

On Water: Journey of an Indigenous Researcher Guiding Professional Development as
Teachers Navigate Native American Curriculum

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Dedication

To my family, Tony, Maria, and Gabrielle, extended family and friends. Without your support and love, this dream of mine would never have been possible.

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Many thanks to my family and friends who supported me in this PhD journey. Also, I am grateful for my committee: Misty Sato, Mary (Fong) Hermes, Tim Lensmire, and Thom Swiss. I also am indebted to all of my teachers and all of my students- past, present and future. Especially I thank my elders who guided me every step of the way; and to Native American students who I continue to support in all of my work.

Abstract

Because only 0.4% of teachers in Minnesota are Native American, nonNative educators must also learn how to teach this content in ways that increase the engagement and achievement of all our state's students. Yet most teachers are not equipped to teach these standards effectively and confidently. This study offers an emerging Native American female researcher's analysis of ways to conduct Professional Development (PD) for non-Native K-12 teachers.

I start with two assumptions. First, until we are able to radically transform our teacher preparation programs by indigenizing the pedagogical curriculum so as to increase the number of Native American teachers, we must prepare white teachers to begin the journey in learning how to implement indigenous history, language, and culture curriculum. Second, educational researchers need to support classroom teachers in ways that can help them learn to use the many critical pedagogies and PD available to them, helping them develop a culturally relevant practice in terms of Native American literature and content.

This study asked: What are nonNative teachers' experience in PD regarding MN Native American curricular content of history, language, and culture? And: What supports and structures in (PD) add to non-Native American teachers' experiences as they create culturally relevant curriculum on Minnesota Native American history, language, and culture? I used a theoretical framework of indigenous epistemologies (i.e., indigenous knowledge, locates where it originates and who it encompasses) and relationships by creating a bridge between the story of the empirical literature reviewed and my own stories as an emerging researcher. Indigenous Methodologies (IM) were employed in this study including: a connection or relationship between knowledge and nature theoretical stance on identity seen through water, story as method, and creating relationships with participants.

The study focused on three K-12 teachers who participated in five PD sessions with me. Sessions included: Native-created text evaluation; analyzing Native American curriculum; discussions, hands-on activities, critical journal reflections; and reading three

Native-authored texts. Data were analyzed using my new data analyzing technique of *Indigenous Storalyzing* which synthesizes IM and uses understanding through embodiment and conceptual thought; story as an indigenous research method used to work through, interpret, and make sense of the data; and analyzing the data and scholarship sources in storytelling. I also place myself in the analysis as the PD facilitator as I conceptualize myself as a guide in the teachers' PD journey.

I tell the stories on water of the three teachers—one who got entangled in the shallow weeds of lake water; one who journeyed swiftly across the water's surface, but who encountered episodes of freezing; and one who found herself encountering the unpredictable and bumpy ride of water and air in contact with each other. I conclude that teachers in this study had a new surface level awareness and new confidence as they were able to take up how to deconstruct the Minnesota Native academic standards using a critical lens; how they used this new awareness to shape how they took up Native history, language, and culture into new curriculum; how I, as an emerging indigenous researcher, navigated ways to see the difference between creating professional relationships versus personal ones; how to protect my Native identity and personal stories from the "gaze" of some nonNative PD participants; along with disrupting assumptions of how transformational learning.

The implications for this research suggest that PD should be extended over many sessions to create relationships and trust; offer updates to the teachers' administration so they are aware of the content of the PD and changes that may grow from it; offer multiple ways for teachers to respond to the experience; scaffold the background readings of Native-authored texts to ease into the content; and differentiate interactions with the participants.

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Abbreviations

PD	Professional Development
IM	Indigenous Methodologies

Chapter 1

Entry Journey on Water

Promoting respectful Native American literature is where my fire lay; yet this flame was nearly extinguished almost 35 years ago by the deluge of the wave of my first encounter, for the first time as a child, being mocked and humiliated for my love of Native American literature, and for what I interpreted then, for being a Native person.

This was the only time, due to various circumstances, that I was able to attend camp. To alleviate the feelings of being homesick I brought my favorite book, *A Winter's Count*, which is a traditional Lakota pictographic retelling of a battle or hunting story. This book was read over and over by me and my mother, yet I still found something new each time I read it--a phrase, a drawing, a lesson. After returning from camp dinner one night I opened the cabin door to find my bag had been rifled through and on the bunk were my cabin mates--one girl held my book and was, in a melodramatic voice, reading my book in a stereotypical "Injun talk" voice. My bunkmates were holding their sides in laughter. I made excuses of why I brought the book, and hid it away for the rest of camp--along with my identity as a Native person for many years, actually decades, to follow. When I returned home, I assumed I gave my treasured book away, and hid my Native identity for many of my school years. I wish I could remember what I did with this book.

Through reading Freire recently, and other indigenous and social justice texts, I am now able to work through the notion that the "...egoistic interests of the oppressors...[are an] instrument of dehumanization" (Freire, 1970, p. 54). I felt "less-than" after this experience. My notion of story did not jibe with my peers.

This experience motivated me when I became an adult. I came to realize that too many Native American schoolchildren must also hide from their identity while having to endure biased, racist, and stereotypical literature taught by too many teachers-- even today. My own children have brought home books with phrases claiming, "...those dirty Indians...", "...the squaw brought him food...", and even false notions that "Indian people did not know how to tell time."

And so, in this same vein of sharing my story, I share my journey and how my venture into indigenous research methodology has been brought to the surface.

Today, each time I pass a used book store I look for my *Winter Counts* book, believing that it will return to me, swirl back, so that, in what Native people believe, I may complete the circle and return once again to my beloved Native literature.

And so, in this dissertation, I study how teachers can create a ripple effect to open minds and hearts to appreciate Native literature, so no child needs to be ashamed of seeing books which reflects themselves. Due to the changing racial population in the United States, educators must develop and include more reflection of diversity in their teaching (Gunn & King, 2015; Lewthwaite et al., 2013), and hence, the empirical studies must also include culturally responsive pedagogy theory. Students of color make up 45% of the population in public schools yet only 17% of U.S. public school educators are people of color (Achinstein & Ogawa, 2012, p.2). Therefore, since the majority of teachers in the United States are white, these teachers must be *taught how* to implement diverse curriculum (i.e., Native American) into the classroom.

I offer that, due to existing diverse population and demographic changes, there is a need not only for diverse teachers, but for understandings in culturally responsive curriculum and pedagogy (Achinstein & Ogawa, 2012; Lopez, 2011). Yazzie-Mintz's (2007) research further supports this notion that Native American students and students of color are not attaining academic achievement compared to white students, spurring a demand for educators to scrutinize both their critical teaching practices and curriculum content. Intentionally framing teacher development around a culturally responsive pedagogy theory would greatly increase nonNative educators' understanding of indigenous curriculum.

One of the unique features diverse students must have for success is for curriculum and teaching practices to include the history, language, and culture that mirror students of color own experiences (Beard, 2011; Ladson-Billings, 1997; Lopez, 2011). Teacher development research must include a framework which supports all teachers to be familiar with and cognizant of the notion of indigenous identity, language, culture, land, and sovereignty.

I contend that teachers must be cognizant of their own beliefs, racial theories, and cultural philosophies and how these inform their pedagogical practices in the classroom (Hill, 2012; Landsman & Lewis, 2011). Before educators can teach diverse content, a racial self-awareness must be present to use culturally responsive pedagogical elements. Teacher development research must support educators to examine and understand the need for positioning one's self to gain an "understanding [of] their perspectives, a critical

element in the development of a culturally responsive teaching stance” (Gere, Buehler, Dallavis, & Haviland, 2009, p. 820).

Expanding on the need to include racial identity development in PD is the notion (in a culturally responsive pedagogy framework) of racial consciousness. Racial consciousness is a perspective of seeing things in a racial context even while a person may not be knowingly cognizant of race (Gere et al., 2009). Braidotti (2006) stated:

Non-Native teachers of Native...[content] have a particular responsibility both to the students in our classrooms (Native and non-Native) and to the texts we teach. The system in which we teach all too often mirrors the colonial dominance of the past. We must walk into the classroom each day remembering that issues of power are central to discussions of ethics, needing both to confront the challenge of our historicity and to assume responsibility or accountability so that each of us can engage actively with the social and cultural conditions that define our individual locations. (as stated in Beard, 2011, p. 110)

Educators must be willing to engage in racial self-situating if they want their own students to feel comfortable reading and discussing diverse content. By being open and honest in regards to self-identity, teachers can model ways for students to do this as well (Beard, 2011). However, embodying culturally relevant pedagogies must be deliberate and requires PD studies to include a theoretical design to support teachers to be critically mindful that the dominant world perspectives do not assume prominence in the daily practices of teaching diverse students (Beard, 2011; Lopez, 2011; McCarty & Lee, 2014; Yazzie-Mintz, 2007).

In this dissertation, each chapter begins or ends with a story. A story is the foundation of research, data, and analysis. This notion mirrors this idea, and follows the indigenous method of using story to learn about and understand the world. Chapter 1 provides an introduction, overall organization, and foundation for the study based on story.

Chapter 2 contains a broad-spectrum literature review that serves to ground my study in the context of prior research. This literature review synthesizes the methods, successes, and challenges in the empirical literature on teacher and professional development (PD) related to Native American and indigenous understandings in school curriculum.

Chapter 3 creates a bridge between the literature reviewed and moves into my own story of my theoretical conceptions of tracing identity as seen on and through water. This chapter begins how I articulate indigenous epistemologies of how land, water, and nature can be seen as pedagogy and theory. Also, using water introduces how I will analyze my dissertation data.

Chapter 4 continues with story and how and why I choose to embrace Indigenous Methodology as a lens for this study. Decolonizing research methods are traced and defined, and then frame how I shaped my dissertation study. This chapter also traces the way indigenous research frameworks have influenced my own dissertation study of how K-12 nonNative teachers learned and worked to include indigenous curriculum into their classrooms. This methodology chapter also introduces my new experimental indigenous analysis method of Indigenous Storalyzing.

Chapter 5 takes up the data analysis through my Indigenous Storalyzing method where land, water, the teacher participants, and myself all journey together in the story of the Native curriculum professional development journey. The waters of the lake represent each teacher's PD experience as together, we navigate how they took up this learning.

Chapter 6 shares the lessons learned and findings from all three teacher's experience as well as my own voyage of becoming an indigenous researcher. This final chapter also includes implications for teaching and future research.

Statement of Study Significance

With over 18,000 Native American students in Minnesota , according to the Minnesota Senate Offices Senate Counsel, Research and Fiscal Analysis office ("Minnesota Senate Offices," n.d.), there is a great need for non-Native educators to be knowledgeable of the state's indigenous history, language, and culture in order to effectively teach the K-12 English Language Arts (ELA) academic standards to both Native and nonNative students.

With the majority of Minnesota K-12 teachers being white, or nonNative American (The State of Racial Diversity in the Educator Workforce, 2016), there is a clear need for PD to support these educators in understanding how to meet the K-12 Native American ELA academic standards. There are over 20 academic standards in Minnesota's K-12 ELA (Minnesota Department of Education, n.d.) policy which focus on Native American literature, yet teachers are not equipped to enact and to teach these standards effectively and confidently. Unfortunately, very few educators have the critical

tools and knowledge to implement authentic Native Americans texts used in their classrooms.

Students in U.S. K-12 schools still absorb the limited perception of Native Americans typically presented in the books they read in school. Educators are at the front lines in terms of being able to disrupt the use of both biased pedagogy and classroom materials. It is imperative that students have a true and accurate representation of diverse societies, including Native Americans. K-12 teachers have a gatekeeping role in promoting accurate portrayals of diverse content. Educational researchers need to support classroom teachers in ways that can help them learn to use the many critical pedagogies and PD available to them, helping them develop a culturally relevant practice in terms of Native American literature and content. However, the current scholarship only focuses on studies on how nonNative teachers learn effective pedagogies and practices to work with Native K-12 students (Agbo, 2007; Bennet & Moriarty, 2016; Bishop et al., 2012; den Heyer, 2009; Helmer, 2013; Hickling & Hudson & Ahlquist, 2003; Higgins et al., 2013; Lavery et al., 2004b; Moeller et al., 2012; Oliver et al., 2011; Oskineegish, 2015; Schulz & Fane, 2015; Sleeter, 2010; Whitinui, 2010); research on Native communities as partners with schools (Lees, 2016); studies of indigenous language in mainstream content (Meaney et al., 2013); one study of Aboriginal and white educators implementing indigenous Physical Education standards in the Cook Islands (Te Ava et al., 2013); one study of working with Native educators implementing literacy and linguistic needs of Native students (Vaughn, 2016); and two similar studies to the one that I am suggesting (Deer, 2013; McInnes, 2016) of working with nonNative educators, but these are

focusing on pre-service teachers. One can simply look to the overabundance of studies of nonNative educators studying Native people to agree that more research from an indigenous perspective on including Native curriculum content is needed.

Therefore, there is a critical need for a study on how nonNative practicing teachers are learning how to implement Native American literature and curricular content in the classrooms through PD. For too long research has been done *to* and *on* indigenous people, yet my research will offer that a Native American female education faculty member, and a PhD student, will begin to study ways of conducting PD for non-Native K-12 teachers. This study, based on a pilot study I conducted in 2016, will promote social justice to inform new ways of preparing educators to respectfully transform the way they teach Native American curricular content. Minnesota teachers must move toward the goal of learning the history, language, and culture of the state's original people. Because only 0.4% of teachers in the state of Minnesota are Native American (The State of Minnesota Public Education, 2014 - MINNCAN, n.d.) there simply just aren't enough indigenous educators yet to share the knowledge and understandings of how to implement Native content effectively and respectfully. Therefore, nonNative educators, who make up 96% of the MN education landscape (The State of Minnesota Public Education, 2014 - MINNCAN, n.d.) must also learn how to teach this content to not only cover the Native American academic standards, but to increase the engagement and achievement of *all* our state's students.

Simply put, in my study I am arguing for Native people's sovereign right to repossess our *own* stories of ourselves--both in representational image and in word.

Educators are feeding our K-12 students misrepresentations of the entire race of our nation's first people by keeping these biased texts in the students' hands.

Chapter 2

Review and Critique of Native American Empirical Teacher Development Studies

In this chapter I synthesize and critique the empirical research in areas which will direct my dissertation focus. These areas include the empirical literature on professional development (PD) related to Native and indigenous understandings in school curriculum. Wanting to only include research directly related to teacher development on Native American content, I used search terms which included some of the following: Native American¹, American Indian, indigenous, Aboriginal, teacher development, and teacher preparation. I chose to exclude studies which had only a broad scope of diversity so as to focus and privilege only empirical teacher development educational research on nonNative teacher development in contexts with indigenous curricular content. Native Americans are unique and therefore need to be recognized as distinct from the larger umbrella of “multicultural” or “diversity education” due to the special relationship and status with the U.S. government. Studying and improving the educational systems for Native people are ways to make reparations to the generations of families traumatized by

¹ *Terminology*: Although it is best to use the specific tribal identity, such as the Turtle Mountain Band of Ojibwe, for purposes of this literature review, the terms Native American or Native (U.S. common term), First Nation/Aboriginal (Canada, New Zealand and/or Australia common term), and indigenous are used interchangeably.

Indian Boarding and Residential Schools (McInnes, 2016) which decimated generations of indigenous children's Native history, language, culture, and family life.

Review of the Literature

The studies span both licensed and preservice teachers along with studies inside the United States of America (U.S.), Canada, Australia, and New Zealand. The literature review includes: methods of PD, indigenous learning that the PD sought to deepen, successes, and challenges of the studies. Following this research review, I offer critiques about the theoretical methods of teacher development which will guide my study of understanding nonNative teachers' experience in PD regarding Minnesota Native American history, language, and culture.

Study Details

Out of 20 studies reviewed five were conducted within the U.S. Five studies were set in Canada. Australia had the largest number of studies with six and New Zealand had the least at four. The majority of the studies (twelve) had licensed teachers only as the participants. The remaining eight studies focused on pre-service teachers.

The literature ranged in focus and spanned across topics such as: studies on how nonNative teachers learn effective pedagogies and practices to work with indigenous K-12 students (Agbo, 2007; Bennet & Moriarty, 2016; Bishop, Berryman, Wearmouth, Peter, & Clapham, 2012; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2003; Hickling-Hudson & Ahlquist, 2004; Higgins, Madden, & Korteweg, 2013; Lavery, Cain, & Hampton, 2004; Moeller, Anderson, & Grosz, 2012; Oliver, Rochecouste, Vanderford, & Grote, 2011; Oskineegish, 2015; Schulz & Fane, 2015; Sleeter, 2010; Whitinui, 2010);

research on Native American communities as partners with schools (Lees, 2016); studies of indigenous language in mainstream content (Meaney, Trinick, & Fairhall, 2013); one study of Aboriginal and white educators implementing indigenous Physical Education standards in the Cook Islands (Te Ava, Rubie-Davies, Airini, & Ovens, 2013); one study of working with Native educators implementing literacy and linguistic needs of Native students (Vaughn, 2016); and two similar studies (Deer, 2013; McInnes, 2016) of working with nonNative pre-service teachers in preparation programs.

Methods of Professional Learning

Following are the studies' methods of conducting professional learning including: courses and in-service workshops; critical journal reflections, critical discussions, and immersion experiences in indigenous settings. While some common methods have been synthesized, other unique studies are reported individually. More attention and detail is given to this PD method section of the literature review as a way to highlight and inform my own research in teacher development methods with nonNative teachers.

Preservice coursework and in-service workshops

Across the studies pedagogical the content of teacher preparation courses and professional development seminar methods varied and included: reading background texts from Native authors and/or on local indigenous history, language, and culture (Hickling-Hudson & Ahlquist, 2004; McInnes, 2016; Oskineegish, 2015); viewing films in class specifically on indigenous history of Residential and Indian Boarding Schools as most white teachers had little to no knowledge of the trauma caused by this forced method of assimilation (Deer, 2013; den Heyer, 2009; McInnes, 2016); listening to a

panel of Native students sharing K-12 experiences (McInnes, 2016); inclusion of cultural materials (Deer, 2013; McInnes, 2016); introductory lessons in local Native languages (McInnes, 2016); participation and/or visiting local indigenous cultural experiences (Bennet & Moriarty, 2016; Deer, 2013; Lees, 2016); conversations and relationship building with local Native communities (Lees, 2016; Moeller et al., 2012; Oskineegish, 2015; Sleeter, 2010; Vaughn, 2016); and a coaching model of supported implementation of indigenous-centered lessons (Bennet & Moriarty, 2016; Bishop et al., 2012; Te Ava et al., 2013).

According to den Heyer (2009) instructors in teacher preparation programs often ponder what is the best method to convey pedagogical content and curriculum which assists preservice teachers in what the students “should acquire, what techniques assist in this acquisition, and what assessments best measure acquisition” (p. 344). den Heyer’s (2009) study with secondary social studies method instructors noted that higher education must move beyond the stance of positioning indigenous curriculum as a body of static, school-centered knowledge, and instead shift towards curriculum seen as being an active encounter with the community, culture, and lives of the K-12 students as a way to disrupt perpetuations of racism.

Continuing with this notion of producing more interculturally competent white educators, McInnes’s (2017) recent mixed methods evaluation study found success and transformation in preservice teachers’ dispositions and understandings of Native history, people, and local communities through the inclusion of a required Native American content course. McInnes, a Native professor from the University of Minnesota, Duluth,

noted the inclusion of Native curriculum methods course in preparation programs varies vastly, yet is critical for benefiting all future K-12 students along with creating teachers as allies to the local indigenous communities. However, currently in my home state of Minnesota, only two of 17 teacher preparation programs in the state included a requirement for a separate Native American content and/or pedagogy course (Advisory Task Force on Minnesota American Indian Tribes and Communities and K- 12 Standards-Based Reform, 2009).

In his qualitative participatory research study on indigenous-community relations, Agbo (2007, p. 10) found that many licensed teachers specified that they “should have had the opportunity to learn about Canadian First Nations culture in the university, prior to their becoming teachers or as part of their teacher training.” Some studies urged caution in these methods so that nonNative educators do not simply essentialize Native cultures thereby making the participation a tokenistic pedagogical experience (Deer, 2013). Nor should nonNative participants assume rights to involvement in all cultural or indigenous spiritual ceremonies as an outcome of taking courses about Native cultural practices (Deer, 2013).

Critical reflection

Reflective journaling was another widely used method of teacher development reported in a number of studies. Teachers may practice new indigenous pedagogy, yet for them to engage in taking a critical examination of their own work, sustained reflection must be supported to lead to a profoundly different way of teaching (Bishop et al., 2012; Schulz & Fane, 2015).

den Heyer (2009) reported on the necessity for teachers to not only have critical verbal discussions of disrupting whiteness in education, but they must also construct a written thought process, or journal, as a physical connection to draw on a bodily theory to practice method. This, therefore, disrupts underlying hegemonic stances as the text must be re-read again and again as a way of self-interrogating notions of white supremacy. However, there were no further methods stating how this reflective journaling supported the move into practice.

Bishop et al.'s (2002) New Zealand mixed methods research on PD through iterative cycles also asserted that critical reflection was key to transformative pedagogy during PD sessions as a way to promote new classroom practices to increase indigenous student educational performances. Yet the study's findings showed that this reflection cannot be done unassisted (i.e., support is needed from a trained facilitator).

Lavery, Cain, and Hampton's (2014) qualitative study examined using guided journal writing during a service learning pre-service study in an indigenous Australian immersion experience and found that new conceptions of indigeneity were recognized by means of this written method (however an acknowledgment of the need for ongoing reflection was noted).

Similar to this, Meaney et al.'s (2013) qualitative study found reflective journaling on Maori educational history aided teachers' discourse in New Zealand to implement local indigenous knowledge into mathematics lessons. Te Ava et al.'s (2013) action research also posited that, after teachers used reflective writing in multiple

iterations of PD sessions, more indigenous knowledge, epistemologies, and language was infused into Cook Island physical education curriculum.

Oskineegish's (2015) qualitative Canadian study with teachers implementing culturally relevant teaching, along with Moeller et al.'s (2012) qualitative U.S. study with preservice teachers, found that teacher candidates' journaling (after interactions with Native students and community members during workshops) led to self-awareness of previously held stereotypical indigenous assumptions. By reflecting, these educators felt open to adopting a more respectful perception of Native Americans and First Nation cultures thereby enriching their teaching practices.

In an effort to promote preservice teachers' sociocultural awareness in health education preparation courses in Australia, Schultz and Fane's (2015) qualitative study noted written reflective practice promoted an "overall stance in terms of potential movement towards [racial] reflexivity" in students (p. 145).

Critical discussions

Along with implementing reflective journaling, studies also found having critical discussions around indigenous issues aided nonNative educators (Oliver et al., 2011), yet it was noted that this must be continued long term throughout teacher induction and/or during teacher development sessions to impact and sustain change in teacher attitudes on indigenous issues (Higgins et al., 2013; McInnes, 2016; Meaney et al., 2013).

McInnes (2017) stated that preservice education course discussions of Native treaty rights (e.g., hunting and gaming), at times, had been difficult, and were sometimes "deeply frustrating" (p. 159) and only superficial due to the limited time constraints of a

one semester class. Further findings from Higgins et al.'s (2013) qualitative study on indigenous education reform showed that numerous discussions are needed to even begin to move past nonNative teachers' notions of seeing themselves as "cultural strangers" (i.e., having no culture) (p. 261) and to refrain from focusing solely on deficit views of indigenous communities (Meaney et al., 2013; Schulz & Fane, 2015).

Negative misconceptions of First Nations' family involvement with Canadian schools surfaced during critical discussions between the local community and educators (Agbo, 2007). These findings allowed teachers to have a greater understanding of First Nations' culture and therefore helped to create more effective ways to communicate with indigenous parents.

By verbalizing individual's internal understandings and beliefs of indigenous history, language, and culture, teacher candidates were able to engage in discussions which required a reflexive "dialogical relationship between authoritative discourse and internally persuasive discourses" (den Heyer, 2009, p. 345). While racial discussions may be challenging for white teachers (Oskineegish, 2015), they can also be pivotal moments for intercultural growth as a way to re-assess what is, or isn't, working in Native curricular content implementation.

den Heyer (2009), however, also found preservice teachers were able to state historical indigenous content after discussions, yet had difficulties translating this knowledge to actual classroom pedagogy.

Lees (2016) distinctively used discussions with the Native community members during her community-university partnership qualitative case study as a method to create

dialogues regarding how to define the local indigenous' role in preparing nonNative teachers.

Immersion fieldwork in Native communities

Immersion experiences in and with Native communities were woven throughout many of the studies. Some studies also referred to field visits (Bennet & Moriarty, 2016), though these experiences entailed a shorter time with the indigenous communities (i.e., not embedded for multiple days and/or weeks).

Bennet and Moriarty's (2016) qualitative findings in their Australian study on preservice teachers' lifelong learning and development of knowledge stated that multiple interactions with indigenous communities are critical. These interactions aided the educators to "challenge the status quo of [nonNative] pre-service teachers' culture by disrupting or creating disequilibrium. Such trigger points provide opportunities to explore the cross-cultural space, enabling interrogation of one's own cultural positioning" (Bennet & Moriarty, 2016, p. 2). The study also noted that being embedded in an indigenous community allowed preservice teachers to listen and learn how colonialism directly impacted (and continues to impact) Native peoples.

Lavery, Cain, and Hampton's (2004) findings with a preservice teachers' seven day service learning immersion in a remote Australian indigenous community included increases of: personal development, professional knowledge, cultural awareness, and understandings of Aboriginal education. Preservice teachers engaged in community connections, repairing school grounds, and through journaling were able to confront their own Eurocentric notions of poverty and conceptions of wealth. By observing and

working under licensed teachers at the setting, the preservice teachers' pedagogical competencies regarding Aboriginal educational content increased as well (Lavery et al., 2004).

While Agbo (2007, p. 9) did not specifically use immersion in his First Nations study, he did however report on a somewhat similar "teacher integration" method where nonNative teachers participated in two community orientation sessions. It was noted by the teachers that these two sessions were not enough to truly grasp the Native community's educational needs.

Hickling-Hudson and Ahlquist's (2004) Australian qualitative case study with white teachers posit that time spent in an indigenous field setting is key to disrupting white supremacist forms of teaching and curricular creations, yet short one day orientation session were shown as wholly inadequate to prepare white teachers.

Lees (2016) reported that the Native community members took on an active role in creating relationships with the teacher candidates as a way to build trust between white teachers and the Native community. Findings also showed that field work allowed Native community partners to interact with nonNative preservice teachers in an effort to support their understandings of the unique requirements of indigenous education along with the curriculum in public schools.

Some studies found that immersion and field work experiences generated a potential partnership with indigenous communities by creating opportunities to deepen nonNative educators' ability to become advocates and allies for Native history, language, and cultures (Bennet & Moriarty, 2016; Lees, 2016; Sleeter, 2010). Yet caution was

asserted against using an indifferent, superficial immersion experience which may only lead to more essentializing of Native culture (Bennet & Moriarty, 2016; Deer, 2013).

Indigenous Learning the Professional Development Sought to Deepen

Numerous studies engaged in indigenous ways of learning through methods such as infusing local Native languages in PD; establishing relationships across the researcher, community, and participants; efforts to decolonize education; and including indigenous epistemologies. Most of the PD methods detailed here have been synthesized as a way to note the similarities in global indigenous ontological teachings.

Language revitalization

One indigenous epistemic PD method was to impart cultural understanding to nonNative teachers by introducing indigenous languages as a method to disrupt hegemonic, colonial dominance in schools (Agbo, 2007; Hickling-Hudson & Ahlquist, 2003; Te Ava, Rubie-Davies, Airini, & Ovens, 2013). Language inclusion in PD for white educators was seen as a crucial component connecting and sustaining indigenous language and culture.

