows a readjusted timeline of activities as they occurred within the study. Adjustments in time due to recruitment challenges, participant feedback, and input from Alo resulted in small adjustments, and I acknowledge these to be the result of collaborative action studies.

Table 1

Adjusted timeline of study activities

Process	Activity	January 2024	February 2024	March 2024	April 2024	May 2024	June 2024	July 2024	August 2024
REB Application for approval	Application for initial approval	✓							
REB Minor Revisions Requested	Minor clarifications requested	✓	✓						
REB Approval			✓						
Development of Recruitment techniques	Email Recruitment Poster			✓					
Recruitment	Google Forms Acknowledgement of interest			✓					
Introductory information sessions	Introduction to Study Informed Consent			✓					
Introductory Individual Interviews	Zoom Meeting Classroom Meeting			✓					
Focus Group 1	All participants meet on Zoom				✓				
Focus Group 2	All participants meet on Zoom					✓			
Focus Group 3	All participants meet on Zoom					✓			
Final Individual Interview	Zoom Meeting Classroom Meeting						✓	✓	
Participant Reflection	Study Reflection time for all participants to finalize journals							✓	
Data Collection	Collection of Participant Journals Transcription of Interviews and Focus Group Sessions							✓	
Completion of Data Collection	Participant Validation of Transcription (email)								✓

Ethics Approval

After my candidacy was approved in early January 2024, I applied for research ethics approval through Athabasca University's research ethics review board on January 16, 2024. Minor clarifications regarding the informed consent documents were requested and resubmitted in late February. Final ethical approval was granted February 28, 2024. Once my approval was granted, I was excited that I could finally begin recruiting participants.

Reconnaissance

As noted in the previous chapter, I aimed to recruit non-Indigenous participants who were open-minded about exploring their personal bias and unacknowledged racism when bridging Indigenous knowledge systems in teacher pedagogy. My first step in recruiting participants began by contacting my administration for permission to send out a recruitment flyer to my personal contacts within the Calgary Board of Education. As my administration was unsure of the protocol surrounding this request, they forwarded my information to the Research and Strategy division. I was promptly informed that I could not recruit participants until I had applied for permission to conduct a research study within this board of education. In March 2024, the Department of Research and Strategy informed me that a research application could take up to three months to process and would require the acceptance of certain conditions. Research within the Calgary Board of Education could not take place in either the first or last month of the school year, and could not be conducted through the months of July and August. As I had planned my research study to begin in March, I became hesitant to involve members of the Calgary Board of Education as this would have meant a seven-month delay in the starting of my study even if the research application had not needed revisions. I was also informed that if granted permission to conduct research, any and all recruitment posters must then be sent for approval by individual school administrators who would then determine if they felt this opportunity was appropriate to send out to their school staff. I couldn't help but feel disappointment at the systemic limitations imposed by this school board and therefore decided to forego recruiting any members of the Calgary Board of Education for this research study.

Using my own personal teacher contacts, I sent out the recruitment poster to teachers throughout Alberta using their personal email addresses and contact information that was freely

given to me. I succeeded in this endeavor by five teachers choosing to freely participate within the study. These five teachers expressed their interest by completing a three-question Google form document which indicated whether they identified as blended K-12 educators, were certified to teach in Alberta before 2019, and identified as non-Indigenous. This Google form can be found in Appendix D. All five participants were accepted into the study. This stage continued with introductory conversations that were held in-person or via a scheduled Zoom meeting. During these introductory conversations, descriptions of the study were offered, questions were clarified, and informed consent was discussed and signed. After all informed consent documents and confidentiality agreements were submitted, participants were identified to each other, with their consent, to begin building a collaborative relationship. Through one-on-one conversations with me, I discovered that the participants lived within a five-hour drive of each other. Two of the five participants were currently teaching in schools located in central Alberta, and the other four, myself included, were located in schools in southern Alberta. In order to protect the anonymity of the individuals who chose to participate within the study, I will not identify which school divisions they were employed with at the time of the study. All research participants were certified before 2019, were not Indigenous, and identified as blended classroom educators. As I had initially planned to conduct interviews and focus group sessions in-person, we all discussed this possibility and decided that it was more economical for everyone to meet within a videoconferencing setting at a mutually agreeable time. This amendment was made upon agreement of all research participants, and formed the basis for our collaborative meetings for the duration of the study.

During the reconnaissance stage, Alo, an Indigenous education colleague who agreed to collaborate with me during this study, informed me that they did not want their identity revealed

to anyone, including the participants. As they worked with a variety of school divisions, they felt it was in their best interests to avoid any notoriety that may result from their participation, as well as protect themselves from any backlash they may receive from their other colleagues. In order to protect their identity, and their work within the study, I informed the research participants that Alo would be contributing to our study through me, and that I would pass along any information that they felt would benefit the research participants. To accommodate the request of anonymity, I approached the research participants with the request to record their interviews and focus group sessions, which I would then pass along to Alo for their personal viewing. Each participant agreed verbally, and expressed appreciation for the opportunity to collaborate within the study. The reconnaissance stage continued with the individual interviews which were scheduled through Zoom at a mutually agreeable time. These initial interviews were recorded and saved to my private computer. Once concluded, I forwarded a copy of the saved Zoom meeting to Alo so that they could view the interview and record any barriers that were identified by the participants.

Initial interviews took place between March 17th and March 26th, 2024. After our initial interviews were concluded, two of the five participants expressed their desire to leave the study, and to have any information they had provided removed from any data collection procedures. I therefore only forwarded the recordings of the individual interviews of the three remaining participants to Alo. Three days later I received an email from Alo with a list of the barriers they had identified from viewing the initial interviews. As the participants and I were eager to begin working on this study, our first focus group was scheduled for April 11th, 2024.

First Focus Group.

The first focus group began with all participants, including myself, offering a brief introduction about themselves, their teaching contexts, and their personal reasons for joining the study. Once everyone had introduced themselves, I began by highlighting the identified barriers that presented themselves from the participants' individual interviews. Participants were given the opportunity to discuss the perceived barriers from their own experiences, and created connections through the sharing of similar personal stories. Participants were eager to explore the methods and resources they had used in their classrooms, and share recollections of what worked well and what needed improvement. The participants within the study showed their commitment to this learning journey by coming prepared with lesson plans that they intended to address in their classes in the coming days. Collaborative discussions ensued where participants shared their ideas, and offered suggestions regarding opportunities for implementation. Participants were eager to create a collaborative working environment, and exchanged personal phone numbers and email addresses with the intention of creating a group chat. The focus group concluded after the exchange of numbers, and the mutual agreement to discuss their upcoming lesson plans over the next few days. The reconnaissance stage of this study lasted approximately five weeks from initial recruitment to the conclusion of the first focus group session.

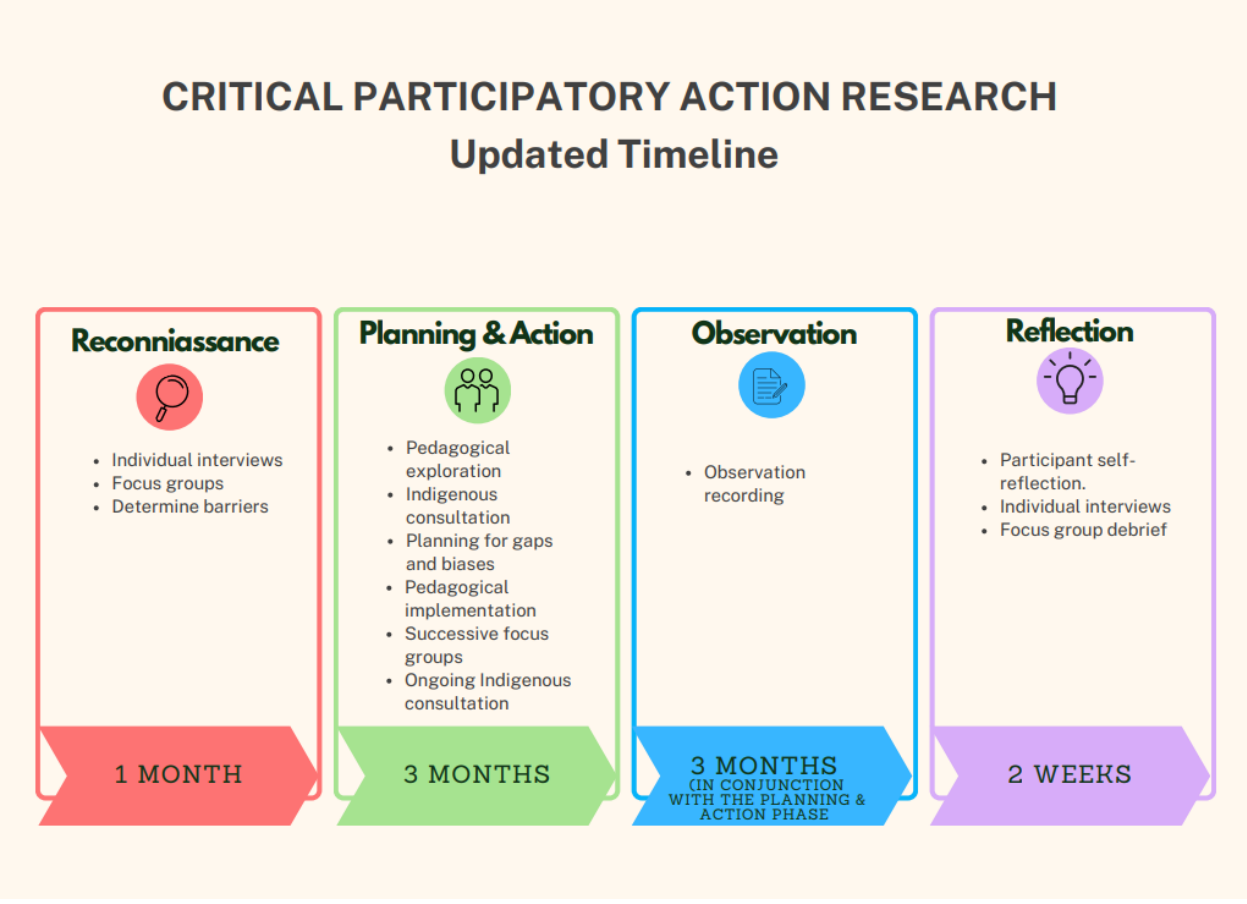
Planning

The planning stage began on April 11th, after the first focus group had concluded. The recording from the first focus group was forwarded to Alo, along with a copy of each participant's proposed lesson plans for the following week. The study was initially designed to have a period of 2-3 weeks to plan and discuss instructional considerations with the research participants. It was quickly identified that to limit the planning phase to this short time period

would be detrimental to the participants as they desired the ongoing support of both Alo and myself with regards to their exploration of their pedagogical considerations, as well as consultation for appropriate resources and methods to utilize in the classroom. An amendment was proposed to combine the planning and action phases of this study as a way to offer greater support during their introspective journeys. The amendment was agreed to by all participants, and the planning stage occurred in conjunction with the action stage of this study, as illustrated in Figure 8 below.

Figure 8

Updated Research Timeline



Note. Critical Participatory Action Research Updated Timeline. Own work. Created using Canva design software

Action

The action stage of this study began on April 15th, 2024. As the participants had discussed their weekly plans in the days following the first focus group, they had the opportunity to begin the action phase with initial ideas of how to begin implementing Indigenous ways of knowing and doing on a daily basis. Participants agreed to document their journey within their reflective journals, and I provided a list of reflective prompts to encourage deep self-introspection. Our second focus group was scheduled for May 7th, 2024 through Zoom, which was approximately four weeks after the start of the action phase.

Second Focus Group.

The second focus group began by highlighting the successes that were experienced within the first four weeks of the study. Each participant was able to share stories highlighting their experiences with students, fellow teachers, and administration. All participants highlighted an increased willingness to take risks when implementing Indigenous ways of knowing and doing in their classroom instruction, and reported an increased level of confidence in their own abilities. Participants continued by sharing the challenges they had encountered over the last few weeks, and were open to hearing suggestions or advice from the group. Discussion developed through the sharing of similar lived experiences, with both participants and myself offering encouragement and suggestions on how to alleviate any challenges that were identified. Participants identified areas where they were struggling to find methods or resources, and asked me to forward those requests to Alo for support. Within this second focus group, I encouraged the participants to record both successes and challenges in their reflective journals, and explore not only their pedagogical considerations, but also their own personal beliefs and views around Indigenous ways of knowing and doing. The focus group concluded with scheduling

considerations for our third focus group session. Once the focus group recording had been finalized, I sent it to Alo. During this time, Alo contacted me through email to explain that other commitments were taking a considerable amount of time to address and that they may be delayed in responding to the questions or concerns expressed by the participants. I responded to Alo the same day, assuring them that we all understood and would look forward to receiving an email with suggestions when time allowed. A response was received two weeks later which I forwarded to the research participants.

Third Focus Group.

Our third focus group was scheduled approximately four weeks after our second, on May 31st, 2024. This focus group centered around exploring personal revelations about each participant, specifically with regards to Indigenous ways of knowing and doing. We began by recounting discoveries we had made about ourselves as educators over the last two months, and how our own introspective practices had led to these discoveries. Participants collaboratively explored thoughts around unacknowledged bias and racism, and how both their past and present experiences have shaped their viewpoints of Indigenous ways of knowing, doing, learning, and teaching. During this final focus group session, participants set personal goals for the remaining four weeks of the study, and discussed maintaining contact after the study concluded.

The action stage of the study concluded on June 30th, 2024 providing the research participants with approximately 11 weeks to implement Indigenous ways of knowing, doing, teaching, and learning into their classroom pedagogy. Their personal reflections on their journey through this study were recorded in their introspective journals.

Observation

As detailed in the methodology chapter, the observation stage of this study occurred simultaneously with the action stage. It was my intention for Alo and I to observe each participant during their teaching time, however due to school regulations regarding FOIP and student privacy, we were unable to personally observe the participants in their classroom settings. As this proved to be a barrier to our observations, we mutually decided to utilize observation within the focus group sessions. As I was engaged in the study as both a participant and a researcher, I felt it was more advantageous for me to conduct my observations from the Zoom recordings rather than try to do it simultaneously when participating in the discussions. Once the recordings were finalized, I waited three days before I would view the recording in an effort to bridle my previous impressions of the information that was presented. This worked well for me as my daily workflow in both my personal and professional spheres was enough to distance my mind from remembering everything that occurred during the focus group sessions. When conducting my observations, I focused on taking notes on the participants' pedagogical choices, any thoughts or feelings that were expressed in relation to student response, perceived challenges, or personal breakthroughs, as well as observations on unacknowledged instances of power, privilege, bias, or racism that occurred. My observations were recorded in my personal notebook and concluded after the final focus group. During this stage, Alo felt hesitant to make observations about the research participants from the recordings, and chose to not record observations from the focus group recordings. During the second week of June, Alo informed me that they would be unable to participate any further in the study as their current professional obligations would be taking a significant amount of time. They forwarded me all their notes and observations and thanked me for the opportunity to collaborate on this study. As the demands on

their expertise in this field were significant, I did not want to pressure Alo to remain in this study. I also thanked them for their time and bravery in participating as many of the focus group discussions disclosed professional instances of anti-Indigenous racism and pushback. I acknowledge that Alo took a personal risk to their well-being by participating and appreciate their dedication to helping non-Indigenous teachers continue on their reconciliatory journey's.

Reflection

A period of two weeks was provided to the participants at the conclusion of the action stage in an effort for them to analyze, synthesize, interpret, explain, and draw conclusions about their lived experiences within this study. Participants were encouraged to explore both their successes and challenges, as well as how Indigenous ways of knowing, doing, teaching, and learning had changed their teaching pedagogy. During this stage, I invited participants to a final one-on-one interview with me to collaboratively explore our experiences regarding our efforts in bridging Indigenous knowledge systems in our own pedagogy, and how we confronted and/or acknowledged any bias or racism that had resulted from our participation within the study. I provided participants with a list of interview questions before the final interview, and encouraged them to reflect on the changes they believe occurred throughout the study. Final interviews took place between June 30th and July 7th, 2024. All introspective journals were submitted by July 1st, 2024.

Data Collection

Data collection instruments within this study involved semi-structured interviews, focus group discussions, and introspective participant journals. Each data collection instrument was utilized to gain a fulsome picture of the experiences of educators, and to provide opportunities for thoughts and opinions to emerge. Within this study a total of eight individual interviews were

conducted with data being collected from six. Data from three focus group sessions was recorded, and participants each submitted approximately eleven weeks of reflections in their introspective journals.

