Grandmother Cedar as sovereignty teacher: Transformations in teacher learning, research-practice partnerships, and curriculum

Jennifer Conrad

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Walter C. Parker, Chair

Django Paris

Dawn Stevens

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Abstract

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Jennifer Conrad

Chair of the Supervisory Committee:
Professor Emeritus of Social Studies Education Walter C. Parker
Education

This non-traditional dissertation includes three articles, all based on a qualitative multi-case study of K-12 teachers implementing the mandated *Since Time Immemorial* tribal sovereignty curriculum in Coast Salish homelands (western Washington state). A research-practice partnership with eight Native education leaders across the region designed the study and selected participating schools and teachers.

The first article reports empirical findings on what learning to implement tribal sovereignty curriculum entails for non-Indigenous educators. Using teacher interviews, observations, student interviews, and audio-recordings of teachers' gatherings, I examine five teachers' learning processes with tribal curriculum in various subject areas. Although most non-Indigenous teachers and U.S. Americans profess estrangement relative to Indigenous peoples, these teachers'

ongoing, reciprocal relationships with local Native knowledge holders and homelands supported critical shifts in their curriculum and teaching practices. Findings indicated that those able to teach the curriculum most consistently and meaningfully were teachers with moderate or strong evidence in six areas of learning. Implications for teacher education are discussed.

The second article contributes to methodological discussions among qualitative researchers on whether and how non-Indigenous researchers, especially those who are white, can effectively work within Indigenous research methodologies and for Indigenous education sovereignty. Using research memos, journals, analysis of research correspondence, I interpret my learning through the lenses of reciprocity, refusal, and gifting. This self-study identifies when and how my actions represented meaningful reciprocity, and when my attempts re-centered settler thinking or futures. To clarify the partnership model's attributes and utility, I identify methodological ways that the guidance of Native education advisors has been crucial to this study's answerability to Indigenous sovereignty.

The third article offers a conceptual argument about what meaningful implementation of tribal sovereignty curriculum entails for schools and non-Indigenous educators. I argue that multiple, ongoing relationships of enmeshment with local Indigenous peoples and lands are the most important tool for implementing Indigenous curriculum because of how such relations reframe knowledge, liberation, and curricular stakeholders. Examples of non-Indigenous educators' relationships, or their absences, highlight needed understandings and commitments for implementing tribal sovereignty curriculum. Contributions to curriculum implementation theory and implications for practitioners are included.

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Chapter 1. Grandmother Cedar as sovereignty teacher: Non-Native teachers' learning with tribal curriculum

Introduction

After decades of Indigenous[1] activism, in 2015, Washington state designated the *Since Time Immemorial* (*STI*) tribal sovereignty curriculum as required for all K-12 students. All of the state's 29 federally recognized tribes had approved this curriculum, officially recommended by the legislature since 2009. In 2018, Washington then became the first state in the U.S. to require complementary teacher education coursework. Given the ongoing efforts to institute K-12 Indigenous education reforms in Wisconsin[2], Wyoming, New Mexico, the Dakotas, and Oregon, and recent support from the National Council of the Social Studies (see 2018 position statement), other states are closely watching Washington's experience. Difficulties that Montana teachers reported while implementing the nation's first required tribal curriculum underscore the urgency of increased teacher preparation (Stanton & Morrison, 2018).

Washington and its urban schools may offer important lessons nationally since Native youth here, mostly attend urban public schools off reservation as in the rest of the U.S. Native students here, as elsewhere, continue to face vast inequities in schooling outcomes and experiences, while displaying tremendous resilience (Hobot, 2017; Masta, 2018; Sabzalian,

[1] Indigenous is an umbrella term for descendants of the first peoples in any region, who have maintained cultural, social, and national identities and memberships (Castagno & Brayboy, 2008, p. 983) and draw from particular, complex relationships to land as tied to identity and sovereignty (Kauanui, 2018; Simpson, 2014). This includes American Indians, Alaska Natives, Native Hawaiian/Pacific Islanders, First Nations, Inuit, Métis, and many others such as the Maori, Saami, and San who make up the estimated 370 million Indigenous peoples across the globe. Indian or Native American are terms that typically refer to the U.S. context, while Aboriginal is used in Canada (or First Nations or Native) and Australia. This paper generally uses Native in reference to this study because of project advisors' use, but recognizes the transborder territories and cultures of many local Northwest tribes.
I include nation/tribal affiliation for Indigenous scholars here to honor their communities and counter perceptions of Native/Indigenous identities as monolithic.

[2] Although Wisconsin's Act 31 stipulated that teacher education programs and K-12 schools provide *instruction* on the history, culture, and tribal sovereignty of *Wisconsin's* eleven federally-recognized American Indian nations, in practice this has not led to specific teacher education *courses* (Aaron Birdbear, personal communication, December 18, 2018).

2019). Since many urban schools have multiple tribes represented, alongside other students of color facing different forms of curricular misrepresentation (Epstein, 2010; Aronson & Laughter, 2016), teaching Indigenous perspectives in meaningful and engaging ways remains a complex and necessary endeavor. At present, limited information exists about whether and how Washington State teachers – and teacher educators – are actually using *STI* curriculum, and what challenges they face.

Moreover, can non-Indigenous teachers meaningfully teach such curriculum? While U.S. data is limited, literature from Canada and Australia illustrates significant struggles with and resistance to similar Indigenous education mandates, for both preservice and experienced teachers (e.g. Kanu, 2011; Scott & Gani, 2018). Frequently, Indigenous peoples are posed as "equal" to other marginalized racial groups and undeserving of special attention, a framing that ignores their unique and sovereign political status (Brayboy, 2005). Interventions such as individual mentoring by experienced Indigenous educators, or including histories written by Indigenous peoples, may not shift deficit-based attitudes, even for motivated teachers (Dion, 2009; Sabzalian, 2019). Indigenous knowledges also challenge typical frames of academic expertise - beyond anthropocentric, secular, and linear forms (Marker, 2015; Rogoff et al., 2014). Understanding a cedar tree as a relative and teacher, for example, may be necessary for teaching local Indigenous knowledges respectfully – but incompatible with Cartesian logics and teleological thinking emphasized in mainstream schools (Bang & Vossoughi, 2016; Smith, 2012).

By investigating *STI* curriculum implementation in three suburban and rural Washington schools, this inquiry offers findings with practical and policy implications for teacher and social

studies education. This study focused on five non-Native teachers[3], using interviews and observations of *STI* lessons to identify approaches, successes, and challenges in implementation and teachers' learning process. Co-designed with an advisory group of regional Indigenous education leaders, this study focused on the following research questions:

1. What supports non-Native teachers' learning process to more consistently and meaningfully teach Indigenous perspectives, sovereignty, and history?
2. What role, if any, do teachers' relationships with Native peoples, lands, and knowledges play in that learning process?

Framing Literature: Teachers' Learning, Ways of Knowing, and Native Sovereignty

Indigenous education, social practice and critical sociocultural learning theory, and settler colonial[4] studies research inform this study of teacher learning. These varied fields illuminate how teachers' access to, value for, and enactments of Native knowledges and *Since Time Immemorial* curriculum reflect particular socio-historical contexts, motivations, identities, and relations of power. This project seeks to clarify the commitments and relationships necessary for teaching tribal sovereignty meaningfully for non-Native teachers. Teaching *for* tribal sovereignty may have little overlap with strategic compliance approaches that teach *about* sovereignty (e.g. by assigning one *STI* worksheet). Commitments to critical consciousness and teaching against

[3] The participant sample included one teacher who recently learned of Indigenous ancestry from outside the U.S. context and another with Cherokee ancestry, but neither identified as Native American. Since these identities and/or cultural practices and memberships did not emerge consistently in the data, I use non-Native (rather than non-Indigenous) to describe the teachers here. This binary approach has serious limitations (see Madden, 2017 and Stanton, 2014) which I aim to address more thoroughly in future drafts.

[4] Scholars understand settler colonialism as an ongoing structure, rather than an event (Wolfe, 2006) based on a logic of elimination (Veracini, 2011). Settlers remain in occupied lands and position themselves as normative and superior to Indigenous and racialized others, seeking to justify the erasure, assimilation or absence of Indigenous peoples, knowledges and ways of being (Bang et al., 2015). See Calderón (2014), Haynes Writer (2010), Sabzalian (2019), and Shear and Krutka (2018) for connections between settler colonialism and school curriculum.

the grain (Cochran-Smith, 2005) may be necessary, as robust prior research in Indigenous-centered education suggests (see, e.g. McCarty & Lee, 2015; Sabzalian, 2019; Shirley, 2017).

Since Time Immemorial Curriculum

The *Since Time Immemorial* curriculum not only teaches *about* tribal sovereignty[5] – it is a product of Native sovereignty movements (see Clearinghouse, 2008). With the 2015 mandate of SB 5433, all Washington schools must recognize tribal sovereignty by implementing the online *Since Time Immemorial* curriculum, or by consulting with local tribes/nations to create a more regionally specific version[6]. When reviewing or adopting new social studies curriculum, districts must consult with the nearest federally recognized tribes to develop materials and programs reflecting tribal history, culture and government. However, this consultation process remains the most vexed aspect of *STI* implementation (Rawlings, 2018). Moreover, those most influencing what reaches students are the state's predominantly white[7], non-Indigenous teachers and administrators – who determine the depth of content engagement, rather than tribal nations: "teachers can choose to spend as little as one hour or as much as six weeks of class time… on the tribal perspectives of an historical issue, era, or event" (OSPI, n.d.).

With this backdrop, teacher commitments, agency and action related to *Since Time Immemorial* can be clearly understood as political. Simply put, by living on Native lands and being non-Native, teachers are implicated - in myriad, differentiated ways - in historic and ongoing structures of settler colonialism. Teachers' use, mis-use, or non-use of *STI* curriculum

[5] This paper focuses on cultural and sociopolitical forms of tribal sovereignty, though Indigenous scholars investigate additional forms. For example, see Sabzalian (2019a) for references to rhetorical, intellectual, and visual sovereignty.

[6] I use *Since Time Immemorial* (*STI*) and tribal curriculum interchangeably here, both to maintain participant anonymity and to recognize their parallel goals.

[7] While APA style encourages capitalizing "White" for racial groups, I follow Indigenous and critical race scholars in using the lower case version and by capitalizing Indigenous.

has direct implications for Native students and Native futures. The final guiding principle in the curriculum cues students and teachers to ongoing action required for teaching sovereignty: "Emphasize that co-responsibility for change involves developing allies who know how to take action" (Appendix A). Teaching for tribal sovereignty – versus simply "checking the box" by using one *STI* worksheet – is to teach "against the grain" in Cochran-Smith's (2005) terms: an endeavor in counter-socialization that may necessitate some critical consciousness for meaningful implementation, and an inquiry stance to critically interpret one's own practice. The commitments and relationships (political or otherwise) necessary to learn to teach tribal sovereignty consistently and meaningfully for non-Indigenous teachers remain uncertain, which this inquiry seeks to clarify.

Grandmother Cedar and the Classroom: Indigenous Education and Colonial Schooling

As Sabzalian (2019) argues, sovereignty "*is always what is at stake with Indigenous education*" (p. 216, original emphasis). While often framed through external and often paternalistic European and U.S. definitions, Native sovereignty predates both. For Native peoples in what is currently Washington state, sovereignty entails at least four elements. Colonialism continues to jeopardize these inherent rights: to self-determination; to ancestral lands and waters; to cultural practices; and to a political relationship with the United States not derived from race or ethnicity, but from government-to-government treaties (NCAI, 2015, p. 16). As Coffee (Comanche) and Tsosie (Yaqui, 2001) argue, cultural sovereignty – Native peoples' ability to exercise their norms and values; to reclaim history and traditions; and to structure collective futures – is inextricable from political elements of sovereignty: the autonomy and survival of Native communities and nations. Supporting sovereignty entails working beyond

metaphor to reclaim lands for Indigenous peoples and promote their futures, in schools and beyond (Castagno & Brayboy, 2008; Tuck & Yang, 2012).

Teaching through Indigenous ways of knowing and being are essential for these goals, and for avoiding ethnocentrism and inaccurate history in schools (Bang et al., 2014; Smith, 2004). Indigenous pedagogies support the teaching of Indigenous knowledges, often through experiential, transdisciplinary, relational, intergenerational, place-based, and non-anthropocentric ways of knowing.[8] Grandmother Cedar offers an illustration of the connection between epistemology and pedagogy. Cedar is perhaps the most significant plant relative and teacher for Native peoples in Pacific Northwest coastal regions (Miller, 2009). Since time immemorial, she continues to generously offer material, medicinal, spiritual, and other gifts (see Fernandez, 2018; Stewart, 1995). Grandmother Cedar embodies a relational pedagogy consistent with local Indigenous constructions of knowledge as *x̌eč,* a process that synthesizes thinking and feeling (Tami Hohn, personal communication, October 18, 2018; Zahir & Hilbert, 2000). As one project advisor explained, "The tree people are our greatest teachers. They teach silently, by living and by example." Plant relatives teach us how to enact respect by receiving, sharing, and reciprocating their gifts (Kimmerer, 2013). Learning with and from Grandmother Cedar demands more than cognition, it requires openness to felt connection and ongoing relationship.

Embodying Indigenous knowledges and pedagogies – and decentering normative colonial knowledges promoting Indigenous erasure – are not widely shared skills for non-Native

[8] Note there is no singular Indigenous pedagogy or epistemology, reflecting the myriad Indigenous ways of teaching and learning stemming from particular cultural, historical, geographical relationships and homelands, both within and across Indigenous groups. Here I draw on themes shared from Native education leaders on this project's advisory board. These are also relevant across many contexts: from Indigenous educators working in Canada, including Archibald (2008) and Battiste (2007), the U.S., including Bang and colleagues (2014), Cajete (1994), and Grande (2015), Hawai'i (Meyer, 2009), Mexico (Rogoff et al., 2014), and Aotearoa/New Zealand, including Smith (2004) and Smith (2012).

educators[9]. Indeed, many may not recognize relationships with other species or the natural world beyond resource extraction or conservation models. Both models typically understand humans and nature as separate. Classroom cultures and disciplinary learning expectations reinforce this perceived distance, such that normative colonial "ways of thinking become ways of being" (Bang et al., 2015; Marker, 2016, p. 478). For example, in history classrooms, disciplinary expectations often delegitimize oral histories as legend or myth, overlooking narrative and memory as epistemologies (Archibald, 2008; Battiste, 2007). This positions Indigenous and other non-normative colonial knowledges as less valid and credible, ignoring their expansive and transformative learning potential (Jacob et al., 2018; McGregor, 2014).