A unique language partnership between indigenous community members and teachers resulted in the creation of a Canadian school-community English/Ojibwe newspaper that reported school and community news and included both teachers and parents as editors (Agbo, 2007). Interestingly, in Agbo's (2007) study these teachers disagreed as to who should be responsible for the nonNative teacher language instruction: higher education institutions or the local Native community.

Bennet and Moriarty (2016) and Lavery et al. (2004) conveyed the need not only for inclusion of Australian indigenous language in teacher development, but also found a need for an addition of respectful methods which could be implemented in sustained work with communities where there is conflict over Native language and history.

Mathematics lessons in New Zealand were embedded with local indigenous languages as a way to integrate both Maori community knowledge and school knowledge (Meaney et al., 2013; Te Ava et al., 2013). Yet, a challenge found was the difficulty for educators to “adopt the perspective that culture is ‘internal’ to curriculum, so many teachers, communities, and even students conventionally adopt the ‘external’ view: that they [Native communities] are ‘other’ to the curriculum” (Meaney et al., 2013, p. 237).

One important take away from the studies that included indigenous language in teacher development is the fostering of teacher awareness and attitudes of the ontological connection between land, Native cultures, and languages (Bishop et al., 2012; Deer, 2013; McInnes, 2016; Oskineegish, 2015). Implications were also made to break the hold on nonNative teachers’ conceptions that Eurocentric knowledge systems (including languages) are the universal norm (Higgins et al., 2013; Oliver et al., 2011; Schultz & Fane, 2015).

Relationships and collaboration between white teachers and Native communities

In the majority of the studies a key characteristic in the PD was developing relationships between local white communities and indigenous communities as a way to bridge Native peoples as co-creators in the educational systems (Agbo, 2007; Bennet &

Moriarty, 2016; Hickling-Hudson & Ahlquist, 2003; Meaney et al., 2013; Vaughn, 2016; Whitinui, 2010). For many of the white educators, this was the first actual personal engagement and relationship-building opportunity with Native peoples (Bennet & Moriarty, 2016; Deer, 2013; Hickling-Hudson & Ahlquist, 2004; McInnes, 2016; Moeller et al., 2012)

Studies also noted that relationships between teacher preparation partnerships and indigenous community members are key to building trust in indigenous communities-- which are often, and rightly, wary of a colonial educational climate (Lees, 2016; Te Ava et al., 2013). However, miscommunication between cultures occurred during initial relationship building when nonNative educators invited local Australian community elders to visit the schools and teach and perform traditional dance (Hickling-Hudson & Ahlquist, 2004). These teachers were disappointed and shocked that the elders asked for payment for the visit, yet the white educators did not recognize that other professionals usually are given payment for PD (Hickling-Hudson & Ahlquist, 2004).

Aside from educator PD, studies also found that establishing long term relationships aided with multiple areas of school improvement including: teacher retention in remote indigenous areas (Agbo, 2007; Oskineegish, 2015); disrupting teachers' essentialist conceptions of indigenous peoples (Higgins et al., 2013; Lavery et al., 2004; McInnes, 2017; Schultz & Fane 2015); and providing an open space for white teachers to "interrogate their own pedagogical practices, their positions of race and power" (Bennet & Moriarty, 2016, p. 2).

Some of the researchers (Lees, 2016; McInnes, 2016; Oskineegish, 2015; Whitinui, 2010) reviewed here used various aspects of indigenous research methodologies (Chilisa, 2012; Kovach, 2009; Smith, 2012) including intentionally building relationships between researcher and participants, and between indigenous communities and educators.

Decolonizing Eurocentric education

den Heyer (2009), in an effort to move teachers away from simply using worksheets “to hit the Aboriginal-content requirement in the curriculum” (p. 361), sought to shift the paradigm from teaching about, to learning from, indigenous perspectives. Agbo (2007) and Bishop et al. (2012), too, posit that in training teachers, a different and decolonizing method must be implemented so as to move away from perpetuating Eurocentric educational systems. The methods in Agbo’s (2007) study included attempts to dismantle hegemonic power structures through empowering minority parents in the schools (i.e., Canadian First Nations). As previously stated, these decolonizing methods included teacher-community collaboration along with strengthening conceptions of indigenous parent involvement as a means to disrupt deficit views of indigenous history, language, and culture (Bennet & Moriarty, 2016; Bishop et al., 2012; Higgins et al., 2013; Lavery et al., 2004; Oliver et al., 2011).

PD methods supported ways to heavily self-reflect (Oskineegish, 2015) in efforts of “unmasking whiteness” (Hickling-Hudson & Ahlquist, 2003, p.67) and to study current models of colonizing curriculum with norms of whiteness being the pinnacle of math, science, and geography content areas (Hickling-Hudson & Ahlquist, 2003; Meaney

et al., 2013). Educators have been encouraged for decades to challenge colonial curriculum, yet there is still an abundance of teacher development work to be done to see this actualized (Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013). By challenging colonial educational systems (including higher education teacher preparations programs) to include Native languages, cultures, and epistemologies in the classrooms, teachers can be allies to indigenous communities in reforming schools to decolonize the curriculum and the way learning is understood (Lees, 2016; McInnes, 2016; Schulz & Fane, 2015; Te Ava et al., 2013).

Indigenous epistemologies and values

Including intentional indigenous epistemologies and/or values was unique to some of the studies. These studies reported that learning how to include indigenous cultural values are essential to education and especially to the nonNative teachers.

Bishop et al. (2012) reported on an induction PD workshop opportunity for teachers and administration, named the “hui whakarewa” (p. 697), in which Aboriginal students’ stories are presented while the educators are supported in looking at this student work. These workshops are conducted at Maori meeting places where the teachers are invited by the local Maori community to collectively look at and understand student work. At these Hui, the educators also use Maori cultural practices including values such as: speaking in turn, allowing others to comment more, and allowing elders to “whakakapi, or sum up, a consensual view” (Bishop et al., 2012, 697).

In a Cook Island study (Te Ava et al., 2013) nonMaori physical education teachers learned to include local indigenous values into their lessons including: “t̄aueue

(participation), angaanga kapiti (cooperation), akatano (discipline), angaanga taokotai (community involvement), te reo Maori Kuki Airani (Cook Islands Maori language), and auora (physical and spiritual wellbeing)” (p. 32). The findings showed challenges in this implementation as the teachers were not Maori and the study concluded that there must be numerous years of continuing PD and connections with the indigenous community.

Findings from Whitinui’s (2010) qualitative study with a Maori community included “Kapa (in rows) haka (dance)...a contemporary performing art that mainstream secondary schools...are obligated to provide as a means of supporting the social and cultural wellbeing” (p. 3). The findings showed non-Maori teachers saw more student engagement with including kapa haka in curriculum. However many teachers noted their discomfort in infusing this into the classroom as some viewed bringing culture into the schools was actually a hindrance to local indigenous students. Also, the findings showed that many of the teachers reported having a lack of confidence in using Maori language and culture in their content areas along with not having enough time to devote to learning both (Whitinui, 2010).

Challenges in the Professional Development

As previously stated, the studies included efforts to decolonize aspects of teacher development through inclusion of Native courses and epistemologies, reflection, and creating relationships with indigenous communities, yet challenges continue to exist. The findings showed three main challenges which have been synthesized to show commonalities: Eurocentric attitudes of indigenous peoples, lack of teacher preparation

regarding indigenous understandings, and white teacher fragility (e.g., guilt and resistance to decolonize).

Eurocentric conceptual attitudes of indigenous people and curriculum

Maintaining and perpetuating deficit conceptions of indigenous peoples was a common theme shared by many of the studies' findings. These conceptions encompassed inclusion of curriculum by teachers which was centered in white supremacy (Hickling-Hudson & Ahlquist, 2004) along with failing to acknowledge the need to decolonize educational locations (Lees, 2016). Results in Hickling-Hudson and Ahlquist's (2003) comparative case study of Australian Aboriginal and U.S. Native school settings noted some teachers' conclusion that they were "uncomfortably aware" (p.73) of the lack of indigenous perspectives in their lessons. Yet they also reported that they had little to no university or PD preparation that would support their moving away from an Anglocentric curriculum. Thus, the curriculum continued to include stereotypical practices such as throwing boomerangs (Hickling-Hudson & Ahlquist, 2004) or holding inauthentic representations of Native people (den Heyer, 2009; McInnes, 2016; Meaney et al., 2013).

Teachers also held deficit attitudes about indigenous students such as blaming low test scores or poor attendance on indigenous parents' lack of realizing the importance of education (Agbo, 2007; Bishop et al., 2012; Hickling-Hudson & Ahlquist, 2004; Schulz & Fane, 2015; Whitinui, 2010). Deer's (2013) Canadian action research study on nonNative teachers' writing practices found that fear and apprehension of vast cultural differences also led teachers to note that they did not feel confident enough to teach indigenous curriculum or had difficulty confronting or even recognizing their own

positions of power and privilege (McInnes, 2016; Meaney et al., 2013; Schulz & Fane, 2015). This is a blind spot for white teachers. Education is seen as a necessary avenue for success in the dominant society, yet these teachers did not see their own responsibility to learn about indigenous history, language, and culture to break the perpetuation of trauma done by historical colonization in education (Agbo, 2007; Bennet & Moriarty, 2016; Hickling-Hudson & Ahlquist, 2004; Oskineegish, 2015).

Teacher preparation and lack of Native American understandings

Most nonNative teachers felt ill-prepared and apprehensive to include indigenous perspectives and content in their instruction (Agbo, 2007; Deer, 2013; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2004; Higgins et al., 2013; Lees, 2016; McInnes, 2016; Moeller et al., 2012, Oliver et al., 2011, Oskineegish, 2015, Schultz & Fane, 2015, Te Ava et. al., 2013, Vaughn, 2016, Whitinui, 2010). Educational training programs continue to focus on pedagogical techniques and transmission of Eurocentric content knowledge, thereby perpetuating exclusion of indigenous curriculum through an apprenticeship model (i.e., teaching the way white teachers themselves were taught in school) (Agbo, 2007; Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013; Lees, 2016; Meaney et al., 2013; Oskineegish, 2015, Schultz & Fane, 2015).

Both preservice and licensed teachers are familiar with holding the teaching role as the knowledge expert. Studies showed that when white educators had to learn and study about indigenous history, language, and culture, the teacher participants were situated back in the uncomfortable role as student, of not being the knowledge bearer and the person who is the content expert (den Heyer, 2009; Higgins et al., 2013). As teacher

development increased indigenous content understandings, so does the change in teachers' practices and ability to sustain this long term (Bishop et al., 2012) and to dismantle the "cloak of colonialism" as they put themselves in a vulnerable place in learning new indigenous concepts (Higgins et al., 2013, p. 267).

Findings noted that administrative support, funding, and necessary indigenous materials were a challenge in efforts to reform (Deer, 2013; Hickling-Hudson & Ahlquist, 2003; Vaughn, 2016). The inclusion of more than a general multicultural course or PD session is needed to create a paradigm shift towards culturally competent educators (Hickling-Hudson & Ahlquist, 2004; Lavery et al., 2004, McInnes, 2017, Oliver et al., 2011, Oskineegish, 2011).

Teacher resistance to disrupt institutional racism due to emotions of white guilt or fear

A third challenge noted in the studies was resistance (due to white guilt or fear of pedagogical failure) by white teachers to trouble racist and problematic educational practices (Agbo, 2007; Bennet & Moriarty, 2016; Bishop et al., 2012; Deer, 2013; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2004; Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013; Lavery et al., 2004, Lees, 2016, McInnes, 2017, Oliver et al., 2011, Oskineegish, 2015, Schultz & Fane, 2015). Teachers stated that they did not feel confident understanding how to interact with indigenous peoples who are well outside their race and cultural background (Agbo, 2007; Bennet & Moriarty, 2016; Deer, 2013; Hickling-Hudson & Ahlquist, 2004), thus creating one reason to resist learning about the communities and Native people they serve. This nervousness, lack of mastery, and fear to

incorporate indigenous content and perspectives, was found to be a key cause for white educators to stay within their own racial comfort zone (Deer, 2013; den Heyer, 2009).

The dilemma of white guilt was prominent in many studies. The issues of indigenous history and genocide (and continuing land and water disputes) was found to produce challenging emotions in teachers, thus creating a barrier to confront both white identities and colonial legacies (Bennet & Moriarty, 2016; Bishop et al., 2012; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2004; Higgins et al., 2013; Lavery et al., 2004, Lees, 2016, McInnes, 2017). Vaughn's (2016) U.S. ethnographic case study focusing on literacy instruction PD mirrored other studies (Deer, 2013; McInnes, 2016; Oliver et al., 2011; Oskineegish, 2015; Te Ava et al., 2013) to suggest that educators who had supplementary PD on Native content showed more awareness of their own hegemonic guilt and attitudes. Equity was understood by teachers to be needed in school settings, but the actual implementation of Native perspectives was discussed abstractly in theory and was far from being achieved in practice (Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013). This fear, apprehension, and guilt caused teachers to be pedagogically paralyzed in their ability to include Native teachings in the classroom and therefore, some educators, even with good intent, helped to replicate "epistemic violence" (Higgins et al., 2013, p. 259) and fundamental inequalities in schools (Deer, 2013; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2004; Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013; Oskineegish, 2015; Schulz & Fane, 2015).

Successes

The studies included successes in supporting nonNative educators through PD in implementing indigenous content. The findings showed three key successes which have been synthesized to show commonalities: Conceptions of the role of education, teacher agency regarding indigenous understandings, and nonNative educators' new awareness of indigenous history, language, and culture through PD and development methods.

Conceptions of the role of education in both nonNative teachers and Native communities

One accomplishment of the studies reported was that after various PD methods white educators had a new conception of their role in educational aspects of indigenous content and concepts. This success also included more involved partnerships with local indigenous communities.

Prior to the PD and/or interaction with the indigenous communities, both the teachers and Native community members had strict ideas of who was ultimately responsible for teaching Native content. This conception led to deficit views of the indigenous people by white educators (Agbo, 2007; Bishop et al., 2012; den Heyer, 2009; Hickling-Hudson & Ahlquist, 2003) along with a hands-off approach with schools by the local Native communities (Agbo, 2007). The studies reported the Native communities' initial apparent lack of involvement in school and teacher development stemmed from the Residential and Boarding school eras in the U.S. when indigenous people had no voice or participation in educational leadership (Agbo, 2007; Deer, 2013; Hickling-Hudson & Ahlquist, 2003; Lees, 2016; McInnes, 2016). Some Native community members, as a way of respecting the professionalism of the teachers, felt that it was the role of the

educators to be fully responsible for teaching indigenous content, and therefore, did not engage with the schools (Agbo, 2007).

Oliver et al.'s (2011) mixed methods Australian bilingual study, in addition to other studies (Bennet & Moriarty, 2016; Moeller et al., 2012; Oskineegish, 2015), found that white teachers' new conceptual understandings showed that they did not need to be "experts" in all fields of pedagogy. They came to realize that continued, life-long learning of indigenous content will need to be taken up. In tandem with the white teachers' new conception, Agbo (2007) reported that after PD Native community members (e.g., parents, elders, family members, etc.) also found a new, more involved, perspective on their role in supporting nonNative educators. After frank discussions, these two groups created a bridge connecting the community and the school with new conceptual understandings that both groups are ultimately in charge of education (Agbo, 2007; Bennet & Moriarty, 2016; Lees, 2016; McInnes, 2016; Vaughn, 2016).

These conceptual successes in PD included a step toward reconciling how the historical colonial notions of education can be halted, and instead, begin a healing stride toward using education as a reparation to past (and current) historical trauma for indigenous peoples (Agbo, 2007; Bennet & Moriarty, 2016; Deer, 2013; Hickling-Hudson & Ahlquist, 2003; Higgins et al., 2013; Lees, 2016; Meaney et al., 2013). As noted in previous sections, creating relationships between teachers and Native communities, in addition to teachers making a commitment to learn about Native history, language, and culture, reifies and heals the chasm of misconceptions.

Teacher and Native community agency and empowerment

As discussed in the challenges section, many white teachers felt apprehension teaching Native content, yet a success of the PD studies showed a new sense of agency among teachers after teacher development sessions. The increased confidence in creating and teaching indigenous content was found also to aid in interactions with Native parent involvement (Agbo, 2007). Bennet and Moriarty (2016) found empowerment in both preservice teachers and Aboriginal community presenters after time spent together during PD discussion interactions. Indigenous community members also found agency by increasing partnerships with university preparation programs (Lees, 2016).

The more development in Native content that educators received, the less vulnerable and more self-assured they felt in selecting and teaching both indigenous students and curriculum (Deer, 2013; Moeller et al., 2012; Oliver et al., 2011; Te Ava et al., 2013; Vaughn, 2016). An emerging sense of empowerment, through development opportunities, also added to a collective agency as teacher candidates were then able to pass this sense of agency on to their own students (Moeller et al., 2012). Continuing with the success of emerging self-efficacy, Bishop et al. (2012) also found agentic teacher reactions after extended PD offerings which supported changes in Maori student math outcomes. Teacher agency was also seen as a result of teachers having a firm background and training to disrupt Eurocentrism, thus creating empowerment by having the autonomy to select Native content to supplement mandated curriculum (Hickling-Hudson & Ahlquist, 2004; Hickling-Hudson & Ahlquist, 2003; McInnes, 2016).

The successes in the literature showed that agency fosters notions of teachers' continual growth and development to disrupt preconceived beliefs of Native history, language, and culture.

Increase of awareness from nonNative educators

The literature showed Native curricular PD increased and heightened awareness of teachers' various pedagogy and personal awareness and attitudes in association with Native issues. With more interactions with indigenous community members, awareness and metacognition increased as the teachers themselves recognized their need for more opportunities for learning about Native content (Agbo, 2007). Through extended PD training, teachers became aware of how their own indigenous pedagogical practices directly influenced the indigenous students' achievement (Bishop et al., 2012; Te Ava et al., 2013, Whitinui, 2010) and revitalization of Aboriginal culture (Deer, 2013; Lavery et al., 2004). Increased time spent with Native communities grew preservice teachers' mindfulness into recognition of a need to move from their commitment of using indigenous knowledge and to putting it into practice (Bennet & Moriarty, 2016; Sleeter, 2010).

Training around racial awareness for white educators was also shown to help them position themselves as racial beings, therefore setting a path for engaging in indigenous educational practices (Higgins et al., 2013; McInnes, 2016; Meaney et al., 2013; Moeller et al., 2012; Oliver et al., 2011; Oskineegish, 2015; Te Ava et al., 2013; Vaughn, 2016). The studies found that teacher education programs can help foster preservice teachers' mindfulness of cultural competency and sociocultural awareness

(Schulz & Fane, 2015) by means of course practices (Lavery et al., 2014; Moeller et al., 2012), such as framing critical inquiry around deconstructing Eurocentric discourses through classroom activities including watching indigenous films and/or discussions (den Heyer, 2009; Hickling-Hudson & Ahlquist, 2003; McInnes, 2016).

Theoretical Critique of the Literature

In this section I critique the literature for theories in the learning experiences of nonNative teachers that support the deepening of their understanding of Native concepts, histories, and their curriculum planning using Native knowledge.

Transformational Learning

The concept of transformation was noted greatly in the empirical literature in a variety of ways: as the study's purpose to transform teacher practices and teacher education (Agbo, 2007; Bennet & Moriarty, 2016; McInnes, 2016; Meaney et al., 2013; Vaughn, 2016); to transform the educational landscape to mirror and support the local indigenous communities (Deer, 2013; Hickling-Hudson & Ahlquist, 2004; Lees, 2016; Oskineegish, 2015; Whitinui, 2010); as part of an analysis to document preservice teachers' learning and transformation (McInnes, 2016; Schulz & Fane, 2015); or as results of teacher development methods such as reflection or field experiences with indigenous communities (Lavery et al., 2004).

While transformative methods and/or results were cited multiple times in the literature, there was not an inclusion of an intentional theoretically-grounded transformational framework for the teacher development aspect of the studies. Transformational learning is not easily codified, nor should it be, to allow for unique

cultures and conditions to drive the choice of framework, features, and process (Mezirow, 1994). However, I propose that a Native curricular PD design begin with a structure that includes both a theoretical foundation combined with teacher learning concepts (e.g., communities of practice or situated learning).

Mezirow's (1994) constructivist transformational learning theory can be used to frame a PD experiences guided by his learning stages of transformation (Mezirow, 1991) which include:

1. A disorienting dilemma
2. Self-examination with feelings of guilt or shame...
3. A critical assessment of assumptions
4. Recognition that one's discontent and the process of transformation are shared and others have negotiated a similar change
5. Exploration of options for new roles, relationships, and actions
6. Planning a course of action
7. Acquiring knowledge and skills for implementing ones' plan
8. Provisionally trying out new role
9. Renegotiating relationships and negotiating new relationships
10. Building competence and self-confidence in new roles and relationships
11. A reintegration into one's life on the basis of conditions dictated by one's new perspective (pp. 168-169)

I suggest PD design intentionally include this transformative theoretical base as a method to scaffold the teacher development experience. However, I offer that there must

be an understanding and limitations of this step-wise process as laid out in the previous example of transformative learning. Put another way, this new PD framework must be a heuristic, rather than a step-by-step guide for change. I include Mezirow (1991) as a key idea and key processes that help me make sense of how a learning process for teacher might be designed. This design might include aspects from the empirical studies blended with both transformative theory stages, teacher development theories, and indigenous learning theories (Chilisa, 2012; Kovach, 2009; Smith, 2012) to further implement change in Native curriculum PD. In the following section I trace a possible heuristic for combining these theories and PD methods as a new way to support revising the teachers' meaning structure (Taylor, 1998).

By including a disorienting dilemma (Mezirow, 1994), PD facilitators can create an opportunity for educators to have an experience outside of their usual world and/or cultural view to disrupt possible subconscious problematic beliefs. This first stage in transformation mirrors indigenous theory (Smith, 1999) in a way to “collide with dominant views” (p. 40) as Native people aim to transform our own lives and stories. In the PD literature I reviewed, for example, an immersion opportunity with Aboriginal communities (Lavery et al., 2004) certainly altered and transformed the white preservice teachers' notions of indigeneity and proposed that this experience would inform teachers' curriculum choices and pedagogy. However, the inclusion of this immersion experience did not include a foundation based on an immersion theory for educators. Yet, if used in a transformation learning theory framework, such as in Mezirow's (1994) first stage of transformation, this immersion learning could be implemented as a disorientating

dilemma to be used as a trigger point to “challenge the status quo of pre-service teachers’ culture by disrupting or creating disequilibrium” (Bennet & Moriarty, 2016, p. 2).

Reflection activities, such as noted in the reviewed literature (Bishop et al., 2012; den Heyer, 2009; Lavery et al., 2014; Meaney et al., 2013; Moeller et al., 2012; Oskineegish, 2015; Schulz & Fane, 2015; Te Ava et al., 2013), is a method to support self-examination and to work through possible feelings of (white) guilt or critical assumptions. Reflection interconnects with Mezirow’s (1994, pp. 168-169) second and third transformational stages of self-examination with feelings of guilt or shame, and using a critical assessment of assumptions. Situating one’s self, for both researcher and participants, aligns with indigenous epistemologies in that reflection allows people to share their story on their own terms (Kovach, 2009, p. 82). The literature showed reflection was an extremely successful method of teachers’ introspection as they were able to explore indigeneity, thereby allowing examination of one’s individual cultural location (Bennet & Moriarty, 2016).

More stages of transformative PD could include elements of the teacher learning theory of communities of practice (Grossman, Wineburg, & Woolworth, 2001) and might synthesize Mezirow’s (1994, pp. 168-169) fourth, fifth and sixth stages of: recognition that one’s discontent and the process of transformation are shared and others have negotiated a similar change; exploration of options for new roles, relationships and actions; and planning a course of action. Learning together in groups supports the indigenous paradigm of creating relationships with the community involved in the research (Chilisa, 2012; Kovach, 2009; Smith, L.T., 2004).

By allowing for a community of teachers to work through newly formed concepts of Native curriculum and pedagogy, educators would experience essential tension through constructions of teacher learning communities (Grossman et al., 2001). If used in a transformative learning framework, critical discussions conducted in these knowledge groups, as noted in the empirical studies (Agbo., 2004; den Heyer, 2009; Higgins et al., 2013; McInnes, 2016; Meaney et al., 2013; Oliver et al., 2011; Oskineegish, 2015; Schulz & Fane, 2015), would support a location for establishing a new world view via communicative learning (Mezirow, 1994).

I offer that inclusion of a situated learning theory (Putnam & Borko, 2000), which allows for authentic experiences situated in context, would permit educators to gain practical experience in evaluating, selecting and implementing Native curriculum during PD. Situated learning could be integrated by design with Mezirow's (1994, pp. 168-169) seventh through ninth stages which support a common centrality of experience (Taylor, 1998) for educators in: acquiring knowledge and skills for implementing ones' plan; provisionally trying out new roles; and renegotiating relationships and negotiating new relationships.

The literature showed that reading background text by indigenous authors on various topics increased teacher understandings (Hickling-Hudson & Ahlquist, 2004; McInnes, 2016; Oskineegish, 2015), allowing teachers to engage in situated rational discourse (den Heyer, 2009; Higgins et al., 2013; McInnes, 2016; Meaney et al., 2013; Oliver et al., 2011; Oskineegish, 2015; Schulz & Fane, 2015) during the process of transforming their understanding (Taylor, 1998) of Native content. Using story text,

either oral or written, in teacher development activities also aligns with indigenous epistemology theory in that texts can provide educators with the omitted chapters of indigenous history, language, and culture (Chilisa, 2012).

Inclusion of Native American background texts in teacher development would provide critical links between indigenous lands, identities, and stories allowing for thought-provoking and transformative discussions by the teacher and, subsequently, students (Beard, 2010; Mccarty & Lee, 2014). Through purposeful PD, which includes a specific transformative theoretical base, teachers can be prepared to enact personal racial discomfort in order to produce transformational conversation and understanding of difficult topics (Hill, 2012; Zitzer-Comfort, 2008).

Further, I suggest that a PD design be conducted over an extended time period to encourage more opportunities for active and coherent development (Garet, Porter, Desimone, Birman, & Yoon, 2001). Extended PD was also echoed in one of the studies' life-long learning theory (Bennet & Moriarty, 2016) along with implementing teacher development over a period of months or years (Bishop et al., 2012; McInnes, 2016; Meaney et al., 2013; Oliver et al., 2011; Te Ava et al., 2013; Vaughn, 2016). Again, extended experiences enhance the community relationship building which mirrors indigenous learning theories (Chilisa, 2012; Kovach, 2009; Smith, 1999). By deliberately including a theoretic basis for extended learning aligns with Mezirow's (1994, pp. 168-169) final stages of transformational learning--building competence and self-confidence in new roles and relationships and reintegration into one's life on the basis of conditions dictated by one's new perspective.

While it was noted in the studies that the educators may have experienced various points of transformative thinking through reflection or time spent with indigenous communities, there was no measure of transformation described in the literature. Self-reported feelings of transformation may be seen as a method to measure teachers' success and evidence of learning and discourse, yet it must be intentionally included in the PD experience and study design. One necessary question regarding the transformation framework of a PD study would be to address if teachers do not progress to a transformative mindset-could they still have a successful PD experience? Perhaps a PD framework's static notion of "movement towards transformation" needs to be expanded into a more agentic teacher-based outcome and definition of transformation either professionally or personally.

In my dissertation, and PD design, I chose to frame the experience as a way to capture the teacher-based outcome of transformation. The teacher participant stories in this study will begin as a way to capture this transformational process.

Culturally Responsive Pedagogy

The larger body of research and subsequent literature around the theory of culturally relevant pedagogy has dramatically increased and expanded since Ladson-Billings (1997) began her emerging branch of what is now also termed critical pedagogy, or culturally responsive pedagogy (CRP), which concludes that pedagogy must be asset-building, include community cultural knowledge, and be centered around relationships between students, communities, and teachers. Gay (2010) defined culturally responsive teaching as inclusion of the cultural understanding, previous experiences, and structures

of location (as stated in Lewthwaite, Owen, Doiron, McMillan, & Renaud, 2013). The literature also includes terms such as “culturally sustaining pedagogy” (McCarty & Lee, 2014, p. 102) as a way of supporting both multilingual and multicultural practices in teaching and learning. In this section the term culturally responsive pedagogy, or CRP, will be used.