Interviews

Semi-structured one-on-one interviews were used to gauge the experiences of the research participants when bridging Indigenous knowledge systems into their teaching pedagogy. I utilized standard open-ended questions which were sent to the research participants before our initial interview in an effort to provide an opportunity for thoughts and opinions to emerge naturally. As previously explored in this chapter, participant locations in Alberta ranged within a five-hour drive for me. Upon consultation with the research participants, four of the initial individual interviews were conducted through the video-conferencing platform Zoom, and recorded directly to an external hard drive attached to my personal computer. One participant chose to conduct our initial interview in-person, while I also recorded the interview on my personal laptop. Initial interviews were used to explore the participants' understanding of Indigenous ways of knowing and doing, and explore their lived experiences when attempting to implement Indigenous knowledge systems in their teaching pedagogy. Within the initial interview I gauged how receptive the participants would be to exploring their own power, privilege, bias, and racism through self-introspection, as well as their willingness to explore Indigenous knowledge systems through collaborative professional development.

Three final interviews were conducted with two participants choosing to utilize Zoom video conferencing technology, and one choosing an in-person interview which was recorded. These final interviews were used to determine if participants identified any changes in their educative practices, and to explore to what extent their personal introspection had led to the

identification or confrontation of their own personal bias surrounding Indigenous ways of knowing and doing.

Initial Interviews.

I began the individual interviews by reminding participants of the informed consent and confidentiality agreements of this study, and re-emphasized that their participation was completely voluntary. I began with some casual conversation about life and family in an effort to put us both at ease. Once I felt we were both relaxed enough to continue, we moved into general questions about Indigenous ways of knowing and doing, and how they differed from a western understanding of learning and teaching. The first half of the questions centered on personal experiences and professional opportunities to engage with Indigenous ways of knowing and doing in the classroom, and then we moved into questions regarding personal introspection and the value of collaborative professional development. Each initial participant interview ranged in time, with interviews lasting anywhere from 35 minutes to 75 minutes. At the conclusion of the interviews, I stopped the recording and made sure that it was downloaded to my external hard drive to ensure that the data would not be uploaded into the cloud. Once the recording had been saved, I discussed with the participants the next steps in the study, and offered them the opportunity to ask any questions they had. Participants were informed that all recordings would be transcribed after the completion of the study and would be sent to them for verification in July. Each participant responded, and verified their individual transcripts when they received them.

Final Interviews.

Final interviews were scheduled after the completion of the action stage of the study. During the reflection stage, participants were given the opportunity to engage in a final interview

to discuss their participation within the study. Discussion prompts were sent out in advance, and times for each individual final interview were arranged. One participant decided to participate in their interview through Zoom video-conferencing software. Another participant chose to have an in-person meeting, while also agreeing that our interview be recorded. The final participant had arranged to conduct our interview through Zoom, however cancelled at the last minute due to an emergent family situation. This participant was unsure of when they would be available to complete this final interview and asked instead if they could write responses to the interview prompts and I agreed. These responses were emailed to me on July 5th, 2024. As this response was written in the participant's own words, it was unnecessary to resend the information for respondent verification. The final interviews began with questions focused on participants identifying common misconceptions, bias, and stereotypes that they have encountered when implementing Indigenous ways of knowing, doing, teaching, and learning in their classrooms. The questions continued by branching into an exploration of a deeper awareness and acknowledgement of bias in teacher pedagogy, as well as an acknowledgment or awareness of their own personal growth in this area. These two final interviews lasted for approximately 35 minutes each. These interviews were transcribed and sent to each individual participant for verification. All transcripts were verified by respondents by July 15th, 2024.

Focus Groups

Within the course of four months, three focus group sessions were held at different stages of the research study. The purpose of these focus groups was to provide a collaborative opportunity for the participants to share their lived experiences while also engaging in dialogue aimed at creating opportunities for professional development.

First Focus Group.

Our first focus group was scheduled for April 11th, 2024 at 7:00pm so that all research participants were available to attend. Our first focus group began with short introductions that gave the research participants a few moments to share their teaching contexts, and allowed everyone an opportunity to begin building professional connections. Once initial conversations had concluded I began by relaying the barriers that were identified by the participants during their initial interviews. The participants and I discussed these barriers, with each person being given the opportunity to describe a lived experience that coincided with each barrier. The conversation evolved into a discussion of different teaching methods that had been used to implement Indigenous ways of knowing and doing in our classroom lessons, and whether these experiences had been successful or not. We reviewed the expectations of the personal reflections, clarifying that participants had the choice of modality when writing their reflections. One participant chose to handwrite their reflection in a paper journal, while the other two chose to record their reflection in a digital format. All participants agreed to exchange personal contact information, and gave consent for other participants to contact them for discussion or suggestions during the action stage of the study. The first focus group concluded after approximately 45 minutes.

Second Focus Group.

The second focus group was scheduled approximately four weeks after the first on May 7th, 2024 at 7:00pm. We began by discussing the successes and challenges we had experienced over the previous four weeks when bridging Indigenous ways of knowing and doing into our blended pedagogy. After discussing challenges, participants were eager to offer feedback or advice that they believed would help alleviate some of the challenges that were expressed by

members of the study. I then shifted the discussion, asking participants how their self-introspection may have caused their understandings of Indigenous ways of knowing and doing to shift over the last four weeks. Participants responded with personal stories, and reflections on how they had begun to see changes in their pedagogical practices. A discussion of support followed where participants directed me to ask Alo which methods or resources would be beneficial to use in certain teaching scenarios. I assured the participants that I would pass along their requests, and would forward any information I received in due course. The duration of our second focus group was approximately an hour, and concluded with the scheduling of our third and final focus group.

Third Focus Group.

May 31st, 2024 marked our third and final focus group session within the study. Participants began the focus group with casual conversations about their families and the weather. I informed the participants that this session would cover the topics of personal revelations or discoveries, and then move into more reflective questions that focused on uncovering and acknowledging power, privilege, bias, and unacknowledged racism in their teaching pedagogy. Once these topics had been discussed, we moved into the participants' feelings about the study, and whether collaborating with other professionals was advantageous or detrimental in their introspective reflections. Conversations around participant mental wellness stemmed from the previous conversations and the focus group participants iterated that they had experienced mental health benefits from their participation in the study. This aspect will be discussed in further detail later in the Findings chapter and ensuing discussion. The conversation began to wrap up with participants expressing thanks to each other for their support in this

journey and concluded with a commitment to remain in contact in the future. The final focus group lasted approximately 50 minutes.

Reflective Journals

Participant reflective journals proved to be the least consistent method of data collection within the study. At the onset of the study, participants were given the option of modality with which to complete the reflective journal entries throughout the study. Two participants chose to record their reflections in a digital format using a Microsoft word document, and one participant chose to record their reflections in a handwritten journal. Journal entries consisted mostly of short passages or bullet points that recorded the participants thoughts or observations during their participation in the study. All journal entries were submitted by July 1st, 2024.

Approach to Data Analysis

My approach to data analysis started with the transcription of all raw data. As I claimed the dual role of participant and researcher, I chose to wait to transcribe the data until the end of the action stage of the study. I felt that if I transcribed the data after each interview or focus group session, it would affect my own introspective process. I wondered if by not seeing the results I had expected from the participants if that would change the way I proceeded in the study. Therefore, I decided to distance myself from the data until the study had ended so that I could focus on my own introspective journey. Once the study had concluded, I began transcribing the data using Otter.AI. As mentioned, each interview and focus group session was recorded and saved on my computer. I decided to use Otter.AI as a first step to transcribing the raw data from the recordings as it produced transcripts in a matter of minutes. Once the transcripts had been saved, I chose to watch the recordings and follow along with the transcripts to correct any errors that had occurred while using the automated transcription feature of this

program. On average, the transcription using Otter.AI resulted in 10 errors within each transcript. These errors were mostly word distinction and simply needed to be corrected within the transcripts. One example of this word distinction error could be found in the individual interview with participant 1. Participant 1 stated that “we’re gonna rock it”, while Otter.AI transcribed this phrase as “we’re gonna rocket”. Simple corrections in the transcription process were handled as I rewatched each recording, and paused to make adjustments where needed. Once the transcripts had been adjusted, I sent a copy of each transcript to the participants for member verification. Each participant responded within two days confirming the accuracy of the transcripts.

Once the transcripts had been verified by the members of the study, I chose to employ manual thematic coding to begin analyzing the raw data. My initial step began by reading through the transcripts in their entirety so that I might get an overall sense of the data that was presented. Once I had completed this step, I focused first on reading the initial interviews and recording notes or thoughts in the margins of these transcripts. My initial thoughts highlighted feelings, ideas, processes, or actions that I noticed were significant in the data. While reading through the data, I wanted to consider the progression of participants’ thoughts during the course of the study. I chose to begin by analyzing the individual interviews first, then moved to the focus group sessions, the final interviews, and ended with the participant journals. Once my initial notes had been recorded, data analysis moved into the coding stage.

Following a process outlined by Naeem et al. (2023), my coding process began by identifying specific passages within the text and assigning a label to these passages. These initial labels were recorded in my research notebook, an example of which can be seen in Appendix E. Once labels had been identified in each transcript, I reviewed them to determine if any were similar to each other. Once the similarities had been identified, codes were assigned and labels

were linked to each code. The next step in data analysis started by highlighting passages and assigning codes to these passages. Nine codes were identified from the raw data and formed the study codebook. I spent approximately two weeks coding the data before assigning themes. Utilizing the tree diagrams that I had created, an example of which can be seen in Appendix F, I began to group the codes and assign an overall theme to each group. This resulted in three themes being assigned to the raw data. Data analysis took approximately four weeks to complete, and I began to document my findings in the middle of August.

Conclusion

The processes of this study occurred within five distinct phases; Reconnaissance, planning, action, observation, and reflection. Participants were engaged within each stage, and challenges were addressed by adjusting timeframes and participant expectations. Through a process of manual thematic coding, data was transcribed and analyzed, resulting in twenty-two labels, nine codes, and three themes across all data. Findings from this analysis are presented in the following chapter.

Chapter 5. Emergent Themes

Introduction

Within this chapter, I aim to present a thematic overview of the data collected from the reflective journals, individual interviews, and the focus group sessions conducted throughout the study. I will begin by offering a brief overview of the coding process, followed by a discussion of the three major themes that emerged from this qualitative exploratory study. As previously stated in chapter 4, I chose to employ manual thematic coding in an effort to understand and analyze the data as closely as possible. This chapter aims to provide data analysis findings that will aid in responding to the research questions presented in this critical participatory action research study.

Emergent Themes

The process of manual thematic coding began by utilizing an inductive approach on the raw data. According to Strauss and Corbin (1998), an inductive approach is taken when the researcher allows the theory to emerge from the material without seeking an answer to a specific research question. As detailed in chapter 4, I began the first stage of data analysis by familiarizing myself with the data through a process of transcription. Initially, I utilized Otter.AI to transcribe my recorded interviews into a text format. Once that was completed, I rewatched the recordings while simultaneously reading through the transcripts to correct any errors that may have occurred through the automated transcription process. Once the transcripts were accurate, each transcript was read to gain an overall impression of the data. On my second read-through, I began to record initial notes in the margins which helped to identify ideas that were presenting themselves in the data. The second stage of data analysis began by coding sections of

the text with shorthand labels to identify ideas or feelings that were being expressed by the research participants, an example of which can be seen in Appendix E. Initial coding resulted in 22 labels being attached to the text to describe participant experiences throughout the study. These labels were then categorized as subcodes and grouped with similar ideas as they emerged from the data. Once the subcodes had been grouped according to their association with other subcodes, an overarching code was assigned that would support the main idea in each grouping. For example, three subcodes that were identified within the transcripts were Fear of Appropriation, Fear of Reprisal, and Fear of Confrontation. These subcodes were thus grouped together and the main code of Fear was attached to these passages. After careful study of the raw data, I applied nine distinct codes to the text passages. I continued data analysis by looking for patterns within the codes based on an overarching theme. Once I had identified the themes, I returned to a clean copy of the raw data to determine whether these overarching ideas were present. After a detailed analysis of the data, I concluded that three themes were present:

1. Barriers
2. Acknowledgement of Bias and Racism
3. Collaborative Professional Development

Table 2 offers an infographic representation of the emergent themes as well as the code frequency within the raw data.

Table 2

Code Frequency

Theme	Code	# of Occurrences					
		Initial Interview	Focus Group 1	Focus Group 2	Focus Group 3	Final Interview	Participant Journals
Barriers	Fear	34	12	5	1	5	4
	Deficits	27	15	0	1	2	0
	Distancing	23	7	0	2	10	3
Acknowledgement of	Past Exposure	5	2	0	0	20	0
Bias and Racism	Present Exposure	20	5	6	12	25	14
	Colonized Structure of Education	15	4	8	6	6	4
Collaborative	Connection	13	2	3	14	2	4
Professional	Growth	30	15	18	29	17	18
Development	Mental Health	11	3	10	17	5	5

Barriers

When examining the lived experiences of non-Indigenous K-12 educators in their attempts to bridge Indigenous knowledges within their blended teaching pedagogy, certain barriers presented themselves. Fear, Deficits, and Distancing were identified as reasons why participants were unsuccessful in bridging Indigenous ways of knowing and doing within their classrooms.

Fear.

Participants within this study identified situations in which fear played a significant role in limiting their willingness to bridge Indigenous knowledges within their pedagogy. All participants expressed a fear of appropriation when asked why they were hesitant to employ

these knowledge systems in their daily lessons. Jordan, one of the participants, stated that "we're not confident that what we are doing isn't going to be taken out of context or isn't going to be addressed by different groups." This thought was further supported when Casey stated that

> there's a liability aspect that we're all worried about. That fear of appropriation. Fundamentally, it comes down to like, we care, we do care, we don't want to upset…but like, you know, there is that consideration, certainly, and so I think that's a barrier.

During one initial interview, the fear of appropriation was expressed when Robin questioned whether teachers were being respectful to the knowledge. Their apprehensiveness was apparent when they said "I was afraid, like literal fear, of doing a disservice. Not authentically portraying what I thought was important. So there really is that very deep fear of appropriation towards using these knowledges." Fear continues to play a significant role in the hesitancy of currently practicing educators when attempting to bridge Indigenous knowledge systems in their classroom pedagogy. Fear of confrontation from both parents and students severely limits an educator's willingness to implement Indigenous knowledges into their pedagogical considerations. This was clearly exemplified in one of our individual interviews when Robin described an experience with high school students when attempting to bridge Indigenous ways of learning and doing. Robin's students responded with "heavy sighs, or roll[ing] their eyes" and one student spoke out saying "it's just one more thing we're talking about that I'm not going to be tested on." A similar experience of student confrontation was identified by Jordan when they recalled an incident where a student spoke out claiming that what they were teaching was wrong and that they could not know anything about Indigenous peoples because they were not Indigenous.

Participants identified that confrontations came not only from students, but many parents expressed their strong opinions and aversion to Indigenous knowledges within the classroom. During our first focus group session, Casey stated that many teachers in their school have attempted to embrace Indigenous knowledges but have experienced significant pushback from parents. Instances of angry emails, and personal confrontations with educators have caused many teachers to abandon their efforts in bridging Indigenous knowledge systems in their pedagogy. During our focus group conversations, Casey recounted an incident involving parents who stated "this is not the way things are done and I don't want my child involved in these types of activities." Jordan quickly supported this claim stating that they had also "encountered resistance from parents who perceive these changes as religious indoctrination." These forms of confrontation severely limit an educator's willingness to engage in pedagogical changes and Jordan continued the argument by stating that "it also now creates this fear for incorporating other things, and am I going to do an activity and then have an angry email later."

Not only do teachers have to contend with confrontations from students and parents, but the fear of reprisal from administration was also clearly identified within the data. During our initial interview, Jordan recounted an experience where a large group of teachers sought guidance from the school's Indigenous liaison about incorporating the act of smudging into their opening activities for the new semester. The goal of this activity was to show students how different cultures give thanks for new opportunities to learn and grow, however significant pushback from parents led to this group of teachers being reprimanded by their administration. Jordan's comfort in implementing Indigenous knowledges within teaching was severely diminished due to this incident. This was expressed when Jordan stated, "Now that there's been this experience of backlash because of this, for me, it means that I don't want to put myself out

there to then get in trouble for it." Both Jordan and Casey expressed hesitation in bridging these knowledges in their classrooms due to the fear of reprisal from administration. Casey clearly exemplified this stance when they stated "I could do a lot more than I do now. It's just like, I basically don't want to get fired." Fear plays a significant role in many educators' unwillingness or hesitancy to consider Indigenous knowledges in their teaching pedagogy. Fear of appropriation, confrontation, and reprisal were identified over sixty times by the participants. K-12 educators within Alberta not only have to contend with their own fears of integrating Indigenous ways of knowing and doing, but deficits in training, support, and conflicting educational priorities were also identified as a significant barrier for teachers.