Indigenous scholarship illustrates how non-Native teachers' perceived detachment from Native communities promotes dominant colonial narratives and constrains their learning. National studies report 62% of U.S. Americans are unacquainted with Native Americans and most express confusion about what Native sovereignty really means (First Nations Development Institute, 2018, p. 51, 53). Similarly, Canadian teachers express confusion on sovereignty (Madden & Korteweg, 2014) and initially claim to "know nothing" about Indigenous peoples, a stance Lenape/Potawatomi scholar Susan Dion (2007, 2009) calls the "perfect stranger" position. This professed ignorance maintains teachers' lack of accountability for challenging colonial logics and racism. Dion shows that teachers use dominant stories of Indigenous people as a "romanticised, mythical, victimised, or militant Other" to distance themselves from implications of Aboriginal-Canadian relationships and history (p. 331). While teachers' experiences with Indigenous peoples actually reflect a wide range, the "perfect stranger" stance has collective

[9] Contextualizing and explaining this situation lies beyond the scope of this paper. For political and historical background, see Lomawaima & McCarty (2002) and Marker (2011). For socio-cultural, pedagogical, and epistemological history, see Ahenakew (2017), Archibald (2008), Simpson (2014) and Smith (2012).

utility. This distancing allows non-Indigenous teachers to prioritize their comfort, avoiding conversations and actions that challenge dominant histories, or elicit fearful or offended reactions in themselves or students. In nearby Oregon, Leilani Sabzalian (2019) found related patterns of teachers and students acting as "little anthropologists." This approach centered learning about Native people and nations as historic objects of study, rather than as living human actors and sovereign states. These scholars show that non-Indigenous teachers' understandings of Native people are actively shaped through perceptions of distance and knowledge structures that affirm colonial power relations. Such claims of ignorance support the structures and relationships maintaining colonialism.

Thus, *Since Time Immemorial* offers a means of promoting Native sovereignty by recognizing these relationships as political - and a challenging entanglement with schooling systems. By living on Native lands and teaching normative colonial knowledges in public schools, non-Native teachers are implicated - in myriad, differentiated ways - in historic and ongoing structures of settler colonialism. Positioning *STI* as a social studies-centered curriculum within discipline-based, age-specific, indoor classrooms then represents two layers of institutional challenges wherein normative colonial ontologies and epistemologies dominate (McCoy, 2019; Sabzalian, 2019). Teaching Indigenous histories and perspectives meaningfully then requires that educators support students' sustained engagement with Indigenous knowledge systems and perspectives. Yet instructional tools such as U.S. history textbooks (Calderón, 2014; Stanton, 2014), curriculum standards (Shear et al., 2015), and online curriculum (Conrad, 2019), frequently relegate Indigenous peoples to vanishing roles and perceived irrelevance. Teachers' use, mis-use, or non-use of tribal sovereignty curriculum thus has direct implications for Native students and Native futures.

Participation, Cultural Appropriation, and History-in-Person

The challenges of even defining learning for non-Native teachers in the context of this study illustrate the complexity of this work: across cognitive, political, and sociocultural dimensions. While learning about Native sovereignty involves conceptual reorganization and accumulations of knowledge, a cognition approach may not offer sufficient guidance for meaningfully teaching *STI.* Buehl and Fives (2016) clarify the situated nature of cognitive schema: the knower already holds particular perspectives about the nature of knowledge, which inform their interpretations of a given idea or concept, and their epistemic (ways of knowing-related) outcomes. Epistemic stances, they argue, inform teachers' daily practice and ease their cognitive loads, shaping the implicit and explicit epistemic climates available for learners. Learning scientists continue to call for increased attention to such social aspects of epistemic learning, including group membership and socially distributed knowledge, rather than individual cognitive or constructivist emphases (see, e.g., Bricker and Bell, 2016; Chinn et al., 2011; Gottlieb & Wineburg, 2012).

Situative learning perspectives do reveal how particular ways of knowing and being come to be valued in and across particular contexts through relations of power (see, e.g., Bell et al., 2012; Bang, 2015; Nasir & Hand, 2006). Teachers' lengthy participation and "apprenticeship of observation" (Lortie, 1975) in normative colonial school cultures then directly contradicts the aims of teaching for tribal sovereignty. How schooling and teachers value and reinforce normative colonial knowledges, while excluding Indigenous ones, is particularly relevant here. Considering both sociological and teacher-as-learner dimensions of teacher learning is crucial for justice-oriented teacher education – and teacher learning scholarship (Philip, 2011).

Understanding learning as changes in participation holds meaning for sociocultural researchers and Indigenous knowledges. For scholars in Lave's (1996) tradition, expertise is understood through the centrality or fullness of participation in a given work or practice context through the use of shared discourses, norms, and working practices. Knowing is distributed or shared across all participants and tools, rather than being held and then intentionally transferred from mind to mind. Many Indigenous pedagogies reflect some similarities, including promotion to deeper levels of understanding based on an individual's present and future roles, strengths and specializations, moral and spiritual maturity, and development (Cajete, 1994; Rogoff et al., 2014; Smith, Tuck & Yang, 2018). For Native communities in this study, knowledge access is also situated. Access requires a relationship of responsibility and reciprocity, where learners engage spiritually and/or metaphysically to enact those relations with the land and others (see Battiste, 2008). Knowledge may represent wealth, and is shaped by specialized roles and responsibilities assigned to families or forms of labor within the community. Knowledge cannot and should not be available to anyone at any given moment (see Tuck & Gaztambide-Fernandez, 2013). Rather, learning and knowing reflect ongoing responsibilities within familial, sociopolitical, ecological, and/or economic systems.

Research on preservice teachers' learning in Native communities also supports the importance of learning through participation guided by relationships. Active involvement in local cultural practices and close relationships were the most crucial tools for transforming preservice teachers' practice with Native communities (Zeichner & Melnick, 1996). In Canada, Madden (2014) showed that preservice teachers working alongside traditional Indigenous knowledge holders developed stronger motivations to disrupt colonial and racist policies and curricula than their school-based mentor teachers.

Learning through participation also suggests a central challenge. How non-Natives approach, share about, and change through participation in Native knowledge communities matters deeply. As Sabzalian (2019) points out, the line between cultural appreciation and appropriation is blurred. Given the learning and relational training that non-Native teachers have experienced across their lives and schooling, they may perceive Native knowledges as romantic or diminutive "traditions." U.S. American literature, history, popular culture, and curriculum reflect entrenched patterns of "playing Indian," from the Boston Tea Party to Johnny Depp's Tonto (Deloria, 1998; Tuck & Gaztambide-Fernandez, 2013). New Age commodifications circulate widely, offering a shared public image of ineffective or inauthentic ways to learn and/or participate with Native knowledges. Learning to meaningfully represent – and teach through – Native cultural perspectives and knowledges then suggests cultural and pedagogical tensions for non-Native teachers.

Social practice theory's attention to differences and tensions in participation then offers a useful lens on non-Native teachers' learning through and agency within *STI* teaching. Holland and Lave (2009) explain the concept of "history-in-persons": a set of relationships with institutions and cultural activities: between intimate, embodied subjectivities (teachers' identity work and roles) and contentious local practices (*STI* teaching). The authors argue, "Local struggles are also always part of larger historical, cultural, and political-economic struggles but in particular local ways worked out in practice" (p. 3). While schooling for Native students is a trust responsibility long tied to treaties and sovereignty, rarely have non-Native teachers and administrators centered that duty (Sabzalian, 2019). Teachers in this study worked within fifteen miles of the Indian boarding schools that their Native students' ancestors and living family members attended. Impacts of this forced placement in American Indian mission and boarding

schools – until 1978 – on Native communities are difficult to overestimate (Adams, 1995; Lomawaima & McCarty, 2006; Reyner & Eder, 2017). Schooling as a mechanism of assimilation and cultural subtraction has sharp reverberations and strong effects of intergenerational trauma. Holland and Lave's model suggests that non-Native teachers' different trajectories with *STI* teaching may reflect multiple histories brought into the present, and enduring struggles between institutions and cultural activities on local and larger scales. How teachers respond to these enduring struggles within their institutional roles as teacher and non-Native community member reflect local and broader context.

Design and Methods

Through a collaborative process, this qualitative study aimed to center local Native education leaders/advisors' goals for *STI* implementation. Interviews, observations, participant-observations, and document analysis illustrate how a purposeful, unique sample (Patton, 2002) of five teachers planned, experienced, and interpreted their learning through *STI* implementation.

Indigenous Research Methods and an Advisory Model

This qualitative multiple case study relied on collaborative relationships with Native stakeholders and co-designers[10] throughout the research design and process, consistent with Indigenous research methodologies (e.g. Brayboy et al, 2012; Drawson, Coombs & Mushquash, 2017; Kovach, 2018; Wilson, 2008; Windchief & San Pedro, 2019). An advisory group of eight Native education leaders working on *STI*/tribal curriculum implementation at the regional and state level (including the three federally recognized tribes of this area) co-designed the study,

[10] Relationships with Indigenous educators and scholars have been foundational throughout the development of this project, particularly Dr. Megan Bang (who first suggested this study topic) and Dr. Filiberto Barájas-Lopez, Dr. Dawn Hardison-Stevens at UW and Dr. Laura Lynn at the Office of Native Education for Washington State, who mentored me and this project as an idea.

from inception to analysis. This approach aimed to center local Indigenous goals for implementation and promote reciprocity (McGregor & Marker, 2018) and just power relations (Bang & Vossoughi, 2016): elements required for ethical Indigenous education partnerships and outcomes meaningful for local Indigenous communities (Kennedy & Lees, 2014; Lomawaima, 2000). Indigenous research methodologies represent foundational commitments to avoid damage-centered, recolonizing research (Smith, 2012; Tuck, 2009; Whetung & Wakefield, 2018). This partnership mirrored the teachers' task: a non-Native researcher relied on Native co-designers to apply Indigenous research methodologies.

Particularly as a white researcher trained in dominant colonial education, my efforts to enact Indigenous research methodologies and support Indigenous education sovereignty depend on accountable relationships and partnerships with local Indigenous communities. Such work requires ongoing, critical analysis of colonizing logics (Dzidic & Bishop, 2017; Gaudry & Lorenz, 2018), and of my intentions, place and perspectives in this inquiry (Patel, 2015; Styres, 2018). An anti-racist vigilance (Applebaum, 2010), and vulnerable participant/observer stance (Behar, 1997) informed my work to productively grapple with white woman settler anxieties (Slater, 2017) for deeper understanding of the learning processes of white teachers in this study. Having lived the gift of Indigenous pedagogies (Battiste, 1998; Jacob et al., 2018) through Indigenous educators and mentors, I seek to reciprocate and responsibly share their ongoing influence on my thinking, actions, and relationships.

Recruitment and Selection

This purposeful sample combined unique and maximum variation approaches (Patton, 2002). Native advisors nominated experienced, non-Native teachers: those already engaged in *STI*/tribal curriculum work with schools directly affiliated or partnering with tribal communities.

This selection process enabled many differences amongst participants approaching maximum variation (Stake, 2008) in terms of: teaching experience (2-37 years), grade level (kindergarten through high school), course/content type, teacher identities (racial, ethnic, gender, socioeconomic background), and student demographics and school context (Indigenous and non-Indigenous students, size, urban proximity, racial and economic diversity, district and curricular expectations, etc.). All teacher participants had several years of formal training led or co-led by Native educators through school, district, university, or state-based professional development and/or curriculum development programs. One shared identity was as parents of multiple children. All teachers had moved across regions or continents at some point in their lives, to live and work in an unfamiliar community. See Figure 2 for more details.

While all schools had a student body of more than one third Native students, from many nations and memberships, they offered key differences. Monique, Frankie and Elliot[11] taught in a rural school that spanned grade levels: what I call K-12 School. With the school's high population of Native students, there was some emphasis on sharing local tribal knowledges in classrooms. In a large suburban district elsewhere in the state, two teachers worked in public schools with unique arrangements partnering with the local tribal community. Francis taught social studies at Middle School, a comprehensive school in the central part of town serving grades six through eight. In the same district but located across from town on reservation lands, Ester taught fifth grade literacy and social studies at Elementary School. While Middle School had a larger population of Latinx students (predominantly of Mexican ancestry) and Elementary had a larger population of Native students, both also served white (including Russian U, Both

[11] All teacher and student names are self-selected psuedonyms, and all school names are psuedonyms from Native advisors' suggestions.

schools had a majority of students on free/reduced lunch. Each student body included roughly 25% English language learners and 15% who received special education services.

Data Collection Strategy and Procedures

Three semi-structured teacher interviews, each followed by a field-based observation, anchored this study. From October 2019 through February 2020, I conducted 21 interviews: three with each teacher[12] (45-75 minutes), and seven student interviews (15-25 minutes). I observed classrooms for 18 hours: three class sessions with each teacher (50-160 minutes). Document analysis of lesson materials, classroom resources, published curricula, and student work also supported inferences on teachers' practices and goals. Finally, teachers' circles offered a deeper contextual understanding of teachers' challenges, supports and goals within local contexts.

Interviews

Semi-structured interviews with each teacher preceded each observation. Interview one focused on teacher identity, *STI* teaching goals, pedagogical approaches, curriculum and professional development resources. Interview two centered on the planning process for the upcoming second observation; classroom and community context; and personal commitments and how these influenced curriculum planning. The final interview reflected on growth and challenges experienced in *STI* teaching, colleague relationships, and community accountability. In this interview, teachers also used modelling clay to represent their relationships with Indigenous and typical school knowledges through a think-aloud task.

Observations

[12] Frankie did not teach an *STI*-related lesson during this study period, and was unable to schedule a final interview, despite many attempts. Findings discuss the implications of this.

For observation one, teachers selected a lesson that did not have to relate to *STI*/tribal curriculum. Field notes concentrated on classroom culture and roles; relationships and patterns of student engagement; and teacher's language use, positioning, and visible materials: elements identified by the Native education co-designers. Whether and how topics of Indigenous people or sovereignty emerged was also of interest. Observations two and three were teacher-selected with a clear *STI*/tribal curriculum focus. Field notes described the setting, evidence of learning goals, teacher actions, and patterns of student engagement.

Focus Student Interviews

Audio recording of interviews with four students from two sites aimed to capture their learning, engagement, and reflections on history and Indigenous topics. Tribal research review limited this at another site. Teachers helped select student participants considering attendance patterns and variation in terms of race, ethnicity and gender identities. Selected students self-identified as White, Mexican-American, multiracial, and Native American. These semi-structured, audio-recorded interviews used stimulated recall with *STI* lesson artifacts to clarify student understanding and engagement with lesson content, sovereignty, and Native perspectives.

Document Collection

Given the curricular aspect of this study, analyzing lesson and classroom materials, including readings, reflection questions and in-class assignments, proved essential to understanding the goals and practices of teachers. Photographs of assignment materials, classroom layout, decorations and classroom resources aided triangulation. Attention to these mediating tools over time and across contexts afforded insight into relationships shaping teachers' learning processes (see Anderson & Stillman, 2013; Nolen et al., 2011).

Teachers Circles

The final component of the study was a professional development event based on a model developed by the Yakama Nation (see Lynn, n.d.) and co-planned with Native advisors. I brought teachers working in the same district together to discuss their learning, pedagogical dilemmas (Lampert, 1985) from *STI* teaching and/or lesson planning, and next steps and goals. After reading a preparatory text (Sabzalian, 2019 or Stanton, 2019), each group gathered for a meal at a local tribal casino restaurant where I hosted and audio-recorded our conversation (two-three hours). Focusing on their dilemmas and next steps revealed teacher thinking about *STI* learning and implementation goals while addressing implicit challenges such as structural constraints and pedagogical content knowledge. Each circle focused on insight as a primary learning goal, rather than prescribed strategies or particular content knowledge. This intended to recognize teachers' agency through instructional decision-making, and goals of influencing their interpretations and responses of those dilemmas (see Kennedy, 2016, p. 956).

Data Analysis

Following each advisory meeting, interview, observation, and teachers' circle, I recorded analytic memos (Emerson, Fretz and Shaw, 2011), that captured reflections on the events themselves, and my own tensions, contradictions and experiences relevant to this project as a white and non-Indigenous woman and educator (see Picower, 2009; Moreton-Robinson, 2016; Slater, 2017; Yoon, 2012).