Following, I trace the studies to evaluate the theoretical basis of the designs. As most of the literature offered unique theories, more detailed reporting is offered instead of a synthesis of design structure. This CRP theoretical characteristic was seen across most of the studies and helped to shape the teacher’s cross-cultural professional learning.

One study design included a general notion of culturally responsive pedagogy framework including Appreciative Inquiry (Deer, 2013). Appreciative Inquiry is both a worldview and a process for facilitating positive transformation and is grounded in five original principles of: constructionist, simultaneity, anticipatory, poetic, and positive (The Center for Appreciative Inquiry, 2016). Theories based on whiteness, sociocultural dimensions, and social constructionist frames were also used as an analytical device in another study (Schulz & Fane, 2015).

The reviewed literature also incorporated unique forms of indigenous theory which was fitting for studies by, with, and about Native peoples. The theoretical conception of an indigenous-centered CRP and teacher development was intentionally embedded in several of the studies such as: Indigenous Postcolonial Theory which was created to promote decolonization efforts to reestablish indigenous cultural and knowledge values as a way of providing a constant emphasis on the needs and

experiences of the Native participants (Lees, 2016, p. 66); critical inquiry embedded in participatory research (Agbo, 2007); Four Pillars of Lifelong Learning (Bennet & Moriarty, 2016, p. 3) was used to discover how partnerships between Australian Aboriginal communities, pre-service teachers and teacher educators can support pre-service teachers to cultivate the awareness and dispositions to work with indigenous students and communities; Effective Teaching Profile was drawn from Maori epistemologies by means of the metaphor of a “‘koha’, or gift, to explain the process of discursive (re)positioning within the project” (Bishop et al., 2012, p. 697); and pedagogical strategies shown to be helpful for Native American students (e.g., cooperative learning, storytelling, and active participation) was incorporated into a preservice teacher course study (McInnes, 2016). Similar to this study, but may not be considered a theoretic framing of CRP, Oskineegish’s (2015) study carefully wove in indigenous research methodologies (Chilisa, 2012; L. T. Smith, 2012) and epistemologies into the design. CRP was used as a template in Te Ava et al.’s (2013, p. 34) study as elders were consulted to construct a model for Cook Island PE courses and subsequent PD, which, as noted previously, included fundamental Maori values using “cultural knowledge, prior experiences, and performance styles” of the indigenous students. These values included: “t̄ aueue (participation); angaanga taokotai (co-operation); akatano (discipline); angaanga oire kapiti (community involvement); and Te reo Maori Kuki Airani (Cook Islands Maori language) (Te Ava et al., 2013, p. 34). Whitinui’s study (2010, p. 6) also drew from CRP in intentionally infusing “mātauranga Māori (Māori

ways of learning, knowing and doing)” to promote that educational settings recognize the significance of including culturally relevant and appropriate indigenous curriculum.

Although not concretely using indigenous theory in the teacher development design, one study (Vaughn, 2016) incorporated situated learning and metacognition as a means to learn through local indigenous communities to co-construct curricular understandings in literacy curriculum.

Some studies included little to no CRP in the PD design. One of the studies offered no culturally responsive pedagogy theoretical framework (den Heyer, 2009). Another study included an analysis using an unnamed interpretation of socioeducational disadvantages of U.S. and Australia indigenous peoples (Hickling-Hudson & Ahlquist, 2003, p. 65), while another study of the same authors incorporated post-colonial theory to analyze the data (Hickling-Hudson & Ahlquist, 2004), but did not intentionally include a culturally responsive pedagogy theory into any PD design. Lavery et al. (2014) included symbolic interactionism in the study’s analysis of preservice teachers’ immersion experience, but again, there was no CRP theory in the design. Meaney et al.’s (2013,) use of a theoretic pedagogic device in their Maori mathematical equity study made an attempt to describe the “social grammar” (p.246) that concurrently replicates and transforms understanding within education structures. However, this too, did not include specific notions of CRP. Moeller et al. (20012) did not use CRP, but incorporated an analytical theory of invitational theory and practice (ITP) comprised of acceptance and affirmation of the value of individuals and identifying individual power and accountability to empower others through supporting agentic policies and processes. Oliver et al.’s (2011,

p. 63) design included a theoretic basis for supporting educators' acceptance of another's dialect and culture through ABC which signifies acceptance of bilingual Aboriginal students to bridge and cultivating Aboriginal ways of epistemologies.

Ladson-Billings (2006) along with McCarty and Lee (2014) posit that a teacher must initially become vigilant observers of culture, in their surrounding community and also within themselves. I also offer that a PD design might also include the educational facet of Critical Race Theory (CRT) (Taylor, Gillborn, & Ladson-Billings, 2009) such as in previous teacher development studies (Nguyen, 2012). Perhaps, more appropriately, wide-ranging indigenous learning theories (Chilisa, 2012; Kovach, 2009; Smith, 2012) can inform and create the foundation for teacher development. Or, a PD design could use existing indigenous theory as a structure which could support nonNative educators' understanding to begin to make sense of Native people's multiplicities of being a racial, legal/political groups, and individuals (Brayboy, 2005). Yet another proposal might be to create a new indigenous theoretic framework that focuses on teacher development.

Racial Identity

In this last section of the chapter offer my evaluation of how the literature incorporated theories of racial identity, and then in the next chapter, I begin to shift into my own theory of identity as I begin to intentionally use story in how I understand and interpret indigenous epistemologies.

The literature showed that racial identity was an obstacle for many of the nonNative educators to overcome. Using reflection and discussions brought tensions which triggered white teachers' racial self-examination, yet only a few of the studies (Meaney et al.,

2013; Te Ava et al., 2013) explicitly used a theoretic lens in the PD experience to offer critical tools to help participants move beyond introspection and into acknowledgement of how race and identity are the filters which educators select and teach indigenous content. However, more indigenous epistemologies were used in these studies (e.g., how indigenous language is valued) as opposed to an actual racial identity-based theoretical lens.

The studies also acknowledged that reflection led educators to more self-awareness of previously held stereotypical indigenous assumptions (Moeller et al., 2012; Oskineegish, 2015) or emerging conceptions of indigeneity were recognized (Lavery et al., 2004), but again the studies did not base the reflective PD process on theories of white identities. One study offered a critical tool to conceptualize levels of whiteness in the teachers' reflections, yet this theory was only used in the analysis, and the not in the PD design nor was it used as an identity element (Schulz & Fane, 2015).

Lees' (2016) study of the perceptions of roles between the indigenous and university communities was situated in Battiste's (2000) Indigenous Postcolonial Theory. While Indigenous Postcolonial Theory is not an explicit identity theory used in this PD, it allowed for a shift in teachers' mindset through decolonizing methods along with building on sociocultural theoretical framing.

The literature also showed that a subtle shift in teacher attitudes on indigenous issues was a result of reflection in PD (Higgins et al., 2013; McInnes, 2016; Meaney et al., 2013; Vaughn, 2016), yet again, intentional and specific theory was not contained within the PD framework to move teachers beyond attitudes into self-reflective racial identity

work. In this same mode of beginning stage of identity work and a lack of PD grounded in theory, only superficial understandings of indigenous content were the takeaway from reflection (den Heyer, 2009).

Interestingly, some of the studies (den Heyer, 2009; Oliver et al., 2011; Meaney et al., 2013; Te Ava et al., 2013; Whitinui, 2010) focused on identity creation and growth of indigenous students using various Aboriginal theories, but did not include a theoretical framework for the actual teachers' racial identities. For future studies which include white teachers in Native curricular PD I suggest turning first to Ngo (Ngo 2010, p. 10) who stated that when constructing identity, one must "understand it as a dynamic process of production that is constructed, negotiated and constituted through discourse and representation." In other words, most likely the white educators delineated their white identity through external discourse from the dominant society (Lensmire, 2014; Ngo, 2010) which purports that white people have no culture, thereby they are racially neutral.

Reflective methods in the PD studies found that initially many educators expressed a Hollywood-type representational portrayal of Native Americans which was mainly of alcoholic, poor, dysfunctional people who are to be blamed for their own life struggles. Even today this hegemonic perception masks an alternative conception of indigenous people. This deficit representation of Native Americans allows the dominant society to construct an emergent sense of power, thus forming a capacity to identify the "other" by espousing a discourse based on a certain cultural stereotype (Ngo, 2010, p. 11). As teachers are on the front lines of interrupting biased and racist Native American curriculum, they must first recognize and interrogate their own subconscious identity of

whiteness. However, the literature did not explicitly incorporate identity theories which could help teachers see the racial juxtaposition as they were teaching indigenous content in contexts with their Eurocentric perspectives and dominant culture identity. In other words, the PD in these studies were designed well as they included aspects of reflection and discussion, but lacked in theoretical concepts to help create a PD design which was actively engaged in white teacher identity development.

The process of reflection in the studies was a trigger to help teachers articulate their white identity, yet the PD studies seemed to stop there. I offer that PD for white educators teaching Native content must include a theoretical development in a social frame to bring out both a recognition of white identity (e.g., power, privilege, and perspective) along with methods to interpret this and move towards an understanding of cultural responsiveness.

I recommend that reflection, in both written and discussion form must be grounded in a theory which will move white educators from a static, dominant culture perspective to seeing how this hegemonic perception tinges the Native curriculum they teach (or fail to teach). This can include methods which support teachers' move from simply identifying racism in society into interrogating and troubling the sociopolitical and cultural location of white hegemony and how it "benefits from and is implicated in producing and maintaining racism" (Green, Sonn, & Matsebula, 2007, p. 408). PD which includes racial identity as an element must be cautious to move beyond allowing white teachers to see race through what they are *not* which creates and defines whiteness based on identity through racial othering (Lensmire, 2014).

As stated in Lensmire's work (2014, p. 5), white people's sense of self is "connected to experiences with people of color." In the context of teacher development, non-Native teachers' racial positioning must be brought to light in PD or the perpetuation of white privilege (i.e., hegemonic control of curriculum) will continue. Through effective PD teachers can be supported to be cognizant of their own racial identities, beliefs, racial theories and cultural philosophies in how this informs pedagogical practices in the classroom (Hill, 2012; Landsman & Lewis, 2011). Before educators can teach indigenous content, a racial self-awareness must be present and made explicit in teacher development.

Giddens (2000, p. 224) describes identity as a project; a creation of self. Identity is made of the enlightenment subject (e.g., reason and rationality form a conduit for human development), but also of socialization self-culled from interactions between inner and outside social worlds. Teachers can use notions of both interior and exterior qualities to construct their own sense of racial identity. Yon (2000) states that identity is open, yet there is a "tension arising between...determining...competing fixed conceptions" (p. 71).

Thus, racial identity can be constructed and understood as a moveable organic entity such as water. Water not only is fluid, but it also is a natural element which has three states of matter: solid, liquid, and gas. An identity theory to help teachers should also include what I term "multiple states of identity" to account and support teachers to identify work as a lifelong process. Teachers must continue to expect that at times their racial identity may be frozen, yet can thaw and flow again with continued and extended teacher development grounded in theory.

I suggest that a study must be grounded theoretically to include an identity aspect, not only racial, but the identity of the teacher, such as Day and Gu's (2007) identity model, which graduates over a teachers' career stages, and encompasses both professional and personal dimensions. This would allow for PD practices of racial identity work to be constructed fluidly with both an individual educators' life and professional experience which could then be individualized to their professional, personal, and situated context. As teachers gain more years of teaching and increased responsibilities, PD needs can move from only supporting the identity of who they are as a teachers and more into the needs of expanding their world view of Native concepts (Day & Gu, 2007).

Providing this theoretical identity concept in PD would allow white teachers to move away from a defensive attitude (due to the history of genocide or colonialism) or the feelings of white guilt. Teachers must move toward, and be willing to engage in, being aware of racial self-situating if they want their own students to feel comfortable reading and discussing diverse texts. By being open and honest in regard to self-identity, teachers can model ways for students to do this as well (Beard, 2010).

Conclusion

Framing and theorizing effective teacher development based on the empirical literature brings to light some concrete common elements which must apply to future design. The review of the literature and the critique showed that there is no one single process, method, or theory for moving teachers' development forward, yet the literature showed certain features support effective models to address in what manner teachers

might learn how to implement indigenous content along with an understanding for researchers about how to ascertain that learning and change has taken place.

Until we are able to radically transform our teacher preparation programs by indigenizing the pedagogical curriculum so as to increase the number of Native American teachers, we must prepare white teachers to begin the journey in learning how to implement indigenous history, language, and culture. This dissertation chapter showed how an indigenous content teacher development experience must: be theoretically well-designed even before the teachers attend the PD; include critical support through the extended sessions; and involve transformative methods to move teachers into a greater understanding and respect for including Native curriculum in the K-12 classroom.

Chapter Three

Identities as Seen Through Water: Mni Waconi, *Water is Life*

In the beginning, the water - Mni - was pure, part of the land, and therefore part of the people.

-Mni sota makece: The land of the Dakota (p. 19)

In this next chapter I create a bridge between the story of the empirical literature reviewed and my own emerging story and theoretical stance on identity seen through water as a way to present my dissertation. My home state of Minnesota is the “Land of 10,000 Lakes.” What answers might be rippling on our state’s waters that may help us understand identity development? I look to water for this conceptualization of tension between inner (white) and outer (living and teaching in a diverse world) identity as indigenous research epistemologies can be theoretically grounded in water, land, and sky and living beings (Chilisa, 2012; Grande, 2004; Kovach, 2009; Smith, 1999).

In this chapter I now bridge the story of other scholars’ research with my own story of this dissertation. To lay the bedrock of this chapter I will first trace my own indigenous epistemological understanding of how identities (racial and others) can be seen through water.

Conceptualizing Identity Through and in Water

This analysis builds on the tenants of indigenous research methodology (discussed in Chapter 4) where theory should be created (Denzin, Lincoln, & Smith, 2008) and in this pursuit, can be found in nature, such as land, sky, and water (Kovach, 2009; Simpson, 2014; Smith, 2012). Living in Minnesota for most of my life, I have spent

thousands of hours in, on, and surrounded by our state's ten thousand lakes. Water, as I know it from the seasons in Minnesota, has permeated the physical make up of our state, but also our lifestyles are permeated by water as we tread, fish, and skate across the frozen lakes in the winter, bathe and swim in the summer months, and gaze on the mist which forms when summer water grazes cool autumn winds. Because of this, I situate my theory in water as a way to understand, theorize, and frame my dissertation study analysis. This next section will frame how I will examine the teacher participants as they navigated and negotiated their own fluid identities as they experienced learning about Native history, language, and culture.

Tracing Water as Identity

During a dinner gathering last year talk of water bubbled up; spilling over to drown our seemingly neutral meal. Specifically, discussion of the North Dakota Access Pipeline (DAPL) came up. The Native people present spoke with sorrow about how this pipeline will strip Native people of our connection with land, water, and our ancestors. More importantly, this pipeline will, once again, break treaties which were enacted between two sovereign nations during the 1851 Fort Laramie treaty (NYC Stands with Standing Rock Collective, 2016). Usually, definitions of Native American identity, both culturally and legally, are confusing controversies (Garrouette, 2003). And so, I knew I needed to work through this issue of conceptualizing identity as understood through water when one elder said, after a break in the conversation, "This place, this water, that river, is our *very* identity." We agreed and reminded our Minnesota selves that the idea of water is the *very* place of Native people's genesis, our being (Westerman & White,

2012). Talk continued around the link between water and Native people. Not only have indigenous peoples endured the historical taking of land as a result of treaties not upheld; the taking of our American Indian children from their homes as a result of the Indian Boarding School era (Treuer, 2011), but now there is the potential taking of clean water and mineral resources through the sand fracking process during petroleum mining, raiding American Indian lands and lakes again (Brown, 2014).

In this chapter I processed through notions of the location of racial identity and (indigenous) cultural competence. However, I began, after this dinner conversation, to move away from my earlier thoughts of a more abstract definition of identity to a clearer understanding of implementing a metaphorical, multilayered construction of identity, and position identity *via* water. How does an internal identity of water match, compliment, or cause tension with an external one? Simply put, in this section I will trace water as a theory of location of teachers' racial identities and experiences in PD aimed at transformation of their understanding of Native history, language, and culture.

Interior Identity: The Water of Self

How can water be seen as *interior* identity? Alcoff (2006, p. 179) notes that racial categories contain fluid borders. Yon (2000) makes reference of using representations to also address the fluidity of one's internal perception of identity. He includes a metaphor of identity as a river since identity can be "deceptive since one is unable to tell how deep it is by looking at it...or whether it would be smooth or rough" (p. 26). Discourse of identity as an unfixed and fluid concept offers a way to understand the plasticity of boundaries and a way to make sense of self. Thandeka (1999, p. 104) speaks

of “the ecological self”; that “we are a part of the natural world...even when we are alone.” Further analyzing water as identity, Thandeka allows us to trace our identity through reading the body. In her example, tears become a process to explicitly read water on the body as identity (p. 112). Both Alcoff (2006) and Omi and Winant (2014) reiterate the notion of visually reading identity in and through the body. Inspired by this, I offer a method to interpret this reading of tears, or water emitting interiorly from the body, with a crying person, as possibly identifying as one who is: sad, fearful, joyful, or humiliated. Following this idea of identity as embodied, or read through water from and on body, we can look at sweat and perspiration, as a way to attach identity to one who is an athlete, a beach bum soaking in the rays, or even a nervous person. Identity is both racial and, as in my own self, identity can also be in relation with a natural element such as water.

Connecting to my own interior identity of water reminds me of my near drowning when I was a small child. I slipped away from my mother's' gaze (and permission) at a neighbor's swimming pool as I wanted to venture into deeper waters. How I wanted to be seen as a “big girl” who could handle more independence as I shuffled my feet away from the shallow end! This near downing, of water working to infiltrate my body and seeking to silence my very self, was a confrontation of identity as I sought to defy water; as I fought for more independence. Deep water, which represented my desire to identity as an older, and more mature self, needed to be recognized as a tension

Being a woman and mother I know the safety of the water in the womb as it cradled my two children before they were born. Yet, in my near-drowning memory, I was saved from the waters taking me and claiming a victory over my yearning for

independence. Identity, like water, has the capacity to be “fluid and negotiable” (Yon, 2000, p. 135). Waters are life-giving, but can also be deadly. So too, interior identity can parch a dry existence, but as with the DAPL, it also has the potential to flood an entire race’s identity of indigenous history, language, and culture.

Outward Identity: The Water of Standing Rock

How might *exterior* identity be seen through water? She grew up there, in Cannon Ball, North Dakota on the Standing Rock Reservation. During a visit, an elder shared a childhood memory. My elder told of her own memories of riding horses right where the NoDAPL protest camp was located--next to the raging confluence of the Cannon Ball River and the Missouri River. Yon (2000, p. 5) notes that identity is also a confluence, or convergence, of multiplicities of elements. Self-concept is comprised of both complexity and a fluidity (Alcoff, 2006). Our own Dakota people in this state uphold the impact of confluence as they honor the place where the Minnesota and Mississippi rivers meet. This site is called Bdote, or the place and very creation of the identity of Dakota people (Westerman & White, 2012, p. 15). Water offers life and geographically notes identifying markers of a people’s entire existence.

My elder continued her tale and spoke of how she would visit the rocks on the two rivers’ edge. These rocks contained deep grooves carved out by Native people as they grinded out grains, food, and a life in the Bad Lands. “It was beautiful there,” she said. “The ancestors were buried there, too. Next to the rocks and river’s edge. I can still remember the burial mounds.”

“Yet,” she said, “what will happen to our water? And now, what about our identity? The government did it before--took it all away. That old river’s edge? It is all underwater after they finished the Lake Oahe dam in 1962. Gone. How do you get that piece of our identity back? Our history?” I asked if this water destroyed our sense of self there. Ever the Native elder, she did not offer me an answer, only an opening to pursue my own understanding in how to relate my identity with water.

And understand I did: this governmental dam project decimated more indigenous land than any other water project in the United States (NYC Stands with Standing Rock Collective, 2016). As it proceeds, the DAPL “will cross over the Ogallala Aquifer (one of the largest aquifers in the world) and under the Missouri River twice...and the possible contamination of these water sources makes the Dakota Access pipeline a national threat” (Camp of the Sacred Stones. n.d. *NO Dakota Access Pipeline zine*).

I was quite taken by the social movement and coming together of Native tribes in the #NoDAPL movement to resist the construction of the DAPL which continues to threaten and make a mockery of the treaties made between the Great Sioux Nation and the United States. This supports Omi and Winant’s premise (2014) as they state that “social movements create collective identity by offering a different view of themselves and their world” (p. 165). I am now hearing discussions of more issues of other pipeline construction through Indian Country, such as the Enbridge's proposed Line 3 (Kraker, 2017). Are they finally hearing us? We can only hope.

The identity of a sovereign people, who cry out that “Mni Waconi, *Water is Life*” is united by the threat of destruction of water substantiating that, exteriorly, water can impact and form identity.

Water as Identity: Necessary Tensions

Yon reminds us that (2000, p. 64) identity flows between boundaries in one instance, and then reinforces, or restricts it, at the next. This is the tension which exists among our own sense of interior self, and those tensions which are enacted upon us exteriorly. Perhaps identities will always need this movement, this ever straining pull between our inner and outer selves (Fanon, 1967; Lensmire, 2017). What answers are rippling on our Minnesota waters that may help me understand? Again, I look to water for this conceptualization of tension between inner and outer racial identity. Does one need the other?

Yon (2000, p. 71) states that identity is open, yet there is a “tension arising between...determining...competing fixed conceptions.” Here, I offer, that our state’s name is sadly misunderstood as: the land of sky-blue water. Actually, the name “Minnesota” is derived from the Dakota language (mni sota) and can be understood as: “the clarity of the water and its reflection of the sky” (Westerman, & White, 2012, p. 20).

In this ontological identification of our state’s name, the tension, or rather actual symbiosis is a complementary action between the water and sky, thereby creating the very relational identity with the natural world with the waters where we live in, and on. In this example, there is a necessary reliance on each other as the sky depends on the lakes’ evaporation and light refraction to form its color and the water depends on the sky to

complete its water cycle. Those who live within our state of “mni sota” vacillate between stages of seasons as we swim in our warm waters, and at the same time, in winter, skate, tread, and walk upon it. Our lakes mirror our identity as they heave and sway between seasons; they note our inner understanding and outer makeup. We recognize the depths and dimensions of our 10,000+ lakes and note the changes and fluidity of its very nature. How can we not, then, acknowledge that the conception of identity as the chemical make-up of water (inner identity) must work with, and in *communion* with, the sky’s hues (exterior identity) to create what we know as a daily quest of a fusion of a total and unifying identity?

Liquefied: Fluid Modes of Identity

Previously, I held, perhaps, a simplified mono-defined notion of how a person's identity was formed. Yet after re-reading, grappling and working through indigenous epistemologies and theories as noted in the next chapter, I believe that water is a way to mirror and meld nature into the body, generating an interior and exterior tension which is needed to find the site of identity creation. Identity is a dialogue between norms and contraries (Joshi, 2006). As an indigenous researcher, I have articulated *how* Native people racially identify with and to the land and water. In this dissertation’s three teachers’ stories, I will continue working through this idea of identity because it is, like water, never static, but is free in fluidity and ever-changing. Identity is not only based on interior or exterior forces, but a combination and synthesis of multiple elements and tensions (Fanon, 1967).

Chapter Four

Research and Resistance: Reasons for Indigenous Research Methodologies

It all begins and ends with story (Kovach, 2009). And so, here is mine.

Aaniin. Dawn Quigley nindizhinikaaz. Mikinaakwajiwing nindonjibaa.

Greetings, hello. My name is Dawn Quigley. I am from the Turtle Mountain Band of Ojibwe. As a Native person, I was taught to always share my name and who my people and land are, so this is why I begin my story this way. Dawn, my name, was given to me by my mother after she heard a relative share possible names for her next child. Mom loved the sound of that name and decided to also give it to me. Twenty-four years later when I was working at a school in Minneapolis an Ojibwe elder, Jim Clark, from the Mille Lacs reservation, said that he would call me Waaban, *it is dawn/morning* (“The Ojibwe People’s Dictionary,” 2015). My Native American lineage comes from my mother’s family and originates from the Pembina Band. I was raised by both my parents, a Native mother and a father of Norwegian descent. Metaphorically, we had both fry bread and lefsa on our dinner table and just as varying points of view during discussions; I claim both of these heritages, but identify closer with my Native side as these are the relatives and places where I spent most of my childhood.

Research and resistance seemed to surround me. I was born in Madison, Wisconsin in 1970, a few months before and a few steps away from the campus bombing, a protest against the University’s research links to the U.S. military during the War in Vietnam (“Vietnam and Opposition at Home |Turning Points in Wisconsin History | Wisconsin Historical Society,” n.d.). The decade I was born was also when the Native

rights and activist group, the American Indian Movement (AIM), was formed in Minneapolis to transform policies and demand that the U.S. government uphold and honor treaties and promises to support the self-determination of Native people (“AIM Interpretive Center,” n.d.). It was in my formative years when I realized that I’m an *introverted* activist. This method of resistance was born from my quiet mother who, when we watched the popular “John Wayne” cowboy movies of the time, would cheer and root loudly for the Indians (who we knew would never win, but we yelled at the TV anyway). I was seven or eight years old before I realized *everyone* didn’t cheer for those TV Indians.

I was excited to start my first research project! It was a great opportunity. Until it wasn’t.

I began my Ph.D. program a few years ago. One of my main goals was to understand the research process: How do you interpret data? How does one set up and conduct research? How can a Native person learn to conduct research? These were the questions I hoped to answer in the program, so, during my first semester when I was offered my first chance at being on a research team at the University of Minnesota, I was thrilled and nervous at the same time. Thrilled to begin unmasking the cloud of research elements; nervous to dive into something I didn’t have any understanding (with no research methods courses under my belt yet).

The focus of our research team (consisting of me and one other Ph.D. student) was how, or if, Minnesota teacher preparation programs were being successful in bringing in and graduating diverse teacher candidates. Multiple other universities and colleges were invited to join this project. This topic was right up my alley since I'm a Native woman who could share my own path to getting a teaching degree. However, as this project progressed, no one actually wanted to *hear* my story. I found out later that I was asked to be on this project since previously only white women were on it. And they apparently needed me as a "diverse" person. But it wasn't my voice or story the team wanted, it was the outward appearance of having a brown researcher on the team. I ended up having to tap into my Native community members to finish the project since, somehow along the way, the other MN teacher license programs (higher education institutions) changed their willingness to participate. They also decided not to allow their interviews to be used in the final conference presentation (here is where I first learned that some white scholars categorize themselves and others into "a less evolved or more evolved anti-racist advocates"). They were fighting amongst themselves, and I was in the middle just trying to do this project... to earn money... to pay my Ph.D. tuition... to learn how to become a Native scholar.

Throughout this project I ended up feeling like little more than a worker-body: having to call my (white, Ph.D. student) colleague at a certain time to check in (it was always me having to call, not an equal back and forth), conducted 11 interviews on my own (no help with this even though I was "co-PI"), wrote the interviews up, drafted the conference proposal, and finally, was accused of "sharing the findings with a 'rival'

institution” before the final presentation of the findings. Soon after, my colleague apologized for this false allegation, but the damage was done. During this time my health also started to decline in small ways: inability to sleep, developing high blood pressure and having to go on medication, fatigue working full and part-time jobs to pay for tuition, and mental doubts about my ability to continue the program.

In all of this, my most painful regret is that I had to tap into my Native community--relationships which have developed over decades--to finish this study since the other (mostly white) participants all dropped out. Yet, when it came down to responding to my questions, these Indian people came to my help to support me in my research. My Native friends, elders and other Indian people in higher education allowed me to interview them, which ultimately filled the void of the previous participants who pulled out. However, I felt that *I* just contributed to the problem with Natives being the most researched people in the world (Smith, 2012).