Deficits.

Throughout the study, all participants expressed thoughts and impressions that bridging Indigenous knowledges was not seen as a priority within their school environments. Surface level activities were implemented as a way to fulfill the legal obligations, but meaningful and authentic professional development for Indigenous knowledges was rarely seen. This was identified when Jordan stated, "we have had professional development in schools, but my experience with the professional development in this area is that it's very surface level. What are some basic things that we can do? Okay, how do we check that box." Casey echoed these thoughts when stating that the only time they engage with professional development on Indigenous education is "at times when it was required of me. Usually, it's like a voluntold thing. I think it just depends on where you are, right? And how much your admin or district prioritize that". In contrast, Robin stated that their administration does an excellent job of making Indigenous professional development a "rich learning experience," however Indigenous ways of

knowing and doing are not a priority in their school as "there isn't a huge presence of Indigenous peoples." The lack of priority was also apparent for Jordan:

> We say we're integrating it as much as possible, but no because it goes back to that liability thing right. I think the intention was to have a lot more walk the walk, but then you have to balance that with parents, and other priorities, but it sometimes feels like they're just doing it because again, checking that checkbox versus doing it to have an authentic learning experience.

Lack of meaningful professional development opportunities, led the participants to feel that they were alone in their journey of reconciliatory educational endeavors. Lack of support from an administrative standpoint was also identified within this theme. During our initial interview, Robin stated that the lack of support and guidance from administration hindered the ability to plan authentic activities for Truth and Reconciliation Day:

> I think the time when I was the least supported was when we started recognizing September 30th, Truth and Reconciliation Day. Our district implemented how we were to recognize it in a different way. So instead of having the day off, we were still going to be in school, and we were expected to implement FNMI instruction in our whole day but we only had two or three days to get it done, and we didn't know what other teachers were doing yet because we had no time. I was so frustrated because the administration wasn't giving us any information. We had no guidance and little to no support.

The lack of support was also identified by Jordan in our initial interview when they discussed a school-wide Indigenous education event that was being planned. Jordan's administration foisted

the answerability of the event onto the teachers instead of taking onus for their school-wide decisions.

> Administration sent out an email being like 'this is what we're going to be doing as a school. If you have any issues, email your kids teacher'. They sent out the emails, but they were under our names. Well, I haven't written that. I don't feel like the forms should be from me when I am not the one hosting this activity. And then coming into those emails [from parents]. That was difficult.

From my own experiences, the lack of support from administration was apparent when we were responsible for planning an agenda for our Indigenous education day in June. The direction we were given was to plan both indoor and outdoor activities, but when asked for some guidance my administration responded with "do whatever you want." As exemplified in Table 2, Deficits were identified 45 times throughout the study with the most significant number of occurrences being recorded in the early stages of the study. These deficits in professional development opportunities, the lack of support by school administrations, as well as the lack of priority within the schools led the participants to distance themselves from working with Indigenous knowledge systems. Distancing was identified as the third barrier for K-12 educators when bridging Indigenous ways of knowing and doing in their teaching pedagogy.

Distancing.

Distancing was identified to be a strong barrier for K-12 educators when considering how to bridge Indigenous knowledge systems in their classrooms. Both fear and the deficits of training and support lead many educators to rely on Elders or Knowledge Keepers as a way to

avoid placing themselves in a compromising position where what is said and done could potentially lead to confrontations and reprimands. Casey articulated this stance when stating

> It's feeling like you're going too far. It's like, I'm doing too much, I'm gonna get in trouble. Or like, I'm doing too much, I'm gonna offend someone. I'm not doing much, I'm racist. You know that's the extreme we work with but like we're worried about these things. So, I just let the Elders do it. I feel a lot more comfortable, especially on the appreciation side of things.

The reliance on Indigenous Knowledge Keepers and Elders was supported when Robin felt challenged integrating Indigenous ways of knowing and doing in their classroom. Robin recounted

> I really struggled to find authentic ways to teach and connect in that course so I said to [my Indigenous friend], 'you gotta come in and talk to my kids about science, and where the connections are there', and he educated 200 kids that I taught, but he did it no problem.

Utilizing the skills and knowledge within the Indigenous community is often encouraged at a school level, however teachers are hesitant to embrace these knowledges without the support and guidance of Elders and Knowledge Keepers. Participants within the study clearly acknowledged that the only time they really engage with Indigenous ways of knowing and doing is during specific times of the school year, such as National Indigenous Peoples Day (June 21st) and the National Day for Truth and Reconciliation, or otherwise termed Orange Shirt Day (September 30th). Casey clearly exemplified this stance when stating

> I'll sort of admit that more like September and June when it's, you know, Orange Shirt Day, or National Indigenous Peoples Day, that's when I make a point of showcasing at that time and really explicitly linking them to an Indigenous position. It's September, and we get Orange Shirt Day, you know and I've always felt comfortable doing that at least.

When attempting to bridge Indigenous perspectives within the school year, I myself have encountered pushback. When the Indigenous education committee at my school suggested we celebrate Remembrance Day, which this year fell on a Saturday, on Indigenous Veterans Day (November 8th) and honour all of our nation's veterans, my school administration said "No it needs to be the day before Remembrance Day. That's a completely different day. It's not the time for that." Limiting the appreciation of Indigenous ways of knowing and doing to certain times within the school year is a prevalent practice within the participants' schools. Jordan supported this by stating that they link Indigenous knowledges "especially at different points, like if it's Métis week, or like leading up to Orange Shirt Day, or like different days of the year." Participants' responses suggest that some schools within Alberta tend to focus on incorporating Indigenous content during specific times of the year, and tend to avoid Indigenous ways of knowing and doing on a daily basis. Robin chooses to avoid bridging these knowledges "because I don't want to offend anybody. And so, I think that's something that really stops me from going further sometimes, because I don't want someone to think that I'm ignorant and I should know better already." The tendency to avoid or distance oneself from Indigenous ways of knowing and doing was also articulated by Casey:

> in an age of social media where mis-steps by even the most well-meaning teachers can be instantly documented and widely circulated, I believe that many educators – including

> myself – have been hesitant to fully embrace this pedagogical shift into their instructional practices.

According to the participants, avoidance also tends to manifest itself with talks of inclusivity within their school environments. Rather than focusing specifically on Indigenous education, administration pushes activities that steer educators away from Indigenous ways of knowing and doing to focus on other areas. Jordan believes that these moves are

> the way that systemic racism shows up. We can learn about Chinese New Year but we can't learn about smudging without their being problems and so I was really caught off guard with that, especially because it wasn't just in my classroom but it was a whole school thing.

Robin supports this view when recounting that "we can celebrate Ramadan and Holi, but we can't celebrate the Solstice because it's not inclusive. There is such a contradiction." Avoidance and pressure to be inclusive often come from within a school environment. In journal reflections, Casey writes that

> resistance and/or pressure to change is most fierce from within. Not just within the mindsets of individual educators, but within entire schools, districts, and beyond. The ease at which we bend to external pressure and resistance to change can also be understood from this internal vantage point.

Distancing has proven to be a significant barrier when bridging Indigenous knowledge systems in teacher pedagogy. Methods of avoidance, including a reliance on Elder knowledge and limiting Indigenous content to specific times within the school year, has caused many educators to abandon their efforts at understanding and teaching Indigenous ways of knowing and doing.

Throughout the course of this study, distancing was identified as a significant barrier over forty times, with the majority of recorded data being collected during the initial interviews.

After a thorough examination of the raw data, participants showed that Fear, Deficits in training and support, and Distancing maneuvers were seen to be significant barriers to the bridging of Indigenous knowledge systems in their blended K-12 classrooms. These barriers were identified early in the study through the first individual interviews and our initial focus group session. As the study progressed, the occurrence of identified barriers was reduced significantly however this remains a prominent theme within the data.

Acknowledgement of Bias and Racism

The acknowledgement of bias and racism was the second significant theme that emerged from the raw data collected during this study. Bias and racism were identified from Past Experiences, Present Exposure, and through a deeper understanding of the Colonized Structure of Education within Alberta. As shown in Table 2, instances of this acknowledgment were identified close to 150 times throughout the study with participants' awareness of bias and racism increasing in both their personal and professional spheres.

Past Exposure.

Participants identified past experiences of bias and racism that played a role in how they viewed Indigenous knowledges and peoples within their lives. As this is a sensitive topic, I must preface this by saying that all of the study participants, myself included, have expressed how these views have shaped their understandings of Indigenous peoples within Canada. When asked individually, the participants were willing to share their experiences but wanted to emphasize that although these past experiences have played a role in their own personal bias, each was

committed to acknowledging their lens and moving forward in the spirit of truth and committed reconciliation. Robin asserted, "I've been really striving to work through how I can look through the lens of equity and equality. Of course I have an unconscious bias, but I take a step back and find reflection helps me become more aware of it." Casey also acknowledged that they make a conscious effort to be open to their own limitations, when they said "we all have blind spots, right? I try to just be open to blind spots." Jordan supports these views by stating "there's still a bias that makes you view things as more important and less important, but just being aware that that's happening…and then really analyzing it…that really helps me see it."

Participants within the study identified that racist stereotypes, sayings, symbols, and feelings were expressed about Indigenous peoples on many occasions in the past either through school incidents or family teachings. All participants acknowledged that these sayings could potentially have led to the formation of their conscious and unconscious bias against Indigenous peoples. As I reflected on my own past experiences, and explored these within my journal, one phrase that I remember an elementary teacher using was "stop running around like wild Indians." I acknowledge that I understood the phrase to mean that I was to settle myself down and act in a calm and quiet demeanor. However, what I acknowledge now as an adult was that this phrase placed a bias against how I viewed Indigenous individuals in my life during this time. The use of phrases to demean Indigenous individuals was also identified by Robin when they stated that a term they heard as a child was 'drunk Indian.' Robin goes on to state:

> So, growing up, I remember people talking about how those in an Indigenous culture were addicted to things, and like why would we give them money if all they're going to do is spend it on liquor? And, I just remember thinking that can't be right…but all I had was what people told me.

Jordan also identified that past exposure from conversations with their father tended to contribute to their view of Indigenous individuals in their youth. Jordan stated that their father would frequently say "oh well, if they want to go back to the way things were, give us all our technology back and you can go have your tipis again." Jordan acknowledged that "unfortunately, at that time, that was the norm." In hindsight, Casey also believes that many of the images they were exposed to as a child factored into the development of an unconscious bias of Indigenous peoples when they reflected that "many of the images of Indigenous peoples I was exposed to in my childhood were in hindsight inappropriate and in some cases downright racist." Robin supports this claim when referring to the images that were depicted in seemingly harmless child entertainment

> When I was little, different movies that I watched like Peter Pan or Mickey Mouse, because Disney was thought to be a safe thing to watch as a kid and so that's what we got to watch at home, just some of the imaging and how they depicted Indigenous individuals. That was terrible. How we degrade certain cultures and how they were viewed in society was incredibly awful. Now, I won't show my kids those shows.

Through exposure to racist and biased images, phrases, and feelings expressed in their childhood, all participants acknowledged that this played a role in how they viewed Indigenous peoples in their youth. With the increased acknowledgement and awareness of these biased opinions, the members of this study acknowledged and felt that present exposure to stereotypical and racist beliefs about Indigenous individuals is still an issue within education and society today.

Present Exposure.

The participants in this study affirm that much of their exposure to present-day bias and racism of Indigenous populations comes from either their school or community environments. Parent and student pushback, as was previously explored in this chapter, along with dismissal from educational colleagues has led these participants to become more aware of the racist and biased beliefs that surround them. This awareness was clearly exemplified when Casey recounted an incident where members of their administration expressed their racist and biased beliefs about Indigenous peoples.

> There was a day at the end of June where a group of Indigenous Knowledge Keepers came in and they brought all these teepee poles and we had this huge outdoor round dance with 600 people holding hands and going in and out and it was great. And then they kind of left their materials in our school gym and the next day we were supposed to have the grade six graduation or convocation, or whatever you want to call it, and the principal came in and said 'Oh, geez, there you go. What do you expect? There are all the teepee poles. Not a big surprise, I don't know what I was expecting. I knew they were going to disrupt and ruin our grade six celebration because they were too lazy to take them home'. So, to me that was kind of ironic because it was like one of our first big pushes to integrate Indigenous ways of knowing and doing, but it's interfering with our quite Eurocentric celebration. You know the feeling that came through loud and clear was that it was a great experience that we had yesterday, but now it's interfering with what's really important.

I also acknowledged these racist beliefs when I recently covered a class for a colleague. Within my own reflective journal, I wrote about an incident where I taught a lesson using Indigenous

ways of knowing and doing and the response from my fellow colleague was "why are you doing it this way? Can't you just teach it the way I told you to do it. They're not going to learn that, so now I just have to do it all over again." My reflection in my journal showed an increasing awareness of these biased and racist occurrences when I wrote "wow, how have I not heard this before? Or was it a case of not really listening." Jordan has also affirmed that a deeper awareness of biased feelings has also occurred when dealing with the parents of students. During a focus group session, Jordan spoke of having over half of their class excused from learning certain parts of the curriculum that focused on Indigenous issues when parents confronted Jordan and said "My kids aren't interested in this stuff," "I don't want my kids to learn about this. This is a religious practice and we don't believe this," and "They're embarrassed to learn about this." Jordan states that having so many parents vocalizing their racism around Indigenous knowledges causes many students to express similar views:

> They're still at that age where they put a lot of stock in what other people say. So, the kids that were pulled out of the activities are definitely the ones that have a lot more negative view. I would say that it's still quite insular for going along with what their families believe or what they've heard from other people, and they're too young to recognize the systemic racism that's within that, or to even realize that that's what is happening here.

The participants recorded an increased awareness of the biased and racist beliefs that were expressed within their professional spheres. Not only did they have to contend with the thoughts and opinions of their colleagues, but they developed a deeper awareness of the colonized structure of education that is currently being utilized by Alberta education systems.

Colonized Structure of Education.

During their participation within the study, each member described instances of an increased awareness of the biased program of studies being used within Alberta. Casey was very vocal about the Eurocentric beliefs that often dominate the music program of studies. During our last focus group, Casey said:

> We have a very Eurocentric understanding of what a lot of the fine arts, and especially music, should be. It's very much a Eurocentric curriculum, and it's sort of reinforcing all those Western musical ideals. That's my job, to teach it, but that's sort of where I struggle to reconcile, you know, those Indigenous and Western ways of knowing and doing. How am I perpetuating those biases?

An acknowledgement and awareness of bias within the curriculum was also exemplified by Robin when discussing teaching students how to recognize the symptoms of shock. Robin stated:

> So, with my human sciences curriculum, most of our imaging is very, like very Eurocentric, like Casey said, and some of the procedures also the same very Eurocentric. So, we're talking about shock. Are they cool and clammy? Are they pale? So, what does that look like in all cultures? The curriculum doesn't include many of our population, especially in the school that I've worked with, we have so many international students, and we have so many refugees and ESL students. How can you tell if someone is in shock if they're not necessarily the type that are going to look paler than, you know, they do on an average day?

Participants within the study recognized that the curriculum does align closely with a Eurocentric understanding of knowledge. Some curricular resources were also identified as having strong ties

to westernized ideals, and participants became more aware of this throughout their participation within the study. During an individual interview, Robin noted that some of the resources they used in the past promoted very Eurocentric ideals

> One of the videos I used…I didn't realize at first…they spoke in a way that's not okay anymore. They mentioned something, which was meant to be a joke, but it's not funny anymore. So, the identification of that was something that made me really think about the resources I'm using.

Casey also observed that the methods used to describe Canada in geographical terms were also promoting a very westernized understanding of land. During a music lesson in which they were highlighting Indigenous artists, Casey decided to create a visual representation of the artists' location in Canada. What they became aware of during this time was that using a map with borders was "inherently a western way of viewing land and geography." Throughout the study, I also developed a deeper awareness of colonized methods of teaching and learning. During one focus group session I recalled an incident where I acknowledged that my personal teaching methods tended to focus on the control and direction of my learners, rather than on the experiential development of their knowledge:

> I think one area where I have found myself confronting my own unconscious bias at the time, but conscious now, was when I was taking the opportunity to do some land-based education. I took my students outside because we were trying to identify different nature sounds. As soon as we got outside my students, they all kind of scattered, and they were all doing their own thing, and for me, I felt very disorganized, and you know, I automatically wanted to bring everybody back in so that they were in my sphere of control. And it was like I had this lightbulb moment. I think one thing that I

> acknowledged at that point was that this isn't wrong. There's nothing wrong with letting your students go and explore and experiment and build their knowledge on their own. I realized that I had been trained in a way that made me think that I needed to have control over my students, and that I needed to direct them in their learning, and that really caused me to confront the way I manage my teaching.