Data analysis progressed chronologically. I first open coded all interview transcripts and observation field notes, generating in-vivo and descriptive codes focused on two frameworks: 1) identifying meaning and respect through fidelity to the seven *STI* guiding principles (Appendix A) and written curriculum; and 2) changes in relationships and practices based on the conceptual

framework, including contradictions, tensions and turning points. These lenses focused on how teachers articulated and identified relationships (or lack thereof) with Native peoples and knowledges; perceived affordances and constraints with teaching Native perspectives and sovereignty; and influences on curricular adaptations/approaches (inclusion, integration, decolonization, etc.). The theoretical framework guided analysis of classroom interactions and lesson design: searching for evidence of centering or braiding Indigenous knowledges, epistemic collisions (Kerr, 2014), and student connections to the curriculum. A second round of coding identified themes of repetition (Ryan & Bernard, 2003) and codes of contrast (Coffey & Atkinson, 1996) across sources and cases with *STI*/tribal curriculum ("effective" and "non-examples," "meaningful" and "not meaningful," "sovereignty" and limitations on sovereignty). I transferred larger patterns and questions to thematic cross-case memos. The third round of coding included teachers' circle transcripts and focused on changes in relationships and teaching practice – particularly through the use of mediating tools. Particularly in the second and third rounds, I worked to support generalizations by testing representativeness, weighing the evidence, and searching for supporting and disconfirming evidence across sources and cases (Miles, Huberman & Saldaña, 2014). I collaborated with one advisor to design a data display representing the findings, and three advisors on findings review. This aimed to contribute multiple investigator perspectives while counteracting reflexivity problems, researcher distortion, or selectivity (Symonette, 2000).

Limitations

While this study relies on some initial level of investment in *STI* curriculum for participation (through nomination) and thus may skew the group towards stronger intrinsic motivation, other forms of diversity within the sample may facilitate identification of effective

practices and modifications that clarify implementation moves for teachers with lower levels of initial investment. With one researcher and a relatively small group of participants, the limited variation in this study may also limit its nuance and explanatory power. As a non-Indigenous, white researcher with largely normative colonial training, my efforts to enact Indigenous research methodologies and identify teaching practices consistent with Indigenous sovereignty and knowledges require ongoing efforts and accountable relationships with Indigenous communities and Native project advisors. Relationships of honesty and reciprocity are crucial in order to identify and move through the "seen and unforeseen risks" tied to my positionality (Milner, 2007).

Teacher Learning Findings with Tribal Sovereignty: Six Themes

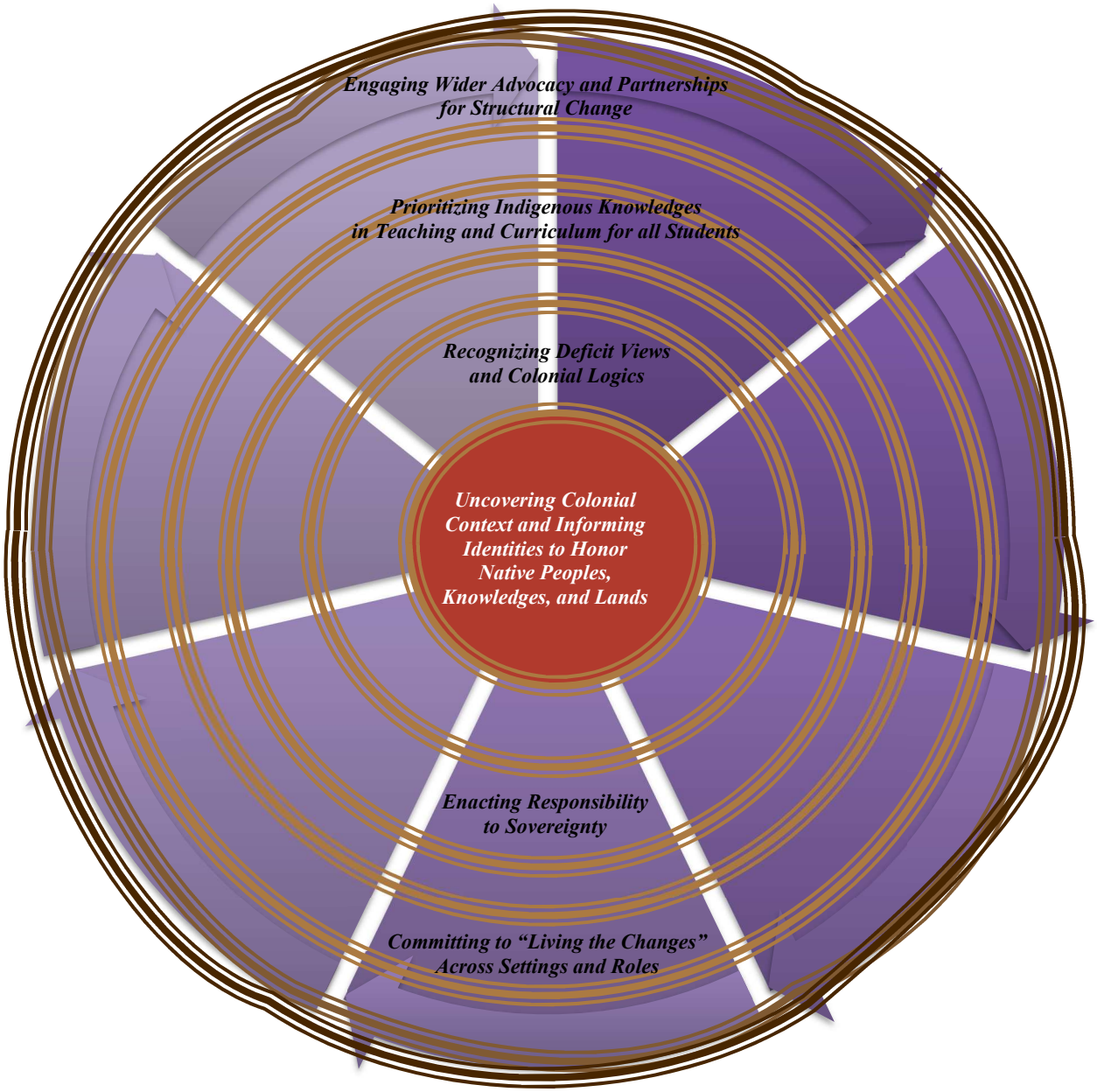
In this section, I show how teachers' learning to implement tribal sovereignty curriculum consistently and meaningfully followed six themes, shown in the Cedar tree rings below (Figure 1). Tree rings emerged as a metaphor in both teachers' circles as a shape representing their learning process, echoing the Indigenous historical conceptual framework from *Since Time Immemorial* (OSPI, n.d.). Created with one of the study's advisors, this figure reflects the significant variation - rather than a universal typology, or a developmental trajectory – of teacher learning with tribal curriculum. Like trees growing in the same location, each teacher's rings of learning differ, even within the same school and with similar formal training. The quality of growth – teacher learning – and the overall health of the tree – teaching quality (meaning and consistency with *STI*) – are far from automatic or complete at any point. Diverse conditions, relationships, and contexts impact the ongoing, cyclical process of significant growth (learning) over time. Some growth phases are thick and significant (deep learning), other years thinner or

harder to distinguish. Any slice into the tree - seen through the radial lines - includes the central purpose of honoring Native peoples, knowledges, and lands.

The six tree rings represent the changes in ways of being and/or knowing (learning) required for teachers implementing tribal curriculum consistently and meaningfully. Every participating teacher showed evidence of learning within the two innermost rings, the most foundational aspects. At the center, the heartwood ring (1) represents teachers' growth in identifying biases and resources from their earlier learning and socialization (uncovering colonial contexts and informing identities). Next, all experienced some perspectival "break" that enabled them to recognize colonial views and deficit logics about Native peoples (2). Sometimes this break revealed biases from their own contexts they had not perceived earlier. The next four layers reflected crucial differences in implementation: only three teachers implementing most consistently and meaningfully (of five) were represented in this data. Enacting responsibility to sovereignty (3) entailed teachers' participation with Native people in systems accountable to socio-political relationships and protocols of sovereignty. Teachers in a variety of school settings moved to prioritize Indigenous knowledges in teaching and curriculum for all students (4) once they perceived and experienced Indigenous ways of knowing as valuable in their lives and for their non-Native students. Committing to "living the changes" (5) that participation in tribal knowledge communities had fostered meant that teachers engaged differently as outdoorspeople, parents, neighbors, and colleagues. Engaging wider advocacy and partnerships (6) with Native students, families, and others constituted ongoing work for teachers as self-described "agents of change," who sought to change educational structures (funding, scheduling, testing, etc.) that limited the meaning and impact of *Since Time Immemorial* curriculum, local Native sovereignty, and their Native students' futures. The more robust growth for each of these six themes, the more

consistent and meaningful the teachers' practice became, particularly as evidenced by observations and student interviews. Below I offer examples of each theme, aiming to center teachers' voices as much as possible.

Figure 1. Teacher learning themes with implementing tribal sovereignty curriculum.



Dawn Hardison-Stevens
2020

1) Heartwood: Uncovering Colonial Contexts and Informing Identities

The innermost ring reflects the ongoing, central purpose - and tensions - of honoring Native peoples, knowledges and homelands. This is the heartwood: the cultural and community contexts and social memberships that continue to shape teachers' thinking, habits, and practice. Even when perceived as long past, the relationships between these identities and socialization experiences and teachers' present ability to honor Native sovereignty are intertwined. Like a tree's heartwood, these "dead" cells continue to provide essential structure as the adult tree grows (UCAR, 2014). Francis' description offers a representative example of how erasure of Indigenous peoples shaped her learning as a white child in "an incredibly white" community. A reading from a tribal-led curriculum group (Holmes & Gonzales, 2017) offered a turning point for recognizing the pervasive impact of settler or colonial thinking. She realized,

> My whole entire education has been from this one viewpoint. No one's ever pointed it out... Even though I've tried to reach out of that bubble, I've been in a pretty tight bubble.

This "bubble" of community and schooling experiences shaped what Francis could recognize about her own context. While she grew up just across the river from a Native reservation, Francis had "no idea that even existed… until I was an adult." Her schooling and social memberships constructed and affirmed this perceived distance and absence.

The heartwood layer could also reflect resources and strengths for learning sovereignty, particularly for two teachers with non-dominant identities. For example, Elliot grew up in rural Appalachia, where his family had lived for many generations. His schooling experiences consistently positioned his elders and family's place-based knowledges as "hokum," "hillbilly knowledge," not "how you need to think." Learning about local Native knowledges through Native educators helped Elliot see his family's land-based knowledges as specific, accurate, and

useful epistemic and scientific relationships. This spurred shifts in his thinking and teaching practice, offering examples of what he did not want to reenact as a teacher.

2) Recognizing Deficit Views and Colonial Logics

The next ring reflects growth through what teachers described as a "break" in perspective: the ability to recognize deficit views and colonial logics about Indigenous people. This included an awareness of "racism" or "prejudice" in their wider communities against Native people, which some recognized before their *STI* work. While the tree ring model is not generally developmental or sequential, all teachers showed this perspectival break was needed for subsequent growth. The ability to identify colonial logics in one's own thinking was particularly needed.

Ester offers a representative example of recognizing and challenging deficit views through her "savior complex" thinking. While she had been motivated to come to Elementary to work with more teachers and students of color, colonial logics still shaped her early ideas about teaching and serving Native students, particularly from the reservation:

> I came in with the stupid mindset of, "I'm going to save these poor kids." They don't need to be saved. They have families that love them. Yeah, they may have challenges, but every one of them is someone's baby. And I didn't see that at first. I needed to see that. How I saw that was going to events where they were with their family members, and seeing how- Oh my goodness. I'd go to funerals, which are a whole day event in [tribal community], and seeing that a student who typically acts out in class was actually leading the drumming and singing. Like okay, there's that leadership I'm looking for, so I was able to tap into that. So just really stepping back.

The perception of Native students here as "poor," "broken," or uncared for opened a "need" for a (non-Native) teacher "to come and save them." Identifying this connection, and seeing students in family and community contexts that directly contradicted such thinking, allowed Ester to "step back" from a teacher-savior role. Joining Native/tribal community events - when public and/or when invited - allowed Ester to witness her students and their families engaging in cultural

practices *on their own terms and in their own spaces*. Ester's efforts to do so outside of paid teaching time, her openness to participating, and the Native community's inclusive practices all enabled this learning. The funerals offered a means of guided participation (Rogoff, 2003) as a witness: legitimate peripheral participation, in Lave and Wenger's (1991) terms. "Really stepping back," Ester clarified later, meant "realizing where I am and going with it, rather than trying to bring school to them. I realized- I changed my whole approach to school." Imposing a learning environment or expectations that ignored or undermined those strengths would "bring school to them" as a "teacher-savior" endeavor consistent with the history of the nearby Indian boarding school: a civilizing model based on deficit and colonial views of Native children and communities.

3) Enacting Responsibility to Sovereignty with Native Peoples

Enacting responsibility consistent with sovereignty for Native peoples requires moving from the analytical skill of identifying colonial logics to the relational practices that shift understandings of the teaching role and obligations to consider historical and sociopolitical context. This learning moved teachers from an egalitarian, collegial approach with Native educators and community members to actions that recognized particular historical and sociopolitical relationships - and refusals - in the context of ongoing responsibilities to Native education

Monique's lessons illustrate this shift when planning a large cultural event consistent with Native traditional knowledges. Initially confused about why the Native colleagues she approached did not offer strong support, Monique learned through a Native university instructor that she had missed key steps in protocol for supporting relationships needed for such an event. Through their refusal to fully invest, her Native colleagues asserted the importance of honoring

tribal processes, roles, and responsibilities with cultural knowledge. Monique realized that her initial approach reflected a normative, more transactional working relationship from "the way I was raised." While expressing her typical warmth, Monique offered insufficient mutuality for the gifts that Native knowledges and educators held. Assuming relational equality and Native cultural knowledge as a good to be accessed and shared readily, her approach did not honor the colonial history of schooling and its efforts to eradicate Native peoples and knowledges (part of the "bad feelings" Monique recognized). When her colleagues attended the event and expressed appreciation, Monique more clearly understood how her work was being evaluated alongside her Native colleagues' and community's goals. Becoming the object of their "watching and listening" helped Monique recognize that practice's importance for her relationships and learning with Native colleagues and community members. She now understood honoring cultural practices as part of meaningful *STI* teaching, including the qualities that a "genuine" teacher receptive to change exudes. When she organized the same event the following year, Monique brought gifts and asked for help, rather than expecting it. Monique described a "*completely* different outcome. Such immense support, such engagement, such warmth... because we did it the right way."

Teachers without these ongoing practices of relational sovereignty predictably showed greater distance with Native colleagues and community, and did not connect their curricular approach to larger socio-political roles and responsibilities. Francis' hesitancy approaching Native colleagues reflects the wider context of this relational learning. Despite several years of curriculum partnership work with tribal educators, she explained, "I know a couple of [Native] people but not a ton." In seeking guest speakers, she faced a dilemma: acting as "the white girl" asking "a favor." While she wanted students to learn about boarding schools, Francis did not yet

identify a particular responsibility for countering that legacy through her work and relationships. She spoke of an "*STI* librarian" as a solution. Logistical phone calls would be far easier than reckoning with the ongoing implications of schooling history for her work, and honoring that debt through direct, ongoing relationships with Native communities. This personally removed ideal would also preserve Francis' position as expert (rather than openly admitting "I don't know enough to do it myself"), and avoid grappling with uncomfortable family histories as homesteaders on "probably taken land." Keeping Native knowledge holders at a professional distance maintained normative schooling relationships consistent with upholding a white/colonial-dominated status quo.