This situation (i.e., culminating when I was accused of a breach of ethics) has been the only time I’ve cried in this program. I downright sobbed at being caught in the middle of a system which claimed to want to help diverse people, yet was marginalizing and silencing me at the same time. Now I wonder if I was being led, by the Creator or universe, to use these tears to water a new field of agentic research methods for me; to use my weeping to weave a path to find safety and familiarity in Indigenous Methodologies (IM). During this time someone suggested I read Linda T. Smith’s (2012) book *Decolonizing Methodologies*. Smith’s (2012) book and ideas lit a spark in me and

fanned the flaming desire to learn how to study within a manner which honors and matches both my Native self and ways of knowing.

I didn't know how much I needed this book. Until I did.

Setting up Methodology Understandings

It was this experience, an awakening of becoming a Native American researcher, which led me to take up research methods that deeply embody our indigenous epistemologies.

In my emerging understanding of Indigenous Methodologies, I have found a place to belong, a place to actively resist colonizing power structures, and a place to define a boundary in research. This chapter traces how I've tried to make sense of this paradigm. For this chapter, and my own research, I will situate my methodological focus within the Indigenous Research Methodologies (Chilisa, 2012; Kovach, 2009). Other terms used to describe this paradigm are Decolonizing Methodologies (Smith, 2012), Red Pedagogy, TribalCrit along with others (Brayboy, 2006; Grande, 2004). In order to better understand these terms, I will sort the genealogies as a way to show distinctions and connections threaded between them.

As mentioned in this chapter's opening story, my first introduction to indigenous research begin with the term *Decolonizing Methodologies*, and so I begin unraveling the threads here. Linda Tuhiwai Smith's (1999) ground-breaking book, *Decolonizing Methodologies: Research and Indigenous Peoples*, sought to interrupt the relationship between: the researchers (i.e., mostly white) and the researched (i.e., indigenous); between the colonizing institutions and the colonized; between the Western definitions of

knowledge and the indigenous knowledge which has been marginalized and subjugated; between privilege and lack of agency; and all research intersections of theory, values, ethics and communities (L. T. Smith, 2012).

Smith, a Maori researcher, scholar and activist, stated that at the time the first edition came out the term “‘indigenous’ was also a contentious and ‘dirty’ term in some contexts...where in many countries indigenous is not a term that can be safely used” (p. xi) as it may be conflated with savagery or rebellion. Therefore, Smith (2012) chose not to use the “‘decolonizing’ in the usual manner (which can be frozen in a definition of violence and corrupt elites), but rather use it as a way of setting it inside an intellectual and transformative mission. Smith created the phrase and book title *Decolonizing Methodologies* (1999, p. xii) as a radically compassionate way to rethink and revolutionize the roles of knowledge, knowledge hierarchies, knowledge production, and how institutions of knowledge play in decolonizing and social transformation. The research paradigm continues to promote and support indigenous communities and their own unique challenges.

Smith’s (2012) work inspired other shifts in indigenous research and knowledge. One term to emerge was *Indigenous Methodologies* (Chilisa, 2012; Denzin, Lincoln, & Smith, 2008; Kovach, 2009; Smith, 2005) which emphasizes the localized context of indigenous communities (i.e., *indigenous* is not to be understood as a pan-global group of people, but separate and distinctive communities). These unique indigenous populations must use their own epistemologies in researching and emancipating from the colonizers’ point of view and marginalization (Chilisa, 2012; Kincheloe & Steinberg, 2008). For

example, Maori researchers may focus on *Whakapapa*, or a specific worldview situated in their local place, language, time, political structures, and struggles while a First Nations Cree community would set research in a *Nēhiyaw* epistemology (Kovach, 2009). Linda Smith (2012) also asserts this need for site-specific indigenous research as each setting contains unique communities and needs.

Indigenous scholars continue to produce research frames such as Grande's (2004, p. 2) *Red Pedagogy* which concentrates healing and restorative projects sustaining indigenous languages, cultural knowledge, and intellectual history. Like most indigenous scholars, Grande (2004) calls for a move from solely using critical pedagogy, to one which envisions ways to reimagine indigenous praxis. In this chapter I will expand on more indigenous research in both the Indigenous Methodologies and indigenous epistemology sections. To vary the wording, I will use all these terms in this paper.

Next, I will define and work through more terms to better understand research elements (e.g., stance, standpoint epistemology, and positionality) along with indigenous terminologies (e.g., indigenous, Native). Following these descriptions are my own interpretations and connections in my research lens as a way to begin trying to make sense and understand research.

It is essential to understand what *stance* means in relation to research outcomes. Research is reliant and revolves around our worldview including views, definitions, motives, assumptions, beliefs, and hopes (Cohen, Manion, & Morrison, 2011; Patton, 2014; Saldana & Omasta, 2017). These intrinsic elements are used to make sense of study findings, and therefore, guide our work. While we work in and through this theorizing,

we develop a stance (Meighan, Barton, & Walker, 1981, p. 289). Stance, for me, will need to be made explicit and clear as I center my own dissertation research in a Native American worldview.

Standpoint epistemology developed from feminist criticisms regarding women's absence from, or marginalized position in, the social sciences (Harding, 1998). This notion challenged a male-dominated focus, assumptions, and perspectives in research and the academy (Schulz & Fane, 2015). Standpoint epistemology also offers insight into gendered and power relations in and among researchers, while also highlighting the association between women's experiences and feminist knowledges (Chilisa, 2012; Lewis-Beck, Bryman, & Liao, 2004). Within standpoint epistemology are fields to denote the diversity within feminist ways of knowing and being (Kincheloe & Steinberg, 2008; Lewis-Beck et al., 2004). I choose to include this term as I make sense of my first research experience of being a marginalized female in the academy.

Finally, *positionality* needs to be understood as a researcher must be intentional and transparent about stating one's own placement in a study's context including identity, class, gender, race, ethnicity, community member of a certain race, tribe, ethnicity, insider/outsider, background, among others (Corbin & Strauss, 2008; Creswell & Poth, 2007; Miles, Huberman, & Saldaña, 2014; Saldana & Omasta, 2017). The researcher must take account of one's own *position* in relation to the research participants in the work across and within a culture (England, 1994; Merriam et al., 2001; Ravitch & Carl, 2016; Rose, 1997). As I begin my dissertation analysis and interpretations, it will be essential to understand my own positionality while making sense of the data contextually

through my place as teacher and Native scholar in the research.

Indigenous

For this paper I will use my own current location of Minnesota, the U.S., to position the site in the context of North America, and therefore will use the terms indigenous, Native and Native Americans interchangeably. The term indigenous recognizes the stories, concerns and struggles of globally colonized communities (Smith, 2012). Yet at the same time, the term does not allude to an essentializing of these diverse groups (Denzin, Lincoln, & Smith, 2008, p. 136). The term colonization can be understood as “European American thought, knowledge, and power structures dominate present-day society in the United States” (Brayboy, 2005, p. 430).

Situating Self and Pedagogical Stance

As a Native American woman I am passionate about promoting and setting high standards for Native American cultural competencies which are desperately needed in K-12 education. My motivation to pursue and to promote social justice began as I grew *tired* of seeing K-12 curriculum (many time created by white authors) chosen for the classroom which often portrayed Native people as: dripping in alcoholism; constant victims in literature; along with images of sexually deranged, violently abused and educationally-lacking people. However stereotypical, dangerous and biased many of these classroom materials and images are, instead of inciting anger in me, I wished to use the platform of this study to create a bridge between Native people and educators in which the foundation is built on cultural competencies. This would allow me to further expand my professional goal of incorporating more substantive teacher candidate

development in indigenous content knowledge. I strongly believe that educators must be taught core Native American foundations in history, language, and culture. It is imperative, and is my passion, to teach and to showcase ways to understand how to evaluate texts and to find resources with a Native voice. My desire and vision is to show a complete portrait of Native people and to help educators gain access to both text and images to comprehend the basis of our ontologies: our Native humor, loyalty to family, and love of principled values in the areas of American Indian government, history, language, and culture.

I started to advocate for a critical pedagogical method of including Native American-authored texts in the classroom. During my last few years teaching in K-12 education I began to speak up and offer that, possibly, the current texts many teachers were using to cover these American Indian literature English /Language Arts (ELA) standards weren't ideal.

Indian history has been one of genocide, tear-wrenching tragedy, and continual historical trauma. These facts are imperative for both Native and non-Natives educators to learn more about and to remember. Having been an educator in K-12 for over 20 years, I understand the educational foundation courses that must be set in teacher development programs to help bridge teachers to become cross-culturally knowledgeable licensed educators and preservice teachers. I also came to realize that too many Native school children must hide from their identity while enduring biased, racist, and stereotypical literature. Again, many K-12 classroom texts are explicitly racist, portraying Natives as blood-thirsty scalping marauders, dirty, and sexually promiscuous; some books even

include the term *squaw*- which unknown to many white educators, is equivalent to a derogatory term for female genitalia (Gerstl-Pepin & Liang, 2010; Hemmer, Joseph J., 2008). My own children have brought home books with texts claiming "...those dirty Indians..." (Wilder & Williams, 1953), "...the squaw brought him food..." (Osborne, 2011) along with my own experiences in teaching with colleagues stating ridiculous notions such as "Indian people did not know how to tell time." Clearly, there is a need for indigenous researchers to work within their own ways of knowing and understanding as a way to interrupt these problematic curricula.

Indigenous Epistemologies

To appreciate why a scholar might set their work in an indigenous research framework, one needs to understand seeing epistemologies through a Native lens. Indigenous epistemologies and locations of knowledge greatly inform the decolonizing research framework and calls for methods which mirror specific ways of knowing by a Native community and/or a Native researcher. Scholars of color and indigenous researchers continue to formulate and revise epistemologies which speak to their lived experiences and truths of existences. These ways of knowing must be "understood, respected and discussed just as...[ones] produced by the dominant race are understood, respected and discussed" (Scheurich & Young, 1997, p. 11).

Decolonizing epistemology defines indigenous knowledge, locates where it originates and who it encompasses (Chilisa, 2012; Kovach, 2009) all while being found in agency and relationships (Brayboy & Maughan, 2009; Martin, 2017; Richardson, 2000; Suina, 2017). Put another way, Indigenous Methodologies (IM) include a

connection or relationship between knowledge and nature, Native scholar and the academy, knowledge and the Native community, researcher and Native communities, and/or between Native researcher and the dominant society. Due to indigenous epistemologies being a foundational component of IM, place matters (Richardson, 2000; Suina, 2017). In other words, regional context matters when implementing IM as an effort to move away from an essentialized conception of Native people. This Methodological stance may make some in academia uncomfortable as it disrupts colonial practices and Western knowledges (Brayboy, 2006; Kovach, 2009; Scheurich & Young, 1997; Suina, 2017). However, educational settings were, and still are, the site of Native people's assimilation and attempted decimation and therefore, must begin to be the site of indigenous self-determination and trauma healing (Grande, 2004; Kovach, 2009; McInnes, 2016; Richardson, 2012; Suina, 2017), beginning with acceptance of IM. Smith (2012, p. 214) says it best as she states, "there can be no...social justice without...cognitive justice."

Ways of knowing are central to indigenous epistemologies, and care must be given to honor and know the difference between sacred knowledge given, and knowledge which has been given through a fully respectful and transparent protocol (Suina, 2017). Battiste (2001) states that indigenous ways of knowing are not simply the opposite of western knowledge, but acknowledges the restrictions of a colonial-centered philosophy and works toward filling in these gaps with indigenous ontologies, research, history and teachings.

In decolonizing methodologies, there may be inner and outer locations of knowledge production, with a holistic and interactive connection between the two. Using multiple forms of indigenous knowledge, outside the usual Western literature, such as data gathering and analysis methods, is a way to decolonize the designation of knowledge and the West's fragmentation of body and mind (Chilisa, 2012; Kovach, 2009; Richardson, 2000; Smith, 2012; Suina, 2017).

The outer way of knowing is based on a relational aspect to the ecological and human world such as learning from an elder, from a traditional story or song (Brayboy, 2006; Richardson, 2000; Suina, 2017), from insight in the natural world, from learning an indigenous language as culture is learned through it (Evans, 2009; Harrison, 2007), from a cultural artifact, or from interactive observations (Chilisa, 2012; Kovach, 2009; Smith, 2012). Inner ways of knowing can come from insight gained from a dream (and what one does with it) (Richardson, 2000), from intuition, or from a vision (Kovach, 2009; Smith, 2012). All of these forms of knowing are bound by IM's aim for Native people's self-determination and sovereign right to be the sole owners of their cultural and epistemic knowledge--especially in research (Brayboy, 2006; Martin, 2017; Smith, 2012).

Indigenous Methodologies

Methodologies are the site where “ideology and epistemology meet research approach, design, methods and implementation...of a study” (Ravitch & Carl, 2016, p. 6). In research, Methodologies (i.e., big *M* Methods as opposed to small *m* methods/techniques/procedures) are ways of doing research processes and approaches (Bloomberg & Volpe, 2016; Hermes, 1998; Miles et al., 2014; Smith, 2012).

Methodology is a theoretical stance that guides research approaches, compared to the methods of gathering and interpreting data. To fully understand the indigenous research model I will begin with descriptions and definitions to lay the foundation of this section.

Indigenous Methodologies are a way to resist the educational research academy's use of hegemonic systems of knowledge and power (Kovach, 2009; Smith, 2012) which have primarily conducted research *on* Native American people as opposed to *with* Native communities. Also, much of the Western research focuses on both an exploitation of Native communities (Chilisa, 2012; Hermes, 1998; Kovach, 2009; Smith, 2012; Suina, 2017) along with deficit views of indigenous peoples perpetuating centuries of colonial power (Martin, 2017; Richardson, 2012; Scheurich & Young, 1997; Suina, 2017).

IM offer a framework for research which privileges indigenous ontologies and epistemologies, but it is not a codified way of inquiry. Instead, IM seeks to share knowledge by implementing over-arching questions such as Smith (2012) does by asking:

Whose research is it? Who owns it? Whose interest does it serve? Who will benefit from it? Who has designed its question and framed its scope? Who will carry it out? Who will write it up? How will its results be disseminated? (p. 10)

This paradigm, which I will place within a qualitative frame, can be implemented through such means as indigenous communities participatory action research along with Native scholars learning how to conduct IM in higher education and/or specialized indigenous research centers (Smith, 2012). Decolonizing research seeks to root out epistemic racism (Scheurich & Young, 1997) and allows each Native community to advance self-

determination, resistance, and transformation (Brayboy, 2006; Smith, 2012) and to also integrate indigenous cultural knowledges into methodology (Kovach, 2009; Martin, 2017).

Indigenous Methodology Conceptualizations

Conceptualizations, or theories, are the knowledges that are privileged in a study (Kovach, 2009). When researching through an IM paradigm one must “[m]ake visible the way we see the world” (Kovach, 2009, p. 41). A Native researcher needs to conceptualize indigenous communities outside of colonist falsehoods and stereotypes (Chilisa, 2012; Denzin et al., 2008; Mihesuah & Wazyatawin, 2004; Smith, 2012). Smith (2012) notes that at its basic level, theory, while using IM, is significant as it helps to make sense of realities for indigenous people and communities.

Within these ways of constructing a Native research model are elements unique to many indigenous communities such as conceptions of space, time, gender, gender roles, science, land, spirituality, and language as culture (Chilisa, 2012; N. Denzin et al., 2008; Evans, 2009; Harrison, 2007; Kovach, 2009; Smith, 2012). Also, the IM conceptualization of research’s ultimate goal is to contribute to the well-being of the community, as opposed to the academy’s typical goal of mining, gathering, and publishing research as an individual pursuit of knowledge, power, and prestige (Brayboy, 2005).

Since IM is not a set guide of how to frame and conduct research, the theoretical lens a researcher may use can be open to many designs. Native researchers may include a conceptual frame such as Critical Race Theory, feminist theory (including ones from

various diverse lenses), postcolonial theory, and others. IM theoretical studies might even create a new theory based on a previous one such as Indigenous Postcolonial Theory (Battiste, 2000); or Brayboy's (2005) Tribal Critical Race Theory (TribalCrit) formed from Critical Race Theory, political science, legal and political science, and elements from American Indian Studies and literature.

Indigenous scholar Graham Smith (2005) succinctly defines elements of indigenous theory as:

Located within a culturally contextual site; born of organic process involving community; product of a theorist who...understands...an indigenous worldview; focuses on change and is flexible, is critical and [the study] is portable to other sites; engaged with other theoretical positioning and is user friendly.

Indigenous Methodologies Situated in a Qualitative Framework

Qualitative research can be understood as a set of tools and techniques used to study and find ways of understanding a set of questions while implementing theory, evidence (i.e., data), and analysis (Kovach, 2009). It also is a paradigm which seeks to investigate the essence of a topic (Bloomberg & Volpe, 2016) in an exploratory, naturalistic, contextual, constructivist, and interpretive way (Kumar, 2014; Ravitch & Carl, 2016).

Because IM are an interpretive inquiry lens, some indigenous scholars have situated their work within a qualitative research frame as a way to intersection two paradigms which are complementary (Bishop, Berryman, Wearmouth, Peter, & Clapham, 2012; Brayboy & Maughan, 2009; Kovach, 2009, Martin, 2017; among others). Setting

an IM study within a qualitative approach is acknowledging that research techniques gathered from Western methodologies can be implemented in ways which respect indigenous cultural traditions and ways of knowing (Brayboy, 2006; Chilisa, 2012; Kovach, 2009; Smith, 2012). However, IM are unique and distinct from Western qualitative frameworks as it seeks to reject commodifying, classifying, exploiting, and employing disrespectful practices to Native people and communities (Kovach, 2009; Smith, 2012). IM and the qualitative paradigm both contain elements of relationship and reciprocity with and between participants in addition to both frameworks needing to include “evidence of process and content” (Kovach, 2009, p. 32). Yet IM privileges indigenous ontologies and epistemologies and are upheld not as binary philosophies, but as a holistic way to approach research as a way towards self-determination and sovereignty (Richardson, 2000). Using a decolonizing framework has a goal of hope, but also must be action-oriented as a way to transform, for better, indigenous peoples’ lives (Brayboy, 2006; Kovach, 2009; Smith, 2012).

In the next section I will share the way indigenous research frameworks have influenced my own dissertation study of how K-12 nonNative teachers learned and worked to include indigenous curriculum into their classrooms. By using IM, I hope to continue telling the narrative of how my work seeks to heal and support the sovereignty of our Native stories, land, and communities. Following is how I interpret IM in my study design.

Research Questions

#1 What are nonNative teachers’ experience in PD regarding MN Native American curricular content of history, language, and culture?

#2 What supports and structures in professional development (PD) add to non-Native American teachers' experiences as they create culturally relevant curriculum on Minnesota Native American history, language, and culture?

Rationale

The qualitative case studies will:

- **Contribute to the knowledge** of how Minnesota's licensed K-12 teachers' awareness of and commitments to MN Native American history, language, and culture inform and give shape to how they construct lesson plans using Native American K-12 English Language Arts (ELA) literature standards. Some examples of these Minnesota K-12 academic standards include:
 - Grade 4 4.1.9.9 Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures, *including American Indian*.
 - Grade 8 8.4.2.2 Determine a theme or central idea of a text, *including those by and about Minnesota American Indians*, and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.
- **Identify new methods of conducting teacher professional development for nonNative educators** to further the work of disrupting bias in educational curricular practices. This study will be anchored to the goal of increasing educator effectiveness in teaching the MN Native American literature academic standards. Also, this study will privilege Native epistemologies as it will be conducted *by* a

Native PhD student, centered *on* Native-authored texts and website resources, and *uses* the theoretical framework of indigenous research methodologies.

- **Inform a new conceptual framework for understanding how nonNative educators learn**, through professional development, the critical tools and knowledge to implement Native Americans curriculum used in their classrooms.

Theoretical Frameworks

Using indigenous research methodologies, mainly feminist indigenous theorists (Chilisa, 2012; Grande, 2004; Kovach, 2009; Simpson, 2014; Smith, 2012; Tuck & Yang, 2012), and culturally responsive pedagogy (Ladson-Billings, 1997; Taylor et al., 2009) as a theoretical focus, this study seeks to break stereotypes and teach understandings of Native sovereignty, history, language, and culture through PD. This research seeks to advance understandings and practices of both indigenous pedagogies and qualitative research methodologies to, in turn, create PD using a decolonizing and indigenous lens. Also, I aim to meet and fill these Native content and perspective gaps as a way to add to the existing body of culturally relevant pedagogy in Native American content.

Through the lens of transformative learning theory (Mezirow, 2009) and collaboration within a community of teacher learners (Grossman et al., 2001) elements of the study are constructed to support nonNative educators to move toward implementing indigenous texts and curriculum. In the PD design I scaffold a forced tension point of transformation from within the teachers' mindset (Grossman et al., 2001) to understand how, or if, they act upon their new awareness of and commitments to MN Native American history, language, and culture. The study will also trace how the nonNative

teachers' new understanding will inform and shape how they construct the fluidity of their poststructural identities (Barker, 2000; Bloomberg & Volpe, 2016; Chilisa, 2012; Frankenberg, 1994) as they work to implement Native American content as an attempt to dismantle and disrupt stereotypes of indigenous peoples (Grande, 2004; Smith, 2012).

Research Design

Setting and Participants

In 2017, a total of eight K-12 teachers volunteered to participate in PD sessions offered by Midwest School District (Note: Midwest is a pseudonym and all names have also been changed). However, for this dissertation three of these teachers will be the focus of the study. These three teachers (as described below) agreed to more interviews and in-depth conversations outside of the PD. The district hired me to design and facilitate this PD opportunity. Midwest School District is a second tier metro suburb (population roughly 60,000 residents) with just over 8,000 students and employing almost 500 teachers. Students in the district are 75% white and 0.1% Native American students. The school district also serves 3.5% EL Learners; 15.1% students in Special Education; and 27.8% Free/Reduced Lunch ("Minnesota Report Card," n.d.). The study participants included three licensed teachers who all identified as female. The teachers racially self-identified as white (Cececila and Aria) and as Chinese American immigrant (Reva).

The Midwest School District's curriculum coordinator, along with the Indian Education consultant (whom has been one of my elders for over 12 years), contacted and chose the lead teachers they wished to invite to participate in this PD. All of the

elementary and middle school teachers were invited and a total of eight chose to participate. Consent to participate in the research activities was gathered before the PD experience began (see consent letter in Appendix A). This was a purposeful sampling strategy (Cohen, L.; Manion, L., Morrison, 2011; Patton, 2014) of licensed teachers who wanted to participate in a five session PD on Native American curriculum content. Using purposeful sampling (Patton, 2014; Ravitch & Carl, 2016) is an appropriate aspect for this study as these teachers, by choosing to attend this PD, are self-selecting to learn new strategies to inform and shape how they construct and enact lesson plans using Native American K-12 English Language Arts (ELA) literature standards. Participants in the PD did not have to be a part of the research (i.e., they may still be joining the PD, but not the research). All eight of the teachers (who signed up for the PD) consented to participate in the study, and from this I chose three teachers who agreed to further interviews in addition to our five PD sessions.

Professional Development Design and Teacher Learning Processes

Teachers met monthly May through August for a total of five PD sessions with me (i.e., two sessions in May, then one each month June through August). They used a Native-created text evaluation method (Seale & Slapin, 2005) based on Native ontological (Grande, 2004) premises, teachers analyzed their current Native American curriculum texts for biases and, if any, lack of representational indigenous voice. The participants also used a Native-created website as a starting place to vet indigenous texts, [Native Reader MN](#) (Quigley, n.d.).

Teachers also read three Native-authored texts and wrote critical journal reflections to increase their own background knowledge of Minnesota Native history, language, and culture. Books included in order read: *The People of Minnesota: Ojibwe* (Treuer, 2010), *Do All Indians Live in Tipis?: Questions and Answers from the National Museum of the American Indian* (National Museum of the American Indian, 2007), and *What Does Justice Look Like?: The Struggle for Liberation in Dakota Homeland* (Wilson, 2008).

In the PD sessions the Minnesota K-12 academic standards were analyzed and deconstructed to dismantle dominant society biases, and then reinterpreted from an indigenous perspective. Sessions included discussions and hands-on group work. Finally, teachers wrote a lesson unit which included new foundation of understanding of Minnesota's Native people's history, language, and culture.

Data Sources

Data included a pre- and post-survey detailing conceptions of Native American curriculum, participants' enactment and confidence levels of incorporating Native curriculum in their K-12 classrooms; critical journal reflections that participants completed while reading the three Native-authored texts, two twenty to forty minute face-to-face interviews each (after the first PD session and after the third), one focus group session at the end of the PD, artifacts (e.g., teacher-created lesson plans, emails), and field notes of session discussions (see Appendix B for data collection instruments).

Analyses

The unit of analysis was each participant teacher during the bounded PD experience (May 2017-August 2017) in Midwest School District. The cases will be defined as the stories of each teacher. All of the data collected and analyzed will use my new experimental data analyzing technique of Indigenous Storalyzing (Figure 4.1):

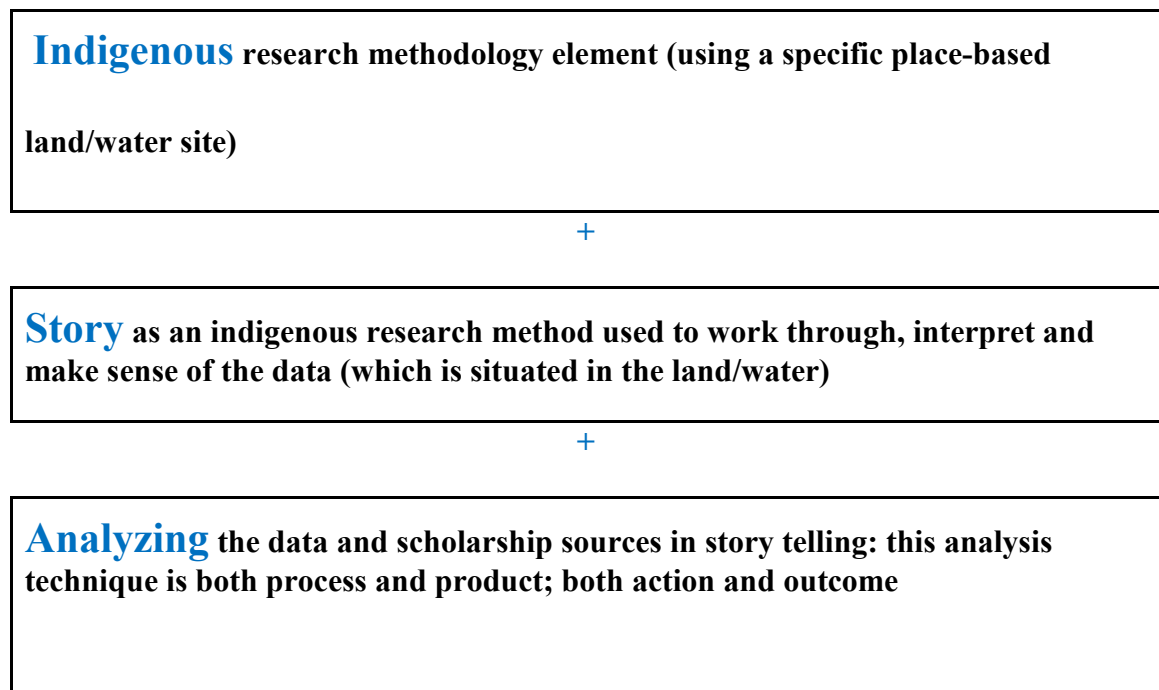


Figure 4.1. Indigenous Storalyzing analytic technique.