Jordan also identified that providing less structure in lessons and assignments also helped to encourage deeper creativity with students:

> One thing that I found really interesting was that having less structure for your students actually gave them more opportunity to be more creative and bring in those past experiences and thoughts that I hadn't considered to be a part of this.

Participants within the study identified that both the curriculum and their teaching methods often catered to the westernized understanding of knowledge and learning. As explored in this section, participants acknowledged that a stronger understanding of their own unconscious bias led them to a deeper awareness of past and present occurrences of racism in their personal and professional lives. Each participant expressed that the collaboration with other professionals helped them to develop a more perceptive understanding of themselves as educators. Through connections, growth opportunities, and mental health discussions, collaborative professional development was identified as the third and final theme present within the raw data.

Collaborative Professional Development

Collaborative professional development emerged as the final significant theme within the raw data. Table 2 shows Connections, Professional Growth, and Increased Mental Health were collaboratively identified and coded with 156 occurrences. Participants identified that the

collaborative nature of this study led to the development of deeper connections between fellow teachers and Indigenous colleagues, more frequent opportunities for professional and pedagogical growth, as well as the increased awareness of positive mental health effects through deep and meaningful collaboration.

Connections.

Within the study, participants identified that creating connections was a significant factor in their pedagogical growth when bridging Indigenous ways of knowing, doing, learning and teaching. Connections with fellow teachers, connections with Indigenous colleagues, and connections with the curriculum were identified to be factors in their growth. Casey asserted that "being part of a community of like-minded educators through this group study has given me more confidence to achieve my initiatives." Robin supported the value of teacher-to-teacher connections when stating:

> Even though it is hard to sometimes talk about or say what we've experienced and try to organize our thoughts, I can really appreciate being able to say something truthfully and having the support of others who are experiencing the same things.

Jordan voiced similar feelings when discussing how being able to talk to fellow teachers really helped them grow in their practice:

> Although I don't like to talk to people, I really do enjoy learning from other people. Not only to have that validation from others but it was really helpful to have the time to work with other teachers and hear what everybody was saying and their experiences to grow my practice.

I also spoke of the value of creating those teacher-to-teacher connections during this study:

> Having this group to bounce ideas and feelings off of, and to be supported was what I found really satisfying about this group. You know, everybody's in the same position and we're all trying something new, and we're all trying to grow and having the support of everyone here has been just amazing for me. These connections are so valuable.

All participants identified that building connections with fellow teachers helped them develop and grow in their efforts to bridge Indigenous knowledges in their pedagogy. It was also identified that building connections with their Indigenous colleagues was beneficial in helping the participants find ways to bridge Indigenous knowledges in their classrooms. Robin claimed that having their Indigenous school liaison share their knowledge helped Robin to discover different ways to link knowledges throughout the curriculum. Robin said that "working with our FNMI coordinator, [they've] been phenomenal, and has shown me how to create connections in different ways that I would not have been able to think of." Jordan also affirmed the value of these connections when speaking of an Indigenous Elder teaching them how to look at education from a holistic viewpoint using land-based education. Jordan states that

> we did a lot of nature walks, and coming back to being connected to the land, and that feeling of using the world around us to bring calm was neat. That holistic view is good for anybody and when you use that holistic view, I found that kids connected to the material a lot more. I use that a lot more now.

Casey also illustrated connections with Indigenous colleagues when writing of a conversation with the school Indigenous liaison. The lesson Casey wrote of was that "implementing Indigenous ways of knowing and doing into existing pedagogical frameworks need not require the reinventing of the wheel, but simply recalibrating our educational perspectives." Creating connections with fellow teachers and Indigenous colleagues was identified to be advantageous to

the growth of the participants. Using the collective knowledge of the study group, alongside the knowledge gained from Indigenous colleagues, provided an opportunity for the participants to find deeper meaning and connections within the curriculum. Jordan recounted that connecting curricular knowledge to students' lived experiences was a strong way to create authentic learning experiences in the classroom:

> I really found that the biggest learn, like the most learning that happened was when I connected the material to real life connections they're going to have outside of school. Sure, you can do a really cool activity in your classroom, but I got a lot less buy-in when there wasn't a way for them to connect that outside of the classroom on their own. This was such a good way to have that tie in to things that they see in their communities, or that they can make connections to and it gave it so much more authenticity, and really, I found myself also trying to find ways to apply that to other areas.

Deeper connections to the curriculum were also identified by Robin when they spoke of using Flaticon to draw attention to Indigenous knowledge within daily lessons:

> You get custom made icons to embed into your lessons. Every time I have Indigenous learning, teaching, or doing in my lesson, I have the icon there, so that [the students] know this is something to go back to because it's important. This is going to be connect to Indigenous ways of learning, doing, knowing, and teaching. This is an opportunity to learn and put real world knowledge and education and FNMI education into the curriculum and it is something that we're going to revisit.

Within the study, the connections that were made contributed to the participants willingness to take risks and develop their pedagogical awareness of Indigenous ways of knowing, doing,

learning, and teaching. Pedagogical growth through collaboration led many of the participants to take risks and develop a deeper appreciation for Indigenous knowledge systems in their classrooms.

Pedagogical Growth.

Pedagogical growth within the study was shown through an increased use of Indigenous teaching methods in classroom practice, a deeper understanding of Indigenous ways of knowing and doing, and a more pronounced acknowledgement of the educational value of integrating Indigenous knowledge systems into their developing pedagogy. Participants identified the value of Indigenous ways of teaching and revealed an increased attentiveness from the students when using these methods. Jordan clearly articulated this stance when stating:

> I wanted to do more instruction and bridge more instruction and integrate more into my practice because I'm pleasantly surprised with how it impacted my students' understanding. This gave another way for students to understand and build connections in our world.

Throughout my own practice, I found myself gravitating to using methods that aligned with Indigenous ways of teaching and learning:

> It's not necessarily just resources that you're using in your classroom, but maybe different methods that you can use to get that content across. One of the methods I find I'm using frequently are sharing circles and talking circles. There's a lot of opportunity for us to work collaboratively together as a class where we are observing a lot of skills that are being demonstrated, and then emulating those as we go around in the circle. As we are working together, we are collectively building that knowledge as a class.

Robin noted that it's not about changing everything all at once. Rather, taking the time to be more meaningful in a small way will lead to larger changes in the future:

> It's almost like a habit we've created. Now we're in the practice of it, and so because of that practice, it's easier now. I've come to the realization where I don't need to go big or go home. I've taken the time to put in small pieces and we're going to build on that. I'm going to take it one step further. Even though I'm not confident in all things, I know that small pieces are going to build into bigger pieces.

Casey also mentioned that they became much more intentional about integrating Indigenous knowledges into pedagogical considerations:

> When you've been doing sort of the same subject and grade level for almost a decade, like it's really easy to just the 'Oh I know what I'm doing' and not really question it not really try to switch it up. When I'm being intentional and trying to incorporate more Indigenous ways of knowing into what I'm teaching, I found that was really effective and really productive and ultimately really meaningful for the students. I'm more conscious and aware of it now.

The increased and sustained use of Indigenous teaching methods and practices led participants to develop a deeper understanding of Indigenous knowledges and their role in education. Jordan recounts in their journal the differences they noticed between western and Indigenous knowledge systems. Jordan states that Indigenous knowledge is

> A lot more community based, versus individualized, and teachings revolving around being together and supporting one another versus western systems where you're like this is what you need to know to be a good worker in society.

The growth in understanding was also identified by Casey when they said "it's definitely less of a top-down approach and much more of integrating everybody's perspectives, everybody's ideas." Acknowledging different perspectives was also identified by Robin when they spoke of their learning:

> I think one of the biggest things I've learned is that you can't just lump all Indigenous knowledge together and be like 'this is what an Indigenous person is' or 'this is indigenous identity'. It's so much more than that. It's a multifaceted thing that is different for every single person.

Throughout the study, the growth in understanding also led to the stronger acknowledgement of the value of Indigenous ways of knowing and doing in teacher pedagogy. Jordan believes that "It's good for these kids to be exposed to different ideas and different viewpoints. Especially because this is our history, whether we like it or not." Robin also described that "In Indigenous education, it's not about the test, it's about the path." Throughout the study, participants maintained that their growing understanding and acknowledgement of the value of Indigenous knowledge systems was a contributing factor to their willingness to take risks with their pedagogical choices. The collaborative and supportive nature of this study led many participants to identify the increased mental health benefits that resulted from their participation.

Mental Health.

From the onset of this study, participants identified that fear was a significant factor in their hesitancy when bridging Indigenous knowledge systems in their pedagogical choices. When initially interviewed, participants' lack of confidence and reluctance to deviate from the accepted norms was detrimental to their overall mental health. Jordan shared personal

vulnerabilities when stating that “I have high anxiety. I would say I’m overly critical. I find I’m hyper fixating or I’m being too hard on myself.” This lack of confidence in one’s own abilities was also expressed by Robin when speaking of past experiences: “I traditionally have been very hard on myself. I’m always asking how can I do it better. It’s never good enough.” Casey expressed feelings of hesitancy when reflecting on similar past experiences: “What if I do it wrong? I don’t want to get in trouble.” Hesitancy was also identified by Jordan when they disclosed that they often avoided integrating Indigenous knowledges in an effort of avoid confrontation: “Within this demographic that I’m working with, I realized that I was pussyfooting around a little bit right, like, not wanting to shake the boat.” Unlike Jordan and Casey, Robin and I took the initiative to bridge Indigenous knowledges despite objections; However, we both identified feelings of isolation and loneliness in our endeavors. During our initial focus group session, I shared that “I felt like I was very much alone when I first started this study,” Robin also recounted that as the only educator who was implementing Indigenous knowledges in their school “the work part can be very lonely, and the creation of that can be isolating,” Lack of confidence, fear, and feelings of isolationism were contributing factors to the hesitancy of the participants when bridging Indigenous ways of knowing and doing in their pedagogy. Over the course of the study, Table 2 indicates that increased mental health was identified most significantly during the second and third collaborative focus group sessions. Analysis of the raw data revealed an increase in participants’ level of confidence, as well as a stronger willingness to take risks with integrating Indigenous ways of knowing and doing in their classrooms. Increased confidence was identified by Casey when they stated:

> I feel much more comfortable and confident in my ability to understand and apply Indigenous ways of knowing and doing. Adopting an attitude wherein I give myself a

> degree of latitude and grace in terms of how much or how quickly I need to implement Indigenous ways of knowing and doing has made it enjoyable. This was a confidence booster.

Increased levels of confidence were also identified by Robin when they expressed that this study has "given me more confidence. This has given me a hand up to say I know this because I've learned it from someone who's a master in this area." Increased confidence levels were also observed in Jordan when they reported that

> I got to the point where I'm like, you know what, I'm going to teach this. And if you have a problem with it, I'll point to the curriculum it's linked to. This is me, standing up for why it's important that this is learned. Taking those risks and integrating something, even though it probably means that I'm going to get some emails, and making the choice to do it not only because it's in the curriculum but it also enriches the learning, that makes me feel strong and confident that I'm doing a good job.

Throughout the study, I also identified an increased level of confidence when integrating Indigenous knowledge systems into my pedagogical considerations. Within my journal reflections I wrote that

> I think I'm much more willing to take the risk of doing it. Even if it doesn't end up well, you know it's just one day. I guess I'm being a little kinder to myself with regards to making mistakes. If I get it wrong, it's not the end of the world like I used to think it would be. Now it's more okay to take a chance on something. I feel stronger, and I'm going to ignore what they're saying and I'm going to do it anyways.

Increased confidence, personal convictions, and less hesitancy were identified as factors in the increased integration of Indigenous ways of knowing, doing, learning, and teaching within the pedagogy. The collaborative nature of this study helped the participants build connections with fellow teachers and Indigenous colleagues, while deepening their understanding and acknowledgement of the value of Indigenous knowledge systems.

Chapter Summary

After a thorough analysis of the raw data, I identified that three main themes were present throughout this study. Barriers to Inclusion, an Acknowledgement of Bias and Racism, and Collaborative Professional Development were ascertained to be contributing factors to the bridging of Indigenous ways of knowing, doing, learning, and teaching within participants' pedagogical considerations. Within this chapter, I identified that barriers such as Distancing, Deficits in Support and Training, as well as Fear of Appropriation, Reprisal, and Confrontation led many of the participants to limit their consideration of Indigenous knowledge systems in their classrooms. The acknowledgement of bias and racism through past and present experiences, as well as an increased awareness of the colonized structure of education guided the participants to a deeper exploration of their own personal and professional belief systems. The collaborative professional learning opportunities offered through this study aided research participants in the development of stronger connections with fellow colleagues, led to an acknowledgment of growth in their instructional strategies, and promoted increased levels of confidence in their own mental health.

Chapter 6. Interpretive Analysis

Introduction

Chapter Six aims to present an interpretive thematic analysis of the research data as it addresses both the research question and the sub-research questions presented within this study. I will begin this chapter by addressing the sub-research questions, as these questions support the main research question. This analysis will begin by discussing how deeper self-introspection leads to an increased awareness of power, privilege, bias, and racism in teacher pedagogy (sub-question 1), which will then follow into a discussion of how this increased awareness and acknowledgement reduces the propensity of educators' moves to innocence (sub-question 2). The chapter will continue with a discussion of how these two factors lead to greater self-reflexivity in the context of disrupting colonized teaching approaches in an educators blended K-12 pedagogy (sub-question 3), and will finalize with a discussion aimed at addressing the main research question.

Acknowledgement and Awareness of Power, Privilege, Bias, and Racism

One of the sub-questions posed within this study was how might deeper self-introspection lead to an increased awareness and acknowledgement of settler power, privilege, bias and racism in teacher pedagogy. After a thorough analysis of the raw data, I determined that past experiences have had the power to shape an educators' views on both Indigenous knowledge systems and peoples. Within the confines of this collaborative study, participants developed a deeper awareness of their own power, privilege, bias and racism in relation to Indigenous ways of knowing, doing, learning, and teaching through a process of self and collaborative introspection. When reflecting on their past learning experiences, participants identified that

certain phrases they were exposed to were, in retrospect, both racist and stereotypical. Conversations, media images, and societal norms often exposed the participants to the impression that Indigenous individuals were irresponsible, uncivilized, undisciplined and greedy. It was acknowledged by all participants that these past experiences often promoted an understanding that Indigenous peoples and knowledge systems were inferior to that of their own societal echelon. As participants reflected on their own past experiences, themes of racial superiority were identified within media and school literature, which the participants agreed portrayed the idea that Western ideologies and beliefs were far superior to that found within Indigenous cultures. Deep self-introspection led participants to identify that some of the literature they were exposed to during their formative years often portrayed Indigenous individuals in stereotypical ways, perpetuating the perceived racial superiority of white people. As was previously identified in chapter five, Robin shared that deeper understandings of the messages portrayed through seemingly innocent children's entertainment were in fact derogatory and degrading, and through their own self-introspection has identified that this exposure led to the formation of personal bias. Through Robin's own admission, watching Disney's Peter Pan, for example, a film which depicted Indigenous individuals as tomahawk carrying, warpaint wearing savages who still lived in teepees, reinforced many of the stereotypical ideas that they were exposed to in youth.

With this disclosure, Robin showed a continued dedication to a deeper awareness and acknowledgement of how these past experiences continue to shape their own personal and professional biases of Indigenous knowledges and peoples. Within this introspective journey, Robin acknowledged that they make a conscious effort to reach out more frequently to students

who identify as Indigenous. A deepened awareness of Robin's own personal bias was identified within their desire to be more attentive to these learners. As Robin states in the final interview:

> I know because of the impositions on me as a kid, and my expectations of who individuals in FNMI culture are, I've been really working hard towards not letting my bias impact how I teach kids. I found that what I was doing was I was trying to connect with kids who identified as FNMI individuals more often because they needed more help. And I had to think about that. Why did they need more help? Why did I think they needed more help? Well, maybe because they're less able or less capable. And what I found was they actually don't. The individuals in my classroom who identified as FNMI, they're mature, and they're motivated. That was an assumption I made with my own bias. Now I'm more aware of that.