4) Prioritizing Indigenous Knowledges in Teaching and Curriculum

While teachers recognized their relational responsibilities to sovereignty in large part through the Native students and communities they served, the next growth ring related less to demographics. The move to center or prioritize - not simply include - Indigenous knowledges in teaching and curriculum occurred because teachers saw their benefit for all students, and because of their deepening understandings of place. As Ester explained, her daily commute to the reservation affirmed this connection between sovereignty and place:

> I can feel a shift in my own body, if that makes sense, when I cross over [the bridge]… [the Native community] really honor their elders and ones that have passed on. They know that they continue to stay here and watch over them, and you can almost feel that when you're in the classroom with them…
>
> It makes me respect the land as well. This is sovereign land. This is a whole different- They govern themselves. I never really understood what sovereignty meant until I started working here.

This embodied responsibility to "sovereign land" and Native students' ancestors helped shape a tone of reverence and a theme of ancestral connection in Ester's teaching.

Three teachers' commitments reflected a form of critical consciousness and epistemic change, prioritizing Native knowledges and challenging normative colonial schooling. Understanding schooling as not just *designed* to privilege whiteness and colonial ways of knowing, some teachers then understood how normative school curriculum, policies, and practices *actively reassert* those ways of knowing each day. Ester, Elliot and Monique all expressed dangers of a "colonized," "Eurocentric" and/or "assimilation" approach to learning about Indigenous histories, including with particular subject matter. Tribal curriculum constituted organizing strands or ongoing themes of their social studies, science, and literacy curricula. Although none privileged Indigenous knowledges consistently in observations, these teachers showed consistent efforts. They designed learning experiences based on their value for Native students' future or current role as "tribal leaders" and as the "future of their community." Stakes of these decisions were high. Teachers privileged the local Native community's perceptions of the value of their school and teaching. Occasionally, teachers were able to challenge normative colonial expectations with subject matter. For example, Elliot appreciated being able to discuss "trees and plants having energies and personalities, [which] would not really have a common place in the traditional biology classroom in a[nother] school. Whereas here, it's totally part of the conversation." His consistent efforts to "exist in both [Indigenous and Western knowledges] at once" positioned knowing as situated, and offered a willingness to confront how valued knowledge in schools is racialized.

This critical consciousness first required that teachers recognized their complicity and ongoing entanglement in structural injustice. This K-12 teachers' circle exchange reflects how differently teachers understood their position, when Monique shared a "sense of shame" upon realizing how damaging her early career curriculum was:

> Monique: And I think about that now. You know, I'm thinking, "Whoa!", I mean, I've come a long way since then, but still-
>
> Elliot: Yeah, it's gut wrenching when you realize that you're one of the tools of colonizing that we still continue to be.
>
> Monique: Absolutely.
>
> Frankie: And people still do that.
>
> Monique: I know, I know. We may not do that out here, but I know there's lots of places where that's still done. So think about the fact that in every classroom there are Native students and then they're being put through this atrocity really. You know?

Elliot's use of the present tense ("you realize…") and ongoing nature of this complicity ("we still continue to be") contrasted with Frankie's focus on the concrete problematic activity. Frankie did not take up this position, attributing it to other educators and specific problematic practices (others "still do that"). Monique points to the enormous, ongoing scope of problems ("in every classroom"). She then described challenges sharing her learning with former colleagues in districts that haven't implemented the *STI* mandate, who feel little agency in countering emphasis on standards.

Elliot and Ester also clarified the necessity of distinguishing meaningful *STI* work from multicultural approaches. For example, Ester described the district's *STI* resources and training as improved, but performative:

> Sometimes I feel that the district does that [resource sharing] so they can say, "Look at me, we're being culturally responsive. We've got all this [*STI*] stuff and embedded." But what are they doing to really *analyze*? Because you can do all this culture, right? You can make piñatas, you can do this [points at artwork in hallway]. That's all that iceberg of that surface-level stuff. But do you really know the community? Do you really know that family? Do you really know why a student doesn't show up to school? No, you don't.

"Really" knowing the community, families, and students required sometimes uncomfortable examination of self and system, Ester and Elliot both suggested. Cultural curriculum that maintains district and teacher habits and comforts without addressing the systemic failures

serving Native students and communities promoted "surface level" learning. Real change for Native communities, Ester believed, required educators' deep analysis and commitment.

The extent to which teachers viewed local Native knowledges and perspectives as meaningful for themselves and non-Native students also shaped *STI*'s position in their larger curriculum. For example, at first Ester had been uncertain about centering [local tribe] perspectives for her heterogeneous students, many of whom were immigrant and/or students of color. Russian Ukrainian families had objections to school activities that included local Native cultural practices like dancing or prayer. Like her colleague Francis across the district, Ester may have initially focused on goals of proportionality with cultural representation. While leading a discussion about boarding schools and their legacy, Ester experienced an epiphany. "A Russian Ukrainian student said, "Is that like when we go to Russian school? We still learn Russian so we don't lose our language?" This student connected the importance of maintaining linguistic and cultural ties for his immigrant family with the ongoing challenges of revitalizing language and cultural knowledge for local Native peoples. Ester also thought of her father's experiences as a Spanish-speaking immigrant silenced and stigmatized in schools. This resulted in her not speaking Spanish fluently, and learning to "check my culture at the [classroom] door." Seeing her student's connection and her own, Ester "stopped questioning" a focus on local Native history and perspectives. She explained in the teachers' circle, this also created "natural connections" about how students "honor ancestors." When non-Native students "genuinely see and have compassion… change their mindset about a family, or the area that they live in, or something that they may even hear from their families, it's just totally worth it," Ester explained. *STI* allowed her students – and herself – to see and incorporate their families, stories, and cultures as ongoing learning assets.

5) Committing to "Living the Changes" Across Settings and Roles

Teachers with the most consistent and meaningful *STI* implementation also reflected changing relationships and responsibilities beyond the classroom to Native communities, lands, and knowledges (ontological changes). These impacted their parenting, community actions, colleague engagements, and more.

Like their tribal curriculum training materials, these teachers understood an ongoing responsibility to "live the changes" that *STI* represented, and this entailed shifting relations to land. Native community events and personal relationships beyond school helped Monique become "embedded" in the local community and learn family and community concerns and contexts with her students. She shared her learning about Native plant relationships and medicine with "so many people" in her life, as well as her students. Elliot's work with the school forestry club and efforts to incorporate Native storywork into his time outdoors (see Archibald, 2008) led to strong attunements to place and learning beadwork. Ester taught her children what she learned from Native colleagues, and expressed pride when they "asked about the [tribal] perspective" in school. She transferred them to Elementary, and now continues to advocate with their non-Elementary teachers, and participate with her kids in Native community events.

Learning through participation in Native knowledge practices held risks of "taking" and cultural appropriation, especially when teachers shared their learning with students. Elliot and Frankie in particular spoke of concerns for being perceived as "going Native" if they shared Native cultural knowledge (see Deloria, 1995 and Tuck & Gaztambide, 2013 for how these concerns reflect historic and ongoing realities for Native communities). The extent to which Native students and community members could recognize teachers' interest in Native cultural knowledge and practices as "genuine," as Frankie and Ester described, across settings and roles

impacted teachers' clarity and confidence with *STI* implementation. Clear permission from local Native culture bearers and school mission connections were also significant supports (but insufficient alone).

Skills in enacting responsibility to sovereignty clearly minimized risks of cultural appropriation. When teachers consistently engaged in protocol by checking their plans and questions on sharing cultural knowledge with Native knowledge holders/educators, these relationships guided ethical and culturally appropriate uptake. Such protocol was not recorded or systematized at all by the school or district. All teachers expressed a need for teacher vulnerability and openness in implementing *STI* effectively, which seemed to extend from their place in the classroom (moving away from sole authority/expert) to a willingness to ask questions. Those who avoided consultation generally avoided cultural appropriation, but this personal distance preserved a white-centered, colonial curriculum.

6) Supporting Wider Advocacy and Partnerships for Structural Change

The final ring represents ever-expanding outward connections: supporting wider advocacy and partnerships to achieve structural change for Native sovereignty in education systems. For many teachers, advocacy both fueled and tested their motivation for learning with *STI*. All identified teaching *STI* as a political endeavor, and one necessary to support Native communities in schools. In their school or district, four of five participants were part of efforts to strengthen *STI* implementation: through curriculum development; grade-level or department leadership; school leadership teams; and/or at the state level.

Three shared identities as "agents of change" in their schools and larger communities. These teachers understood themselves as part of a "constant struggle" and "continuous movement" to challenge status quo schooling that particularly harmed Native

learners. They felt an obligation to intervene with policies and structures that limited *STI*'s intended impact. As Elliot explained: "if you're not careful, you have another Carlisle [boarding school] on your hands. We've got to be cognizant of that." He saw this "fight" was a daily struggle, especially with his non-Native school administration who prioritized testing gains over *STI* implementation:

> [W]e are the change makers. We're the ones fighting the system that keeps getting pushed down. It tears me up….two different worlds that you're trying to bring together. Just so much, so much you got to fight.

These teachers also expressed the importance of and learning through the advocacy of Native students, families, and the larger local Native community. Elliot described taking students to a large youth climate change summit, where his Native students' perspectives had a unique impact and "powerful voice." He learned about sovereignty through their approach because of how they drew on not only "the knowledge from the West that they're learning, but the traditional knowledge that they bring with them… since time immemorial." Similarly, Ester described her students' and families' - Native and non-Native - ability to challenge bias and demand responsive curriculum as crucial skills and means of pushing for wider change. Valuing family and students' questions and ideas of curriculum encouraged Ester's learning and commitments. Building and maintaining trusting relationships with students and families where they could ask and "push back" was central. Such trust had to be earned and reciprocated.

Discussion

All five teachers expressed deep commitments to learn and support *Since Time Immemorial*/tribal curriculum, wanting "to do it justice," as Francis stated. Teachers expressed certainty that simply teaching *STI* curriculum did not automatically serve Native students well or

constitute meaningful action towards Native sovereignty. Rather, as these findings show, teacher learning to implement tribal sovereignty curriculum required changes in ways of being in relation to knowledge and the teaching role (relative to Native communities and lands), as well as deepening perspectives on Native ways of knowing. Every participating teacher showed evidence of understanding with the innermost heartwood ring (uncovering colonial contexts and informing identities) and some growth with the perspectival "break" (recognizing colonial views and deficit logics).

However, deeper learning in the other growth rings corresponded to key differences in meaningful and consistent *STI* implementation. These differences in implementation also reflected the strong mediating relationships with Native peoples, knowledges, and lands. Although some teachers critiqued curriculum that centered normative colonial/white knowledges, such analysis was insufficient for meaningful *STI* implementation. Teachers still risked inserting *STI* as additive (see Banks, 1997), which undermined its value and relevance while preserving colonial schooling structures and teaching roles. In short, it was not enough for teachers to apply an ongoing structural analysis of colonial schooling - nor was it enough to simply have friendships with Native colleagues or community members. Teachers had to uncover, recognize, and/or construct personal, sometimes uncomfortable, relationships with Native peoples, homelands, and knowledges on their own terms in order to meaningfully shape *STI* implementation. Teaching *STI* in engaging ways consistent with its principles meant that non-Native teachers had to continue learning about Native cultural knowledge and Native pedagogies with the experts, attending to local Native cultural protocols and responsibilities. This process was essential for teacher learning through Native knowledges and shifting pedagogical practices to make *STI* meaningful for students.

Three teachers showed overall strong consistency and meaning with teaching tribal sovereignty curriculum in observations, interview, and document data. These teachers all showed strong or emerging evidence for each of the six learning themes, whereas the other teachers had little or no evidence.

Grandmother Cedar and the Classroom: Indigenous Education and Colonial Schooling

Two learning themes seemed particularly potent, interrelated, and crucial for teachers' depth of commitment to learning with Native knowledges. Teachers with strong relational, enacted responsibilities to sovereignty (theme three) had two other similarities: ongoing relationships with Native people and lands outside of formal training or school spaces, and more consistent and meaningful *STI* implementation. Regardless of the proportion of Native students in their classroom, these teachers prioritized Indigenous knowledges in teaching and curriculum (theme four). All understood teaching the *STI* curriculum as a responsibility that transcended the classroom.

Learning with Indigenous knowledges from Native people - including but not limited to trained formal educators - enabled teachers to first understand, and then work towards enacting, responsibilities to Native peoples and lands as sovereign. Consistent with treaties, these teachers understood education of Native students - and all students - as part of a trust responsibility to Native peoples: one accountable to the peoples and homelands that their schools and homes occupied. All teachers recognized that such relationships took time far beyond their paid hours, but those who did so most regularly also perceived them as "gifts." Honoring Native educators or knowledge bearers in schools represents a far from simple request. To avoid being extractive or transactional, it must account for an ongoing historical-political relationship. These teachers'

learning confirmed that recognition of Native sovereignty is not only a cognitive process, but a sociopolitical relationship, as Sabzalian (2019) argues.

Through their relationships, backgrounds, interests, and many accessible resources, teachers developed particular emphases. Monique's efforts centered on learning and teaching with the local Native language and traditional plant knowledges, and strong, reciprocal relationships with over nine Native colleagues and friends across the school and community. Elliot's Appalachian heritage and experiences as a forester informed a deep engagement with land-based epistemologies, which he developed through relationships with Native students and educators, while "really introverted." Ester's work with her own family history and school-based trauma around language and racialized identity, combined with Native friend/colleague relationships cultivated over many years, supported deeper learning. Both Monique and Ester pointed to Native public-facing community events (powwows, longhouse events) as important opportunities for experiential learning and modeling of Native pedagogies. All three described and worked to position their students as teachers, and expressed a need for teaching stances that allow for teacher humility, "vulnerability", and learning "alongside" their students.

Participation, Cultural Appropriation, and History-in-Person

The ways that non-Native teachers connected (or not) their own identities, family histories, and teaching role in relationship with Native communities and lands, and the contrasts and narratives they used, also informed their learning with *STI* curriculum. How teachers navigated histories of schooling - particularly boarding schools - in their current role showed up across the data.

Three teachers clearly understood the history of schooling, and many of the contemporary policies and structures they navigated, as colonizing endeavors. Cultivating

humility and relationships to implement *STI* meaningfully and consistently required shifts in their knowledge, role, and approach. These committed teachers recognized their structural complicity and entanglement in colonial schooling – and a resultant responsibility to challenge those inequities and relationships in ways consistent with local Native knowledges.They shared identities as "agents of change" in their schools and communities, part of a "constant struggle" and "continuous movement" to challenge status quo schooling that particularly harmed Native learners. Elliot, for example, referenced his struggles with the school administrators over how much to prioritize standardized testing gains, as part of a daily "fight" to avoid "another Carlisle [boarding school]."

Teachers with less or less meaningful *STI* implementation also had few or no references to relationships and participation with Native people and communities outside of formal school or training roles. Both expressed confusion or obstacles around their white identities, purposes of schooling, and subject matter decisionmaking, which related to their implementation and learning challenges. While one teacher did not teach an *STI* observed lesson in the six month period, another taught *STI* content consistently - without upholding *STI* guiding principles for meaningfulness or relevance.