Using this analyzing procedure, I used what Simpson (2014) and other indigenous scholars (Chilisa, 2012; Garrouette, 2003; Grande, 2004) explain is an understanding through embodiment and conceptual thought when I look to a specific geographical site, or land, and see that it can teach, theorize, and be pedagogy. The very definition of “indigenous” is one that people are situated and connected relationally to a specific land area, and therefore, this analysis method must also be situated in a place with contextual

understanding specific to the indigenous researcher. Indigenous research methodology offers a broad scope of Native ways of knowing and conducting research, yet I have not seen specific methods to *analyze* data while honoring a specific place. This is how and why I needed a tangible method as I tried to make sense of my data.

In using my new experimental Indigenous Storalyzing technique, I place myself in the land, ecosystem, and water's story and apply it to the data from my research. Indigenous Storalyzing seeks to be both a process of analyzing and interpreting data along with the actual method of presenting the findings. This technique is a way to try to make sense of the data by creating a story in which both land and data (and self as researcher) are the setting, characters, and plot. Story is a method in Indigenous Methodology (Chilisa, 2012; Denzin et al., 2008; Kovach, 2009; Smith, 2012)

Indigenous Storalyzing can be done by means of:

- Taking the actual data (hard copy or digital) and literally walking on, through, and in the land of a specific place in the analysis process;
- Mentally revisiting the land of a specific place while reviewing the data (hard copy or digital) in the analysis process; or
- Physically visiting the land of a specific place while mentally reviewing the data in the analysis process.

This analytic strategy is a way to re-claim and re-present the land (which has been previously colonized) as a way to research back (Chilisa, 2012; Garrouette, 2003; Kovach, 2009; Smith, 2012) in an attempt to indigenized the academy (Miheuah & Waziyatawin, 2004). Claiming sovereignty of land through this method is a way to understand theory

and research from a Native perspective for our own purposes (Denzin et al., 2008; Grande, 2004; Smith, 2012). This Indigenous Storalyzing is a technique to metaphorically decolonize both the land and research in the academy.



As I detail next in Chapter 5, I used the setting of Forest Lake, Minnesota, a lake a few feet from where I've lived for over 20 years. As necessary for indigenous methodology, a place must be local to the researcher. This lake has been a part of my life and learning, and so I choose to set my Indigenous Storalyzing there.

I used conceptions of water for all three analyses of the teacher participants as they take up the Native curriculum PD. For Cecelia I use the lake's ecology to understand her entanglements with conceptions of Native concepts. For Aria I use the three states of water to analyze how she took up the PD (Figure 4.2). For Reva I use the lake's surface interactions with the atmosphere to engage and analyze how she took up this PD.

Also, within my over-arching method of Indigenous Storalyzing, I use my new heuristic of conceptual standpoints of states of water; states of being (Figure 4.2) in my analysis of the teacher, Aria. This visual chart is a representation of the fluidity of states of water and states of being. Put another way, this does not assume that the states flow directly from one to the next in a linear fashion. I imply that the states of how receptive a teacher is will vary and flow between multiple states of how they take up and engage in learning about Native history, language, and culture.

I use elements of both Frankenberg's (1993) and Schultz and Fane's (2015) standpoint conceptions and include the epistemologies of my own understandings of Indigenous Methodologies of connecting land/water to theory (Kovach, 2009; Simpson,

2014; Smith, 2012). In this specific analyzing method within Indigenous Storalyzing, water is seen as the teachers’ experience of the PD and how they took up, or resisted, the learning. In this new interpretive standpoint I highlight both the water of Minnesota and standpoints in three states: liquid, frozen and vapor (or mist). My deductive analysis will be framed around these conceptual themes of the nonNative teachers’ experiences, learning, and reactions in the PD and will trace, inform, and shape how they construct the fluidity of their poststructural identities (Barker, 2000; Bloomberg & Volpe, 2016; Chilisa, 2012; Frankenberg, 1994).

Drawn from Frankenberg (1993); Schultz and Fane (2015)	States of water; States of being	New interpretive standpoint and definition
Subordinate standpoint (Frankenberg, 1993)	Liquid: Dibishkoo go nibiiwang inendamooog <i>(just like) (water) (is how they think)</i> 	Liquid standpoint (a middle state moving between thawing and freezing in understandings of Native American history, language, and culture) This is an acknowledgment, advancement or attempt, of nonNatives to speak of racial difference, yet not disrupting dominant culture power.
Conservative standpoint (Frankenberg, 1993)	Frozen: Dibishkoo go mashkawading inendamooog <i>(just like) (frozen) (is how they think)</i> 	Frozen Standpoint (a nonmoving, static state in understandings of Native American history, language, and culture) This is evident when nonNatives demonstrate blatant racialized beliefs that are clearly stated, or enacted, close to the surface in dialogue.
Reflexive standpoint	Vapor (or mist): Dibishkoo go awang inendamooog <i>(just like) (mist) (is how they think)</i>	Vapor, or mist Standpoint (a transformative state in understandings of Native American history, language, and


(Schultz & Fane, 2015)		culture) This is evident when nonNatives critically demonstrate a revolutionary new worldview of indigenous contexts and willingly disrupt biased racial beliefs.
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Figure 4.2. Conceptual Standpoint Themes as seen through states of water; states of being. (images from Pexel.com)

Analysis methods include indigenous research methodologies such as inviting stories from participants based on their experiences in the study (Chilisa, 2012; Grande, 2004; Kovach, 2009) along with creating relationships with the participants over the multi-month study which will create community, thereby forming a safe place for the teachers to explore misconception of Native history, language, and culture throughout the school year. I will continue using my Indigenous Storalyzing with the data corpus (participant stories, critical journals, observations, interviews, and lesson plan artifacts) which will aid in creating a conceptual understanding of non-Native teachers' knowledge of Minnesota Native history, language and culture as they incorporate indigenous curriculum content in their classrooms (Figure 4.3).

For this Indigenous Storalyzing method I place myself in the analysis as the PD facilitator as I conceptualize myself as a guide in the teachers' PD journey. The lake's water will represent each teacher's experience during the PD.

Research Question	Areas of Inquiry Studied Through the Data
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<p><i>Research Question #1:</i></p> <p>What are nonNative teachers' experience in PD regarding MN Native American curricular content of history, language, and culture?</p>	<ul style="list-style-type: none"> ● Understandings of K-12 teachers: <ul style="list-style-type: none"> ○ Knowledge, attitudes of effectiveness ○ Conceptualizations of indigenous history, language, and culture ○ Critical curriculum analysis methods of teachers ○ Transformational learning, experiences and explorations of nonNative teacher identities
<p><i>Research Question #2:</i></p> <p>What supports and structures in professional development (PD) add to nonNative American teachers' experiences as they create culturally relevant curriculum on Minnesota Native American history, language, and culture?</p>	<ul style="list-style-type: none"> ● Understandings of K-12 teachers: <ul style="list-style-type: none"> ○ Challenges to professional development ○ Role of agency in their own learning ○ Perceived supports needed for cultural competency in curriculum development

Figure 4.3. Key areas of inquiry studied through the research question.

Situating Indigenous Methodology in Higher Education

In creating my study's framework, I will continue to ask questions: *Why should IM be situated in colleges and universities? How do other indigenous researcher practices inform my experience as a Native American researcher? How do indigenous researchers negotiate the academy?* As I shared in my own story at the beginning of this chapter, many Native emerging researchers speak of getting hurt, burned, and "being done over" in studies (Smith, 2012, p. 11). Institutions of Higher Education, IHE or the academy, maintain control over who has the power to define knowledge, gain access to it, and have the right to create it (Mihesuah & Waziyatawin, 2004). Equity and diversity in research cannot simply be equated to racial equality. As stated before, research is one of the worst words in many Native communities (Smith, 2012), and therefore needs to be disrupted in an attempt to include other critical epistemologies and frameworks.

Every college and university sits on Native land, and therefore the academy must acknowledge the historical fact of this stolen land by supporting indigenous research frameworks as a way of decolonizing a site of modern day knowledge gatekeepers (Mihesuah & Waziyatawin, 2004). Sitting at a conference, at a campus hotel, which sits on indigenous land, I experienced what indigenous scholars explained as silencing subjugated people as "Western societies reject the need to listen to marginalized people and take their knowledge seriously" (Kincheloe & Steinberg, 2008, p. 145). I include my story below, from my journal, to explain attempts in higher education to silence indigenous people and why I will use IM in this, and all future, studies:

Dawn's journal entry-fall 2015

Life imitating art, or my experience imitating the actual nexus of the problem of being Native in higher education. The conference was focused on: How do we diversify the teaching force? During this conference I found out, from others at my table, how they understood this issue.

She talked, and allocated all of the oxygen to three people: Her, herself and she. When asked: 'How do we diversity the profession of teaching?' she began a soliloquy that could have fanned the Nina, Pinta and Santa Maria with enough air left over to fuel the Hindenburg. Yet, in all seriousness, when I tried to interject (while she took a pause to breath), as a Native person who *desperately* wants to seek out and welcome a diverse teaching force, I only got as far as, "Well, I think-" *She/herself and Her* cut me off continually (along with the other colleagues of color at the table) for the duration of the 30 minute session. Self-identified as a "six-foot tall Norwegian," she began talking about "in college she had an Indian roommate whom she interrogated

'to learn more about her Indianness.' Yet the Native student walked away from her and closed the door saying, 'You are being very rude'."

I thought, now *that* was one smart Native woman.

But the irony was lost on She-Who-Does-Not-Stop-Talking: The white-policy-maker continued to "find the answers" for the diversity issue, yet she would not *listen to the questions* from an indigenous person to begin with. It's like the doctor trying to diagnose the ailment, yet never giving the patient a chance to articulate the symptoms.

While *She/herself and Her* tried to silence me during the power of policy debates and conversation, at lunch she finally turned and acknowledged me asking, "So Dawn, are you from one of the MN Indian tribes?"

And I answered softly, looking down at my lunch plate, "No."

See, I responded not to her superficial query of: *Can you tell me of your tribal affiliation*. I answered 'no' to her *intended* inferential question

which was: *Can I treat you as a curiosity, and not of one who has knowledge worth knowing?"*

It was to this question that I said *no*.

She did not want to hear my physical voice, as someone with a lived-experience of being a diverse person in education and higher education, someone who may just have strategies to *"Broaden the Diversity of our Teaching Force."* I wanted to ask her, "If you were not ready to listen to my *physical voice, how* can you be ready to listen to our (collective diverse groups) voice of how to solve the problem?"

Freire (1993) stated that the person who claims devotion to a cause of social promotion yet is not able to "enter into *communion* with the people, who he or she continues to regard as totally ignorant, is grievously self-deceived" (p. 61). Freire (1993) was able to articulate exactly what I was feeling in my journal story. This woman was an example of the "banking model"--a white person filling me with her perceived knowledge. There was not room for using the "problem-posing" education model and to create together an emergence of consciousness (Freire, 1993, p. 81). According to James (2004), my experience is an example of how Natives in the academy find themselves in the "out" group along with being at the bottom of academia's hierarchical standing. Yet,

in claiming my right of refusing to be used as a curiosity (Garrouette, 2003), or my ways of knowing not worthy, I am learning to navigate higher education. Alfred (2004, p. 88) articulates that as indigenous scholars negotiate the academy, we have a responsibility to do “what we can where we can” as a way to guarantee the survival of our history, language, culture, and nations.

Conclusion

By incorporating IM in my dissertation study, I will promote the interdisciplinary indigenous focus of Minnesota history, language, and culture to influence the education landscape in offering a new transformative method of conducting PD experiences for K-12 teachers. This agentic study, by a Native person for Native people, will offer another way for Indian people to take back control of the educational system which historically (and currently), abuses and marginalizes them beginning with the Indian Boarding school era up through today’s inclusion of biased curriculum. How we frame story is critical as it structures how our indigenous story is acknowledged, and ultimately how the story constructs the way we recognize the world (Langdon, 2009).

This PD study, an indigenous method of interpretation and understanding, is a way to reclaim sovereignty (Smith, 2012) and to retell our story. As Native American researcher Margaret Kovach (2009, p. 4) states “our story is who we are” and we must inform the world of academia that an indigenous person’s culture is critical to how we approach research.

Stories. It’s always been about stories in my family. Hearing my grandfather’s great booming voice telling tales is one of my earliest memories. When moushoom, *grandpa*, told stories he used his hands with wild gestures and turned his voice into a great bird which

we all followed to see where it landed. Some may not consider this art, or poetry, but to me I could see the birds soar as he spoke, emphasizing his words in Michif, the native language of the Turtle Mountain Ojibwe tribe. With rapt attention I could hear his voice, distressed at times, as he wrapped humor around his stories of growing up; other times, his voice held sadness edged with irony as he told us of being in the war and having to eat food made with rancid flour, flecked with bugs (“Extra protein!”, he laughed).

Yet as I aged I began to ask my elders for more stories. A recurring theme emerged: the absolute sense of their voices and leadership being stripped with each generation further engrained in the assimilation techniques of the Native American boarding schools they attended. No voice in what they learned, no voice in being taken from their families, no voice in what, or when, they could eat, and of course, no voice in how they could read, learn, or pass on their Native culture, language, and history. In this, there were no dialogics (Freire, 1993. p. 128) and no multiple perspectives were asked of them. There was a deafening “culture of silence” (Freire, 1993, p. 30) echoing in my family's’ background story.

In my culture, it is the duty of Native adults to be strong role models to our younger generations in speaking up when we detect negative views and misinformation which is being perpetuated. I believed when I grew older I, too, could stand up to tell our own stories, and not step back to allow others to tell our stories for us. I hoped that I would be able to lead and honor all of my relatives who went before me; giving back and amplifying the voice which was taken from them.

Fulfilling this role, the role of continuing my grandfather's storytelling, I will study and offer a way for all K-12 student to hear stories which show how resilient and strong indigenous people have been, are, and will continue to be in the future.

To be an indigenous scholar, we must be warriors of truth (Alfred, 2004) as we stay the course in our personal lives, but also in our research methods by engaging in educational activism through transformative praxis (Mihesuah & Waziyatawin, 2004). We must resist the hegemonic structures of higher education where whispers of *you do not fit* echo the halls of universities. Yet I say *we do fit*. *We do belong* to this land and do not need invitations to the ground where our ancestors walked. IHEs are our inheritance and we who are indigenous researchers can do more from inside its wall than from outside as we work to join our Native ontologies to our academic training (Justice, 2004) as a way to serve Native communities. Inside academia we can amplify our indigenous research agendas to increase the healing and voices of our people through implementing research methodologies which honor our ways of knowing (Kovach, 2009; Mihesuah & Waziyatawin, 2004; Smith, 2012).

From the words of two Ojibwe language revivalists, Obizaan and Chato, Natives in the academy can fight the colonial system by using their own weapons [of research methods] against them (personal communication, course discussion, October 18, 2017). In this way, research can be an attempt toward transformative action via self-determination and sovereignty of indigenous rights, stories, histories, healing, and knowledge.

Chapter 5

Analysis: Lessons Learned on Water

In this analysis chapter I will use my technique of Indigenous Storalyzing (see Chapter 4 Figure 4.1). Indigenous Storalyzing is a technique that is both process and product; both action and outcome. My new method combines: the indigenous research methodology element of using a specific place-based land/water site, story as an indigenous research method used to work through, interpret, and making sense of the data which is situated in the land/water, and analyzing the data and scholarship in storytelling.

In my analyzing procedure, I explain the data through embodiment and conceptual thought when I look to land and see that it can teach, theorize, and be pedagogy. In using this Indigenous Storalyzing, I place myself in the land and water's story and apply it to the data from my research.

To honor this expedition on water, I will use a representative lake, Forest Lake. As mentioned in the previous chapter, this lake is only a few feet from my home and one I've spent the last twenty years getting to know. This is the setting for this chapter's storalyzing analysis. The lake will be used to travel in and around while using this body of water to work through and analyze the three teachers' experiences during the Native American PD. The water's ecology, landforms, and depth all contribute to water's identity. This, therefore, is how I will tell the story of each teacher. Put another way, I will use the metaphorical location of this one lake as a vehicle to interpret their identities and experiences as they encounter the PD, with me being a guide (as my elders have, and continue, to navigate my life), in their journey as well. The water is how they took up and

experienced the PD; each teacher has a representational water craft which matches their identity as they traveled the waters of the PD; and lastly, I accompany each teacher on their lake journey as we travel together to learn how to implement and carry out this Native curriculum PD.

Indigenous research methodology is located, and therefore, connected to a specific location. In my specific location, Forest Lake (Figure 5.1), there are also an abundance of streams and rivers, yet I am choosing to focus only on using the lake as a site for my analysis. A lake has a bounded form created by the surrounding banks which hold it in. So, too, does a person have a bounded body which holds in its identities while it is being formed through social construction.

I am not a science teacher, nor from a STEM field where exact Western language and verbiage would permeate my water analysis. Yet, as an indigenous women using indigenous research methodologies, I will use my own interpretations and “lay person” vocabulary as I understand and see the water’s ecology (i.e., water depth, aquatic plants, landforms, states of the lake’s waters, and waves) to analyze the three teachers’ experience in the Native American PD. Although there may be more accurate, scientific ways to create this narrative, as I interpret these teachers’ identity as seen in water, I, too, need to honor and stay true to my own identity through my indigenous epistemologies. Also, indigenous methodologies calls for indigenous researchers to present the analysis, or findings, in a way which those outside of the academy (e.g., Native community members) can access and understand.

Journey’s Beginning

“Straight on, Dawn. You need to approach it head on. Wavering will only tip you and unseat you.”

These words echo in my mind as years ago an elder taught me how to steer a canoe on the lake during a small storm. White caps were ahead and calm water behind, but sometimes a daunting challenge is the best way to begin a journey as a catalyst propelling the voyage. Positioning the canoe and moving into the churning waves; cresting the wave by entering it directly with water hitting the sides, I continued on with the journey. I had to cut through the chaos first to reach the calm.

This memory came back to me as I began this analysis chapter. As I spent time with these teachers in the PD sessions I often spoke about us *all* being on a journey together: me as a burgeoning indigenous researcher and they as nonNative educators experiencing new conceptions of Minnesota Native American history, language, and culture. To honor this journey, I choose to begin my analysis with Cecelia's story--her story on water. Her story was the most challenging for me to analyze. Within it were fluidities of the PD experience embodied in water, shallow at times, clear at moments, in others stationary, yet still other times embedded in the tangle of weeds. However, as in my memory in the canoe, I knew I had to go straight on with her analysis first and approach it head on to see where this research journey would take me.

Stories on Water

To begin this analysis I will locate the place as seen through the state's indigenous people, the Dakota, and their way of knowing my lake as documented in the The Prairie Du Chien Treaty, signed at the Wisconsin site in 1825 (Westerman & White, 2012). As

was common in legal documents then, borders and boundaries were marked by natural landmarks; a creek, a lake, a cedar tree. Article 5 in the treaty notes that one of these boundaries was by “*the lakes they bury the Eagles in,*” which, according to some scholars, might be the Dakota name for the lake where I live, Forest Lake (Minnesota Indian Affairs Council, Smithsonian’s National Museum of the American Indian, & Minnesota Humanities Center, n.d.).

According to the local watershed information (Comfort Lake Forest Lake Watershed District, 2015), Forest Lake has a surface area of 2,220 acres with a maximum depth of 37 feet, the largest in Washington county. Because of the lake’s tri-basin shape it is locally known as: the western most basin (1st Lake), center (2nd Lake) and east (3rd Lake) with each one having unique conditions and features. The lake is a well-visited recreational lake with fair water quality, diverse plant life, although there are current issues with invasive plant species. This lake, Forest Lake, is one I’ve lived next to for over 20 years. My husband and I bought our first house here; we brought home our first and second child to this land; we purchased and enjoyed summers on our boat on the water; my family learned to slow down, connect with each other, and engage in these waters. This choice of place, of land and water, is not a romanticized notion of using indigenous research methodologies, but is a large part of how I process the world around me.

I will use this lake’s surrounding terrain, geographical elements, ecosystem, and attributes as I navigate this analysis. As previously stated, as the researcher, I am a tool, or element in the PD intervention and therefore will place myself in the lake analysis as

well to show how the relationship between the lake's water and the surrounding elements mirror the relationship between the teachers and myself.

To new visitors on the lake, navigation is challenging as there are obstructed views, hidden channels and rocks waiting to overturn or scrape the boat's hull, and so unless one is familiar with it, a person might get lost or injured. A PD facilitator must also steer and direct the learning experience and take an active, co-participant role (Grossman et al., 2001) to create a safe learning environment. In guiding nonNative teachers in this journey, I constructed an intervention, but did not leave them on their own, so it's necessary to continue this relational analysis together.

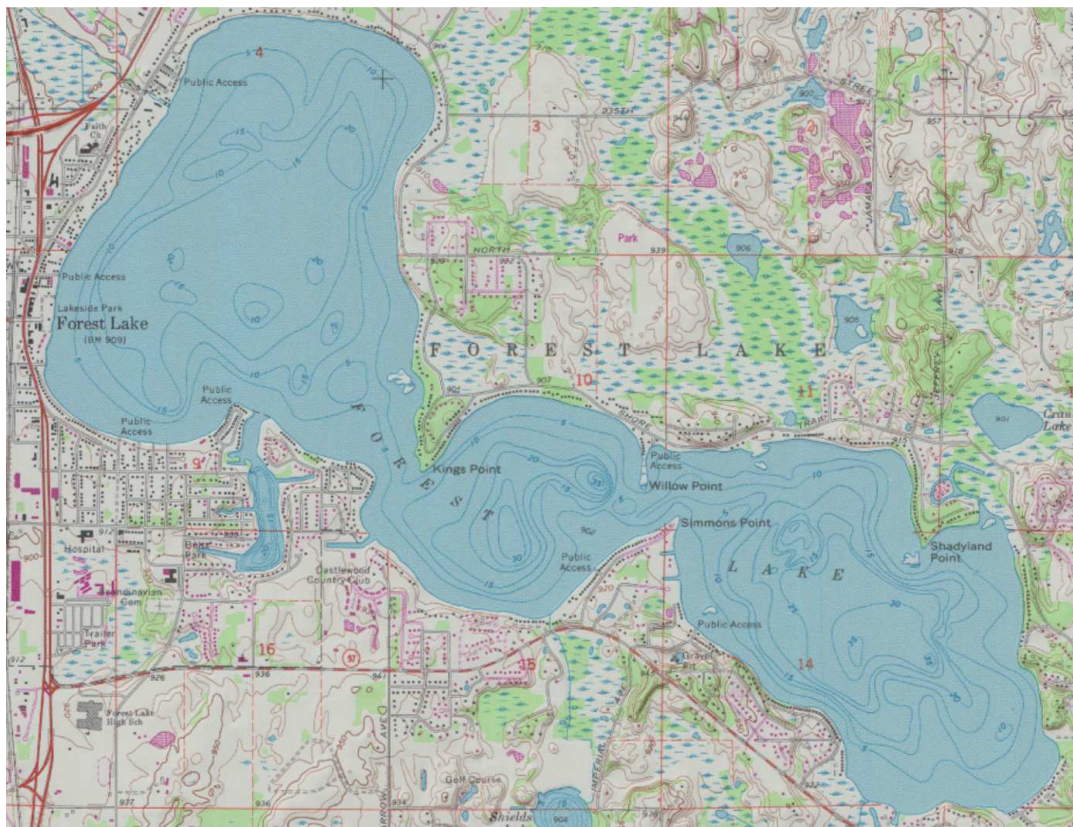


Figure 5.1. Topographical map of Forest Lake, MN. (Comfort Lake Forest Lake Watershed District, 2015).

Cecelia: Entanglements on Water

Cecelia is a self-identified white female teacher in the Midwest School District. She has taught just under six years in 6th-8th grade Science and currently teaches in 5th grade. She hopes to move back to the middle school soon. Cecelia chose to register for my five-month Native American curriculum PD as a way to “better understand The Native American ELA standards... [and is] also very interested in learning more information about Native American cultures and current challenges to Native American life” (pre-survey, April 30, 2017). Previously, her only encounter with Native history, language, and culture was two Native Studies courses in her undergraduate program. On the pre-PD survey she scored herself as a “1: Not confident at all to teach the Native American academic standards” (pre-survey, April 30, 2017).

Cecelia grew up in a wealthy metropolitan suburb with little racial diversity and traveled outside the country often on family vacations (interview, May 19, 2017). She stated that her cultural lens was limited, and her goal for the PD was to “work through my guilt I have, for being a white American that has little perspective of other people. And then two, I'd like to learn just more about the Native American people, ways of life, culture” (interview 1, May 19, 2017).

Before beginning this journey on the lake, it is first important to understand that in the state of Minnesota the “riparian property” (Minnesota Department of Natural Resources, n.d. para 5), or land touching a water source, is owned either publically or privately. It is illegal (subject to state trespass laws) to enter the lake via a privately-

owned property without permission, and therefore, this analysis journey will enter the waters through the public lake access. This public access site also echoes how the teachers in the study were able to freely access my PD if they chose.

Cecelia was extremely open with her feelings and ideas in all of her journals and interviews, and this will be reflected in gaining entrance to the water through the most public, wide-open lake access on the west of 1st Lake, located at the public beach. This is fitting for Cecelia's entrance into this PD since she was outgoing and extraverted during the time I knew her and she stated that she is "pretty outgoing" (interview 1, May 19, 2017). She was also one of the first teachers to volunteer for additional interviews in my study, and so, I begin this journey situated in the most public site on the lake.

Entering the Water

The first steps in the lake at this access point begins with a water depth extremely shallow, perhaps only inches. Cecelia stated, "I choose to do the Native American research grant, because I thought that it was very interesting" (interview 1, May 19, 2017). Although she mentioned previous cultural relevancy training, this did not seem to be the impetus to take the PD. The beginning sensation of first stepping into the journey's water is revealed as she noted good PD means "you have to be engaged and interested in things in order to want to do them" (interview 1, May 19, 2017). Curiosity and engagement was the catalyst for Cecelia's emerging voyage.

At this entry point into the liquid lake the water is clear. Clear to see the sandy bottom; the view is open. Cecelia, too is open about growing up "where everyone was very much like myself--white, wealthy" (journal 1, May 2017). She recalled previously

having a “shallow view” of diversity and now wants a deeper view, or lens (interview 2, May 19, 2017). This liquid state of her identity first appears when she acknowledged and attempted an understanding of Minnesota Native American history, language, and culture. Her beginning journey into the liquid identity standpoint was further shown when she wrote, “[t]here is so much about Minnesota history and Native people that I did not know or understand” (journal 1, May 2017).

To travel on water for extended periods of time one needs a mode of transportation. Cecelia, being open with her emotions and thoughts, traveled this journey in a water craft invented right here in Minnesota (Bylander, 2015)--the pontoon boat with a shallow draft, able to hold numerous people socializing, with low, open sides, and it moves gently along the water. In this watercraft, an outside source is needed to propel it. For Cecelia to keep moving slowly, steadily across the water without jostling her too much, I served as a source of push and nudge, like a motor as well as a guide and narrator of history to help navigate her through Native history, language, and culture.

Momentum is needed to push off from shore, and in a learning experience, in order to move out of the shallows. Cecelia began this leg of the journey with difficulty moving from excitement in starting this PD to frustration in beginning to learn about some Minnesota Native American history. She noted that “[s]ometimes it [history of Minnesota’s Native people] makes me very frustrated. Some of it makes me upset and sad” (journal 1, May 2017). Another element she tried to work through to begin her launch into the deeper water was articulating her desire to move through her guilt. For Cecelia to acknowledge her guilt and to see herself as part of a culture of whiteness is the

beginning of her own self-examination (Mezirow, 2009). She has gained clarity about her own assumptions of others, peered through the shallow water and can see the sandy bottom. She is ready to launch the pontoon into deeper waters as she expressed this in her interviews, during the PD sessions, and in her reflective journals.