As can be seen within the data, Robin's deep self-introspection led to an increased awareness of personal bias regarding Indigenous individuals within their teaching pedagogy. Reflecting on their own teaching pedagogy, Jordan had a similar experience of becoming more aware of their power and bias surrounding Indigenous ways of knowing and doing. During our final interview, Jordan spoke of placing a greater importance on some curricular material over others and through self-introspection began to question the reasoning behind these decisions:

> For one of my lessons, we look at how plants were used in the past. I caught myself thinking 'okay, well we can just burn through this', and then taking a second and questioning okay,…why? Why am I burning through this and not that? And it not being a cognizant thing, but there's still that bias that makes you view some things as more important and less important. Now, being aware that it's happening, and then really analyzing why am I burning through this. I see that power that I have to make that

> decision. Now I'm trying to make sure that it's balanced, but it definitely requires a lot of active reflections.

As stated by Trnka and Smelik (2020), an increase in introspective questioning may lead a subject to acknowledge subtle changes in experience, while also developing an ability to dissociate different aspects through an exploration of their own mental processes. Within the data, Jordan relayed that having taught this subject many times, this study caused them to deeply reflect on their own actions within the classroom, and it was through this introspection that Jordan became more aware of their own personal biases around Indigenous knowledge. A similar process of deepened awareness and acknowledgement was experienced by Casey:

> It's so deeply ingrained in me, as a person, and musician, and music educator. It's hard to think outside the box, but also, I think, how am I you know, even subconsciously, but how am I sort of perpetuating or demonstrating those biases? I have to sort of catch myself, and acknowledge you know, where I am being sort of like in that Eurocentric mindset, you know, and trying to be less than that, in that space.

Casey's deep introspection led to a revelation of how past experiences have deeply engrained themselves into their teaching pedagogy. Through this introspection, Casey was able to identify different instances where Eurocentric thought and ideals were expressing themselves through the choice of teaching methods, and took steps to acknowledge and adjust how they taught and assessed learning within the classroom. Within this study, participants recognized that deep self-introspection has led to an increased awareness of settler power, privilege, bias, and racism within their teaching pedagogy. Having the opportunity to reflect on their choices has caused the participants to examine their pedagogical considerations and become more aware of the unconscious decisions that place greater emphasis on one knowledge system over another.

Collaborative sharing was also identified as being a catalyst in the participants' introspective journey. Through collaborative discussions, participants identified that sharing their own introspective pieces helped spark further reflections from other participants. According to Weger et al. (2016) the mutual sharing of introspective experiences has the capacity to influence, sharpen, and mirror introspective observations in other participants. Participants noted that the collaborative sharing was valuable to their own introspective growth, as it often "sets off a light bulb" to deeper personal introspection. The value of introspective sharing has been reported to decrease involuntary biases that may arise from different experiences, as well as increase validity in introspective reporting (Weger & Wagemann, 2015; Ziegler & Weger, 2018). Through a process of self and collaborative introspection, participants were able to identify instances of power, privilege, bias and racism within their own teaching pedagogy. This deep introspection led them to analyze and consider how their choices and actions within the classroom could be interpreted as methods through which they perpetuated the dominant Eurocentric standards of education. Considering their thought processes and actions allowed the participants to explore their own inner experiences and led many to revelations of their own unconscious actions. The result of this deep introspection was an increased awareness and acknowledgement of personal power within the classroom, as well as how unconscious biases affect their views of Indigenous learners and Indigenous knowledges within their teaching pedagogy. During their introspective journey, participants developed a stronger motivation to promote the equitable use of Indigenous ways of knowing, doing, learning, and teaching within their classrooms, and to begin a process of reducing the occurrence of moves to innocence when dealing with Indigenous knowledge systems.

A Reduction in Moves to Innocence

Brinthaupt et al. (2015) claim that motivation is a key component to successful self-introspection, and that subjects who are highly motivated to observe their experiences will report more occurrences. As previously explored, participants within this study showed that deeper self-introspection led to an increased level of awareness and acknowledgement of power, privilege, bias and racism within their teaching pedagogy. Through this realization, participants in this study showed a greater motivation to promote the use of Indigenous knowledge systems within their school environments, and showed an increase in confidence regarding their use. The second sub-question within this study centered on understanding the extent to which collaborative professional development focused on bridging Indigenous ways of knowing and doing in teacher pedagogy could reduce the occurrence of settler teachers' moves to innocence. Participants identified that the sustained use of Indigenous ways of knowing, doing, learning, and teaching, along with increased levels of confidence from the collaborative and supportive study environment led to a stronger determination to heighten their use of Indigenous knowledges within their pedagogy, regardless of any objections or criticism that may be directed their way. As presented in chapters two and five, educators often distance themselves from Indigenous ways of knowing, doing, learning, and teaching due to fear or deficits in training. In our study, participants found that the continued support of study members, coupled with the sustained use of Indigenous knowledges in their pedagogy led to a reduction in their desire to distance themselves from these knowledge systems. As conveyed by Robin, this study

> gave me a chance to add and make time for this work. I've embedded more opportunities to learn and embedded more things in my practice, and tried to integrate new things into my day to day. Making small changes, even though this was probably the most

> significant change I've made in my career, has been amazing. I wouldn't have done it without this opportunity. In the past I made excuses or I didn't think I knew enough to do an authentic job, but now I have this stepping stone where I can start next year.

Jordan also identified the clear connection between professional collaboration and a reduction in distancing techniques when stating:

> It was helpful to talk to other teachers…especially near the end. I definitely got more from those conversations than I did taking a minute to write down a couple sentences about what I was thinking. I think I would have hit this point on my own eventually, but if I hadn't taken part in this, and learned from others, it would have taken me a lot longer to say 'No, this is important. It needs to be integrated. I'm going to do it whether you like it or not.'"

Participants identified that having conversations and receiving feedback from each other gave them more confidence to bridge Indigenous knowledges within their day-to-day lessons. As stated by Yoo and Jang (2023), studies show that teachers that engage in discussions and collaborative activities show increased levels of self-efficacy, and improvement in many pedagogical elements. This claim is supported by Weaver et al. (2024), stating that teacher feedback helps educators strengthen their pedagogical planning through the consideration of multiple perspectives. Within this study, participants acknowledged that professional collaboration was instrumental in their pedagogical growth when implementing Indigenous knowledge systems in their classroom instruction. Casey articulates this stance by stating:

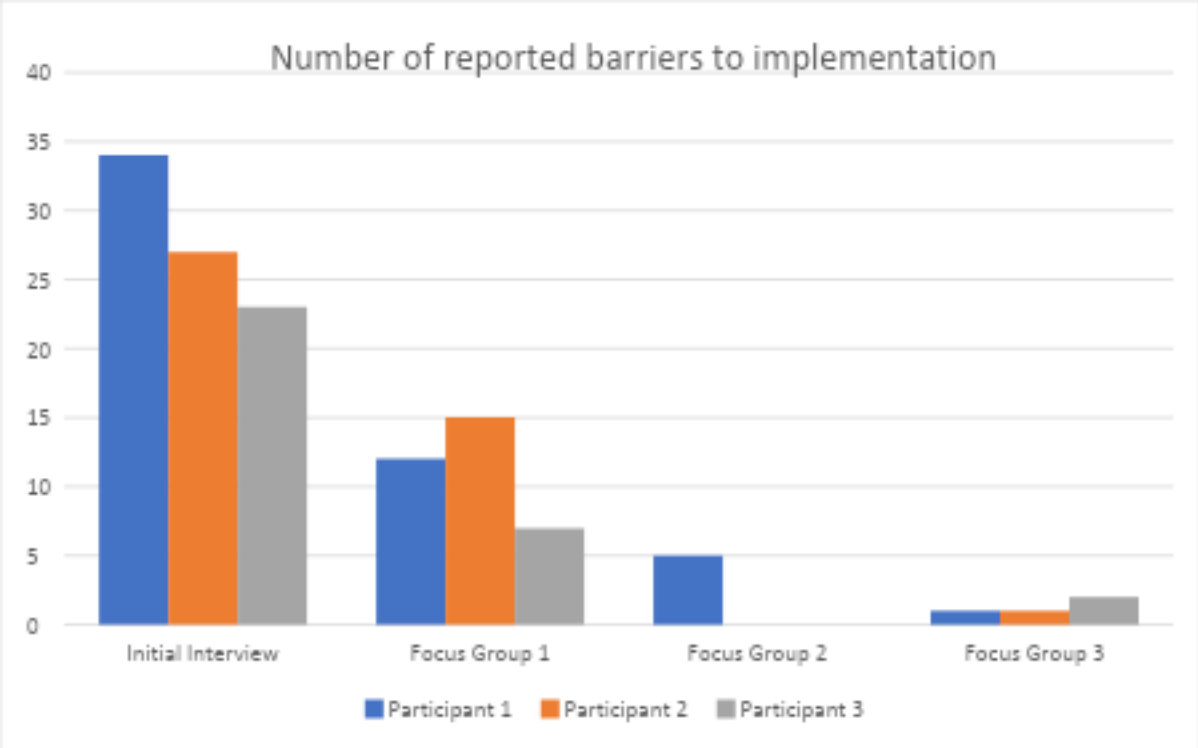
> The first time you do anything, you're trying to make sure you don't make a mistake. I think the more you do something, whether it's with students or with colleagues, the more

> comfortable you are with it. I would say that I'm certainly feeling more comfortable about that. I really liked how we still got to come back and hear from each other. That helped me keep going. Talking to each other helped me learn.

The collaborative nature of this study resulted in greater self-efficacy, intentionality, and confidence when bridging Indigenous knowledges in teacher pedagogy. Reported barriers to implementation reduced significantly by the second and third focus group sessions. As seen in figure 9, the sustained period of implementation of Indigenous ways of knowing and doing resulted in fewer instances of self-identified barriers being reported by participants.

Figure 9

Number of reported barriers to implementation



As I discussed in previous chapters, self-identified barriers to the implementation of Indigenous ways of knowing, doing, learning, and teaching often resulted in participants distancing themselves from their inclusion in pedagogical considerations. Within this study, data results show that collaboration, along with the sustained period of implementation, resulted in fewer barriers being identified by participants. From this data, we can see that professional development focused on incorporating Indigenous ways of knowing and doing in teacher pedagogy can lead to the reduced occurrence of non-Indigenous educators' 'moves to innocence', as well as a reduction in distancing tactics being utilized within teachers' blended K-12 classrooms.

Disrupting a colonized approach to education

The ongoing colonial legacies inherent in teachers' pedagogical choices are prevalent within classrooms in Canada. Through a process of self-introspection and collaborative professional development, participants in this study showed an increased awareness and acknowledgment of these colonial legacies within classroom instruction. The final sub-question posed within the study asked how collaborative professional development could encourage greater self-reflexivity within K-12 blended teaching pedagogy in the context of disrupting colonized teaching approaches. Participants in the study reported that the consistent self-introspection led them to a deeper awareness of how they teach. Casey shared that this study led to an acknowledgement of rigidity in their teaching approach which often favoured the more westernized standards of learning:

> In the past I've been really quite rigid about following the typical [Eurocentric] methods. It has to be like this, you know a chord, harmony, or melody. I've been very rigid, and it's ended up with a lot of projects sounding quite similar.

Through sustained self-introspection, Casey began to shift away from expecting students to produce a westernized representation of learning. In Casey's own words:

> I'm more accepting of other interpretations. I try to balance those things with a little bit less of the top down for me, you know, telling them exactly how it has to be, and a bit more of allowing creativity, even just musically.

This subtle shift away from adhering to colonized teaching approaches was also identified by Jordan when reflecting on the learning experiences that occurred in their classroom. Jordan recounts that shifting away from the traditional colonized methods of instruction led to more rewarding learning experiences for their students:

> I found that the most learning that happened was when students had connections outside of the classroom, on their own. It wasn't just about me standing up talking about art projects, but giving them the opportunity to connect what they know from their lives. It gave it so much more authenticity and really, I found myself also trying to find ways to apply that to other areas.

Deeper self-introspection through our collaborative study gave participants the opportunity to examine their teaching pedagogy more closely. The collaboration among participants encouraged greater self-reflexivity, and promoted more consistency around the practice of self-introspection. When analyzing the raw data, I found that participants shared that they were more inclined to look deeply at their pedagogical practice because they felt they had the support of other teachers who were on the same introspective journey. Robin spoke often of becoming more willing to try different methods and activities within class, but clearly stated that without the collaboration to hold them accountable, would have abandoned efforts at sustained implementation:

> I don't know if I would have been able to continue without going through what we've already been through. So, this process has provided an opportunity for that collaboration to happen. I didn't know I needed this to make it happen. Now I can go into the planning part, and have a vision to implement that.

Jordan also spoke of the benefit of collaboration when considering their own self-introspection. Jordan recounts instances of engaging with professional development opportunities, but once those sessions were over, there was no accountability to implement what they had learned. When speaking of their experiences in this study, Jordan identified the benefits of sustained collaboration with fellow participants;

> There's more follow through with this. I'm actually using it and implementing it. PD for me….it's disjointed. They say 'here are the things you can do', and you try it once and it doesn't work, and then I don't do it. Whereas with this it's because it's developed in this collaborative way. It's still mine but if it doesn't work I have the opportunity to go back and say 'I tried it, it sucked. What do I do now?' and then we work on it together. I think about that a lot. I don't think I would have done as much if I didn't have other people to talk to.

Within this study, participants valued the collaborative reflection and support that was offered by fellow members, and felt it was instrumental in examining their own practices when implementing Indigenous ways of knowing and doing. The data shows that professional collaboration promoted the more sustained practice of self-introspection, which gave participants the opportunity to examine their own pedagogy more closely. This examination led participants to identify different aspects of their pedagogy that unconsciously perpetuated a Eurocentric understanding of learning and teaching within their blended classrooms. Collaborative

professional development encouraged greater self-reflexivity by holding participants accountable to one another, and by giving them the opportunity to share both successes and failures with fellow teachers. The increased practice of self-introspection led the participants to begin acknowledging and disrupting the colonized teaching approaches they utilized in the classroom. As Casey clearly states "Now I want to keep this going, like weave this into daily, weekly, monthly, and you know, unit plans and all that. I think that's my next step for growth".

Research Question

The main research question posed within this study was 'How could collaborative professional development promote self-reflexivity when bridging Indigenous ways of knowing and doing in a K-12 blended classroom?' Through a thematic analysis of the raw data, I have shown that collaborative professional development can encourage educators to begin examining their own power, privilege, bias and racism within their teaching pedagogy. The exploration of self-identified barriers to the implementation of Indigenous ways of knowing and doing could potentially lead teachers to examine both past and present exposure to bias and racism, leading to a deeper awareness and acknowledgement of their own unconscious power and privilege in the classroom. Through the practice of collaboration, teachers could begin exploring their pedagogical considerations in an environment that offers support, reassurance, and advice to aid them in their introspective journeys. As demonstrated in this study, collaborative professional development can encourage teachers to reflect on their own belief systems, thought processes, and how their actions can reinforce Eurocentric standards of teaching and learning in the blended classroom. This conclusion is supported by Darwin (2024) who states that professional development "can foster a culture of conversation to acknowledge/work through biases through critical self-reflection, vulnerability, and care as a community" (p. 74). Through self-

examination, educators can engage with Indigenous ways of knowing and doing in their teaching pedagogy and abandon practices of distancing themselves from Indigenous knowledges. Again, as shown in this study, utilizing the supportive network offered by collaborative professional development, educators could begin to explore Indigenous pedagogical approaches knowing that this environment allows for mistakes, and offers support and encouragement to continue engaging in self-introspection. This process can lead educators to a deeper awareness and acknowledgement of the Eurocentric methods that continue to be used in blended classrooms, and provide them with the opportunity to begin disrupting these practices in favour of more diverse and equitable educative considerations. Collaborative professional development promotes growth in knowledge and understanding of Indigenous ways of knowing and doing, and encourages educators to engage with Indigenous colleagues, Elders, and Knowledge Keepers, to develop a deeper awareness with diverse learning systems. The data shows that sustained collaboration promotes deeper self-reflexivity, and mental health among educators can be improved with increased levels of confidence and a stronger willingness to take risks when engaging with Indigenous ways of knowing, doing, learning, and teaching. Collaborative professional development promotes self-reflexivity through the practice of examining instances of fear, deficits in training, and professional connections in the workplace. Self-reflexivity through collaborative professional development provides educators with an opportunity to examine and engage with their past lived experiences, and promote the acknowledgement of personal truth within themselves and their professional spheres. Darwin (2024) claims that professional development is "most effective and successful when teachers are given the opportunity to engage in active discussions and learning opportunities that include feedback and reflections" (p. 74). With the acknowledgment of their self-identified truth, educators could

continue bridging Indigenous knowledge systems in their classrooms in the spirit of equitable reconciliatory education.