Listening and observing through ongoing participation with Native knowledge holders in Native-centered places was a key means of learning and enacting reciprocal relationships. While several white teachers referenced concerns about cultural appropriation, teachers' enactments of responsibility to sovereignty (theme three) clearly minimized such risks. Persisting with learning through structures of sovereign Native protocol - and refusals - and participating across settings helped Native students and community recognize teachers' interest in Native cultural knowledge as "genuine." These multi-cited relationships guided teachers' ethical uptake. Those who

avoided consultation or community participation generally avoided cultural appropriation, but this personal distance also preserved a white-centered, colonial curriculum. Building relationships and willingness to ask questions and check their understanding with various Native knowledge holders enabled teachers to understand their responsibilities to dialogue forms, community relationships, and ways of knowing consistent with Indigenous knowledges (see also Madden, 2014). These experiences enabled teachers to envision new possibilities for their *STI* teaching - and in powerful moments - to challenge colonial schooling norms.

Conclusion

These five non-Native teachers in rural and suburban schools offer examples and tensions for tribal sovereignty learning, with the strongest consistency and meaning of *STI* lessons linked with strong evidence in each of the six themes of teacher learning. Relationships with Native peoples, lands, and knowledges across settings offered key supports for growth in each area - and their perceived distance offered key challenges. More than friendship, and more than critical analysis of curriculum were necessary for meaningful *STI* implementation. How teachers understood their teaching role with *Since Time Immemorial* alongside their other responsibilities and existing curriculum – and how they positioned themselves relative to the Indigenous communities they served and lived in or alongside – made crucial differences in their learning, and the meanings their lessons conveyed to students. Teachers who recognized Native sovereignty as an ongoing sociopolitical and historical responsibility - both for schools and their own classroom - were able to work towards teaching and relational practices that honored it consistently. Teachers' ability to enact responsibilities to sovereignty (theme three) and commitment to prioritize Indigenous knowledges for all students (theme four) also tied to an

understanding of accountability to sovereign lands and peoples, rather than proportional inclusion.

Implications

This inquiry affirms Packer and Gioicochea's (2001) argument that learning "involves not only becoming a member of a community, not only constructing knowledge at various levels of expertise as a participant, but also taking a stand on the culture of one's community" (p. 228). Teachers most consistently and meaningfully implementing *STI* understood themselves as "agents of change": members of an educator community accountable and responsible to Native sovereignty. They recognized the need to take a stand on the ways schooling fails to serve Native students, communities, and sovereignty. The ways this shaped their approach to subject matter, curriculum, and teacher learning hold wide-ranging implications for school-based learning with tribal sovereignty.

Curriculum, testing, and disciplinary/subject matter

Although several teachers described their early learning about Indigenous people as ignorance, it is important to recognize such understandings as part of a structured implicit and explicit curriculum (Eisner, 1993) of colonial logics pervasive in schooling (Calderon, 2014). Rather than an absence or lack of knowledge, such narratives constituted *knowledge forms and structures.* This learning taught non-Native teachers to see themselves as separate and distant from Native people, whose claims to sovereignty then appeared irrelevant and/or historic in light of contemporary colonialism. Importantly, these logics were also reflected for Monique, the only teacher in the sample born and raised outside the United States (in France).

All five teachers described standardized testing and collaborative planning with colleagues not trained in Indigenous knowledges/*STI* as central challenges. Particularly when relying on published curriculum, these conditions encouraged normative colonial teaching and learning relationships and patterns. Teacher-centered instruction and additive approaches to *STI* curriculum prevailed. Teachers who identified as change agents took opportunities for building, grade level and other leadership positions that allowed them to push for change.

Particularly with subject matter, implementing *STI* meaningfully required challenging settled expectations of disciplinary learning (Bang et al., 2015), whether teaching math, history, or biology. Learning through local Native knowledges required teachers to challenge acceptable disciplinary learning practices and norms that relied on implicit hierarchies that denigrated Native knowledges. As Bang and colleagues argue, settled expectations are "entrenched, usually hidden, boundaries that tend to control the borders of acceptable meanings and meaning-making practices. These have also shaped deficit-oriented discourses concerning students from nondominant communities" (p. 303). Teachers who understood the ways normative colonial disciplinary boundaries negated their Native (and other) students' ways of knowing - and who also valued them - could work to challenge dominant knowledge-power relations, both in their content and instruction.

Teacher education

The need for increased teacher training and education is clear across Indigenous education initiatives (e.g. Gaudry & Laurenz, 2019; Stanton & Morrison, 2018), but this study points to critical components. As with previous studies in Canada (Madden, 2014), learning directly from Native knowledge holders was essential for these teachers' meaningful and consistent implementation. Immersive, ongoing training that allowed teachers to experience

Indigenous ways of knowing and pedagogies through local Native educators' modelling, was essential for deeper learning. In particular, two of the three teachers with most consistent implementation were part of a particular ongoing program: the Native Education Certification Program at the University of Washington, a hybrid-online program led by Native faculty. The program focuses on "engaging Native students, families, and communities in instruction to ensure Native students thrive and succeed" (NECP, 2020). Teachers' frequent references to their learning in the program throughout this study point to its utility as a model for other campuses.

These learning conditions - especially when ongoing and in Native-led places - supported teachers in developing a sense of wholistic interrelatedness between people, land, and sovereignty (Archibald, 2015). These experiences positioned Native elders, students, and knowledges in authoritative ways and in sociopolitical relationships grounded in pre-contact and treaty history. Teachers were able to learn about and understand Native sovereignty beyond legal doctrine and with far greater impact on their pedagogy. A one-time professional development session in a classroom was helpful for identifying colonial influences, but not enough for teachers to shift their own patterns of thinking and envision other possibilities for their teaching philosophy and structures. Scholarship by Native authors also powerfully shaped teachers' thinking, as Elliot, attested with Cajete's (1993) book as "when my whole organized universe blew up into chaos."

Importantly, these teachers' trainings structures existed because of treaty trust responsibilities and Indigenous organizing, rather than federal or state funding. At Elementary and Middle Schools, the *STI* curriculum tribal consultation process, the presence of Native liaisons, and direct funding from the local tribe all offered important resources for *STI* teaching. For the three teachers working at K-12, all expressed particular support gained from the

immersive, five day land-based training focused on ancestral knowledges that tribal members led in the summer of 2018.

Importantly, such partnerships with local Native communities require institutional and personal investments, including compensation policies for community members. Teacher educators must learn and model responsiveness to the protocols of sovereignty with neighbor tribes for their students. Otherwise, it can be all too easy for educators to shift responsibility. Yet as this teacher shows, an awareness of sovereignty implies action:

> Ester: And I think that's hard to acknowledge: what your misconceptions were, for everyone…. But I feel like it's our duty and if I know more and I'm in a place where I've come to an understanding in my life and my career, then it's my job. It's an obligation for me to then shift my whole thinking, my whole thought process, my whole teaching process and to incorporate all of that. Because it's messier, because I've don't want to step on anyone's toes - that's just not an excuse for me, anymore. It's going to feel yucky and I'm going to probably offend people and I'm probably going to get it wrong. That's okay. I know that's going to happen. But I'm trying.

Appendix A: Since Time Immemorial Guiding Principles

Tribal Sovereignty Curriculum Guiding Principles

1. Teach with a multiple perspective

2. Focus on the tribal group(s) closest to the school first.

3. Deal with real life, sometimes controversial issues.

4. Connect the head with the heart with the hands for learning.

5. Recognize that culture is dynamic and always evolving.

6. Stress the resiliency of Native cultures, despite intentional oppression and neglect.

7. Emphasize that co-responsibility for change involves developing allies who know how to take action.

(rev. 10/15)

Figure 2. Teacher participants. Other identities were those initiated by participants and repeated across the data.

Teacher	Years teaching	Subject(s)/ grade taught	Racial/ ethnic Identities	Other Identities	Students	Training with *STI*/ tribal curriculum
Monique	37	kindergarten (all subjects)	White. French, born in France.	fisher; hunter; traveler; woman	Strong majority Native: various tribal affiliations	school-based training (4 years) state-level training (2 years) university seminars (2 years) Native education certification program (2 years)
Frankie	2	middle school math	White.	veteran; woman; tribal college alumna; lived on another reservation for 20 years	Strong majority Native: various tribal affiliations	school-based training (2 years) tribal college teacher education program (4 undergraduate focus courses)
Elliot	4	high school science; Natural Resources elective	White, Celtic ancestry.	fisher; man; Appalachian heritage.	Strong majority Native: various tribal affiliations	school-based training (4 years) Native education certification program (2 years)
Francis	7	8th grade U.S. & Washington State History	White.	Peace Corps participant.	Latinx, Native, Asian ancestry, White (including	inter-district curriculum writing (5 years) district-based tribal curriculum

					Russian Ukrainian)	writing (1 year) state-level training (2 years) university seminars (2 years)
Ester	15	5th grade literacy and social studies	Mexican-American.	first generation college graduate.	Latinx, Native, Asian ancestry, White (including Russian Ukrainian)	district-tribal curriculum writing (2 years) state-level training (2 years)

References

Adams, D. W. (1995). *Education for extinction: American Indians and the boarding school experience, 1875-1928*. Laurence, KS: University of Kansas Press.

Ahenakew, C. (2016). Grafting Indigenous ways of knowing onto non-Indigenous ways of being: The (underestimated) challenges of a decolonial imagination. *International Review of Qualitative Research*, *9*(3), 323-340.

Applebaum, B. (2010). *Being white, being good: White complicity, white moral responsibility, and social justice pedagogy*. Lexington Books.

Archibald, J. (2008). The power of stories to educate the heart. In *Indigenous storywork: Educating the heart, mind, body, and spirit*, pp. 83-100. Vancouver: University of British Columbia Press.

Archibald, J. (April, 2015). Indigenous teacher education: Struggle and triumph for justice and more. A paper presented at the annual meeting of the American Educational Research Association, Chicago.

Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, *86*(1), 163-206.

Author, (2019).

Bain, R. B. (2005). 'They thought the world was flat?' applying the principles of how people learn in teaching high school history. In Donovan, M. S. & Bransford, J. D. (Eds.), *How students learn: History in the classroom*, 179-213. Washington, D.C.: National Academies Press.

Bain, R. B. (2006). Rounding up unusual suspects: Facing the authority hidden in the history classroom. *Teachers College Record*, *108*(10), 2080-2114.

Bain, R., & Mirel, J. (2006). Setting up camp at the great instructional divide: Educating beginning history teachers. *Journal of teacher education*, *57*(3), 212-219.

Bang, M., & Vossoughi, S. (2016). Participatory design research and educational justice: Studying learning and relations within social change making. *Cognition and Instruction*. 34(3), 173-193.

Bang, M. (2015). Culture, learning, and development and the natural world: The influences of situative perspectives. *Educational Psychologist*, *50*(3), 220-233.

Bang, M., Curley, L., Kessel, A., Marin, A., & Suzokovich, E. (2014). Muskrat theories, tobacco in the streets, and living Chicago as Indigenous lands. *Environmental Education Research*.

Battiste, M. (2007). Nourishing the learning spirit. *Education Canada*, Vol. 50 (1).

Battiste, M. (1998). Enabling the autumn seed: Toward a decolonized approach to Aboriginal knowledge, language, and education. *Canadian Journal of Native Education*, *22*(1), 16.

Battiste, M. (2008). Research ethics for protecting Indigenous knowledge and heritage: Institutional and researcher responsibilities. In N. K. Denzin, Y.S. Lincoln, & L. T. Smith (Eds.), *Handbook of critical and Indigenous methodologies*. Thousand Oaks, CA: Sage.

Behar, R. (1997). *The vulnerable observer: Anthropology that breaks your heart*. Boston, MA: Beacon Press.

Brayboy, B. M. J. (2005). Toward a tribal critical race theory in education. *The Urban Review*, *37*(5), 425-446.

Brayboy, B. M. J., Gough, H. R., Leonard, B., Roehl, I. I., Roy, F., & Solyom, J. A. (2012). Reclaiming scholarship: Critical indigenous research methodologies. In S. D. Lapan, M.

T. Quartaroli, & F. J. Riemer (Eds.), *Qualitative research: An introduction to methods and designs* (pp. 423-450). San Francisco, CA, US: Jossey-Bass.
Cajete, G. (1994). *Look to the mountain: An ecology of indigenous education*. Durango, CO: Kivaki Press.
Calderón, D. (2014). Uncovering settler grammars in curriculum. *Educational Studies, 50*(4), 313-338.
Castagno, A., & Brayboy, B. (2008). Culturally responsive schooling for Indigenous youth: A review of the literature. *Review of Educational Research, 78*(4), 941-993.
Clearinghouse on Native Teaching and Learning. (2008). From where the sun rises: Addressing the educational achievement of Native Americans in Washington State. https://www.wssda.org/wp-content/uploads/2019/11/From-Where-the-Sun-Rises.pdf
Coffey, W., & Tsosie, R. (2001). Rethinking the tribal sovereignty doctrine: Cultural sovereignty and the collective future of Indian nations. *Stanford Law and Policy Review*, *12*(2), 191-222.
Corntassel, J. (2012). Re-envisioning resurgence: Indigenous pathways to decolonization and sustainable self-determination. *Decolonization: Indigeneity, Education & Society*, *1*(1).
Corntassel, J., & Scow, M. (2017). Everyday acts of resurgence: Indigenous approaches to everydayness in fatherhood. *New Diversities*, *17*(1), 55.
Coulthard, G. (2014). *Red skin, white masks: Rejecting the colonial politics of recognition* (Indigenous Americas). Minneapolis: University of Minnesota Press.
Dei, G. J. S. (2011). Introduction. In G. J. S. Dei, (Ed.) Indigenous philosophies and critical education: A reader. New York, NY: Peter Lang.
Deloria, P. J. (1998). *Playing Indian*. New Halem, CT: Yale University Press.
Dennison, J. (2017). *Entangled sovereignties: The Osage Nation's interconnections with governmental and corporate authorities*. American Ethnologist, *44*(4), 684-696.
Dion, S. D. (2009). *Braiding histories: Learning from Aboriginal peoples' experiences and perspectives*. Vancouver, B.C.: University of British Columbia Press.
Donald, D. (2009). Forts, curriculum, and Indigenous Métissage: Imagining decolonization of Aboriginal-Canadian relations in educational contexts. *First Nations Perspectives*, *2*(1), 1-24.
Drawson, A. S., Toombs, E., & Mushquash, C. J. (2017). Indigenous research methods: A systematic review. *The International Indigenous Policy Journal*, *8*(2), 5.
Dzidic, P., & Bishop, B. (2017). How do our values inform ethical research? A narrative of recognizing colonizing practices. *American Journal of Community Psychology*, *60*(3-4), 346-352.
Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.
Epstein, T. (2010). *Interpreting national history: Race, identity, and pedagogy in classrooms and communities*. Routledge.
Engeström, Y., & Sannino, A. (2010). Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review*, *5*(1), 1-24.
Fernandes, R. (2017). Grandmother Cedar. In *Cedar Box Stories*. Seattle, WA: Clearwater Film LLC. Retrieved from: https://vimeo.com/216042916
Gaudry, A., & Lorenz, D. E. (2018). Decolonization for the masses?: Grappling with Indigenous content requirements in the changing Canadian post-secondary environment. In E. Tuck,