Entanglements

In multiple areas on the lake there are hidden weeds beneath the surface in addition to ones upright and clearly seen in groupings. Some invasive weeds like Forest Lake's Eurasian watermilfoil (Comfort Lake Forest Lake Watershed District, 2015) will suffocate the natural growing pattern of life in the water. If not navigated and treated correctly, these weeds prohibit growth in the aquatic ecosystem. Cecelia, too, encountered entanglements in her learning. She was deeply challenged by the historical and modern concept of Native American tribal sovereignty. Also, she encountered difficulty when she got entwined in submerged biases others hold about Native people, and in her reading and accepting a Dakota author's view about the Dakota history of stolen land, death, forced marches, and exile (Wilson, 2008).

The weeds most perceptible are the ones visibly seen across the lakes and close to shore. Cecelia first encountered these upright weeds, or more correctly termed, emergent aquatic plants such as cattails or bulrushes, which are rooted in the lake bottom with their foliage and stems extending out of the water (Minnesota Department of Natural Resources, n.d.-a). Fish, native fowl, and insects flourish in and among these types of emergent plants. But these plants, weeds, can be obstacles to boaters on an excursion.



Figure 5.2. Cattails and Bulrushes in Minnesota. (Minnesota DNR, n.d.).

This PD journey had to halt a few times as together, Cecelia and I navigated the emergent weeds (Figure 5.2). Once we both recognized the hazards, we could address it, while still learning and thriving amongst them. Cecelia wrote and stated multiple times that she was challenged after reading about Native American tribal sovereignty in the first book we read (by a Minnesota Ojibwe author) *Ojibwe in Minnesota* (Treuer, 2010) and throughout the PD:

1. Currently I do not teach sovereignty, but would like to understand more about this concept (pre-survey, April 30, 2017).
2. I am still having a hard time grasping the idea of sovereignty (journal 1, May 2017).

3. Okay. So sovereign-I think I wrote this in my thing [journal #1] too.

Sovereignty, I get the idea of it, but I just can't wrap my mind around exactly what that means. What does that look like today I guess, is more of what I'm saying. I read the book I understand what they're saying, but it still just to me kind of seems vague. How exactly does that work? Are you a separate citizen so then, but you're still ...The American law still apply to you, but it's confusing. That part's confusing to me. (interview 1, May 19, 2017)

4. This is an idea that I still struggle to grasp. I get that Native populations are separate from the U.S. but I struggle to understand how that works (journal 3, July, 2017).

At the end of the PD in August, after reading more and talking together about possible sovereignty definitions and analogies, Cecelia began to recognize and unravel these weeds as she wrote about a book she found to add to her classroom “[t]he idea of sovereignty was made more clear to me after I read the graphic novel *Three Feathers*. I think that it may be a helpful place for people who are grappling with the idea” (journal 4, August, 2017). She began to understand that indigenous people have not been “fighting, like other marginalized groups, for inclusion in the democratic process...but retain the right to remain a distinct, sovereign and tribal people” (Grande, 2004, p. 98).

I appreciated how open she was in stating her inability to conceptualize sovereignty. By recognizing this cognitive entanglement and revisiting it reflexively over the months, we were able to navigate through and around these weeds of confusion.

To analyze the next entanglement, the lake's water becomes more tangled as Cecelia's difficulty appears to be entwined in some submerged preconceived biased notions of Native people. On area lakes, invasive species, such as Eurasian watermilfoil, may grow mixed in with indigenous aquatic plants crowding out and suffocating the critical native vegetation if not attended to (Figure 5.3). Eurasian watermilfoil reproduces and thrives by division of the submerged stems which spread out with underwater runners (Minnesota Department of Natural Resources, n.d.-a). The fragmented stems can spread and root, thereby creating an entire new colony. So, too, can unchecked biases of Native people spread and invade understandings.



Figure 5.3. Eurasian watermilfoil (co.stevens.wa.us, n.d.).

Here, traveling into the invasive weeds, Cecelia's identity moved into a tangle in which her understandings were a set of static, unmoving racialized beliefs, clearly stated both implicitly and explicitly. Our first barrier to movement among these invasive weeds was Cecelia's reaction to a disorientating dilemma (Mezirow, 2009), or forced tension, which I created in having the teachers read *What Does Justice Look Like: The Struggle*

for Liberation in Dakota Homeland (Wilson, 2008) as an opportunity for all of the teachers to have an experience outside of their usual world and/or cultural view. My intent was to disrupt possible subconscious problematic beliefs of the U.S. Dakota War, a Minnesota historical event, which included the hanging of 38 Dakota men on December 26, 1862. This also mirrors indigenous theory (Smith, 1999, p. 40) that suggests that Native histories “collide with dominant views” as Native people aim to transform their own lives and stories.

Cecelia wrote that “This book is INTENSE” (journal 2, June, 2017) and that she found the book “kinda hard to follow. Sometimes I had to re-read things, I was like ‘What?’” (interview 1, May 19, 2017). She was referring to the book’s organizational style and how it reflected the Dakota author’s use of a more indigenous, circular, story-telling format (i.e., as opposed to the dominant society’s typical use of linear storytelling formats). The author has a clear, agentic stance on the stolen land by settlers and how areas of Minnesota must be repatriated back to the Dakota. Cecelia felt that it was “very interesting how passionate and angry (in my opinion) how this author came across... the pool of grief and pain that the author vividly refers to is hard! It is depressing, challenging...” (journal 2, June, 2017). This began Cecelia’s move back to a shallow understanding as she felt that the Native author, in advocating fervently for indigenous land reclamation, came across as not advocacy, but as anger. Her identity began to hover on the surface as her racialized beliefs was clearly stated close to the surface in dialogue.

Yet, written only a few sentences down in her journal, it seemed as if Cecelia was moving back into a deeper state, seemingly more open about moving from misinformed views into new understandings, when she stated that she

did not know that every acre in Minnesota was obtained at the expense of indigenous people. I also did not realize that the Minnesota and U.S. Government really did not pay for the land that it got from the Dakota people. It seems that the Dakota were tricked out of all of their land and never really received any compensation. However, what I was most troubled to learn about was the fact that the United States Government committed acts of [g]enocide against the Native People. I did not know that this was part of Minnesota history in the least. (journal 2, June, 2017)

Back into the weeds we went as, again, only a few words later, Cecelia began to move again to the surface weeds (in being open to hearing about history from an indigenous perspective) in how she referred again to her white guilt and was challenged in the notion of genocide as she stated that when the author used the actual

word genocide to speak about the mass execution and deaths of the Dakota people. I find this to be both accurate and deeply troubling. I have never really thought of the deaths of the Natives as a genocide but it is. It is astounding that we [white people] would let this happen... This was the hardest thing to stomach out of the entire book. (journal 2, June, 2017)

Water Hazards

Just off of 1st Lake is a narrow channel. The water turns shallow again and has

rocks in the boating access site. This channel is marked by cautionary buoys warning water travelers to slow down and produce no wakes, or waves, as these can cause damage to both land and boat. The channel itself opens up to a secluded bay and squeezes the water into a tapered path (Figure 5.4). Only one water craft can comfortably pass through it at a time. This is the site of my and Cecelia’s next phase of our journey and is a close navigation through her PD experience as these next encounters only occurred when she and I were in close proximity, or alone. This time, she created the forced tension as I traveled along with her, leading us both into an unpredictable course in the PD (Grossman et al., 2001).



Figure 5.4. Narrow channel off of 1st Lake. (Comfort Lake Forest Lake Watershed District, 2015).

In our first morning PD session together, when the topic of Native American boarding schools came up, the teachers assumed these schools ended a hundred or so years ago. I hesitated, and then to offer a more realistic perspective I said;

There actually are boarding schools open today because there are families that for various reasons that might send their children, but it’s choice. But it’s not that far

removed. Um, I am the first generation on my mom's side who did not go to Indian Boarding schools. I, I don't like to talk about it a lot..." (PD session 1, May 1, 2017)

From previous experience, I knew that I needed to protect this painful chapter in my family history which is why I said 'I don't like to talk about it.' I have learned to explicitly separate my content expertise in incorporating Native curriculum from my personal and lived experience being a Native person. I tried to establish this right away so as not to get intrusive questions.

Only in this constricted area of the lake, as we were physically close, did Cecelia pick up and ask about my personal history with boarding schools. Only one water craft can comfortably navigate this channel at a time. Together, Cecelia and I occupied this tight spot; constricting our voyage. We slowed to a crawl.

It was group work time and I was a few feet from her as she quietly asked a second and third time about "my family's boarding school experiences" and asked why the parents send their kids (PD session 1, afternoon 1:47:32, May 1, 2017).

I continued, "Well, I don't talk about it a lot..." Cecelia kept trying to ask me personal questions and I would try to answer back gently using content and larger picture issues (field notes, May 1, 2017). Cecelia tried to ask about the boarding school again after I tried to deflect the first questions to a larger history lesson, away from my personal story. But she also added a question assuming that I was fluent in my mother's Native language. Right away I thought to myself, "Yes I need to protect myself from another type of invasion. An invasion of the curiosities and rude questions asked by white people

(Garrouette, 2003; Smith, 2012) regarding the history, this historical trauma, of the American boarding schools. I wonder why white people are so intrigued with boarding schools” (memo, May 10, 2017). This was the truth of my own story; truths learned and held in the life’s environment of the storyteller (Kovach, 2009).

hooks (2006) speaks about this as “imperialist nostalgia,” and as eating the other. The notion is that there is no mourning of a situation, but a celebration and yearning of consuming a mystification of primitivism during a colonizing journey (hooks, 2006, p. 369). Said another way, Cecelia wasn’t necessarily interested in hearing my family’s boarding school stories to assuage my sorrow, but as a way to devour the “other’s”--as in my--tragedy in a cultural market while denying any accountability for doing so (hooks, 2006). In this tight metaphorical space, she had a desire for intimate closeness to the “other,” yet did not understand this was an invasion of my mental and spiritual space. On the waters of this PD experience, at this point, Cecelia was trespassing onto my personal property--both emotionally and professionally. I, however, still took my relationship role as researcher seriously, and so sought to find a way to challenge society by maintaining my right as a sovereign self throughout this study (Chilisa, 2012; Smith, 2012).

The next time I saw Cecelia was at our first interview. Again, it was only the two of us in her classroom and she, at the end of our time together, wanted to hear my “mother’s boarding school story” as she said:

I mean I would like to hear your perspective of things a little bit more in the class, because they make sense, but you said your mom went to the boarding schools. It’d be interesting, I mean obviously if your mom didn’t want to talk about it, I

would 100% understand, but it would be interesting to hear her story of living that. ‘Cause I think that when you can see people’s stories, and hear people’s stories, I think that makes things much more impactful for people. (interview 1, May 19, 2017).

I wondered, “How do I balance sharing a story so the teachers understand, but protect my emotional Native self at the same time? Or do I have to? How do I balance trying to create a community and relationships with these nonNative teachers which some misunderstand as intimacy, and therefore feel they have the right to ask personal questions outside of the content I’m teaching?” (field notes, May 1, 2017). It made me think about the readings that I’ve done before from Indian authors saying that Native researchers need to be careful because white people feel that they have the right to invade our sovereign stories, spaces, or personal histories (Denzin et al., 2008; Smith, 2012). I know now that I need to maintain a stronger separation between my personal life stories and the Native content work in the PD; to move beyond the “gaze” (Oakes & Price, 2008; Smith, 2012). Some stories, if the value of the knowledge isn’t understood, are not appropriate to use as a teaching instrument (Chilisa, 2012). During this study, my identity as a Native researcher also became fluid as I learned more about what the role of an indigenous researcher is, isn’t, and can be. My own story became part of the research story as I realized that protection, just like a life jacket, can keep us buoyant and safe from harm. Chilisa (2012) speaks of this as the “hidden area...which represents self-knowledge in which a person is conscious, but they choose not to disclose to others” (pp. 178-179).

Pushing out from the Shallows

At the end of our journey, Cecelia and I began to see the first nod of journeying into deeper, weed-free areas as her identity began to show signs of more depth, movement once again as she showed signs of advancement in speaking about biased racial ideas, but not yet totally disrupting the dominant narratives of Minnesota Native American history, language, and culture.

This movement from a shallow depth of understanding towards the midlake depths was shown as the change from our first interview together when, for the only time, Cecelia mentioned working with a Native family and described them in the stereotypical “drunken Indian” trope: “I had some kids that the dad lived on reservation. Mom was an alcoholic, and drug addict and would frequently move around” (interview 1, May 19, 2017).

Yet, as we ended our PD journey together, during the last interview Cecelia was open about being profusely embarrassed by her previous lessons as she quietly shared,

It was like, almost embarrassing that we were teaching something that was so insensitive [regarding a Native American project she had her students do prior to this PD] and it was a really good growth experience to be like, Okay, we’re going to make mistakes as teachers. We’re going to grow from this. We’re going to learn more and then we’re going to apply it and hopefully help our students to be more open minded and understand truth [other than] Eurocentric [notions of history]...I don't know. It was not good. It was so bad. It’s so embarrassing. The Native American project. Oh my gosh. So embarrassing. I can't believe that I had

our students do that. I'd never... (interview 3, August 7, 2017)

She also showed movement into more depth as she noted, in the post-PD survey, that after reading the book that challenged her the most, *What Does Justice Look Like: The Struggle for Liberation in Dakota Homeland* (Wilson, 2008), it “made me think deeply about the idea of prolonged pain and injustice [of the Dakota loss of land, executions, and expulsion from our state] that no other source has” (post-survey, Aug, 2017). She also indicated that she is “far more knowledgeable on the subject” of Native curriculum as she self-assessed her learning as a four on the Likert scale post-survey question “on a scale of 1-5 how confident are you now of teaching the Native curriculum?” (post-survey, Aug, 2017). This is in comparison to her original rating of a one prior to the PD experience as reported earlier.

Remaining on the Water

With Cecelia, the journey on the lake water stays mostly in the shallow areas. Although multiple times her momentum is propelled by using words such as “exciting,” “amazing,” “informative,” and “fascinating,” her pursuit for a deeper understanding of how whiteness perpetuates contemporary Native American issues (both in and outside of school settings) is still absent.

She began to notice a break just below the surface understandings as she said, at the beginning of this journey that the PD “changed my perspective of looking at things... I also think that, it'll make me take perspective when we talk about things [curriculum]...When you stop looking at it so Eurocentric and look at it [history] from other people's perspectives” (interview 1, May 19, 2017).

At the journey's end, she began to breakdown the weeds of confusion about sovereignty, one of her biggest conceptual challenges, as she said,

I think, for me, was a lot of growth in the ideas that I just ... I don't think ... Like I said before, I don't really think that I had a lot of background knowledge on things. On the idea of sovereignty, I was like, I don't get this. I don't get it all. Don't understand it. Not at all. And I think that learning about this and understanding the idea of sovereignty, really brings a new perspective into the classroom. (interview 3, August 7, 2017)

After four months working together, in her last journal entry, Cecelia recognized that we undertook this voyage together as she wrote to me, "Thank you for taking your time to work with us. Learning is such an important journey for teachers. I appreciate it!" (journal 4, August, 2017). She also stated, "Yeah. It was a lot about growth, I think (interview 3, August 7, 2017). Again, she summarized her journey as: "I think growth would be my word to describe it, I think it's a process...that helps to understand different perspectives of different ideas that I wasn't previously aware of (PD session 5, August 7, 2017).

My time with the PD ended, and I left her on the water to travel by herself with the tools and navigation needed to continue on with new understandings of Minnesota Native American history, language, and culture. Cecelia is still out there, on the lake, on the move through the shallows, on the way to a better, deeper understanding of the state's original people.

Aria: Encountering States of Water on the Journey

Aria is a self-identified white female teacher who has taught just under 15 years in the upper elementary grades. Aria wanted to register for my four-month, five session, Native American curriculum PD as a way to have a better understanding of Native American culture, resources, and “ideas for how to teach Native American culture in my classroom, [and] great literature recommendations” (pre-survey, April 30, 2017). This was Aria’s “[f]irst experience really focusing on Native American history and culture” and she also hoped to learn about Minnesota Native American people, culture, sovereignty, and contemporary Native issues (pre-survey, April 30, 2017). She also said that she did not have any preparation on Native American history, language, and culture as she earned her teaching degree (interview 2, June 26, 2017).

On the pre-PD survey Aria scored herself at a 2 on a 5-point scale with regard to her “confidence in teaching the Native American academic standards” (pre-survey, April 30, 2017). She further described this low confidence level in the pre-PD survey as she noted, “I’m not confident--as I mentioned above, I don’t even know where to find the Native American ELA [K-12 academic] standards.”

Aria began this PD with a desire to learn more than just Native American curriculum content. She also shared that understanding the past and present *values* of indigenous communities would be important:

For years I have felt ill-prepared to teach Native American culture and literature. I want to go beyond the old “stations” of beading and rhythm games, and have conversations with my students about the story of how our country was shaped--

the conflicting values held by Native American people and the European explorers, and even the conflict between values held by those who identify themselves as Native American and those who don't today. It seems like there are so many current issues that might address this: Dakota Access Pipeline, as well as other environmental protection issues, immigration, etc. I want my students to have a big picture understanding of the Native American experience and culture...I prefer to approach the development of curriculum from a concept-based perspective. (pre-survey, April 30, 2017)

Growing up, Aria racially “always identified most closely with our Swedish/Scandinavian heritage. Maybe because that’s where most of our stories come from, and we look typically Swedish [i.e., blond, light skin, light-eyed, etc.]” (journal 1, May 2017). Yet, a few words later in her first journal she noted that she grew up hearing stories of her (maternal) great grandmother being Native American (Choctaw tribe) which she noted was always a source of family pride too. She wondered “[a]lthough those stories are part of our family story, I still didn’t self-identify as Native American-- maybe because I don’t have ‘enough Native American blood for it to count??’”

This tension, between what she *looks* like, versus what her family’s oral Native American history contains (Garrouette, 2003), will be one of the main journeys Aria takes on our PD voyage together. Using one word that describes current work with Native American curriculum she honestly says, “absent” (PD session 1, May 1, 2017). This notion of absence is how she also reflects on the silence around her own family’s Native background claims. Aria was unsure how to discuss race and she seemed to only discuss

it in a hushed tone (Seidl, 2007).

Transformational Journey on Water

To analyze Aria's journey on water I will use a conception of the states of water (see Figure 4.2) to mirror her PD experience and how she took up the learning. While examining Aria's PD experience I found many elements of it to be a "textbook" transformational learning case (such as discussed in Chapter 2's critique of empirical transformational learning theory studies). As noted in Chapter 2, Mezirow's (1994) constructivist stages of transformational learning (Mezirow, 1991) include elements such as a disorientating dilemma, exploring feelings of guilt, shame, assumptions, negotiating new roles, and emerging with a new world view. When applicable, I will title the subsections in this Aria's story after Mezirow's (1991) stages while tracing Aria's transformation.

As I use Indigenous Storalyzing with Aria's data I will focus on her transformational learning journey with my new, experimental, interpretive standpoint of states of water/states of being describing her experiences as moving between frozen, liquid, and mist/vapor. Using Indigenous research is a way to also highlight a main goal: transformation for bettering life, by, and in Native communities (Denzin et al., 2008; Grande, 2004; Smith, 2012). This experimental storalyzing analysis will be framed around these conceptual themes of Aria's experiences, learning, transformation, and reactions in the waters of the PD and will trace how she constructed the fluidity of her identities (Bloomberg & Volpe, 2016; Chilisa, 2012; Frankenberg, 1994)

Entering the Water

Aria was extremely open to me in this PD during our learning time, in her journals, and during interviews. Yet, she differed from Cecelia's openness. Aria was open about wanting to seek a deeper understanding of the content. She wanted a *why* of Minnesota Native history, language, and culture, not simply the *what* (i.e., content). Aria not only wanted to understand these concepts herself, but she often talk about how she could translate this knowledge back into her students' learning experiences:

How can I then turn around [with my new Minnesota Native American understandings] and share that with the kids?...I like to have a foundation of some background knowledge...then having some process time. Then come back and share it with other learners...Having that time to process is really helpful.

(interview 1, May 18, 2017)

Because of this deep openness, an inward desire for a richer level of understanding of Native content, and acknowledging the need for internal processing, Aria's emergence into her PD journey will be reflected through entering the lake at a small, public access where the water runs deep immediately. Just north of 3rd lake is a hidden strip of land which is appropriate for Aria's beginning to her journey since, although she was open to the PD experience, her quiet, introspective ways began to forge a profound path. She herself said that when she's learning something new she needs to "just dive in and sort of like, swim around in it all for a while" (interview 2, June 26, 2017).

There, at this lake access the water's liquid clarity is mired muck which clouds the water's visibility. So, too, did Aria begin with more questions which may have

pointed to her confusion in understanding Native American concepts. Yet, her PD experience so far sought to learn beyond the content and move more into the reasons behind the content as shown in our first PD session when she asked, “Can you talk about the curriculum that I’ve come across about the Dakota who aren’t in Minnesota anymore because of the [U.S.] Dakota war? When I explain that to students, it always becomes really confusing” (PD session 1, May 1, 2017). In other words, Aria understood the concept of the U.S. Dakota War, yet wanted to move beyond this and link it to an understanding up to the present time. Aria’s water journey started in the liquid state as she moved toward new understandings of Native American history, language, and culture. Then, she attempted to unpack conceptions of racial bias in seeking to find the *reasons* for current situations in the Native community, not simply the dates, location, and history.

Because Aria propelled much of this journey on her own by seeking to delve deeper into Native American understandings, her mode of transportation will be in a *jiimaan*, *canoe*. Aria, being open with her emotions and thoughts, traveled this journey in a water craft invented by Native people in which they explored using a light-weight and fast vessel (Treuer, 2010). Aria’s desire to investigate her own identities is the canoe paddle--a tool that allows swift movement by a person willing to go past the water’s surface (i.e., PD experience) and dig in deeper with the paddle. Aria’s questioning *why* history happened, or *why* events took place, showed that she wanted more critical knowledge, not simply facts of Native history, language, and culture.

Other examples of this deep questioning were: “I’m wondering why the rates of [foster home] placement of Indian children out of home is so much higher than for non-Indian children??”, “How do we combat/treat historical trauma???” (journal 1, May 2017), and yet another about the mindset of those who took Native lands:

So, one of the questions that’s very open and general, well I started out with, what made white settlers, or we could also look at it as, what made the U.S. government, feel like they were entitled to take that land? And then I sort have been playing around with maybe even making it even broader. What makes one group feel like they’re entitled to take over a land that, you know may be, or an area, or something?..[W]hat made the U.S. government, feel like they were entitled to take that land?” (interview 2, June 26, 2017)

Seidl (2007) notes that it is far easier to talk about cultural differences than acting on it and seeking to further understand. Yet, here Aria is taking the first steps toward critical understanding as she begins to internalize cultural knowledge (Seidl, 2007) set within this PD, and continued to delve deeper in a committed focus to embody this learning (Lewis, 2018).

Freezing Over: Disorientating Dilemma, Self-examination, Guilt or Shame, and Critical Assessment of Assumptions

Aria continued to go deeper with her canoe paddle, navigating around 2nd lake in her quest for a deeper understanding. However, as a learner, the water in Aria’s PD journey began to freeze over when she recognized her discomfort while reading our second book from a Dakota author (Wilson, 2008). The lake’s water, or her PD

experience, began a nonmoving, static state in understandings of Native American history, language, and culture. A number of times over our journey together Aria articulated that learning this history from a Native perspective “makes me sad and guilty because my ethnic background is that of those who came in and tried to eliminate the Native American people and way of life” (journal 3, July 2017). I interpret this freezing as an element which prevented her from moving ahead in the journey, to being open to seeing a new perspective of Native history, language, and culture. This guilt, or sadness, about historical events kept Aria from moving into a more liquid, open acceptance that learning about painful aspects of history are needed, but taking on the guilt of those who perpetrated it is not. In other words, teaching about these events (from a nonNative perspective) does not implicate oneself as part of it. Moving beyond this frozen notion was a turning point for Aria’s PD journey on water.

Aria noted her challenges in reading this particular book and how it was “[k]ind of overwhelming by the long history of injustices for the Native American/Ojibwe people ???” (journal 1, May 2017). The (white) guilt aspect continued to freeze her PD experience as she shared about her feelings reading this book.

It was just an uncomfortable thing to read through. And, I’m sure it’s because I do identify with the predominantly white side of my heritage and so I have all that white guilt. And just not knowing that I didn’t know the extent and depth of all of this. (interview 2, June 26, 2017)

Continuing with this frozen, static guilt of being confronted with a new indigenous view on Minnesota history, Aria again writes about this shock:

Overall, reading this book made me uncomfortable. I'm not used to the aggressive tone that Waziyatawin uses to tell the Dakota story and to make her case for Dakota reparation. I'm not saying that her tone is unjustified, just that I haven't read other books that are so forceful and angry. Because this is a new perspective and because it made me uncomfortable. (journal 2, June 2017)

Recognizing, in the water's reflection, her white guilt and white fragility (DiAngelo, 2011) is a barrier to opening up to new understandings of Native history, language, and culture. Tuck and Yang (2012) note that white guilt can be seen as a tool of reprieve for confronting a new perspective. They continue by offering that white guilt removes "involvement in and culpability for systems of domination therefore reproducing power over knowledge" (p. 9). This white guilt is a way to share feelings of blame without having to change one's mindset (Harris, 1993). However, Aria does not attempt to avoid this confrontation in her experience; she continues to articulate and explore why she is feeling this way and how to move beyond it (journal 2, June 2017).

Exploration of New Roles, Relationships, and Actions

Here is where Aria's PD experience begins to shift. She takes agency in plunging her paddle into her frozen discomfort and ends the journal entry reported above with a decision to be open to learning from this author/view point. She said: "I was more interested and determined to try to carefully consider her [the Dakota author] proposals" (journal 2, June 2017). A clear movement from her frozen mindset into a liquid one was shown as she summarized moving beyond her uncomfortableness. She wrote that she was "starting to think in a new way" ... [and that]

This experience has been more disconcerting than I expected. The readings are making me uncomfortable and making me question what I thought I knew about U.S. history. I'm reminding myself of what I often tell my students: "There's no growth in the comfort zone, and no comfort in the growth zone." This learning is definitely taking me out of my comfort zone! (journal 2, June 2017)

Pushing out from the Ice's Hold

Toward the end of our PD journey, Aria and I began to see the first nod of a thaw as her identity began to show signs of fluidity, movement once again switched into a state suspended in liquid. Aria recognized that even though what she learned up to this point in this experience helped her realize how much more "I have to learn/how much I still don't know, and, second brings a heavy sense of responsibility to share with my students the missing Native American story in the history of our area" (journal 3, July 2017). She showed signs of advancement in speaking about biased racial ideas, but not yet totally disrupting the dominant narratives of Minnesota Native American history, language, and culture. This melting of the lake's arctic hold is called ice out.

Each lake in Minnesota determines the definition of ice out. Some define it as when the waters are totally ice free; others classify the ice out as when navigation is possible between certain points on the lake; and others label it when 90% of the lake is ice-free (Figure 5.5). According to the 40 years of data (State Climatology Office, DNR Division of Ecological and Water Resources, & University of Minnesota, n.d.) the earliest ice out on Forest Lake was March 22, 2000. The average ice out date is April 7 and the latest being April 23, 1996.



Figure 5.5. Ice Out. (Pexels. n.d.).

This ice out movement was shown as the change from our first journey into the PD together when Aria began with the previous quote which showed such shock at the Dakota authors' perspective on the stolen land and lives of the Minnesota Dakota people. And now, in a similar, but different quote, she moved to acknowledge that now:

I mean, her anger over this injustice, I can absolutely understand why. It's justified. It was just an uncomfortable thing to read through. And, I'm sure it's because I do identify predominantly with the white side of my heritage and so I have all that white guilt. And just not knowing that I didn't know the extent and depth of all of this. Yeah, so anyway, even though it was uncomfortable it was good to be exposed to that [perspective]. (Aria, journal 2, June, 2017)

Aria again reinforces her emergence into the liquid stance as she says that this PD experience has:

just really has taken me out of my comfort zone. And, I'm telling myself that I'm okay with it, and I have become much more okay with it. But, I think it's a great experience for me to have as a teacher. To feel that unease and then to be able to empathize with my students when I'm pushing them beyond their comfort zone.