Chapter Summary

This PAR study indicates that a continued period of self-introspection can lead educators to an increased awareness of power, privilege, bias, and racism when bridging Indigenous ways of knowing and doing in a blended K-12 classroom. This increased awareness can result in a decline of self-identified barriers to implementation, and decrease the occurrence of teachers' 'moves to innocence' when considering Indigenous knowledges in their pedagogical choices. Self-reflexivity, coupled with collaborative professional development, has been shown to increase an educator's willingness to take risks when engaging with Indigenous pedagogy, and promote the disruption of Eurocentric teaching methods in day-to-day practice. The study shows that educators who participate in collaborative professional development and self-introspection show a stronger dedication to continuing their learning journey when implementing Indigenous knowledge systems in their practice.

Chapter 7. Conclusions, Limitations, and Recommendations

The previous chapters have explored the experiences and pedagogical growth of the participants over the course of this study. In this final chapter, I will discuss the limitations and delimitations of this study and recommendations for future use. I will then discuss the significance of this research in response to the TRC Calls to Action for education, the significance of my own experiences, and conclude with consideration of areas for future research.

Limitations

Within this Critical Participatory Action Research study, I identified four limitations that were present. Distance, participant availability, limited scope, and time constraints may have hindered a deeper exploration of the collaborative benefits apparent and discussed in the previous chapters. My country ranges across 3.8 million square kilometers of land. As I could not feasibly travel throughout Canada to conduct this study, I focused on recruiting participants from within my home province, though even that proved to be challenging. Alberta's borders hold over 600,000 square kilometers of land making distance a significant limitation when attempting to recruit participants for this study. After recruiting five willing educators, I acknowledged that distance played a significant factor in limiting the ability of participants to meet in-person. Participants were located within central and southern Alberta, ranging within a five-hour drive of each other. Arranging times and locations where all members could meet in-person proved to be difficult and this study was adjusted to make allowances for both the time and expense that would have been incurred when meeting in-person. Participant availability also proved to be a limitation within this study. Both professional and personal obligations proved to

be a hinderance when scheduling times to meet virtually. Collaborative focus group sessions were often scheduled and rescheduled to afford the participants as flexible an experience as possible. Participant availability may have limited the number of collaborative discussions that could have taken place throughout the course of the study. The third limitation that I acknowledged throughout the study was the limited scope of participants who were willing to engage in this research endeavor. I initially recruited five participants, however had two who decided to withdraw from the study during the early stages, citing either conflicts with time management or an unwillingness to continue due to personal or professional reasons. The limited scope of participants within this study may reduce the transferability of the results for educators across Alberta. The final limitation that I acknowledged within this research study was the time constraint. As I wanted my research to begin as soon as possible, the time constraint that presented itself was the end of the school year. My study began in March and was concluded at the end of June, coinciding with the end of the school term. The limitation of time may have hindered the observable results of the study had it been given a more longitudinal design.

Delimitations

The delimitations I identified within the study were the exclusion of Indigenous K-12 educators, educators who were certified after 2019, and those who practiced either solely in-person or in online educational avenues. I chose not to include participants who identified as Indigenous K-12 teachers within my study, as the scope of the research focused on the challenges faced by non-Indigenous educators when bridging Indigenous ways of knowing and doing in the classroom. I did not make the assumption that all Indigenous educators were well versed in Indigenous knowledge systems, but rather wanted to discover if the experiences of other seasoned settler educators were similar to my own when working with Indigenous ways of

knowing, doing, learning, and teaching. The second delimitation of my study was excluding educators who were certified after 2019. Educators who were certified after 2019 were outside the scope of this study as I wanted to explore the experiences of teachers who did not have formal tertiary training in methods to bridge Indigenous knowledge systems in their classrooms, which was formally introduced in 2018 and became effective September, 2019 (Alberta Education Teaching Quality Standard, 2018). The final delimitation I identified within this study was the exclusion of educators who taught in a strictly in-person or online setting. The scope of my study focused on educators who identified as blended learning teachers, following Hall and Davison (2007). Educators who did not identify within these parameters were excluded from participation within this research study.

Relevance for Blended Learning Environments

Blended classroom environments can be rich places of learning that offer students connections to the outside world. Utilizing a blended teaching approach, participant educators in this study showed deeper connections with Indigenous ways of knowing and doing in their pedagogy by building relationship to place, and honouring Indigenous knowledge and voices through digital tools.

Relationship to Place

Hansen (2018) states that Indigenous peoples within Canada understand and value a relationship to place as it teaches learners the interconnectedness between oneself and the world in which we live. A relationship to place is fundamental in shifting learners' perspectives from objectification to understanding how they respond to their lived environments. Davis et al., (2018) state "from an Indigenous perspective, relationships between and among human, material,

natural, and ancestral worlds shape how the world is understood" (p. 22). When building a relationship to place in a blended classroom, learners will have the opportunity to connect with communities outside through the use of digital platforms. Within this study, participants were able to bridge Indigenous perspectives through online live discussions and activities that were conducted within the community. This offered students the opportunity to connect the knowledge they had learned in the classroom to a specific place within their community. Jordan states that:

> The most learning happened when [students] were having real-life connections outside of school. This was such a good way to tie in to things that they see in their communities and they make connections and it gave it so much more authenticity and I found myself also trying to find ways to apply that to other areas.

Creating a relationship to place within their blended classroom led to deeper and more meaningful connections with the material that was being taught. Yemini et al. (2025) claim that relationship to place can lead students to understanding place in relation to political, economic, socio-cultural, biophysical and psychological dimensions. Building a deeper understanding of where learning occurs will help students create a deeper awareness of the world around them. Through the use of online fieldtrips or excursions, students and teachers alike can begin to build a more holistic understanding of Indigenous ways of knowing and doing with the guidance of Elders and Knowledge Keepers within their communities.

Honouring Indigenous Knowledge and Voices

Utilizing online tools or platforms to connect with Indigenous communities and teachings was also experienced within the study. Digital bundles (Wemigwans, 2018) were used to connect

curricular teachings with Indigenous voices and honour the knowledge that members of Indigenous communities across Canada have chosen to share. Within this study, participants, myself included, chose to respectfully acknowledge Indigenous voices by linking digital bundles within their lessons. Robin spoke of using Flaticons, which are custom made icons that can be imbedded into lessons. They said that "every time I imbed a new way of Indigenous learning, teaching, or doing, I have the icon there and it's connected to real-world knowledge online." Robin spoke of connecting these icons to different Indigenous digital bundles which gave learners the opportunity to experience Indigenous teachings authentically. In my blended practice, I also used digital bundles online to teach my students about Indigenous voices in music. Using Mary Lou Smoke and Dan Smoke's 'The Water Song' which was available through the online platform YouTube, I introduced learners to the interconnectedness of land, identity, and ancestry. Using Indigenous voices online helped me to create a more authentic understanding of Indigenous music for my students, and provided the opportunity to connect with Indigenous teachings outside of their immediate communities. I was able to showcase Indigenous knowledge across Canada, and provide an opportunity for learners to connect with different parts of their identity. Using Indigenous knowledge online was an opportunity for participants to support Indigenous cultural perspectives within their blended classroom in an authentic and meaningful way. Through the use of digital bundles, and a deeper awareness of relationship to place, participants were able to connect more deeply with Indigenous ways of knowing and doing in their blended classrooms.

Recommendations

As I discussed in Chapter 6, participants benefited from the continued collaboration with fellow educators when engaging in reflective professional development discussions aimed at

bridging Indigenous knowledge systems in the classroom. The continued support and encouragement offered through collaborative reflection led many of the participants to continue their efforts and engagement throughout the entirety of the study, and maintain their commitment to introspective practice that would expand their pedagogical practice. As discussed in the previous chapter, data from the research study clearly showed that within their careers, participants previously engaged with professional development opportunities that were available through their school divisions, but rarely maintained their efforts to incorporate these teachings as there was little to no support or guidance offered after the initial sessions. The process of sustained effort and collaborative reflection offered within this study encouraged the continued commitment to engage with Indigenous ways of knowing and doing in the participants' pedagogy. As clearly indicated by Robin, "this process gave me a chance to prioritize action in this area, which is so important." Jordan echoed this observation when stating that "unlike PD, this study you really had to make a concentrated effort to be putting this into your practice every single day." Casey valued the collaborative nature of this study when saying "I really liked how we still got to come back and hear from each other how it was working in our different contexts, and get advice, and try again. I think it was a pretty positive experience overall."

I would therefore recommend that educators who are engaging in professional development opportunities within their school divisions form a collaborative professional learning community that can serve as a support system to help them maintain their engagement and commitment to bridging Indigenous knowledge systems within their pedagogy. As this study has shown, collaborative self-introspection can support educators in exploring their own personal privilege, bias, and unacknowledged racism in their pedagogy, while also offering a pathway to reduce the occurrence of moves to innocence and engage with a more fulsome appreciation of

the alternate instructional pathways and learning opportunities offered through deeper engagement with Indigenous ways of knowing, doing, learning, and teaching in their classrooms. I further recommend these professional learning communities as a way to hold educators more accountable to the sustained integration of Indigenous knowledge systems within their classrooms. As seen in this study, having access to a supportive network of committed educators could potentially make setbacks in the bridging of Indigenous knowledge systems more manageable, and offer constructive and encouraging feedback for the continued attempts at engaging in reconciliatory education.

Significance of the Study

The significance of my study lies mainly in demonstrating a pathway for settler educators to begin exploring and acknowledging colonial power, privilege, bias, and racism in teacher pedagogy. Addressing the Truth and Reconciliation Commission of Canada's Calls to Action (2015) 63ii, & iv, this study is significant as it provides an avenue for educators to begin sharing information and practices on teaching curriculum, and engaging in teaching methods relating to Indigenous ways of knowing, doing, learning, and teaching, while simultaneously exploring their own bias and vulnerabilities in a safe and respectful manner. Utilizing collaborative self-introspection to explore instances of fear, deficits in training and support, and moves to innocence, educators can become more deeply aware of personal bias and beliefs as well as instances of unacknowledged racism that emerge in their classrooms and school environments. As discussed in Chapters 5 and 6, a deeper awareness and acknowledgement of personal bias, privilege, and power were explored by participants and collaborative reflective discussions provided an opportunity for participants to share vulnerabilities in an effort to acknowledge and

begin shifting away from harmful and stereotypical understandings of Indigenous peoples and culture.

My study is also significant as it identifies needs in teacher-training with a deep exploration of current professional development opportunities, dependence on Indigenous Elders and to embed Indigenous ways of knowing and doing into classroom instruction, and to move away from the contemporary reliance on Eurocentric instructional methods to work with content. My study clearly shows that the use of collaborative self-introspection can lead currently practicing educators on a journey of self-discovery, and a deeper acknowledgement of how exposure to racist beliefs and opinions, both past and present, have shaped how they view Indigenous ways of knowing, doing, learning, and teaching, and their place in the classroom. My study has also shown how collaborative self-reflective and introspective techniques increase confidence and sustain positive mental health through a constructive and supportive environment dedicated to advancing practice in this area. As previously explored in Chapter 6, the sustained effort of incorporating Indigenous knowledge systems into an educators' lessons, resources, and teaching methods leads to significant growth in the consideration of Indigenous teachings to meet curricular learning objectives. The results of this study provide non-academic audiences, such as administrators, learners, parents, and educational policy makers with the tools to reflect on the current perceived struggles faced by non-Indigenous educators with training requirements and the necessity for collaborative efforts when bridging Indigenous ways of knowing and doing in the blended classroom. Building deeper collegial connections through collaborative learning opportunities, currently practicing teachers within Alberta can begin to shift their instructional considerations to become more inclusive and offer future students the opportunity to learn about

the rich and diverse ways of knowing and doing that are inherent within the distinct Indigenous cultural communities across Canada.

The Significance of My Research Experience

This research experience was revelational for me. I have always been the type of individual who seemed to thrive in a solitary professional and educational environment. Depending upon my own wits to progress within both realms of my educational career, I have always been hesitant to collaborate with others as the majority of the responsibility has often fallen on my shoulders. This research study has shown me what can be achieved with a dedicated group of participants who are committed to change and open to exploring their own challenges. I knew I wanted to participate as a member of this research study, but I was unprepared for the lasting relationships that would result from this participation. I found myself being more open and honest about my experiences and feelings than I have ever been with colleagues, and as a result I feel a deeper connection not only with this strong group of educators, but with my evolving practice as a teacher.

One of the first revelations I had within this study was the difficulty in recruiting participants. I had assumed and envisioned that many teachers would jump at the chance to explore these topics in depth based on our informal collegial conversations in professional development seminars and coffee dates. What I failed to consider was that sometimes talk is just that. Idle chatter meant to fill the void. When presented with the opportunity to engage in this learning, many of my colleagues distanced themselves and spouted reasons why they could not participate. This was eye-opening for me. The sense of abandonment and loneliness that I felt was acute, but I forged on and was blessed with participants who were as dedicated as I was to reflecting on their teaching experiences, and more importantly on their own unique selves. I will

treasure the discussions we have shared throughout this study and know that our work together will continue for many years to come.

Completing this study was significant for me, both as an educator and a researcher. I entered the doctoral program with a strong feeling of imposter syndrome. I was surrounded by academics who had already achieved prestige within their professional spheres and I felt a sense of inadequacy when discussing what I believed to be my meager accomplishments. This research study changed not only how I view myself and my role as a teacher, but also how I view the research contributions I could make within education. My confidence in my own personal abilities has increased dramatically and I often feel this transfers into other aspects of my life. I now proudly share my unapologetic stance on issues with anyone who will listen, and find that I have discovered a more genuine and authentic version of myself from this journey. The support and encouragement I have received from family, friends, and strangers has been humbling and I am forever grateful for every kind word and encouraging text I have received to keep me going.

Areas of Future Research

I present three areas of future research as I draw a close to this study. As a result of my experiences within this research, my first recommendation would be to broaden this approach to explore the experiences of teachers across Canada when bridging Indigenous knowledge systems in their teaching pedagogy. Action research adheres to a cyclical process of planning, action, observation and reflection (Efron & Ravid, 2020; Kemmis et al., 2014). I conducted this research with a small number of participants located solely within the province of Alberta. Broadening this study to include other provinces within Canada could provide a more fulsome picture of the experiences of educators when engaging with Indigenous knowledge systems in their classrooms. Future research in this area may provide further direction to educational policy

makers on the training and supports needed to address the evolution of teaching practice in response to the Truth and Reconciliation Commissions Calls to Action.

My second recommendation for research would be to perform a longitudinal study on whether the sustained implementation of Indigenous knowledge systems in teacher pedagogy could begin to address the disparity in educational attainment between non-Indigenous and Indigenous learners across Canada. Such a study could potentially include a diverse demographic of educators who are committed to advancing reconciliatory education in Canada. Study participants need not be limited to blended learning educators, but could potentially encompass educators who teach in solely in-person or online environments. The potential deeper understanding of participant experiences could be explored, and a deeper focus on whether the increased and sustained implementation of Indigenous ways of knowing, doing, learning, and teaching could address the discrepancies regarding educational attainment between Indigenous and non-Indigenous learners across Canada.

My final recommendation, as was often discussed by the participants within this study, is to further explore the value of introspective and collaborative approaches in professional development opportunities for currently practicing and pre-service educators. As discussed in the previous chapters, collaborative introspective professional development can help teachers improve their self-understanding, aid with communication, provide deeper opportunities for reconciliatory pedagogical practice, and foster creativity and innovation in the classroom. I propose that a greater research focus is needed to determine the value of sustained and re-visited collaborative introspection when addressing the Truth and Reconciliation Commissions Calls to Action, but also other challenging topics in education.

Conclusions

The aim of this study was to uncover whether or to what extent collaborative professional development could promote self-reflexivity when bridging Indigenous ways of knowing and doing in a K-12 blended classroom. The first step in this research study aimed to uncover the barriers that teachers perceive that they face working with Indigenous knowledge in their pedagogical considerations. Participants in this study have shown that fear, deficits in training and support, and distancing techniques are barriers that they perceive in this endeavour. Through Critical Participatory Action Research (CPAR), deep, collaborative, self-introspection was utilized as a method of increasing the awareness and acknowledgement of power, privilege, bias, and racism in teacher pedagogy. Results show that an increase of awareness and acknowledgment were seen in both personal and professional spheres, with consideration being given to how past and present exposure to both conscious and unacknowledged racism affected participants' pedagogical choices. This introspection led to a deeper awareness of the colonized structure of education within Alberta and encouraged sustained collaborative professional development discussions aimed at disrupting colonized teaching approaches in the participants' individual pedagogical choices.