W. K. Yang & L. T. Smith (Eds.), *Indigenous and decolonizing studies in education* (pp. 159-174). New York, NY: Routledge.
Grande, S. (2015). *Red pedagogy: Native American social and political thought* (Tenth anniversary ed.). Lanham: Rowman & Littlefield.
Haynes Writer, J. (2010). Broadening the meaning of citizenship education: Native Americans and tribal nationhood. *Action in Teacher Education*, *32*(2), 70-81.
Higgins, M., Madden, B., & Korteweg, L. (2015). Witnessing (halted) deconstruction: White teachers' 'perfect stranger' position within urban Indigenous education. *Race, Ethnicity and Education*, *18*(2), 251-276.
Hobot, J. (2017). Resurgence: Restructuring urban American Indian education. *National Urban Indian Family Coalition: Executive Summary.* Retrieved from: https://www.issuelab.org/resource/resurgence-restructuring-urban-american-indian-education.html
Hunt, S., & Holmes, C. (2015). Everyday decolonization: Living a decolonizing queer politics. *Journal of Lesbian Studies*, *19*(2), 154-172.
Jacob, M. M., Sabzalian, L., Jansen, J., Tobin, T. J., Vincent, C. G., & LaChance, K. M. (2018). The gift of education: How Indigenous knowledges can transform the future of public education. *International Journal of Multicultural Education*, *20*(1), 157-185.
Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Minneapolis, MN: Milkweed Editions.
Kincheloe, J. L., & Steinberg, S. R. (2008). Indigenous knowledges in education: Complexities, dangers, and profound benefits. In Denzin, N. K., Lincoln, Y. S. and Smith, L. T. (Eds). *Handbook of critical and indigenous methodologies*, 135-156.
Lomawaima, K., & McCarty, T. (2002). When tribal sovereignty challenges democracy: American Indian education and the democratic ideal. *American Educational Research Journal,39*(2), 279-305.
Lomawaima, K. T., & McCarty, T. L. (2006). *"To remain an Indian": Lessons in democracy from a century of Native American education*. Teachers College Press.
Lynn, L. (n.d.). *STI* teachers learning circle. *Since Time Immemorial*. Retrieved from: http://www.indian-ed.org/resources/learn-tribal-sovereignty/teaching-more-about-tribal-sovereignty/
Madden, B. (2014). Coming full circle: White, Euro-Canadian teachers' positioning, understanding, doing, honouring, and knowing in school-based aboriginal education. *in education,* 20(1).
Marker, M. (2011). Teaching history from an indigenous perspective: Four winding paths up the mountain. *New possibilities for the past: Shaping history education in Canada*, 97-112.
Marker, M. (2015). Borders and the borderless Coast Salish: decolonising historiographies of Indigenous schooling. *History of Education*, *44*(4), 480-502.
McGregor, H. E., & Marker, M. (2018). Reciprocity in Indigenous educational research: Beyond compensation, towards decolonizing. *Anthropology & Education Quarterly, 49*(3), 318-328.
Meyer, M. A. (2008). Indigenous and authentic: Hawaiian epistemology and the triangulation of meaning. In N. K. Denzin, Y.S. Lincoln, & L. T. Smith (Eds.), *Handbook of critical and Indigenous methodologies*. Thousand Oaks, CA: Sage.

Miller, S. B. (2009). The foolish girl *assH3'qap* (Ash-sha-kop). In *Teachings of the Tree People: Curriculum for engaged learning through film. Bainbridge Island, WA: IslandWood.* https://naturalheroes.org/videos/teachings-of-the-tree-people/

Million, D. (2009). Felt theory: An Indigenous feminist approach to affect and history. *Wicazo Sa Review*, *24*(2), 53-76.

Nasir, N. I. S., & Hand, V. M. (2006). Exploring sociocultural perspectives on race, culture, and learning. *Review of Educational Research*, *76*(4), 449-475.

OSPI (n.d.). Indigenous historical conceptual framework. *Tribal Sovereignty Resources*. Washington State Office of the Superintendent of Public Instruction. https://www.k12.wa.us/student-success/resources-subject-area/time-immemorial-tribal-sovereignty-washington-state/supplemental-resources/indigenous-historical-conceptual-framework

Packer, M. J., & Goicoechea, J. (2000). Sociocultural and constructivist theories of learning: Ontology, not just epistemology. *Educational psychologist*, *35*(4), 227-241

Patel, L. (2015). *Decolonizing educational research: From ownership to answerability*. New York, NY: Routledge.

Philip, T. M. (2011). An "ideology in pieces" approach to studying change in teachers' sensemaking about race, racism, and racial justice. *Cognition and instruction*, *29*(3), 297-329.

Rogoff, B., Najafi, B., & Mejía-Arauz, R. (2014). Constellations of cultural practices across generations: Indigenous American heritage and learning by observing and pitching in. *Human Development*, *57*(2-3), 82-95.

Rosebery, S., Ogonowski, M., DiSchino, M., & Warren, B. (2010). "The coat traps all your body heat": Heterogeneity as fundamental to learning. *The Journal of the Learning Sciences*, *19*(3), 322-357.

Saldaña-Portillo, M. J. (2016). *Indian given: Racial geographies across Mexico and the United States*. Duke University Press.

Sabzalian, L. (2019). *Indigenous children's survivance in public schools*. New York, NY: Routledge.

Shear, S. B., & Krutka, D. G. (2018). Confronting settler colonialism: Theoretical and methodological questions about social studies research. *Theory & Research in Social Education*, 1-23.

Shirley, V., (2017). Indigenous social justice pedagogy: Teaching into the risks and cultivating the heart. *Critical Questions in Education, 8,* 164-177.

Simpson, A. (2014). *Mohawk interruptus: Political life across the borders of settler states*. Duke University Press.

Smith, L. (2012). Decolonizing methodologies: Research and Indigenous peoples (2nd ed.). Dunedin, NZ: Zed.

Smith, G. H. (2004). Mai i te maramatanga, ki te putanga mai o te tahuritanga: From conscientization to transformation. *Educational Perspectives*, *37*(1), 46-52.

Souto-Manning, M. (2010). *Freire, teaching, and learning: Culture circles across contexts* (Vol. 350). Peter Lang.

Stanton, C. R. (2014). Crossing methodological borders: Decolonizing community-based participatory research. *Qualitative Inquiry*, *20*(5), 573-583.

Stanton, C. R. & Morrison, D. (2018). Investigating curricular policy as a tool to dismantle the master's house: Indian Education for All and social studies teacher education. *Policy Futures in Education*, 16(6), 729-748.
Stewart, H. (1995). *Cedar: Tree of life to the Northwest Coast Indians*. University of Washington Press.
Styres, S. (2018). Literacies of Land: Decolonizing narratives, storying and literature. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.
Symonette, H. (2008). Cultivating self as responsive instrument. In Denzin, N. K. & Lincoln, Y. S. (Eds). *Handbook of social research ethics*, 279-294. Thousand Oaks, CA: Sage.
Tachine, A. R., Bird, E. Y., & Cabrera, N. L. (2016). Sharing circles: An Indigenous methodological approach for researching with groups of Indigenous peoples. *International Review of Qualitative Research*, *9*(3), 277-295.
Tuck, E. (2009). Suspending damage: A letter to communities. *Harvard Educational Review*, *79* (3), 409-428.
Tuck, E., & Yang, K. W. (2014). R-words: Refusing research. In Paris, D., & Winn, M. T. (Eds.), *Humanizing research: Decolonizing qualitative inquiry with youth and communities*, 223-248. Thousand Oaks, CA: Sage Publications.
Tuck, E. & Yang, K. W. (2018). Series editors' introduction. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.
UCAR. (2014). *Tree rings (dendrochronology)*. University Corporation for Atmospheric Research Center for Science Education. https://scied.ucar.edu/tree-rings
van Boxtel, C. & van Drie, J. (2018). Historical reasoning: Conceptualizations and educational applications. In S. A. Metzger & L. M. Harris (Eds.), *The Wiley international handbook of history teaching and learning*. Hoboken, NJ: John Wiley & Sons.
VanSledright, B. A. (2004). What does it mean to think historically... and how do you teach it?. *Social Education*, *68*(3), 230-234.
Veracini, L. (2011). On settlerness. *Borderlands*, (10)1, 1-17.
Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Black Point, NS: Fernwood Publishing.
Whetung, M. & Wakefield, S. (2018). Colonial conventions: Institutionalized research relationships and decolonizing research ethics. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.
Willinsky, J. (1998). *Learning to divide the world: Education at empire's end.* Minneapolis, MN: University of Minnesota Press.
Wineburg, S. (2001). Historical thinking and other unnatural acts: Charting the future of teaching the past. Philadelphia, PA: Temple University Press.
Wineburg, S. S., & Wilson, S. M. (1988). Models of wisdom in the teaching of history. *The Phi Delta Kappan*, *70*(1), 50-58.
Wolfe, P. (2006). Settler Colonialism and the elimination of the Native. *Journal of Genocide Research*, *8*(4), 387-409.
Yoon, I. H. (2012). The paradoxical nature of whiteness-at-work in the daily life of schools and teacher communities. *Race Ethnicity and Education*, *15*(5), 587-613.

Chapter 2. Indigenous education research partnerships: Challenges and possibilities with researcher identities and training

Introduction

Social studies scholars Shear and Krutka (2018) recently asked the field: "[A]re there methodological ways non-Indigenous scholars can unlearn, disrupt, and relearn qualitative inquiry in the support of [Indigenous] resistance and refusal?" (p. 11). This self-study argues cautiously in the affirmative, drawing on my experiences in a research-practice partnership with Native education leaders supporting tribal curriculum implementation in Washington state. Here I illustrate my experiences and correspondence as a resource for research (Bullough & Pinnegar, 2001), and critique my role in the partnership and research (Feldman et al., 2004). Researchers with multiple dominant identities and training in dominant knowledges, like myself, can never underestimate challenges of such work. As Tuck and Yang (2014) argue, honoring Indigenous refusal in research requires "humanizing the researcher" (p. 238). With the intention of both humanizing and critiquing my work, I show how the guidance of eight local and regional Native education leaders as co-designers and advisors shaped this qualitative study's engagements with Indigenous education sovereignty. This collaborative research design mirrored the participating non-Native teachers' task with tribal sovereignty curriculum. As a non-Indigenous researcher, I relied on Indigenous co-designers and knowledge bearers to apply Indigenous research methodologies in an ethical way. Here, I analyze research correspondence, memos, journals, and other data to identify promising and problematic elements supporting these efforts, and I draw implications for qualitative researchers.

This self-study bridges methods and approaches because of the relationships between my identities, research training, methods, and stances of honoring Indigenous sovereignty and

refusal. As many social studies scholars have argued, self-study research offers the opportunity to clarify relationships between belief and action while transforming traditional research power dynamics (Crowe, 2010; Hawley et al., 2010; Manfra, 2017; Obenchain et al., 2010). However, emphasizing my own experience and words in this self-study risks recentering dominant identities. Worse, it risks promoting their logics. As Yoon's (2012) findings show, "Whiteness processes can be enacted with consequences for students and teachers even with the best of intentions and with varying levels of cultural competence and intellectual understanding of racism and whiteness" (p. 607). Focusing on my own words and actions reflects a commitment to humanizing research that does not put Native advisors/co-designers under the microscope. Instead, I selected data that allow me to recognize and counter logics of whiteness and settler colonialism[13] in my thinking, work, and relationships, looking out for "settler moves to innocence" (Tuck & Yang, 2012). This approach necessitates a dance between making dominant identities and logics visible, while working to center the perspectives and ways of knowing of Native advisors and Indigenous scholarship.

Through examples of how I have imperfectly enacted their teachings in research, here I show how eight Native advisors – and others – shifted this study towards greater answerability to learning, knowledge, and context (Patel, 2015; Styres, 2018).

Framework: Indigenous Research Methodologies and Research-Practice Partnerships

Critical Indigenous research methodologies are not only useful to this study, they represent foundational commitments and ways of knowing to guide its ethical enactments (see,

[13] Settler colonialism historically developed as part of the world system of racial capitalism (Melamed, 2015; Robinson, 1983), which also depended on centering and racializing patriarchal, modernist ontologies and epistemologies (Lowe, 2015). Settler colonialism seeks to make itself natural and undetectable (Veracini, 2011), like Eurocentric thinking. Melamed (2011) explains, "As white supremacist codes and references entered into modernity's cultural and epistemic systems—creating distinct repertoires of interpretation, representation, evaluation, and description—they racialized Western knowledges, making the constitution of modernity as much a knowledge-based racial project as it was an economically and politically based one" (p. 7).

e.g. Brayboy et al., 2012; Drawson, Coombs & Mushquash, 2017; Kovach, 2018; Windchief & San Pedro, 2019). Moreover, as a white and non-Indigenous person, enacting a study in Native education without a responsibility to and lens from Indigenous and decolonizing research methodologies would ultimately reinforce white supremacy and settler colonialism. As Dei (2011) argues, "Every process of knowledge creation, validation, and dissemination is about the embodiment of politics" (p. 2, 6). Indigenous research approaches expect academic and political components to be explicit and serve local Indigenous peoples. In Indigenous research methodologies, a researcher cannot engage meaningfully without continually practicing self-awareness and relational awareness: these clarify the researcher/writer's intentions, background and connection to local lands and Indigenous peoples for the reader/listener (Archibald, 2008; Wilson, 2008). Within the incommensurabilities of decolonial transformation, expressing one's intentions and position is essential for building trust and authentic relationships capable of allyship or solidarity (Tuck & Yang, 2012; Whetung & Wakefield, 2018).

Self-study can be compatible with these goals as "a moral and political activity" that seeks to demonstrate evidence of the value of changing ways of being, as Feldman (2003) argues (p. 28). My non-Indigenous, middle class background and white identities reflect potential liabilities and constraints on which I must constantly and critically self-reflect, and consider throughout research design, implementation, and ongoing relationships. Accounting for my positionality and context in the practice of research relationships and implementation aims to promote my reflection and process as trustworthy – a key element of validity in self-study research (Hamilton et al., 2008; LaBoskey, 2004).

I live on and write from Coast Salish lands named after dxʷdəwʔabš and suqʼʷabš leader siʔaɬ (Bates et al., 1994; Duwamish Tribe, 2018; Suquamish Tribe, 2015). My parents moved

here from Eastern Washington and Wisconsin to attend the University of Washington, where they met. Our Eastern European, Irish, English, and German ancestors worked as indentured servants and miners in Pennsylvania before migrating west to Illinois and Wisconsin – all on Native lands. My ancestors increasingly benefitted from structures and privileges of whiteness as they embraced assimilation (see Brodkin, 1998; Jacobson, 1999; Lipsitz, 2006). In the process – and through centuries of intergenerational disconnection – we lost family histories tied to ethnicity, language, culture, and ancestral lands.

Like many U.S. Americans and Canadians (Dion, 2007; First Nations Development, 2018), I long perceived Native people, communities, and concerns as distant from my own. Born, raised, and schooled in the majority white, northern half of this highly segregated city, I had little awareness of contemporary Native people. As Thrush (2017) argues, this city taught me to see Native peoples through a lens of instructive haunting rather than an ongoing, living presence. My P-20 education and teacher education followed typical patterns: an absence of space for Native people to speak for themselves - in person, text, or film (McCoy, 2018; Sabzalian, 2019). Except for one anthropology course, I learned about Native peoples through material culture and texts written by non-Natives. Themes of racial or cultural inclusion and exotic "appreciation" framed these understandings. As an outdoor and environmental educator, I experienced many instances of cultural appropriation: misuses of Indigenous cultural practices and ways of knowing.