(interview 2, June 26, 2017)

Yet, as we ended our PD journey together, Aria also showed continued movement into a liquid identity as she noted, in the post-PD survey, that she is able to see connections between the Native perspective of the founding of this country, and issues of repression still today, as well as other issues of race happening in our society currently. She felt “like my mind is more open to catching examples of how/when the white person narrative is pushing aside other points of view!” and has a new “solid background knowledge” of Native curriculum. Aria self-assessed her confidence in teaching the Native curriculum on the pre-survey Likert scale of 1-5 as a 2 and in the post-survey, she scored her confidence as a 5 (post-survey, Aug, 2017). As mentioned previously, I was taken by the notion of transformation in education since this echoes the indigenous research foundations of working towards transforming the lives of Native peoples for the better. Aria began with a murky start to the PD, then moved into a frozen way of taking up the PD, but through her journey she transformed her world perspective in how open and receptive she was to Native history, language, and culture.

Into the Mist: Renegotiating Relationships, Building Competence, and New Perspective

Towards the PD journey’s end Aria reported multiple times about her “feeling so grateful for this experience” and tried to offer “explanations of where my head and heart are right now with respect to what we have learned” (journal 3, July 2017). Her perspectives widened, not only in aspects of Native history, language, and culture, but also she found:

that I am considering other points of view in lots of different contexts, because of the readings and conversations we've had here. I thought I was open minded before but I can see a marked difference now in my outlook, especially on history. (journal 4, August, 2017)

Aria again stated that this PD journey “really made me so much more aware of different perspectives. I think that I was a lot more ethnocentric than I thought. I don't know. I feel like I'm aware of just multiple perspectives [now]...” (interview 3, August 7, 2017). She became aware of her own “thinking and being open to and seeking other sides of issues too” (interview 3, August 7, 2017) and that her racial “awareness has been broadened so much” (PD session 3, June 26, 2017).

In our third PD session Aria brought up the summer 2017 controversy over the Walker Art Museum's erecting a “sculpture” of hanging gallows which was based partly on the platform on which 38 Dakota men were hanged at Mankato on December 26, 1862 (Eler, 2017). I purposely chose not to mention this myself as I wondered if any of the teachers, after our one-and-a-half months together, would pick up on this connection between the U.S. Dakota War, the challenging book from the Dakota author (*What Does Justice Look Like?*), and its implications today (field notes, June 25, 2017). Aria was the first to bring it up as she said this art installation was:

pretty controversial, obviously, and I think pretty dramatic for people. And the Walker eventually decided to take it down. I just felt like it really punctuated the statements in here [our PD journey time together], like that ignorance. Especially with the opening of the [Minnesota] sesquicentennial, and this idea like, we live

in Minnesota. This happened in Minnesota. (PD session 3, June 26, 2017)

It is here, in this area of the water that Aria began her final shifting and rising towards transformation above the lake surface from liquid to vapor, or mist, as she recognized, and named, a transformative state in her understandings of Native American history, language, and culture. In our last PD session she said that after this experience she “felt empowered” with a new sense of understanding of Native perspectives (PD session 5, August 7, 2017) and could see that she “had very little awareness of them [Native perspectives] prior to this experience” (post-survey, Aug, 2017).

This movement into the vapor, or mist, standpoint was evident when Aria, a nonNative, critically demonstrated a revolutionary new worldview of indigenous contexts and willingly disrupted biased racial beliefs. She moved above the waters of the PD experience into the mist of her own new journey. She shared that “the seeds [of awareness] have been planted and...I know I can do this [continuing to learn about Native history, language, and culture] (interview 2, June 26, 2017).

Portaging On

Aria also came to feel comfortable in her ability to verbalize what she kept hidden regarding her family’s stories of having Native relatives. She reported that she wants to go back and research the West Coast Native American experience “because that’s where my particular family came from and that’s where my great-grandfather married my great-grandmother who had Native American blood” (interview 2, June 26, 2017). I noticed that she wasn’t embarrassed to say now that she had Native American ancestors (field notes August 7, 2017).

Aria's PD voyage began with a canoe in the lake water, and now, at the end, she was ready to leave our time together, our learning journey together. Yet, she did not simply dock her water craft. In her transformation she began to feel comfortable continuing another journey on water, but without me. She said "when I've left here, I've just been energized and excited to grab on to the next chunk and read and ...start the next thing to think about. So, just how I feel inside, that's been really different from PD. I can do this!" (PD session 5, August 7, 2017).

To travel between lakes, water voyagers (past, present, and future) are able to hoist the water craft up on their backs and continue walking on land, to portage to seek new water journeys (Figure 5.6) as they take up a "reclamation of knowledge, language, and culture; and for the social transformation of the colonial relations between the [N]ative and the settler" (Denzin, Lincoln, & Smith, 2008, p. 88). Aria, as Tuck (2009) suggested, was transformed in a way which opened racial reasoning and dialogue with new considerations moving forward. Through her rapid change in perspectives, Aria found how her new learning was created by an awareness and enactment constructed through self-reflection and social [white] critique (Mezirow, 1994).



Figure 5.6. Portaging from one lake to the next. (MNHS. n.d.).

Aria will continue her learning journey on another lake; on another path to pursue more understandings for Minnesota Native history, language, and culture.

Reva: Surface Waves Above and Storms Quelling Below

Reva is a self-identified Chinese American female teacher who has taught just under five years in the upper elementary grades. Reva chose to register for my four month Native American curriculum PD to learn “ways to integrate the ideas of Native American issues into the curriculum that engage students in higher order thinking about this and other issues facing our world today” (pre-survey, April 30, 2017). Reva had previous experience with both Native history, language, and culture in college coursework and also was an active volunteer with the Minnesota Indian Women's Resource Center. Reva was very vocal in the PD advocating for a stronger push toward equity and that all teachers should understand the history of Native people in the U.S. since it is very pertinent to how we, as a nation, treat people today. She felt that everyone needs to learn from our past: “But, how can we if we don't even know it! Sadly, I have been frustrated by the limited resources, the superficiality of resources, and the lack of integration in all areas of the curriculum” (pre-survey, April 30, 2017).

Teaching is a second career for Reva. Previously she was in the nonprofit and corporate business world working with what she called “change management” in diversity training (interview 1, May 19, 2017). She had a much richer understanding and depth of knowledge of equity issues in education and also in how curriculum is biased toward the Eurocentric frame of reference than the other teachers in the PD (Field notes, May 1, 2017). On the pre-PD survey Reva scored herself a 4 out of 5 in her “confidence in teaching the Native American academic standards” (pre-survey, April 30, 2017) and she said numerous times that “[c]olonization is kind of the root of this problem”

(interview 1, May 19, 2017). I interpreted this “problem” to be the plight of Native Americans historically, and up to this day. She also stated that by taking this PD she wanted to learn how to incorporate “a sincere active representation [of Native history, language, and culture] in this work.” (pre-survey, April 30, 2017). In my work with Reva, the work she took up was not only changing the curriculum to reflect more Native voices, but also her larger project of racial justice in the schools.

Growing up, Reva identified as “Asian American in the U.S. during a time when there was conflict with Asians...” (journal 1, May 2017). She shared that during her childhood, as a Chinese person, she was concerned about being and feeling different within a predominantly white community and even at a young age she knew that words and names from her cultural background could be intentionally and unintentionally abused by white people in the community.

Imagine the school mascot being called the [Midwest] Chopsticks ;o) As much as I wanted to fit in, I did NOT want anyone to notice that we were different and use our names or terms to describe themselves. I feel that it’s an extension of treating people as “other.” (journal 3, July, 2017)

Further reflecting on her childhood, Reva recalled that:

unfortunately we can't change the past but what we can change is generational thinking. Here's the thing. When I was growing up, the Civil Rights Acts had just been passed, 1967, and I started elementary school. People were still calling me names. They were still calling the black kid in school--[the n-word]. It was bad, okay?” (interview 1, May 19, 2017)

Borrero, Flores, and de la Cruz (2016) note that teachers of color often have experienced racism and, due to this, have a better understanding (as compared to white teachers) about how to create relationships with students who also have endured racial, cultural, and ethnic oppression. Reva, as a teacher of color, clearly showed that she had great skill in her ability to engage with her students to critically analyze social inequities. From my time spent with her, both in the PD and during interviews, journal reflections, and in the PD, I saw that that she had the ability to engage in conversations about racial and social inequities along with her willingness to critically analyze social inequities. For example, after her mid-summer trip Reva brought back pictures of how Native Americans were depicted in a European museum with racist overtones. During the PD she also would share how direct and forthright she was with her students such as beginning the first day of school saying, “Look at me. Look at my face. I’m different, ok? Let’s just put this out front right away.” (interview 1, May 19, 2017)

When asked to name one word that described current work with Native American curriculum, Reva said she was really “excited” to take this PD to learn more and stated that she was very aware of all these [Native American] standards “because I went to teachers’ college and I looked recently and I did take all those classes related to the new standards. But, um, it just is something that doesn’t rise as a priority [for most other teachers]” (PD session 1, May 1, 2017). Reva is very comfortable talking about race, prejudice, and equity (field notes, May 2, 2017) and shared that:

I have been told I am a very intense person because I read a book like this [one of the Native-authored books in the PD] or I read something like this and I’m highly

critical. People are like, ‘Oh my God. You've got ... How did you get all of that out of that book?’ I know that that’s a problem and I have to tone it down sometimes because I make people nervous and not everybody is like that. (interview 1, May 19, 2017)

In addition to her self-identified intensity, Reva, was seen as and spoken about by her teacher peers as very kind, soft-spoken, and an outgoing person (field notes, May 2, 2017).

Conceptions of Reva’s Stormy PD Journey on Water

To analyze Reva’s journey on water I will use a conception of the lake’s surface interactions with the atmosphere such as wind, waves, and storms to reflect her PD experience and how she took up the knowledge. While investigating Reva’s PD experience, I found her personally to be calm and compassionate, yet in the experience she called for equity and for a radically new curricular view based on overturning conceptions of whiteness and a privileging of diverse perspectives in the classroom, with parents, and as she engaged in district leadership. She sought to teach Native history, language, and culture in a new perspective. Reva wanted to teach with a different approach, which centered indigenous texts and perspectives to explicitly focus on colonization, genocide, broken treaties, and marginalization of indigenous culture through boarding schools. In this, I deeply admired her. Yet it was also a PD journey in which I witnessed the storms of backlash from her own district and parents of her students as she attempted to fundamentally change the history curriculum and focus on pre-contact (pre 1491) and highlight racism in how history is taught. Teachers of color,

like Reva see themselves as responsible for and skilled to enact change to make schools more socially just as they learn alongside students to “generate Freireian foundations of critical consciousness...[as a way to transform] worldviews, and communicate transformative readings of the word and the world” (Borrero et al., 2016, p. 31).

In using Indigenous Storalyzing with Reva’s data I will concentration on how her understanding of racial justice in this PD journey began earlier in her first career, and so had more professional experience in diversity compared to the other teachers, yet in this we encountered some tempests while trying to navigate her curriculum creations and also barriers put up by white parents and district administrators. Reva carried a desire to move not only her own understanding of indigenous history, language, and cultural, but to disrupt other parts of the educational system by challenging the curriculum.

Entering the Water

Reva, like Cecelia and Aria, was also tremendously open to me during the PD sessions, in their journals and interviews. Reva began with a deep base in her understanding of equity, whereas the other teachers needed to learn how to speak about the basics of whiteness. Reva was well-versed and was a leader in this area as she shared many equity projects she has taken on in just her first four years of teaching. The first time I met her she was wearing a t-shirt which read “It’s all about equity. Duh!” and pointed to this slogan, nodded, smiled, and laughed (field notes May 1, 2017).

Due to this depth of knowledge of equity, Reva’s beginning into her PD journey will be echoed through entering the lake from above; from a sea plane which is often seen on the south side of the 3rd lake basin of Forest Lake. She herself said that the PD was

thrilling. I know others [white teachers] in the group have felt more anxiety--I guess I am a risk taker and I enjoy taking on a challenge that leads us to a world more like the one I want! YEH. Thanks for the opportunity. (journal 4, August, 2017)



Figure 5.7. Seaplane. (Seaplane Pilots Association. n.d.).

A seaplane has the ability to take off from, land on, and navigate on the surface of the water (Figure 5.7). Many times over the years living just off the lake, my family and I have watched two sea planes navigate the lake and skies above. This type of water craft can transport people or supplies, yet only 3% of pilots use this type of plane which requires great navigation and flying skills (“Seaplane Pilots Association,” n.d.). This small percentage of seaplane pilots is mirrored in the small percentage of teachers of color in Minnesota which is roughly 4% (Jackson, 2015).

In a seaplane, each landing and takeoff is unique depending on the water surface, wind conditions, and other variables that are continuously changing. Reva’s PD experience was distinct from the other teachers. She began with a critical consciousness about race and oppression allowing her to dive into the PD from a place of racial awareness. Although I was navigating this PD journey with her, Reva drove much of this

journey on her own by seeking to make change in education to broaden both white teachers' and students' understanding of diversity and equity (journal 3, July, 2017; journal 4, Aug, 2017; interview 1, May 19, 2017; PD session 3, June 26, 2017).

Wind Advisory

Reva began the PD as she descended onto, and landed on the lake with a goal of implementing Native history, language, and content by infusing the content to teach “higher order thinking skills, comparative analysis, and counter opinions” (interview 2, July 10, 2017). Reva’s desire to agitate the curriculum status quo was the first wind advisory, warning us that challenging times were ahead. We stayed in the seaplane as she was able to navigate the PD learnings on the water with her expertise in diversity training.

A storm, or wind advisory warning is sent out when there are sustained winds of more than 48 knots (i.e., 25 miles per hour) with frequent gusts (U.S. Department of Commerce, NOAA, n.d.). She shared that she and her family took a trip to south Minnesota to trace the U.S.-Dakota War sites as they visited the Upper and Lower Sioux reservations, but “there were quite a few other sites that were on the Minnesota Trail of Tears [exile and/or death of the Dakota people]”. (PD session 1, May 1, 2017). We encountered a wind advisory, or her blowing against educational status quo (Figure 5.8) right away as Reva stated, when teachers don’t visit and engage in the state’s diverse historical sites “[f]or Christ's sake, would you please just get out there and go visit some of these places?” (interview 2, July 10, 2017).



Figure 5.8. Wind on Water. (Pexels. n.d.).

Further into our journey, I noticed how much of a deep and rich background knowledge Reva had of histories of people of color in general--she taught me! (field notes, July 15, 2017). This strong knowledge fed the gusts and movement of our journey in the PD. Adding to the gusts and breezes, Reva mentioned that, at her previous job as a diversity trainer in the corporate world, if people weren't ready to accept and be proactive in equity, she "pushes the envelope a bit" and would

tell executives, your mission is to seek and destroy those people. Because you have to make it such a firm policy in your organization where you say, 'you're either going to go with this [aspects of equity] and agree, or you're not working here anymore.' (interview 1, May 19, 2017)

Reva desired, actually demanded, change in the biased curriculum. She used her management and business experience to see educational transformation and thought all teachers should go through an "audit to make sure... all of these [Native American academic] standards" are taught (interview 1, May 19, 2017).

Reva became more vocal within Midwest School District the fall after the PD experience and tried to disrupt the biased social studies curriculum. Her colleagues (particularly administrators) began to question the validity of her new Native American lessons. In doing this work, Reva opened herself up to more vulnerability as a teacher of color (Borrero et al., 2016; Gist, 2017b). Reva experienced the “double bind” (Vera & Ramos, 2011) that many teachers of color experience when they try to navigate the tensions between personal elements of their racialized identities (e.g., language, culture, race) and implicit policies which impose power over stepping away from hegemonic structures (Gist, 2017b; Jackson, 2015). In other words, schools may claim explicitly that “diversity is good,” yet when critically conscious teachers try to enact change, schools implicitly try to drown out these efforts to disrupt the status quo (Seidl, 2007). Reva found herself in this double bind. We navigated her new learnings together, skimming between the waves on the surface and the air above. She created waves in her school with her new approach to teaching toward the Native American curriculum standards and beyond, and eventually the tides of colonialism created unsafe conditions for her as a teacher, particularly as a teacher of color.

Whitecaps

A warning of difficult travel conditions to lake travelers can be seen via whitecaps, or waves which are cresting. In deeper water, as strong wind causes the wave to approach a height of $1/7$ its length, and as the pointed wave crests, it forms a whitecap (“Whitecap | hydrology,” n.d.) (Figure 5.9).



Figure 5.9. Whitecaps. (Pexels.n.d).

The water began a churning state in how fast Reva wanted to move to implement Native American history, language, and culture. Reva, a number of times during our journey together, often spoke first and chimed in to add more information as other teachers spoke in the PD sessions and group discussions. This rapid movement, like a whitecap, began to send caution signals to the other [white] teacher participants (field notes August 15, 2017). When one member of a learning team breaks off of the group, or quells the autonomy of others, ripples of discord unravel the collective community (Borrero et al., 2016; Grossman et al., 2001). Reva’s passion for equity in education came across in these discussion. It was my interpretation that her intensity for this issue was surfacing. She felt comfortable sharing ideas with her teacher colleagues as many times she would begin with, “I know you all have heard me say this before...”

Yet, the real cresting of this PD experience was a concern which Reva mentioned early on that dealt with school and district administration. She noted that “the school environment...is so different from the business world. Reva noted that “beginning expectations of teaching equity starts with administration” (interview 1, May 19, 2017). Teachers of color have, at times, challenging relationships with other educators and

administrators that can be seen as being implicitly coded in ways that question their [teachers of color] ability to teach and the legitimacy of their commitment to equity (Borrero et al., 2016; Nguyen, 2012). This is where we encountered white caps, as Reva's PD on water moved into an uneven and rough experience. She wanted to make dramatic curriculum change, but as Reva said:

I still ... I worry always about administration, because I think that administrators today, and I don't speak from just my own administrators, but from my experience of what I see with my other colleagues, is that we get asked all the time to defend, "Why are you doing this [new curriculum]? Why are you doing this?" (interview 2, July 10, 2017)

I still felt this nervousness in cautionary wind gusts toward the end of our time together as Reva noted, sometimes previously she would get "parental complaints, because I'm touching into [controversial] stuff" (interview 2, July 10, 2017). Teachers of color are often held up as change agents who are able to disrupt inequalities and transform pedagogy (Gist, 2017a; Jackson, 2015), yet in doing this, it also increases vulnerability (Nguyen, 2012). She, like any pilot, could see the telling signs of an impending storm.

Storms of Resistance

I was thoroughly impressed with how passionate and hardworking Reva was in our PD journey together. The other teachers created one lesson plan to include Native history, language, and culture. Yet Reva took the entire summer to work on creating and revamping every social studies lesson in her curriculum. She made a chart with lessons,

curriculum, and resources (field notes, August 7, 2017; PD session 5, August 7, 2017). I saw her as an educational equity expert.

Yet, one month into the school year (and after our four-month PD journey together) I received an email from Reva asking if I can contact her because she has “been dealing with a parent complaint about my [new Native-centered] curriculum...I would REALLY like to chat and run some ideas past you” (personal correspondence October, 2017). She continued sharing that her direct supervisor had to intervene with this parent. Reva also needed to meet with a district administrator to explain her new curriculum (due to the parent complaint). I wasn’t given details of what lesson this involved, but sadly I don’t feel I supported her enough as I wrote back that I was sorry she was having some issues with work, and “while I am not in a role to navigate the district or offer really any advice, I surely can lend an ear to you” (personal correspondence, October, 2017).

In reflecting back, I know that I asked a lot of the teachers to go beyond what they were currently teaching on Native history, language, and culture. I believe that Reva found an ally in me; we nonwhite educators created a small community which offered her agency and empowerment (Gist, 2017a) to enact a new curriculum. Yet, in leading Reva down this experience, did I truly aid in her navigating the waters of the post-PD experience? Teachers of color need a community for safety, connections, and support (Borrero et al., 2016), but then I stepped away after my PD and research was completed. Did she lose her only critically conscious life preserver?

As of this writing, I never heard back from her. This, too, was my PD journey as well. Being a new researcher, I didn’t, and still don’t, understand how to navigate the end

of the close relationships I created with these teachers, especially Reva. What are the expectations of a PD facilitator and navigator? Did I leave her in the wake of my research? Did I leave her to guide her way out of the lake's learning waters? I truly hope not.

Into the Air

A month before this last email exchange, Reva completed the post-PD online survey and shared that her mission was now to teach about:

America before Columbus--to gain a true grounding in what the formation of American countries as we know them today was. To learn the importance of how one civilization can impact another. To learn how to appreciate other cultures. Also, some topics that I am pretty sure they don't cover in American History: boarding schools, Native forced migration to reservations, Wars over treaty rights and violation of treaty rights. (post-PD survey, August, 2017)

Reva's PD voyage began with her flying in from high altitude in critical knowledge and landing on the lake water. Then, at the end, she was "excited" to begin teaching her new Native curriculum and said that this PD "enhanced my diversity perspective and helped me gain a purpose for this type of instruction" (Reva, post-PD survey, August, 2017). She said "we're teaching kids to be thinkers [about Native history, language, and culture], and to be better thinkers, and we're critically thinking, and then maybe that's where the real benefit will come!" (interview 3, August 10, 2017).

To travel on the lake, water plane explorers need to spend time together as flying in a team makes for a safer voyage. Reva and I spent a lot of time together: she would

arrive before the PD session began and stay after to talk to me (field notes May and July, 2017). As previously stated, I believe Reva saw me as an ally, a person of color who understood how important this work was.

Through her incredibly quick creation of respectful and insightful Native curriculum, Reva, like a seaplane pilot, overcame forces of resistance when accelerating to take off. Both experience and angle determines how to safely leave the lake and experience a smooth takeoff (“How to take off a seaplane,” n.d.). My hope is, like Bell and Gilbert (2004) state, that Reva is able to feel empowerment to continue this new development, instead of only relying on me as a facilitator. I have faith that Reva knew how to overcome the storm of educational resistance.

Reva, I know, is still creating winds of change as she continues to educate students and colleagues to critically take on higher levels of understandings of Minnesota Native history, language, and culture.

Found on Water

These three teachers all journeyed with me in our PD as we uncovered new learnings. On the waters of this experience we fed each other in how to grow together in designing and participating in the Native PD.

There is an Ojibwe prophecy which told these Native people to travel west until they find the place where food grows on water (Benton-Banai, 2010; Treuer, 2010)-- where manoomin, *wild rice*, is found. This was (and is) found in the waters of Minnesota. When we look to indigenous epistemologies to understand the world around us, we learn that the sustaining nourishment can be found on water, but also the mind’s enlightenment

(i.e., theory and/or methods) can also be found on water. Through Indigenous Storalyzing, this research method can also feed the epistemologies of Native people and hopefully future indigenous research projects.

Chapter 6

Knowledge Fed on Water

It was some years ago, when our children were young and before I began this study, that I had the rare summer afternoon to myself, and so took our boat out onto the lake. There was only me and a few other boats there; it was tranquil; it was peaceful.

Suddenly, from the corner of my eye, I glimpsed a black streak diving toward me from the sky. Within seconds, I recognized what it was: a bald eagle plunging down to the water's surface only a few feet from me. From only an arm's length away, I gazed directly at its brilliant blue eyes as it swooped down to the water; its wingspan at least six feet across. Barely etching the water's surface, this great bird reached down with its talons and clutched a large fish, then flew up toward a tree just off shore. To this day, I am in awe, and am truly grateful for this experience.

The eagle saw something in the water right in front of me that day, yet I didn't see it; couldn't see from my point of view. This bird, this carrier of prayers and knowledge, showed me that water, instead of drowning me, has the ability to feed living beings as well. What the lake waters contain can feed us literally in the body, but also, now in using my Indigenous Storalyzing, it can also feed the mind--my mind--and ways of knowing.

So also has the waters of Forest Lake, like manomin, *wild rice*, fed and nurtured me as an emerging indigenous researcher in that I was able to use its familiarity to construct knowledge in the data. Place, as the indigenous researchers note, must be unique and specific when referring to indigenous communities, and this land (i.e., water, living beings, sky, earth) can and should be seen as pedagogy.

The Indigenous Storalizing waters of Forest Lake also fed the experience of Cecelia, Aria, and Reva. Together, they all entered the PD together and journeyed about its waters while we navigated the terrain of learning about Minnesota Native history, language, and culture. These teacher learners tested the depth, muck, mire, clearness, choppy waves, and snarled weeds of taking up Native content. Some, like Aria and Reva, ventured further and deeper in their understanding of themselves (and the dominant society) while meeting the presence of whiteness and biased curriculum head on. And, Cecelia, stayed close to the shallow waters as she worked through her weeds of confusion of Native concepts such as sovereignty.

The water, too, buoyed my PD design as it fed my understanding that each teacher's experience is fluid, and needs a well-framed map as it directs the learning process. Just as any water voyage must be prepared for any situation, so too did the water show me that, one PD experience can take on many layers, looks, and levels--mirroring that these same lake waters can take on any array of forms from smooth-as-glass to torrent white caps. As a PD designer, I must take all of these water lessons into account as I plan and implement the experience.

In this final chapter of my dissertation I will focus on the findings in both myself as an indigenous researcher and also the findings of my study. To do this I first will return and revisit the teachers' journey on water, and next reimagine the elements of a transformational journey on the waters of this PD. I will also discuss my own researcher journey on water with aspects of conclusions, limitations, future studies, share implications, and patterns learned for future PD models for how to enact professional

development for non-Native teachers in learning how to implement Native American curricular content.

My study was framed around two main research questions:

Research Question #1 What are nonNative teachers' experience in PD regarding Minnesota Native American curricular content of history, language, and culture?

Research Question #2 What supports and structures in professional development (PD) add to nonNative American teachers' experiences as they create culturally relevant curriculum on Minnesota Native American history, language, and culture?

In this study I wanted to understand how nonNative teachers (the majority of the educational landscape in Minnesota) experienced a professional development series as they looked at themselves first in their own racialized understandings, and then understand how to scaffold their learning in evaluating, deconstructing academic standards, and finding Native-voiced curriculum. I also wanted them to delve deeper and move beyond simple classroom curriculum materials and what they gained from this PD. My purpose was to open up a new world view to support respective conceptions of Minnesota Native American history, language, and culture. One key aspect of my research questions was the term "experience"--how did these teachers experience this professional development and what structures and supports do they need in this experience?

Teachers' Journey on Water

As I review this entire dissertation process in my study of teacher PD, I find myself reflecting on four lessons I have learned with the teachers.

First, I learned from my time with Reva that the journey of the PD experience is an exciting and fulfilling time for me. However, the end, or more specifically, *how* to end the PD relationship was challenging for me. Indigenous ontologies and epistemologies include the element of establishing and nurturing relationships. This, I did in the entirety of the PD. Yet, the challenging aspect was, “Is it okay to just leave the relationship when my time with them is over?” As a Native person, I have guilty feelings of leaving Reva, a person of color, to navigate the terrain of district politics alone. I feel that she saw me as an ally, one who understood the hegemony of education and society. However, I am trusting that I will be able to continue to see the difference between creating professional relationships versus personal ones.

Second, I learned the lesson that I need to protect my Native identity and personal stories from the “gaze” of some nonNative PD participants. Cecelia taught me that I need to be more articulate in how I state my purpose for conducting these sessions: that I am skilled and knowledgeable in how to implement Minnesota Native history, language, and culture to nonNative people; that my personal stories are not on display to be devoured by the curious. This relates back to recognizing the difference between a professional versus personal relationship. Also, in this same lesson I appreciate now that a white teacher must first articulate her/his own racial history as a way to ground them as they take up Native American PD sessions. This data and experience was more about the story of one’s people: either white or Native, as I was able to place myself within the context of a group of nonNative teachers.