Participants made a conscious effort to introduce and integrate Indigenous knowledge systems into their daily lesson plans, resources, and teaching methods, utilizing the collaborative and supportive network offered within this study. Results including deeper collegial connections, an acknowledgement of pedagogical growth, and positive mental health effects were reported by the participants through collaborative discussions and self-reflective journaling. Data from this study determined that collaborative self-introspection led to a reduced occurrence of moves to innocence, with participants relying on the support and guidance offered by other members to

achieve this. The participants' perspectives of their experiences within this study resulted in the emergence of three main themes; Barriers, Acknowledgement of Bias and Racism, and Collaborative Professional Development. My study has clearly demonstrated that collaborative professional development, in a safe and respectful collegial environment, can promote a deeper commitment to self-reflexivity, often encouraging the further exploration of personal vulnerabilities. Through this self-reflexivity, participants became more deeply aware of their own personal power, bias, and unacknowledged racism in their blended classrooms. This study has shown that collaborative professional development promotes greater self-reflexivity, and encourages the sustained integration of Indigenous ways of knowing and doing in teacher pedagogy. Through this study I have provided a rare glimpse into the lived experiences of currently practicing educators in Alberta when attempting to tread the path towards addressing the TRC Calls to Action in their teaching. The findings of this study further suggest that additional support and training are required to meet the needs of teachers to more successfully and meaningfully address the call for reconciliatory education in Canada.

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Appendix A

Prompts to encourage deep reflection in participants' journals

1. In your mind, what are the best parts of being a teacher?
2. What perspectives of Indigenous ways of knowing and doing can you relate to?
3. This week, what experience are you most proud of in your attempts to implement Indigenous ways of knowing and doing in your classroom?
4. What part of implementing Indigenous ways of knowing and doing is better than you thought it would be?
5. Do you believe you have grown as an educator in your attempts to expand your teaching pedagogy? Why/Why not?
6. What are your strengths in implementing Indigenous ways of knowing and doing? Which are you most grateful for?
7. What new learning has inspired you in your teaching?
8. Write about a memorable moment in the classroom. What stood out the most and why?
9. What was your mindset when you began this study? What is it now? How has it changed and why?
10. What have you found to be vital to make implementing Indigenous ways of knowing and doing in your pedagogy both sustainable and enjoyable for you?
11. If nothing else, what is one thing you want to take from your time in this study?
12. What does your support system look like (both in the school building and beyond)?
13. What tech tools do you find the most useful in implementing Indigenous ways of knowing and doing in your pedagogy? Why? How have they changed what you do?

14. What is the most powerful aspect of your raised awareness and understanding of Indigenous ways of knowing and doing?
15. What advice would you give to other colleagues who struggle with implementing Indigenous ways of knowing and doing in their teaching pedagogy?
16. What's the best part of implementing Indigenous ways of knowing and doing in your teaching? What 'part' do you dislike? Why?
17. What pedagogical practice (or 'part' of teaching) would you like to let go of? That no longer serves you or could be better done in other ways?
18. Talk about one thing you used to 'believe' about Indigenous ways of knowing and doing'? How has this belief changed?
19. Do you recognize any aspects of your teaching pedagogy that support a colonialized agenda?
20. If you could learn anything from the members of this study, what would it be?

Appendix B

Prompts to encourage self-reflection and Introspection

1. Have you ever led activities that reduce a group of people into character roles or stereotypes? Have you ever been involved in cultural appreciation activities? Can you describe them?
2. Do you offer Indigenous content in your classroom? How? Do these resources promote Indigenous peoples as 'victims'? Do you engage with resources that promote images of Indigenous strength, pride, and vision?
3. Do you group all Indigenous peoples into one homogenous 'culture'?
4. What stereotypes have you been exposed to regarding Indigenous learners?
5. Have you ever used, or been in the presence of someone who has used any of the following colloquialisms?
    a. Too many chiefs and not enough Indians
    b. Circle the wagons
    c. Indian summer
    d. Let's have a powwow
    e. Hold down the fort
    f. They're on the warpath
    g. Low man on the tote
6. Have you ever engaged in Indigenous professional development that wasn't mandated?
7. How do you create connections with your Indigenous learners? Colleagues?

Appendix C

Resources offered to research participants

The Learning Circle

The Learning Circle: Classroom Activities on First Nations in Canada. Ages 4-7

The Learning Circle: Classroom Activities on First Nations in Canada. Ages 8-11

The Learning Circle: Classroom Activities on First Nations in Canada. Ages 12-14

The Learning Circle: Classroom Activities on First Nations in Canada. Ages 14-16

Empowering the Spirit

https://empoweringthespirit.ca/

Walking Together

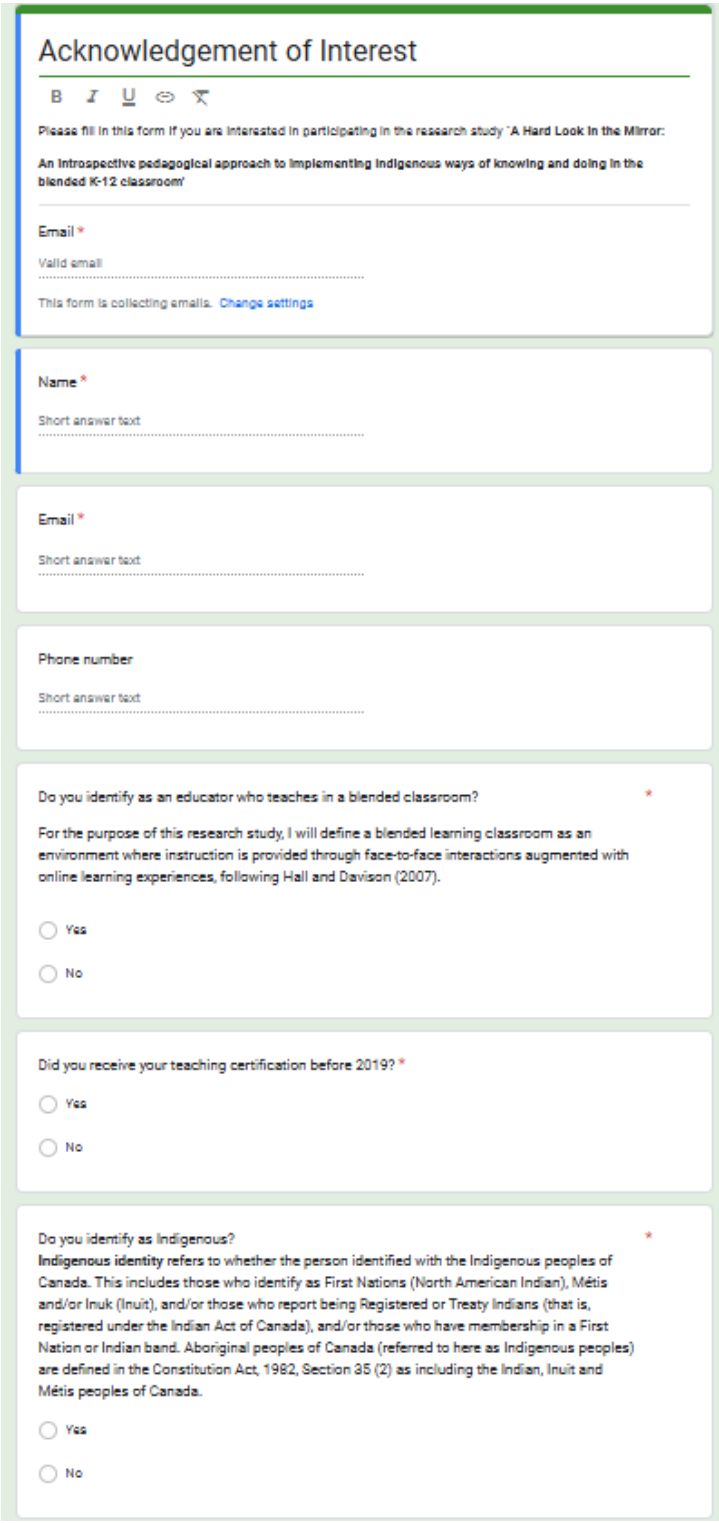
https://www.learnalberta.ca/content/aswt/

The National Center for Collaboration Teaching Resource Center

https://www.nccie.ca/teaching-resource-centre/

Appendix D

Acknowledgement of Interest Google Form



Acknowledgement of Interest

Please fill in this form if you are interested in participating in the research study "**A Hard Look in the Mirror: An introspective pedagogical approach to implementing Indigenous ways of knowing and doing in the blended K-12 classroom**"

Email *

Valid email

This form is collecting emails. Change settings

Name *

Short answer text

Email *

Short answer text

Phone number

Short answer text

Do you identify as an educator who teaches in a blended classroom? *

For the purpose of this research study, I will define a blended learning classroom as an environment where instruction is provided through face-to-face interactions augmented with online learning experiences, following Hall and Davison (2007).

- Yes
- No

Did you receive your teaching certification before 2019? *

- Yes
- No

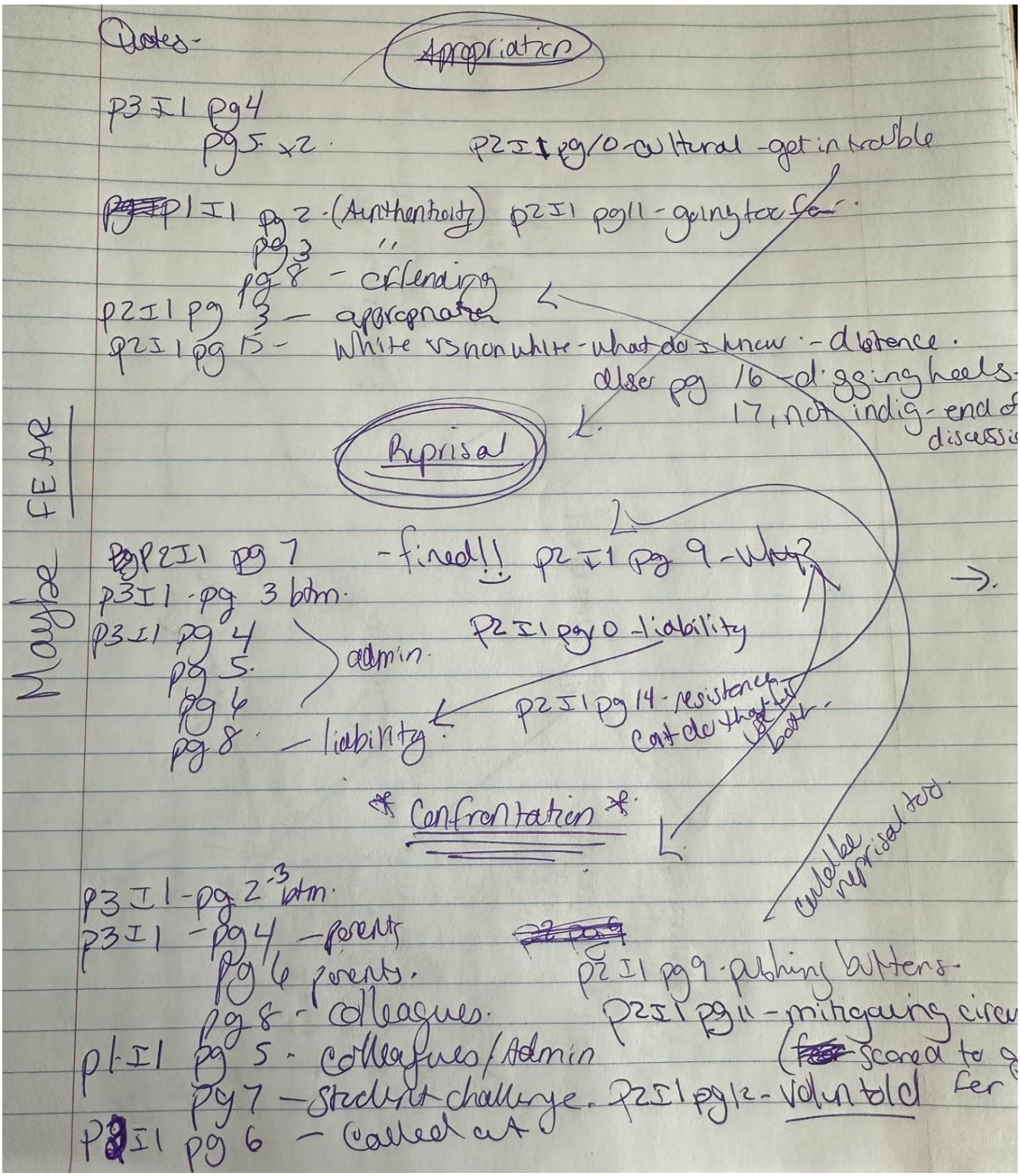
Do you identify as Indigenous? *

Indigenous identity refers to whether the person identified with the Indigenous peoples of Canada. This includes those who identify as First Nations (North American Indian), Métis and/or Inuk (Inuit), and/or those who report being Registered or Treaty Indians (that is, registered under the Indian Act of Canada), and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada (referred to here as Indigenous peoples) are defined in the Constitution Act, 1982, Section 35 (2) as including the Indian, Inuit and Métis peoples of Canada.