The willingness to claim that non-Indigenous researchers like myself can support Indigenous education sovereignty relies on transformative learning experiences with Native educators, including this study's advisors. Having lived the gift of Indigenous pedagogies in contexts that routinely disavow their merits (Battiste, 1998; Jacob et al., 2018; Kincheloe &

Steinberg, 2008), I feel a responsibility to articulate and share those gifts through my work and relationships. Although I first learned with Native educators as a practicing teacher and volunteer for a local environmental justice organization, only in graduate school did I develop more ongoing and personal relationships and felt knowledge of Indigenous ways of knowing (Million, 2009). Learning through Indigenous ways of knowing with Native elders, educators, and critical Indigenous scholars has helped me first identify and then challenge settler logics (Calderón, 2014) around and within me. Because I continue to experience fundamental shifts in my thinking, teaching, and relationships as a result of Indigenous-led education, I have some confidence that other researchers' practices and ethical engagements can also shift. To be clear, I am not suggesting that such learning comes easily, nor that with good intentions I can enact such goals unproblematically – rather, that ethical engagement is *possible*. I understand both writing and teaching as public responsibilities: what Cherokee scholar Adrienne Keene (2018) calls "consenting to learn in public" (para 5). This self-study reflects a commitment to that ongoing journey.

While this research-practice partnership and study design straddle research models and ideals, I share these for others' consideration of partnerships as joint boundary work, as Penuel and colleagues (2015) argue. Designing this project entailed negotiations across boundaries of identities, training, and ways of knowing for the researcher, partners (Native advisors), and participants (non-Native teachers). Three research models particularly influenced my approach: transformative participatory design research (Bang & Vossoughi, 2016, McWilliams, 2016); decolonizing community-based participatory research (Stanton, 2014); and principles for evaluating Indigenous education partnerships (Kennedy & Lees, 2014; see also Henrick et al., 2017 for evaluation criteria not specific to Indigenous communities). I personally commit/ed to

centering local Indigenous goals to challenging racism, settler colonialism, and hierarchical knowledge-power relations in my research practices. As Bang and Vossoughi (2016) argue, transformative collaborative research must pay attention to how social positioning and power are vested in the debates, tensions, and stance-takings within the given context, and how the researcher becomes implicated in them. I offer examples of how relationships in and outside of the Native advisory group taught me about these debates and tensions, and how my own stances and work evolved.

Context, Positionality, and Knowledge with Research Relationships

Well into my career as a social studies and language arts teacher, the first cracks appeared in my normative colonial perspective, thanks to Native educators. Near the Duwamish River, I attended a teacher training on *Since Time Immemorial*, a K-12 tribal sovereignty curriculum approved by all the state's 29 federally recognized tribes and recommended by the state legislature since 2009. I had only recently learned of the curriculum's existence. Through the training, I began to consider my ancestors' – but not yet my own - complicity in colonial erasures of Native peoples, and what responsibilities I might have today. At the time, I taught world history, a subject for which no *STI* curriculum was available. I incorporated some *STI* materials, but struggled to access accurate information on global Indigenous people, and to understand sovereignty more deeply. Although I had been engaged in anti-racism learning and organizing for at least five years, I was only beginning to see connections between my white middle class woman identities and teaching as a form of "civilizing" or "missionary" work with racially minoritized students (Leonardo & Boas, 2013; Picower, 2009). Then in 2015, after decades of Indigenous organizing, all Washington schools were required to recognize tribal sovereignty by implementing the online *Since Time Immemorial* curriculum, or by consulting with local

tribes/nations to create a more regionally specific version[14]. My school district did not notify teachers about this mandate or expectations, and my implementation remained limited.

Fortunately, my learning and relationships with Native educators were only beginning. Through a 2017 graduate course on Indigenous pedagogies led by two Indigenous scholars, I began to attend critically to my own involvement in settler colonialism and what it meant for teaching, working, and living in relation with Indigenous lands and peoples. I wrestled with the role of education and assimilation for my family and ancestors, tied to their upward social mobility. This was the institutional world I had been trained to value most: one that my own, my parents,' and grandparents' labor directly supported. Now I better understood my complicity in the erosion of Indigenous identities and knowledges through schooling (Deloria, 1995; Grande, 1995). I stayed in touch with the instructors and over time asked their advice on meaningful research projects to support Indigenous sovereignty efforts, looking toward my dissertation. In 2018, Washington became the first state in the U.S. to require complementary teacher education coursework for tribal sovereignty curriculum. One instructor suggested studying how new teachers from our programs were implementing *STI* following their tribal sovereignty coursework. Given the myriad challenges of implementing a curriculum mandate without funding, accountability or widespread training, the Office of Native Education (ONE) and many other Native educators and tribal communities were eager to understand how the curriculum was being used (or not) across the state.

[14] When reviewing or adopting new social studies curriculum, districts must consult with the nearest federally recognized tribes to develop materials and programs reflecting tribal history, culture and government. However, this consultation process remains the most vexed aspect of *STI* implementation (Rawlings, 2018). Moreover, those most influencing what reaches students are the state's predominantly White, non-Indigenous teachers and administrators – who determine the depth of content engagement, rather than tribal nations: "teachers can choose to spend as little as one hour or as much as six weeks of class time… on the tribal perspectives of an historical issue, era, or event" (OSPI, n.d.).

Another Native educator on campus, who I call Mentor here, became a crucial advisor around this time. I heard she was a former social studies teacher, and she graciously agreed by email to meet about a pilot study. While I hoped to leave her office with teacher contact suggestions – evidence of my transactional design thinking at the time – I left deeply challenged and invigorated. Mentor generously shared stories of her family and educational journey. She encouraged me to consider how my ancestors could positively support my path in research, teaching, and as a new parent. We continued talking and I attended her professional development series supporting the new teacher education mandate.

When Mentor later suggested I learn Southern Lushootseed language, I hesitated. Not wanting to be seen as a cultural tourist, a New Age white person seeking to appropriate spiritual meaning or cultural identification, I had mentally crossed that possibility out. Here, I fell into the trap of "cultural disqualification" (Scott & Gani, 2018), believing that my whiteness and non-Indigenous identity should prevent me from engaging deeply in such learning. Yet when she handed me a language table flyer a week later, I realized her gentle reminder should make me reconsider. In my first class, instructor Tami Hohn (Puyallup) explained, "It takes everyone who wants to learning our language to keep it living… Healing [from historical trauma] comes through the language" (personal communication, October 16, 2018).

Language, as Tami explained and Mentor showed, is an essential tool for resurgence, sovereignty and healing. When non-Indigenous people are invited into this learning, the relationship of language with epistemology can offer powerful roles and responsibilities shaping our work. Enacting Indigenous research methodologies, many scholars argue, requires an understanding of local Indigenous ways of knowing and being relevant to the inquiry (Brayboy et al, 2012; Drawson, Coombs & Mushquash, 2017).

Mentor helped me develop epistemological understandings that continued to humanize my research efforts, in parallel with Lushootseed learning. We met in August 2018 to discuss goals for the dissertation study I hoped to begin the next year. "Where is your heart?" she asked me. "How does it feel?" Her questions centered an ethical and emotional engagement, decentering the primacy of mind-based knowing. This understanding of knowledge as intimately connected with ethics and emotions parallels the concept of *x̌eč*[15] in Southern Lushootseed. Sometimes mistranslated as knowledge, *x̌eč* references a process of learning and becoming that synthesizes two ways of knowing: thinking and feeling (Tami Hohn, personal communication, October 18, 2018). *x̌eč* means sense-making of intellect and feelings together (Zahir & Hilbert, 2000). Similarly, many Native scholars identify deep learning as embodied and felt (see Archibald, 2008; Million, 2007; Shirley, 2017). Considering *x̌eč* in knowledge construction and research practice requires a different focus than the "circular criticality" that can otherwise overtake transformative education dialogue (Andreotti, 2016). For my thinking, actions, and writing to model right relations with my research participants and right conditions for this project, then, relied on my (imperfect) enactments of *x̌eč*. This focus, Mentor taught me, was crucial for employing a critical Indigenous research methodology, rather than a simply critical one.

Methods and Stances

While this self-study focuses on methods of research planning and implementation, I contend that particular methodological decisions may be less important than the stances and relationships that shape them. Without political commitments and accountable relationships, the most well-intended advisory groups and practitioner partnerships can serve figurehead functions.

[15] pronounced *chutch*, with the guttural ch as in "challah", rhyming with "Dutch"

As Philip, Bang, and Jackson (2018) insist, educational research methods – the *how* – are inseparable from "the *for what*, the *for whom*, and the *with whom* of teaching and learning" (p. 85, original emphasis). All scholars invested in the social impacts of research must consider the political contexts and power relations of our work. Such concerns are particularly strong with over-researched Indigenous communities, given ongoing experiences as the objects of damage-centered and deficit-based research (Lomawaima, 2000; Smith, 2004; Tuck, 2009).

The emergent research methods here reflect connections between methodology, epistemology, and ontology (see Hesse-Biber & Leavy, 2010) complicated by my position relative to this study's goals, partners, and context. Three research models particularly influenced my approach: transformative participatory design research (Bang & Vossoughi, 2016; McWilliams, 2016); decolonizing community-based participatory research (Stanton, 2014); and principles for evaluating Indigenous education partnerships (Kennedy & Lees, 2014; see also Henrick et al., 2017 for equity-oriented evaluation criteria). However, this project did not fully realize components of any of these models. While an iterative design – a critical attribute for design research (e.g. Rubin et al., 2019) - had been planned with the teachers' circles, this did not materialize, as I explain below. This limitation, and the evolving structure of the advisory group, as well as my positionality, limited the enactment of "alternative forms of here-and-now activity that open up qualitatively distinct social relations, forms of learning and knowledge development" as Bang and Vossoughi (2016) describe (p. 175) in teachers' circles or advisory group meetings. Decolonizing participatory research or action research also represented difficulties because the Native education advisors were not the participating practitioners (teachers), and the researcher was involved only once in direct practice (teacher education), unlike Stanton's (2014) ongoing example.

The decision to apply a self-study here allows for a focus on my learning and on the research partnership process, particularly the "living contradictions" and "sites of discernment" (Pinnegar & Hamilton, 2009). As Zeichner (2007) insists, I apply self-study with the goal of improving my own practice and contributing to theoretical understanding. Here, I explore how the political and ontological stances of reciprocity, resistance and refusal, and gifting informed my researcher choices throughout this study, and offer examples of my practices with each. These emergent methods, and the stance on humanizing research I adopt, require an emphasis on description[16]. Like portraiture methods, I seek to offer rich anecdotes as a tapestry to create a pattern (Lawrence-Lightfoot & Davis, 1997), but recognize their brevity as necessary for offering greater breadth of scope.

Reciprocity

Reciprocity has deep meanings across many Indigenous knowledges, cultural traditions, and research methods. Plant relatives like sweetgrass, Kimmerer (2013) beautifully explains, teach us how to enact respect by receiving, using, and reciprocating their gifts. By the time we met, I knew that reciprocating gifts from my advisors' teachings was important. My reading and learning with Indigenous educators had already taught me to see these efforts, and time invested in relationships, as gifts (e.g. Battiste, 2008; Jacobs et al, 2018), which my experiences affirmed. Elder pedagogies (González & Holmes, 2018) taught me to prioritize in-person meetings, practicing calm presence and feeling time as abundant. Reciprocity means the process and relationships matter arguably more than the research outcomes (see, e.g. Wilson, 2008; Kovach et al., 2018). As one advisor suggested, sharing the outcomes and knowledge should not drive the research process (personal communication, January 12, 2019). Following advisors' lead and

[16] In later drafts, I would like the description to be more brief overall and balanced by analysis.

listening for implicit messages and lessons was crucial for seeking good relationships, without demand or pressure. Especially when asking for help, I hosted meals in places most convenient for others. Engaging in ethical relations with/in place, or "in a good way," as my mentors have taught me, is required throughout.

Throughout my research process, McGregor and Marker's (2018) four dimensions of "reciprocity as stance" proved useful in clarifying reciprocity as an ongoing, active journey, rather than a finite exercise in methods-planning:

> This stance is comprised of four dimensions, all of which must be interpreted and adapted to fit local conditions. They include: 1) recognizing relationships that make research possible at a particular time and place through offering gifts that have meaning or purpose; 2) participating in local ways of teaching, circulating, or sharing knowledge, and preparing oneself accordingly; 3) enacting response-ability toward others through continuous practices of openness, recognition and negotiation without closure; and 4) pursuing a stance of reciprocity even while maintaining an awareness of its tenuousness—that a gift will be interpreted as a threat, that a gift will not be accepted, or that a gift will not be enough. Perhaps we might think of reciprocity as a journey, and not a fixed point on a map (p. 325).

I sought to practice gratitude through reciprocity on multiple levels, as Potawatomi scholar Kimmerer (2013) describes: "keeping the gift in motion through self-perpetuating cycles of giving and receiving" (p. 165). Although most funders do not understand the necessity of such resources, Indigenous research methodologies speak to the importance of gifting to establish and maintain reciprocal relationships (McGregor & Marker, 2018; Kovach et al., 2018). At early meetings, I brought homemade gifts from my garden reflecting the place or season. I was lucky

(particularly as a graduate student) that the new Center for American Indian and Indigenous Studies on campus offered a small research grant, and that I received a larger grant later. The first provided restaurant meals at tribal casinos and gifting for the advisors. The second enabled stipends for both advisors and participating teachers. For classroom visits and interviews, I also brought homemade baked goods to express gratitude to teachers and students.

Gifting, Being of Use, and Whiteness

For research guided by a stance of reciprocity, critical and dominant qualitative methodologies offer limited grounding[17]. Considering the linkages between European empire, colonialism, and research (Smith, 2010; Tuck and Yang, 2012; 2018), answerable research must respond to Souto-Manning's (2014) question: "Critical for whom?" (p. 201). This study aimed to produce knowledge of direct use (see also Piercy, 1982) for local Native communities in their work with tribal curriculum.

Enacting reciprocity and being of (direct) use with local Indigenous communities continues to challenge me, including literally with gifting. Ancestral disconnection and fears of inauthenticity (or appropriation) complicate my ability to identify personally and culturally meaningful gifts. A Native professor outside the advisory encouraged me to consider gifts that reveal who I am and why the gift is meaningful for me. His specific examples all reflected cultural connections with a clarity I envied. While whiteness had trained me in particular cultural ways of being (Leonardo, 2009), its emphasis on individualism and erasure of European ethnic differences compounded my own familial disconnections. I considered baking a traditional walnut bread from my Balkan heritage, then questioned whether my ancestors actually made it,

[17] Often, such approaches in educational research place Indigenous peoples as peripheral to the investigation, even when the topic focuses on Indigenous peoples (Grande, 2015); deny that such work is tied to Indigenous sovereignty[17], resurgence or continuance; or promote colonial logics and philosophies, further marginalizing Indigenous knowledges (Dei, 2011).

or whether it could be enough. Learning primarily through travel, restaurants, and cultural fairs rather than ongoing cultural and familial participation has limits. A friend reminded me that the act of making can itself be meaningful. In the end, I chose to support local Native vendors by bringing hand-made jewelry and candles (see 8th Generation, 2020) to the first advisory meeting in June 2019. Unfortunately, I did not think that the bracelet picked for the only male advisor would be more appropriate for his wife.