Third, my assumptions of how transformational learning based on the work of Mezirow, as discussed in chapter two, looks and works was disrupted. As I went into this dissertation study I predicted that by laying out a well-designed PD model that most teachers would, to some level, experience a transformative world view about Native history, language, and culture. This did not occur in the majority of participants.

By joining Aria in her PD journey I was able to witness such a transformation in how she saw herself, and therefore how this reflected in her new world view--which now includes a rich Native curriculum. Yet, further study and work needs to be done for me to continue to make sense of why some of these teachers experienced transformation, while others did not. Or perhaps my understanding needs to be based more on her/his outcome and definition of new world views of Native issues.

Lastly, I began to see patterns in the PD, which will support and guide my future work, along with fellow PD developers. Some of the patterns to keep in mind when framing PD around Native content with nonNative educators are: the PD must be extended over many sessions in order to create relationships and trust with the participants; maintain contact and offer updates to the teachers' administration so they all are aware of what is being taught and also what Native curriculum changes may grow from the PD; continue to offer multiple venues for teachers to respond to the experience (e.g., group discussions, private reflective journals); scaffold the background readings of Native-authored texts to ease into the content (e.g., begin with a general text, then include a challenging one later after the relationships have solidified); continue to increase differentiation with the participants to mirror how we differentiate with our K-12

students; and finally, articulate the boundaries of both the facilitator's personal history and also the ending of the PD journey.

Reimagining Transformational Learning on Water

Beginning with summarizing the findings of the first research question: What are nonNative teachers' experience in PD regarding MN Native American curricular content of history, language, and culture?, the teachers did experience a great deal of new knowledge, but their movement forward was not where I hoped all of them would go (i.e., a transformative shift in their worldview about Native American history, language, and culture). Yet, each teacher, in her/his own way took something from the experience.

The first conclusion is that the teachers in this study had a new surface level awareness and were able to take up how to deconstruct the Minnesota Native academic standards using a critical lens for seeing how words and phrases continue to have Eurocentric knowledge as the base. The teachers also were able to have a better understanding of just what these Native standards were asking.

The second conclusion is that, again, all three teachers left the PD experience with a new awareness of feeling more confident in how to evaluate, find, and include Native content in their curriculum. Every teacher also had a new awareness in Minnesota Native history, language, and culture by volunteering for this PD and reading the three Native-authored books.

The third conclusion is that the teachers in the study used their new awareness and commitment to shape how they took up Native history, language, and culture into new curriculum. These teachers moved beyond simply finding curriculum and began treading

into the waters of resisting biased, Eurocentric views and curriculum they used in the past. These educators used the PD experience to disrupt old lesson plans as a way to begin a social justice stance in their schools, classrooms, and even how they interacted with colleagues and family.

These findings share a common thread of a journey in identity construction and navigating how the teachers see, or do not see, themselves as raced (Thandeka, 2000). In this experience teachers dove into self-examination and critical reflections as they sought to increase Native American understandings--but first through an inward study. Each in their own way, the teachers also took up ways to disrupt bias and stereotypical notions of Native content by moving into the waters of critical pedagogy as they analyzed the hegemony of the dominant culture and curriculum (Nguyen, 2012).

Summarizing the second research question: What supports and structures in professional development (PD) add to nonNative American teachers' experiences as they create culturally relevant curriculum on Minnesota Native American history, language, and culture?, I found that the supports and structures in professional development for nonNative teachers' experiences must vary according to each teacher's needs. Although the PD model was set up before the experience, I found that, just as with K-12 students, during the experience I needed to differentiate the materials, phrasing, and how critical (or uncritical) my discussions in the PD would be based on which teacher I was working with.

Yet another conclusion in this research question was that all of the teachers in the study were able to experience the identical outside Native-authored readings--with one

caveat: before and during the last book (*What Does Justice Look Like*) I needed to prepare the teachers to engage with this book through the mindset of a Native author. I anticipated the teachers would expect a traditional linear plot and flow of ideas, and wanted them to appreciate the new notion of a circular indigenous storytelling plot. This explicit support seemed to assuage some pushback in their confusion while reading this book.

Next, the second conclusion was that the structure of a continuous PD experience (i.e., over four months) led to a relationship between me as the facilitator and the teachers as the participants. By having a relationship, I was able to develop a trust with these nonNative teachers, and the majority of them, therefore, were able to take in how I was re-presenting and privileging Minnesota Native history, language, and culture.

The third conclusion was that the *structure* of the various modes of discussion (e.g., whole group, small group, individual conversations, and individual critical journal reflections) allowed for all teachers to have multiple venues to share their struggles, critical questions, private conflicts, and new ways of understanding Native content and curriculum. Also, these various modes allowed me to support them individually based on where they were in the spectrum of conceptualizing the Native ideas in the PD experience.

The PD structures and experiences reflected the need for teachers to be seen as researchers (Zeichner, 1999) as they learned to navigate and evaluate Native content in situated learning experiences (Putnam & Borko, 2000) during the sessions. Creating a community of learners (Grossman et al., 2001) was a structure constructed through an

extended PD experience which drove the educators to see the value of collective knowledge. This study also found that in PD, teachers must be supported through differentiation in development stages (Day & Gu, 2007) to meet their own unique needs.

Here I offer a burgeoning, fluid model of how I took up this PD. However, as with all research, it is a working model based on a synthesis of indigenous methodologies and transformational learning (see Chapter 2); a model which does not assume that transformation is the outcome of every PD experience (Figure 6.1).

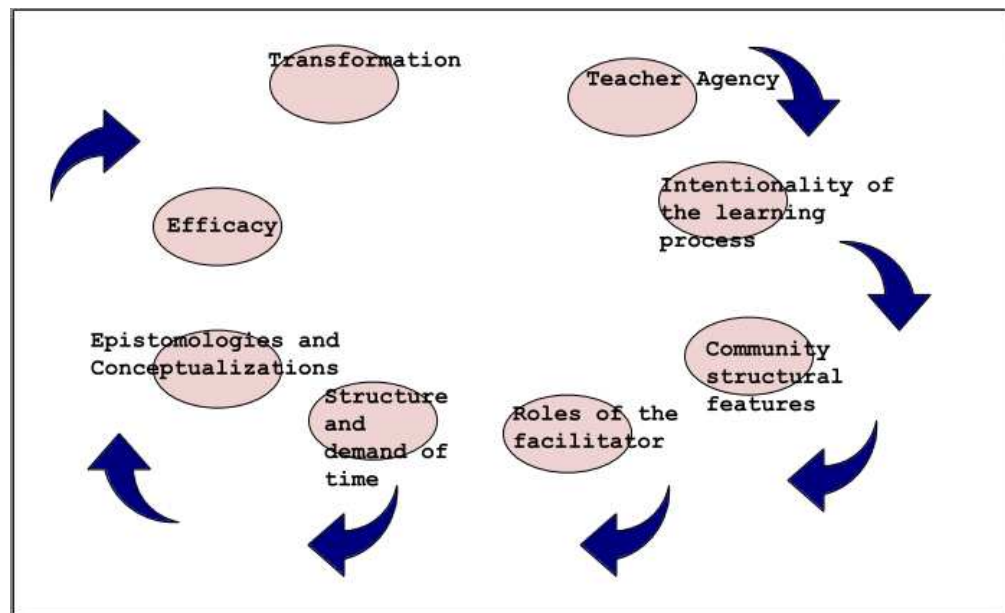


Figure 6.1. Model: Towards Transformational Teacher Development in Native American Curriculum.

In this model I framed the PD by insisting the teachers had a choice in joining the PD and determining their outcome (in my model I name this agency, structure and demand of time, and efficacy); as the facilitator I purposely created community and laid out the three Native-authored texts in a specific way (which I label here role of the facilitator, and intentionality of the learning process); the teachers engaged in communal

activities such as discussions and evaluating texts (labeled community structural features); I also include my conception of CRP and racialized identity (labeled as epistemologies and conceptualizations); lastly, my model offers transformation (yet does not assume that this is the end product of the PD).

My Research Journey on Water

Leaving the waters of the PD journey, I find myself reflecting back to that first memory of water. That drowning memory from my youth when the water tried to surround, silence, and drown me. Yet now after this research experience with the teachers, especially Cecilia, Aria, and Reva, I know that the water now buoys me and sustains me as both a professional development creator, but also in my own journey of becoming an indigenous research methodologist. Instead of trying to swallow my life, this time the water fed my knowledge and carried me on the current of becoming a burgeoning researcher in this dissertation experience.

As a Native educator and scholar, I found myself in the unusual situation in my dissertation work of advocating for indigenous communities within the mostly white K-12 school system. Usually, one might assume a Native researcher would conduct studies in, by, with, and for the Native community. Yet, for my study, I worked to create a bridge between Native people and nonNative educators in which a foundation was built on cultural competencies in an effort to further expand more substantive teacher development in indigenous content knowledge. I strongly believe that educators must be

taught core Native American foundations in history, language, and culture--and through such teachings, the indigenous communities will be lifted up and supported.

Revisiting the Study Purpose, Research Questions, and Conclusions

In this experience I had an awakening of becoming a Native American researcher as I took up indigenous research methods that deeply embody indigenous epistemologies. During this process I found a place to belong in the academy, a place to actively resist colonizing power structures, and a place to define a boundary in my research. Through this research I opened myself up to story, but not just in the narrative inquiry approach, but as seen through stories in nature.

Limitations and Future Studies

One challenge, and thus limitation, in this dissertation study was that my role as a researcher changed and morphed immensely from a strictly qualitative stance into that of an indigenous researcher. I am still learning how to do this method, and will continue practicing indigenous methodology for my academic career.

Relationships on Water

My PD model also reflected this change “midstream” as I realized that until I established a relationship with the teachers in my sessions, I could not differentiate their experience. In other words, the limitations on my PD design was that I initially had it as a set design, and after this experience I realize I must first get to know each of them so see where and how I can guide them. I was frustrated at the fact that one educator did not fully “open up” to the idea of whiteness and biased notions toward current Native curriculum. This, too, is where I need to accept that each teacher in my PD will begin

somewhere, and may only experience, or accept, one drop of new Native conceptions in the waters of their journey.

Another limitation I identified was that as a tool in this research, I also admit that it was challenging for me to end the PD and leave the teachers to continue finding Native history, language, and culture on their own. Yet, this is exactly what I aimed for, and so need to trust them, and the process more.

I also realized that my tools (e.g. pre/post survey, interview questions, and journal prompts) will need to be continually refined as I gently nudge the nonNative educators to recognize their racialized selves and how this affects curriculum. Put simply, I need to be okay with “muddying” the racial waters and not be worried about offending them, or making them feel uncomfortable. Native students have felt uncomfortable within the educational system for decades, and it’s time for me to trouble the waters of hegemony.

Lastly, even with all of my passion for this PD, where the research falls short is that, as a Native person conducting PD on Native content, I still am weary of the fact that I need to protect my personal stories, and accept that it is okay to be explicit in differentiating my content expertise from my personal and family history. My hope is that I accept that ending professional relationships in no way compromises my indigenous belief of upholding relationships.

Further Research and Practice

This dissertation has fed numerous ideas for future study. First, I am thrilled to continue studying, learning, and practicing indigenous research methodologies to continue my knowledge from this study. Also, I would like to pursue more specific

analysis tools in indigenous research methods such as further exploring my Indigenous Storalyzing, the heuristics of my water states of being, seeing learning through the land, and my framework for analyzing images of Native people in books which I call Red Semiotics (see Appendix B). Second, I recognize more work is needed on how to edit/modify my PD model as I keep in mind the notion of individualizing experiences for nonNative teachers. Along with this, I am creating an online version of this PD for my university. In this new virtual platform, more work needs to be done on how to create community when the Native curriculum PD is not face-to-face. Lastly, I will continue to research and develop supports for educators, such as expanding my [NativeReaderMN](#) website to meet the needs of outstate teachers.

The value of these teachers' stories is that each one had a unique aspect which added to the PD development and implementation. Each story can be used to learn how to adapt and/or modify the next PD iteration on Minnesota Native history, language, and culture. The power of story, and with this my experimental Indigenous Storalyzing method, is that this research can be presented as a way to speak to the Native traditional way of telling stories to teach, to pass on wisdom, and to create community.

There will always be teacher development. By sharing the stories of their PD experiences, teachers are able to relate to this agentic way for the educator and the facilitator to talk about the journey--together. At times, the outcomes of PD are reported through student test scores. Yet, the implications for telling the teacher's development voyage offer the view of their experience while it's happening. This suggests that PD is a process, and the journey along the way is just as valuable as the outcome.

Until the number of Native teachers in Minnesota increases, there is a critical need for nonNative educators to be knowledgeable of the state's indigenous history, language, and culture in order to effectively teach the K-12 academic standards and content to all of our state's students. Because of this, there is a clear need for PD to support these educators in understanding how to learn and implement Minnesota Native history, language, and culture.

Conclusion

In chapter one I included my account of what happened at camp when I was young--the mocking of my favorite Native "Winter Counts" book, and my interpretation of my "Nativity" being mocked. This was the first book I remember that I ever saw a reflection of *me*, a Native girl. And this now, fast-forward years later, is the fuel to increase the cultural competency of all teachers. In doing this work, this PD with nonNative educators, I hope to foster a new appreciation for Native content (especially books) in order for these teachers to pass on this love to all K-12 students. If all students, both Native and nonNative, begin to have a deep respect and joy for Native texts, then no future young Indian girl will have to recede away from her identity by being ridiculed for loving a book which reflects herself.

Story, as many indigenous researchers say, is how everything begins and ends (Kovach, 2009; Smith, 2012). And, with my study and using Indigenous Storytelling, I journeyed with these teachers, and they with me in my travels of becoming an indigenous researcher. This relationship, of one needing the other to endure and thrive, is mirrored in our state's own name based on water. As noted previously, our Minnesota state name,

from the Dakota language (mni sota), can be understood as: “the clarity of the water and its reflection of the sky” (Westerman & White, 2012, p. 20). This relationship with water began at the founding of our state’s indigenous naming, and continues in my own PD and research as I journeyed on water to delve into how to become a Native researcher and how I shared my own story of this voyage.

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Appendix A

INFORMED SHEET FOR RESEARCH

Awareness, Commitment and Enacting Teacher Development in the Minnesota K-12 English Language Arts Native American Literature Standards

You are invited to be in a participatory research project of how teachers' awareness and understandings of MN Native American history, language and culture influence and give shape to how they construct lesson plans using the Native American K-12 English Language Arts (ELA) literature standards. You were selected because your school district has chosen you as a teacher leader and have also shown interest in engaging and learning about Native American curriculum. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Dawn Quigley, PhD student in Culture and Teaching/Curriculum and Instruction, University of Minnesota.

Procedures:

You will be involved in the creation of professional development based on your needs. Between May and early August 2017 (with follow up observations and interviews during the 2017-2018 school year) these are the some of the things we will do together:

- complete a short questionnaire of your current understanding of the MN Native American English Language Arts (ELA) standards.
- have five PD sessions including reading two books together, reflective journaling, discussions and lesson plan creating.

Confidentiality:

The records of this study will be kept private. In any sort of report that may be might publish, there will be no information that will make it possible to identify participants. Research records will be stored securely and only I will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher(s) conducting this study is: Dawn Quigley. You may ask her any questions you have now. If you have questions later, **you are encouraged** to contact

them at 159 Pillsbury Dr., SE, Minneapolis, MN 55455, [612-414-9212], [quig0099@umn.edu]. Advisor's name: Misty Sato, 612-625-7793, msato@umn.edu]

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Appendix B: Instruments

Pre and post Survey questions

The questions will be used in both the pre and post evaluation online surveys (e.g., May and Aug). Each item is categorized by thematic concentration. The survey will use a variety of question formats: Likert scale, open response, and multiple choice

Awareness of Native American history, language and culture (#1-7)

1. Please share any prior experience learning about Native American history, language and culture (e.g., self-study, personal experience, course work, etc.)?
2. How do you teach the concept of sovereignty of Native American tribes?
3. What do you feel are the most important MN Native American history concepts to teach (or, what history concepts do you feel would help you)?
4. Please share, if you would like, how you racially identify and stories of growing up with this identity.
5. How do you define Native American literature?
6. What information on MN Native American history, language and culture do you feel would be helpful in your teaching?
7. What do you hope to gain from this professional development?

Commitment to include Native American history, language and culture (#8-14)

8. Describe your feelings on teaching the Native literature standards.
9. I have the skills to discern bias and misinformation in Native American curriculum. .
10. On scale of 1-10 how confident are you of teaching the Native literature standards and why/why not?
11. How do you see the relevance of the ELA Native literature standards in connection with other content areas (i.e., do you see them informing other content areas)?
12. Have you encountered any challenges and/or concerns in teaching the Native ELA standards? If so, explain.
13. What would help you to feel more confident in teacher the Native American literature standards?
14. Why did you decide to volunteer for this professional development?

Enactment to include Native American history, language and culture (#15-19)

15. How are you teaching the Native American ELA standards (or if not, explain)?
16. How have you interpreted the ELA Native Literature standards for your specific grade?
17. What materials have you chosen for the Native American literature (i.e., book titles, authors, etc.)?

18. What is your decision making strategies/process when choosing Native literature materials?

19. How has your background experiences informed your selection of Native literature materials?

20. What other information would you like me to know about this professional development?

Critical journal questions

The following are guided journal question prompts to be completed four times between each session May-Aug. Data gathered in the journals will be used in analyzing teacher's **awareness, commitments** and **enactment** of MN Native American K-12 English Language Arts (ELA) literature standard

May (after the first PD session together)

1. As you are reading this book selection (*Ojibwe in Minnesota: People of Minnesota*) what are your initial thoughts?
2. What are your thoughts after learning about evaluating the Native American ELA standard in regards to the Native standards?
3. How will you choose your classroom materials/books? What criteria will you use? Is there more information you could use?

June

4. Is this second book offering new information to you (*What Does Justice Look Like?: The Struggle for Liberation in Dakota Homeland* by Waziyatawian)? Explain. How does this information now fit into your understanding of MN?
5. Is there a specific section of either book(s) which you were drawn to (positive and/or negative reactions)? Please explain.
6. Is there content from the books you read (or the professional development sessions) which will inform how you will create a lesson plan for the Native American ELA standard? Please explain.
7. What are your thoughts after learning about/deconstructing the Native American ELA standard?

July

8. How are you feeling about this Native American ELA standard professional development process (have your feelings/thoughts change or stayed the same since March)?
9. Describe your journey of creating your lesson plan (e.g., steps, feelings, materials, etc.):

10. What, if any, ideas about this professional development continue to resurface in your thinking?

Aug

11. In this last month describe your continued journey of creating and completing your lesson plan (e.g., steps, feelings, materials, etc.):

12. Is there more do you need to continue your work with the Native American ELA standard, or is there anything else you would like to share about this experience? Please explain.

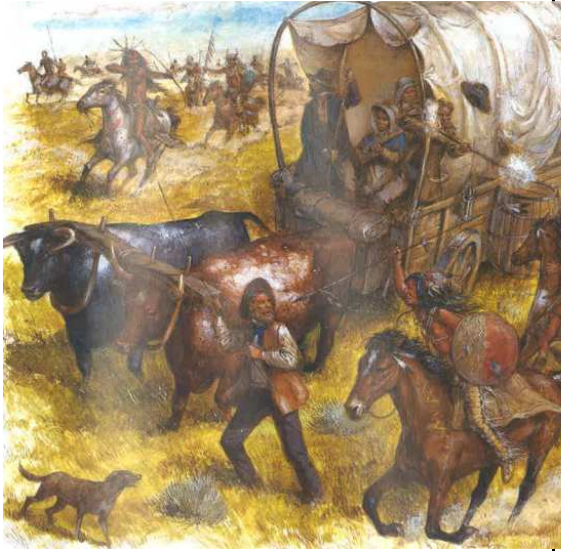
13. As you look back and re-read all of your journal entries do you see your ability to continue this work the same or different? Please explain.


Red Semiotics: Elicitation interview-content analysis

The following are question prompts to be completed in a one-time interview after the third (June) session. Participants, in the third PD session, will have learned to analyze content analysis of Native American images in children’s books. This semi-structured interview elicits information and stories about the teachers’ *learning process*. Data gathered in the interview will be used in analyzing teacher’s **awareness, commitments** and **enactment** of MN Native American K-12 English Language Arts (ELA) literature standard.

E.g., of PD situated learning participants will engage in prior to the elicitation interview:


Table 1: Analytic coding elements based on indigenous-centered semiotic variables (see appendix for full image information)


Images	Analytic variable(s)	Interpretive Commentary
 <p>(Steele & Hook, 1992)</p>	<p>Variable 3: Tokenism (generic Indian)</p> <p>Variable 5: Violence (blood-thirsty salvages)</p>	<p>Starting from the center of the image, the spectator is visually aligned with the white settler in the wagon. Surrounding this center are multiple “violent “Indian men on horses attacking them from all sides. All Indians are seen with weapons (e.g., bow and arrow or spear) raised in aggressive moves. The Native men are scantily dressed with generic, or general, markings/symbols on their dress. There is no specific tribal markings noted, nor is there any context of this battle (e.g., settlers invading Indian allot territory etc.).</p>

	<p>Variable 1: Past vs. contemporary (primitive dwellings)</p>	<p>Variable 2: Spatial distance (wide open spaces)</p>
<p>(Turner, 1999)</p>	<p>Variable 2: Spatial distance (wide open spaces)</p>	<p>The image shows a hogan, made of earthly materials, which invites the viewer to infer this is a primitive house (i.e., contrasting to today's modern "civilized" dwellings of white society). In the background the wide open landscape offers notions of unclaimed land open which is ripe for the taking for settlements (i.e., if the land is not used by Natives, white settlers have the right to develop it).</p>

Analysis 2: Using tables

A second method of analyzing can be conducted through an "object-sign" table in looking at both denotive signifiers and signified and a connotator and connotation table (Leewen & Jewitt, 2004, pp. 98-99; Ledgerwood, 1998). These following two tables are to be used in tandem with each other.

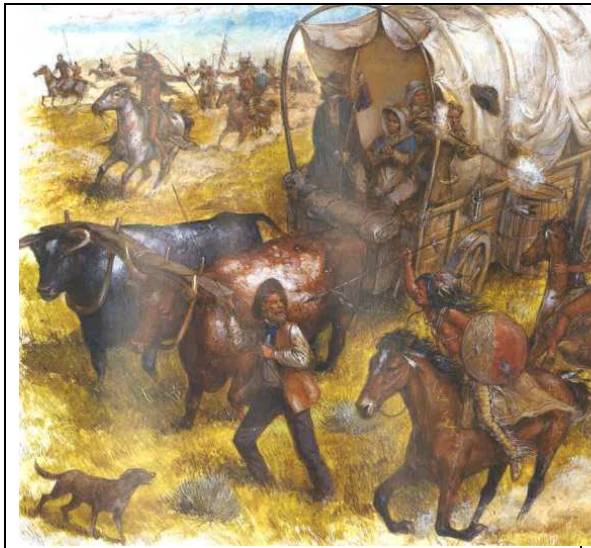
Image	Connotator	Connotation
 <p data-bbox="300 1014 690 1050">(Rockwell & Rockwell, 1999)</p>	<p data-bbox="792 420 1023 478">Paper headband with design</p> <p data-bbox="792 569 1006 657">Paper bag vest with designs</p>	<p data-bbox="1114 420 1388 903">This is a paper feather generic paper headband and vest with made up symbols. Native tribes have specific symbols used in their art. This generic marking represents the pan-Indian notion that, although there are over 500 tribes in the U.S., there is no need to be accurate in tribal specifics such as tribal designs or feathers symbolic of a nation's meaning.</p>

 <p>(Steele & Hook, 1992)</p>	<p>Ax, or a weapon</p>	<p>This image shows a Native man, with legs spaced in an aggressive stance, holding up the ax as a threatening gesture to the viewer, or gazer. He wears generic dress which represents the pan-Indian notion that, although there are over 500 tribes in the U.S., there is no need to be accurate in tribal specifics such as tribal designs or feathers symbolic of nation's meaning.</p>
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Analysis 3: Using captions and titles as a cross-case analysis

Yet another form of analysis can be conducted by representational significance of captions (Hall, S.; Evans, J.; Nixon, 2013; Ledgerwood, 1997). A picture's title, or caption, indicates and tells a story of what is being represented (Leewen & Jewitt, 2004) as images might be lost without text (Cummings, 2011, p. 148). The image and its caption is used in this cross-case analysis with images and words used to compare and contrast representations.

Image	Caption	Interpretive Commentary
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(Steele & Hook, 1992, p. 7)

Wagons carrying settlers westward drove across the Indian lands in the 1840s. Some settlers never reached their destination. They were attacked by the Indian warriors. United States soldiers were often called in to protect the travelers.

This cross-case analysis of image versus caption shows that although the image alludes to Natives being the aggressors, there is no statement of white land stealing nor of the wiping out of indigenous people from settler-spread illnesses.

Interview Elicitation Questions:

1. Can you explain your process of analyzing these Native American images in the books?
2. What, if any way, could the facilitator have done differently to enhance your understand of analyzing content analysis?
3. Do you feel there was enough time dedicated to this learning? Please explain.
4. What, if any, new understandings of Native images do you have after this PD?
5. How confident do you feel to analyze Native content now (in your own classroom and the school media center)?

Interview Questions

The interview questions will be used in between the PD sessions (i.e., May and Aug). Each interview session will include revisiting the PD sessions, participants' critical journal reflection along with other questions surrounding teacher learning:

Guiding Question: What is the change through teacher development? What processes of learning are used to engage teachers in learning? How do teachers learn? How do we know learning has taken place?

Learning Processes (e.g., uptake/engagement/transformational; background knowledge, getting feedback, modeling, memorizing, track progress, self-check, connect to images, formal training, reflection, challenging assumptions)

Teacher #1 Interview Questions

1. What do you think is successful or not successful professional development for you? What works, maybe what doesn't work?
2. Tell me about your thoughts on this chosen PD timeline and choice for attending these sessions. We do two in May, three in the summer, three half days. Even the time of the year. What are your thoughts are an extended PD and then the time of the year?
3. I have a question about voluntary PD like this versus forced. Do you feel like this is something that all teachers should have? This Native PD?
4. Last time in our first session, we did some evaluating of Native books. Could you share your thoughts? Did it work for you? Did you need more time? (What are your thoughts of the hands-on learning with evaluating the Native books?)
5. We have a small group. We have about eight teachers. We have one administrator and I know sometimes that changes the dynamics. I know sometimes that changes a little bit, but what are your thoughts about having PD in a smaller group versus a larger setting? (Can you share your thoughts on how, if at all, our group connected? Does a group connection matter/or not?)
6. We've only done one session, but how do you see maybe your new understandings of this Native history language and culture impact *both* Native students and non-Native students? What do you imagine your students new understandings?
7. Between now and August, what are some things that you're hoping to learn or work through and/or what are some things that might ... Not concerns, but just, "I really want to be able to feel more confident in this"?
8. Is there anything else you would like to share?

Teacher #2 Interview Questions

1. Do you see any issues/complications with implementing your new NA curriculum? How might your administration help support you?
2. How do you feel testing, or making room for this new curriculum, will impact your testing schedule?
3. When you were going to get your teaching degree, did you have any type of preparation on Native People, what histories, language, and culture?
4. If we could construct or help create policy, what do you think teachers who are graduating now in Minnesota, what kind of course work or what kind of expectations should they have or do you think they would need?
5. What background information will you need to lay to help your students?
6. What were your thoughts, in addition to your journal, on our latest book *What Does justice look like?*
7. Is there anything else you would like to share?

Teacher #3 Interview Questions

1. Can you tell me about any atmosphere of this PD which helped or hinder you such as: the room we used, the time/days, creating relationships, trust/lack of trust:
2. What would you consider the outcome of this PD is for you? How can you tell?
3. How, if at all, has this Native PD helped your understanding of race (your own or others), stereotypes, curriculum perspectives, historical perspectives, etc.?
4. Now that our official time together is complete, what is next for you? Will you continue this Native American work, and if so how and what will your work be?
5. Is there anything else you would like to share?