- Yes
- No

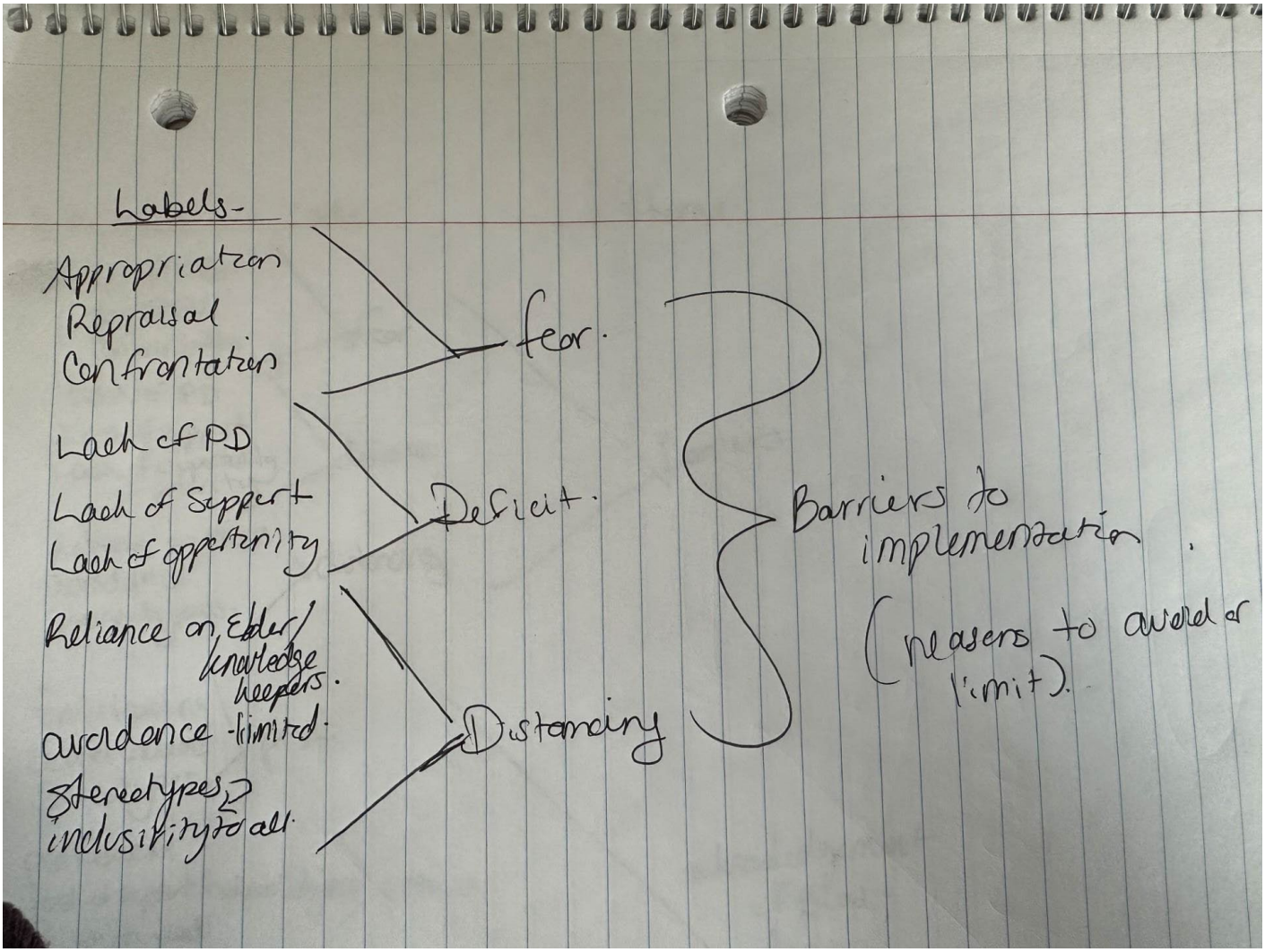
Appendix E

Quotes and labels initial worksheet example



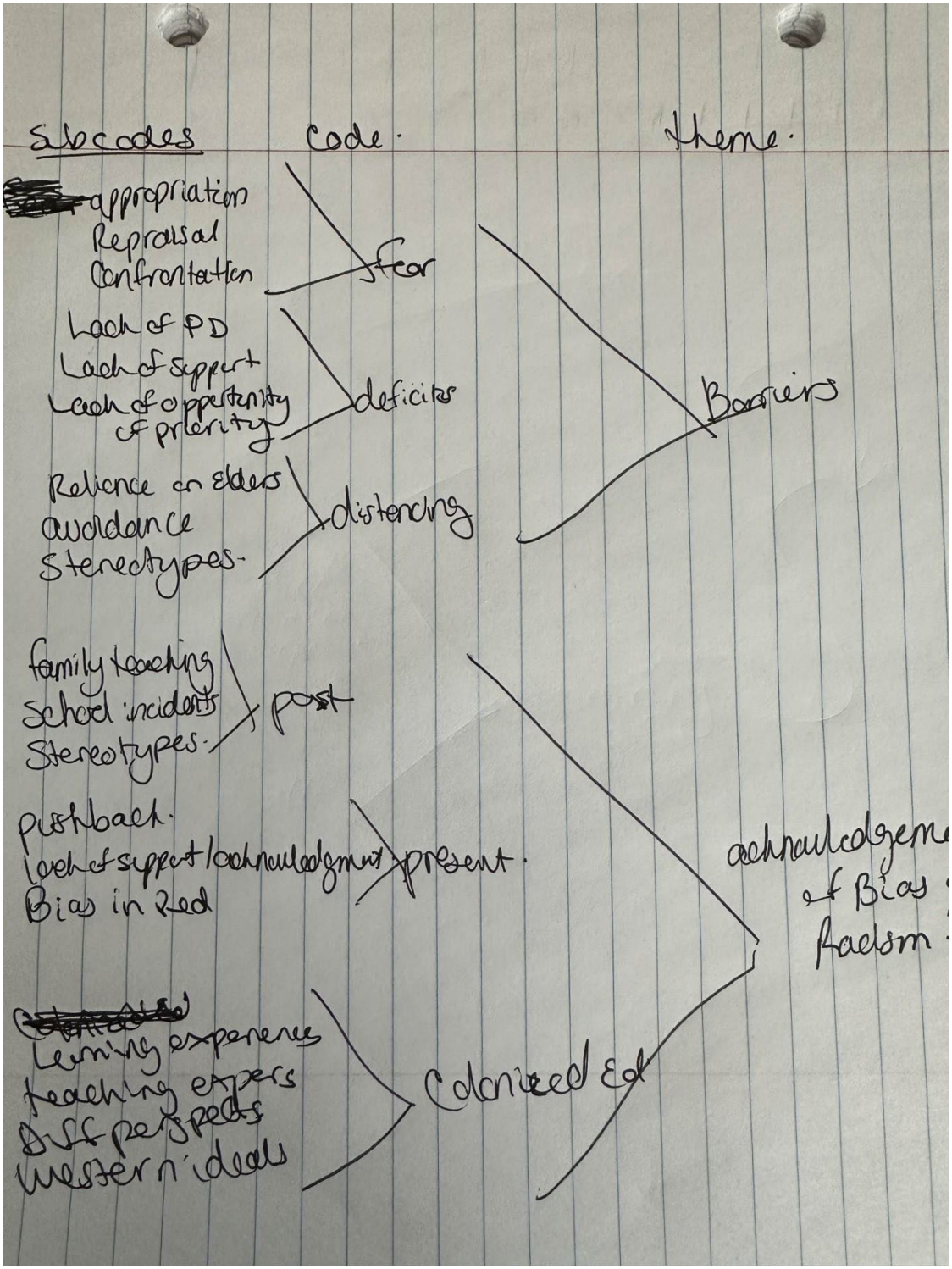
Appendix F

Labels to codes worksheet example



Appendix G

Themes worksheet example



Appendix H

Recruitment poster

PARTICIPANTS NEEDED FOR RESEARCH IN EDUCATION

We are looking for volunteers to take part in a research study about the challenges and barriers non-Indigenous educators experience when integrating Indigenous ways of knowing and doing in K-12 teacher pedagogy.

As a participant in this study, you would be asked to participate in individual interviews and collaborative focus group sessions. These sessions will be approximately 2 hours in length. You will spend approximately three months integrating Indigenous ways of knowing and doing in your classroom pedagogy with the collaboration of fellow research participants, guided by a leader in Indigenous education. Participants will be asked to keep a reflective journal during their participation in the study

Your participation is **entirely voluntary** and consists of two individual interviews and five focus group sessions. By participating in this study, you will help us to determine the perceived challenges and barriers that non-Indigenous educators face when incorporating Indigenous ways of knowing and doing in K-12 teacher pedagogy.

In appreciation for your time, you will receive a monetary remuneration in the form of a gift card, and will be entered into a draw for a digital tablet.

To learn more about this study, or to participate in this study, please contact:

Principal Investigator:
Ashley Gollert, Doctoral Candidate in Open, Digital, and Distance Education, Athabasca University
ashley.gollert@outlook.com

If interested please click on the following link

https://docs.google.com/forms/d/e/1FAIpQLSfeztvoxV1Pfip_hIRB7BIAYwyAfwh1chZBFwvb3WwBHymVzw/viewform?usp=sf_link

This study has been reviewed by the Athabasca University Research Ethics Board.

Appendix I

LETTER OF INFORMATION / INFORMED CONSENT FORM

A Hard Look in the Mirror:
An introspective pedagogical approach to implementing Indigenous ways of knowing and doing in the blended K-12 classroom

February 2024

Principal Investigator (Researcher):
Ashley Gollert
403-861-3472
ashley.gollert@outlook.com

Supervisor:
Dr. Debra Hoven
debrah@athabascau.ca

You are invited to take part in a research project entitled **'A Hard Look in the Mirror: An introspective pedagogical approach to implementing Indigenous ways of knowing and doing in the blended K-12 classroom'**

This form is part of the process of informed consent. The information presented should give you the basic idea of what this research is about and what your participation will involve, should you choose to participate. It also describes your right to withdraw from the project. In order to decide whether you wish to participate in this research project, you should understand enough about its risks, benefits and what it requires of you to be able to make an informed decision. This is the informed consent process. Take time to read this carefully as it is important that you understand the information given to you. Please contact the principal investigator, *Ashley Gollert* if you have any questions about the project or would like more information before you consent to participate.

It is entirely up to you whether or not you take part in this research. If you choose not to take part, or if you decide to withdraw from the research once it has started, there will be no negative consequences for you now, or in the future.

Introduction
My name is *Ashley Gollert* and I am a *Doctor of Open, Digital, and Distance Education* student at Athabasca University. As a requirement to complete my degree, I am conducting a research study about the challenges and barriers non-Indigenous educators experience when integrating Indigenous ways of knowing and doing in teacher pedagogy. I am conducting this project under the supervision of *Dr. Debra Hoven.*

Why are you being asked to take part in this research project?
You are being invited to participate in this project because you identify as a non-Indigenous educator in a blended classroom who was certified before 2019.

What is the purpose of this research project?
The purpose of this experimental study is to explore the perceived challenges, barriers, and reactions faced by non-Indigenous educators in incorporating Indigenous ways of knowing and doing in a blended K-12 classroom. This study aims at promoting self-reflexivity and

introspection as methods of raising awareness among teachers of settler power, privilege, bias, and unacknowledged racism within teaching pedagogy. This study seeks to foster self-reflective professional development to assist non-Indigenous teachers in expanding their teaching pedagogy to include strategies compatible with Indigenous ways of teaching and learning. The objective of this study is to explore the lived experiences of non-Indigenous educators, their reactions to and about Indigenous ways of knowing and doing, and their methods of addressing deeply subconsciously held bias and racism in their pedagogical considerations.

What will you be asked to do?

You will be asked to participate in an initial one-on-one interview (approximately 2 hours) to determine the perceived barriers and challenges you have faced when incorporating Indigenous ways of knowing and doing in your blended practice. This initial interview will occur at a time and place that is convenient to your schedule. Over a two to three-week period, you will be asked to collaboratively discuss these challenges within two focus group sessions (approximately 2 hours each) with other participants, the researcher, and an Indigenous education colleague. These focus group sessions will take place in a neutral location, and a mutually agreed upon time with all research participants. You will be asked to discuss methods you could utilize to integrate Indigenous ways of knowing and doing within your classroom pedagogy. Participants will be asked to spend approximately three months integrating these knowledges into their pedagogical considerations and to reflect on these experiences through a personal introspective journal. During this 3-month stage, you will be invited to collaboratively discuss your experiences with the other research participants at a neutral location and a mutually agreed upon time. Your participation within the study will include a period of concentrated reflection of approximately 2 weeks at the close of the three-month integration period, and will conclude with a final focus group debrief session and one-on-one interview (approximately 2 hours) with the researcher. The final focus group debrief session will occur at a neutral location, and the final one-on-one interview will be scheduled at a time and place that is convenient for the participant. The total approximate time required for participation within this study will be 4 months. The interviews and focus group sessions will be audio recorded and transcribe into a digital word format.

A follow up phone conversation will be scheduled to review the interview, focus groups, and reflective journal transcripts at which time you will be given the opportunity to alter/clarify any of your comments that have been recorded within the transcribed data.

What are the risks and benefits?

The risks associated with participation within this study are minimal, in which the probability and magnitude of possible harms implied by participation is NO greater than those encountered by participants in those aspects of their everyday life that relate to the research. (ie. Those you may experience daily in your classroom)

The benefits that may occur with your voluntary participation within this study are the development of deeper understandings of the Indigenous ways of knowing and doing, as well as the acknowledgement of personally subconsciously held beliefs that may have hindered your pedagogical growth. As an incentive for your participation, each participant will be awarded a $25 dollar gift card from Chapters as a thank you, and will be entered into a draw for a digital tablet at the conclusion of the study.

Do you have to take part in this project?
As stated earlier in this letter, involvement in this project is entirely voluntary. If at any stage in the study you wish to withdraw or stop your participation, you will need to submit a written letter as a formal acknowledgement of withdrawal. Data from the interviews, focus group sessions, and reflective journals will be retained by the researcher unless you indicate otherwise. Data cannot be removed from the study after the transcription process has ended as the data will then be anonymized and the researcher will be unable to determine which participant submitted the data.

How will your privacy and confidentiality be protected?
The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure.

- Each participant will be required to sign a confidentiality agreement, which will be attached to this informed consent, as well as give oral confirmation of consent at the onset of the individual interviews and focus group sessions. As this study is collaborative in nature, each participant will be exposed to personal identifiable information about the other research participants, and must acknowledge their responsibility to protect the anonymity of the other research participants and their personal information.

How will my anonymity be protected?
Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance.

Within this collaborative study, participants anonymity cannot be guaranteed within the confine of the focus group sessions. Data obtained from the participants through interview transcripts, focus group sessions, and reflective journals will be reported without identifiers and will be assigned a gender-neutral alias.

Each participant is free to choose whether they wish to remain anonymous. If the participant chooses to disclose their identity, the information that is shared will not negatively affect or identify other participants who wish to remain anonymous.
Every reasonable effort will be made to ensure your anonymity; you will not be identified in publications without your explicit permission.

How will the data collected be stored?

- Data will be stored in an encrypted digital file on an external hard drive. The hard drive will remain in a locked draw of my desk in my private locked home office.
- The data will be stored for a minimum of 5 years, and will be retained for the purposes of future research publications and for research integrity purposes. If an additional study is designed which anticipates a secondary use of the data, further REB approval will be sought.
- Each participant will retain the original copy of their reflective journals to keep or dispose of at will.

In the event that we cannot find a mutually agreed upon time and location for the focus group sessions, we could potentially meet through the video/audio conferencing software Zoom; However, every effort will be made for in-person collaborative focus group sessions.

"This study will use the Zoom to collect data, which is an externally hosted cloud-based service. When information is transmitted over the internet privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). Further, while the researcher will not collect or use IP address or other information which could link your participation to your computer or electronic devices without informing you, there is a small risk with any platform such as this of data that is collected on external servers falling outside the control of the research team. If you are concerned about this, we would be happy to make alternative arrangements (where possible) for you to participate, perhaps via telephone. Please contact Ashley Gollert for further information.

Recordings (audio/video) will be saved in a password protected file to Ashley's local computer, not the cloud-based service.

Please note that it is the expectation that participants agree not to make any unauthorized recordings of the content of a meeting / data collection session."

Who will receive the results of the research project?

The research project will be disseminated through a written dissertation which will be available upon request to interested participants.

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- The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available.
- *Direct quotations from interview transcripts and reflective journals will be used in the dissemination of this study. All identifiable information will be removed unless permission has been granted from the research participant.*
- *A transcription of all audio recordings will be used in the dissemination of the research.*

Who can you contact for more information or to indicate your interest in participating in the research project?
Thank you for considering this invitation. If you have any questions or would like more information, please contact me, Ashley Gollert by e-mail *ashley.gollert@outlook.com* or *403-861-3472* or my supervisor *debrah@athabascau.ca.* If you are ready to participate in this project, please complete and sign the attached Consent Form and return it by February 15, 2024.

Thank you.

Ashley Gollert

This project has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns about your treatment as a participant, the research, or ethical review processes, please contact the Research Ethics Officer by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033.

Informed Consent:
Your signature on this form means that:

- You have read the information about the research project.
- You have been able to ask questions about this project.
- You are satisfied with the answers to any questions you may have had.
- You understand what the research project is about and what you will be asked to do.
- You understand that you are free to withdraw your participation in the research project without having to give a reason, and that doing so will not affect you now, or in the future.

- You understand that if you choose to end your participation **during** data collection, any data collected from you up to that point will be retained by the researcher, unless you indicate otherwise.
- You understand that if you choose to withdraw after data collection and transcription has ended, your data cannot be removed from the project as it will be anonymized.

	YES	NO
I agree to be audio-recorded	◯	◯
I agree to the use of direct quotations	◯	◯
I agree to the use of audio recordings in dissemination	◯	◯
I am willing to be contacted following the interview to verify that my comments are accurately reflected in the transcript.	◯	◯

Your signature confirms:

- You have read what this research project is about and understood the risks and benefits. You have had time to think about participating in the project and had the opportunity to ask questions and have those questions answered to your satisfaction.

- You understand that participating in the project is entirely voluntary and that you may end your participation at any time without any penalty or negative consequences.

- You have been given a copy of this Informed Consent form for your records; and

- You agree to participate in this research project.

_____ _____

Signature of Participant Date

Principal Investigator's Signature:

I have explained this project to the best of my ability. I invited questions and responded to any that were asked. I believe that the participant fully understands what is involved in

participating in the research project, any potential risks and that he or she has freely chosen to participate.

_____ _____

Signature of Principal Investigator Date

Appendix J

Athabasca University

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: **25562**

Principal Investigator:
Ms. Ashley Gollert, Doctoral Student
Faculty of Humanities & Social Sciences\Doctor of Education (EdD) in Distance Education

Supervisor/Project Team:
Dr. Debra Hoven (Supervisor)

Project Title:
A Hard Look in the Mirror: An introspective pedagogical approach to implementing Indigenous ways of knowing and doing in the blended K-12 classroom

Effective Date: February 28, 2024 **Expiry Date**: February 27, 2025

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: February 28, 2024**

Tobias Wiggins, Chair
Faculty of Humanities & Social Sciences, Departmental Ethics Review Committee

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Athabasca University Research Ethics Board
University Research Services Office
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780.213.2033