Resistance and Refusal

Thinking through and honoring others' refusals offers an important means of demonstrating reciprocity and respect for Indigenous sovereignty. Inspired by Audra Simpson's (2014) ethnographic work, Tuck and Yang (2014) describe this concept as theoretically and methodologically generative in research:

> Refusal is not just a 'no,' but a redirection to ideas otherwise unacknowledged or unquestioned. Unlike a settler colonial configuration of knowledge that is petulantly exasperated and resentful of limits, a methodology of refusal regards limits on knowledge as productive, as indeed a good thing (p. 239).

Refusal might be an invitation to question the nature of the question and the "need" to know. Tuck and Yang (2014) suggest that to be meaningful, the refusal should make clear "the metanarrative of [Eurocentric] knowledge production" (p. 241) as damage-centered and controlling. Refusal should also expand representational territories that normative colonial knowledge seeks to enclose. Otherwise it may miss the opportunity to demand the "theories of change, forms of praxis, and axiological commitments" (p. 175) necessary for heterogeneity in learning, as Bang and Vossoughi (2016) demonstrate.

Importantly, such refusal echoes the conceptions of knowledge-sharing in many Native pedagogies: promoting learners to deeper levels of understanding based on an individual's present and future roles, strengths and specializations, moral and spiritual maturity, and development (Cajete, 1994; Rogoff et al., 2014; Smith, Tuck & Yang, 2018). Coast Salish ways of knowing often recognize that knowledge access, too, is situated: it cannot and should not be available to anyone at any given moment. Rather, access to knowledge entails a relationship of responsibility and reciprocity, where learners engage spiritually and/or metaphysically to enact those relations with the land and others (see also Battiste, 2008).

Refusal and a commitment to work towards relational learning with *x̌eč* – rather than solely analytic criticality – also shaped my approach to data and writing. Considering when accounts of the advisory group and my learning may deepen already problematic representation rather than promote Native sovereignty shaped what made its way into my drafts. I did not record or individualize advisor contributions because I did not want to position them as objects of analysis. My notes focused on their teachings. Preserving anonymity for participants and the advisors meant sacrificing specificity with tribal/community and regional identities: a necessary refusal. Finally, I aimed to continually question myself, as a Native faculty advised me, "Do I have the right intentions?" Different from my default critical lens, these commitments reminded me to center relationality and usefulness when selecting the learning to share.

Learning through Project Design, Relationships, and Sovereignty

In this section, I explore the groundwork and relationships that enabled this research-practice partnership. Triangulating between my researcher journal, memos, and research correspondence revealed these lessons as crucial for approaching research in ways consistent with reciprocity and being of direct use to local Indigenous peoples, knowledges, and lands.

Learning to engage with Native education leaders while forming this advisory group enabled me to learn not only *about* local Indigenous sovereignty, but through local Indigenous protocols *of* sovereignty.

"Look at Everything You Do as a Gift": Formation of the Native Educator Advisory

Mentor's guidance was crucial in guiding and planning my relationship building with local and state level Native education leaders. On our drive to meet with the ONE Program Supervisor, Mentor advised me: "Look at everything you do in this study as a gift. A gift for the ONE, a gift for the [participating] teachers, a gift for all working with Native communities." In our meeting, the ONE Program Supervisor shared her experiences and data from leading *STI* trainings across the state. She suggested an advisory group to guide the study, including Mentor, and encouraged consideration of a teachers' circle model (Lynn, n.d.) to support teacher learning. While they spoke, I tried to balance furious note-taking to capture their words and meanings, while showing my thoughtful attention and presence. Each named two other Native educators and leaders at the regional and state level to invite. Later, Mentor read and revised email invitations I crafted for these leaders and two other regional Native educator organizations. She offered suggestions on how to fundraise for honoraria and food through grants and tribal casino funds. In March of 2019, I met with State Senator John McCoy (Tulalip), the bill sponsor of SB 5433, to ask his support and advisor recommendations. With his support and Mentor's, by May 2019, the advisory/co-design group had six members, including from each of the three federally recognized local tribes. More peripherally, my participation in a regional tribal curriculum working group that Mentor had invited me to, and other friendships, eased the way.

I knew that representation from all tribes – federally recognized or not – with ancestral ties to the intended study sites would be ideal. With the complex histories, politics, and

relationships of regional sovereignty, advisors' recommendations would be essential. As the advisory group grew, I asked Mentor and a Duwamish elder educator I knew from Lushootseed language class about whether to seek Duwamish representation. They agreed it was complex but potentially worthwhile. As Mentor suggested, I brought my three year old with me to the Duwamish Longhouse to begin relationship-building and gauge their interest. The staff expressed interest and recommended I contact the tribal chairperson. Mentor also suggested I check with the advisor from the regional successor tribe to see how she felt about adding Duwamish representation. The advisor shared that might spark confusion, as her tribe was the treaty tribe and thus should represent the Duwamish.

Scrambling to learn more about this particular sovereignty conflict, I sought advice from a Native professor and the students in our settler colonialism graduate course. I also reached out to the campus tribal liaison. When assigned to lead a class session on recognition, I offered my dilemma as an anonymous case study, and shared documents from both tribes. Many students changed their opinion through our discussion and analysis, and some expressed skepticism of the merits of the advisory model. Without time to hear more of their concerns or share more context about the advisory model, I wrongly took away a consensus on the importance of pursuing Duwamish representation. Wanting to reply quickly to the advisor, I drafted an email that included this justification:

> Ultimately, the students and professor recommended finding a way to bring the Duwamish to the table for this project: even several folks [Native students] from WA and other federally recognized tribes, who initially were very skeptical about Duwamish claims. This surprised me, but they saw this as the most ethical way to honor the sovereignty of all tribes - and noted that Duwamish would still represent the

> minority in this advisory group. I'm still seeking advice from others on this, and how to form and work with this advisory group in a good way, and haven't made any decision. What's really important to me is that I honor [your tribal] sovereignty (and that of the other nations represented in the group) throughout this project and that you feel comfortable with whatever shape this group takes.

I shared the draft with Mentor and the professor, and will be forever grateful for her response. The professor clarified that the class neither pushed me to make the decision, nor had the background or right to advise me. She reminded me that the discussion was much more nuanced and that several students had expressed the need to focus on maintaining existing relationships. Importantly, this email could have had huge unintended consequences for the professor and the university, which I had not considered. The professor also suggested reaching out to two Native educators in my College, and clarified that the tribal liaison was spread too thin with university obligations to support such questions.

Even though I immediately recognized she was right, it took longer to understand that a sense of urgency had shaped these missteps. I apologized to the professor and thanked her for the time to correct me and help me learn, then offered my plan to avoid it in the future:

> I am so grateful that I didn't send this email and that you responded. Instead of more carefully attending to the nuances of what folks including you said, or checking my takeaways before I left, I took away a misinterpretation (that danger of simplifying that you describe). I should have been more thoughtful about not presenting this class discussion as justification for my actions, and attending to the potential consequences of doing so for others. Rushing was definitely part of my trouble here: rushing to make a decision and move forward with this advisory group, rushing to hear from all groups in

class, and rushing to pick up my kid right afterwards. Going forward, I will be more attentive to those factors making me rush and over-simplify: taking some notes about what each person shares, rather than relying on my very imperfect memory, and looping back to check my interpretations in a timely way. I will be careful to own my choices/thinking and not bestow authority falsely on others, especially with sovereignty and recognition issues.

After looping back with Mentor, we agreed that it would make sense to prioritize trusting relationships with those already on the advisory board. I let the advisor know that I would not pursue Duwamish representation. Duwamish staff were also very busy at this time and did not respond. I offered to serve as a volunteer for their education programs because they mentioned that would be useful in the future.

I share this example of the challenges of managing space for relationships with sovereignty conflicts also because two project advisors encouraged me to do so. As they explained, understanding the complexities of tribal sovereignty locally is important, and may open up opportunities for future learning or research (see also Lomawaima, 2000). This anecdote also illustrates the investment of many Native educators who helped me learn and avoid high-consequence mistakes. While the university had multiple Native faculty ostensibly in positions for consultation (like the tribal liaison), their responsibilities and roles on campus continue to far outweigh their representation (see also Ahenakew, 2013). Even with Native faculty I knew, expecting them to make time to discuss my questions or meet was often presumptuous. The more carefully I researched and considered my questions, and the more Native educators I could reach out to, the less I could add to this burden.

Learning through Planning, Implementation, and Reciprocity

With the Native educator advisory group established, the research design and goals began to shift towards greater responsiveness and utility to local Indigenous sovereignty. The steps and methods below illustrate how my trust in advisor relationships reinforced my understanding of sovereignty as I worked to honor its protocols prior to and during research. I selected these lessons – again triangulating between my researcher journal, memos, and research correspondence – as those most crucial for enacting research in ways consistent with reciprocity to local Indigenous peoples, knowledges, and lands.

Participant and Site Selection

Although orienting the study to be of use for local Native communities had always been a central commitment, enacting it required major design changes. Mentor, the ONE Program Supervisor, and I had originally planned to focus on new social studies teachers in the Seattle area who had been trained in *STI* within our campus program. Having worked with all of these teachers directly, I felt well-prepared to continue our relationships in this project. However, at our first group meeting in June 2019, several advisors/co-designers clarified that practicing teachers already working in their partner schools would represent far more useful participants. I then worked with each of the three federally recognized tribes represented to ask for nominations of non-Native teachers doing *STI*/tribal curriculum implementation. One advisor delegated nominations to a partner principal, then when unsuccessful, reached out to his regional school district contacts. Another advisor team sent me teacher names and contact information directly, then asked a district partner to weigh in. Two other advisors invited me to their summer staff training, suggesting I meet the teachers and decide myself. Fortunately, four teachers were presenting their *STI* work as part of the agenda. From the reactions of Native elders and educators – including the advisors – in the room, the support for and interest in their work was

clear. Three agreed to participate, and other Native elders across the school affirmed that choice through our informal conversations over time.

This nomination process, and district and tribal research permissions, took significant time, which tested my commitments. While I sought to give up singular researcher control consistent with normative colonizing research, a sense of urgency still fueled fears. I needed to finish the study in winter to graduate as planned in spring. One tribe had never granted permission for a research study before and was rightfully skeptical of an outsider researcher. (Meanwhile, Mentor worked behind the scenes to suggest a nearby backup.) Gaining approval took significant political and relational support from another advisor, as well as a shift in design to exclude student interviews from data collection there. While I had planned to begin in September, teacher interviews and observations did not begin until the end of October. Trust in these advisor relationships, and checking with them when necessary, reinforced for me an understanding of sovereignty through practicing its protocols.

Advisor Roles and Researcher Reciprocity

The second advisory/co-design meeting in August showed the challenges of implementing this advisory model and the need to adapt my expectations and approach. Being spread across a large region and having many responsibilities did not support advisors' regular participation, not to mention their voluntary role. At Mentor's suggestion, we began by alternating meetings across tribal locations. Before each meeting, I sent tentative agendas and links to pick mutually agreeable times. I started each meeting sharing the proposed plan but first asking for their questions or concerns. Afterwards, I shared notes, materials, and next steps for all. Four advisors attended the first meeting, only two were able to join the second. Mentor and another advisor with research experience suggested I seek out ways to adapt: creating a virtual

meeting option, meeting with several smaller groups, having follow-up phone calls, etc. Following advisors' generosity with time helped: extending later Zoom meetings to multiple sessions for their convenience, then extending a two hour meeting to four hours. Advisors identified other staff who could join when they were unavailable. The advisory grew from six to eight people.

Advisors' willingness to stay involved throughout a nearly year-long research process, and their ongoing interest, likely owed much to the flexible approach they helped create. Unspecified individual roles offered benefits and drawbacks. The approach enabled teams from each tribe to share the load of supporting project decisions. Although no meeting featured all advisors together, each of them informed the design, implementation choices, and/or analysis in key ways. Each time design decisions arose without sufficient notice for an in-person meeting, I shared my ideas concisely through email, as drafts or tentative ideas: asking for feedback with a week or more notice. If was doing something not in a good way, I trusted – as experience had taught me thus far – that I would hear back. Of course, dangers to this approach abound. When my intuition or emotions (*x̌eč*?) left me uncertain, I reached out to Mentor or others.

In recognition of the advisors' gifts of time and ideas, I tried to offer reciprocity in other ways. If they asked me to do something directly or suggested it more indirectly, I prioritized it. When an advisor asked for help collecting teacher feedback surveys or revising a follow-up report on *STI* training, I quickly replied. Through advisors' email updates on legislation and policy, my knowledge of regional Native education and sovereignty deepened. Their book recommendations on intergenerational trauma and articles on tribal sovereignty or motivation became resources I shared with fellow educators and friends. Reflecting on our conversations helped me learn from their implicit teachings. When Mentor introduced "a new family member"

during an online meeting, I referred to her minutes later as a pet. Challenging my own anthropocentric perspectives is a continuing journey.

Accurately identifying the value of my acts of reciprocity also involved more systemic analysis. When one advisor strongly encouraged me to join a tribal leadership event on education before the study began, I was honored but confused. I did not know what I would or should share, but thought the potential harm of attending was minimal. I would listen and learn. Checking with Mentor and another Native faculty member, who were also invited, enabled me to better understand my positionality and risks of attending. I thanked the faculty member for helping me avoid this situation and explained my thinking:

> I was hesitant, given some of the reasons you describe around role and connection, but I also felt a desire to just show up and support since it seemed like that would be appreciated. If there was any simple news to share and you two were unable to attend, I was thinking I could relay that quickly. Now I'm seeing that was pretty naive. Like you say, given the sensitivity and complexity of this group's work and university's place within it, and my lack of connection/leadership within both, I am happy to kindly decline the invitation and listen for other ways I can show support.

While familiar with ways that white educators like me often take up space (e.g. Utt & Tuchlock, 2020), I had not considered the effect my presence alone could have. Even when invited, delivering “simple news” or “showing [silent] support” in this context brought my role, intentions, and place into serious question. This group did not need my support, even if invited. Although taught me to see myself first as an individual (and not necessarily a noteworthy one), here I would be representing the university to Native nations and leaders at the highest level. Without that rightful role or trusting relationships, my presence entailed unneeded risks that

whiteness and humility did not allow me to see. Those in the group and Native faculty I knew would have to do repair work if and when I erred. Luckily, the advisor who invited me understood this perspective and saw my decision to not attend as "correct."

Efforts to prepare for, participate in, and continually learn through and about local Native knowledge practices and pedagogies helped strengthen my attention to reciprocity and Native perspectives across settings (see McGregor & Marker, 2018). I share these examples because this learning also minimized burdens on the advisors, who taught me so much. Like the teachers I worked with, public resources deepened my knowledge of and work to support local Native knowledges and sovereignty. Practicing Lushootseed with a phone app and with my child helped prepare me for using it spontaneously with one teacher and her students, in interviews and lessons. This helped change how my child and I engage outside: together, we are coming to know plants and animals as relatives. Participating in local events for the tribes involved and the Duwamish (when public or invited) helped me purchase gifts, learn about local resurgence efforts, build relationships, and gain wider regional understanding. Visiting museums and reading newspapers run/partnered with those tribes before the teachers' circle or advisory meetings helped deepen my knowledge of historical and current colonial policies and structures impacting the communities, particularly in schools. Incorporating Native women's scholarship and place-based learning with Native lands in my courses helped me experience the challenge of moving beyond integration approaches toward anticolonial literacy (Sabzalian, 2019) and decolonizing pedagogy (Tuck & Yang, 2012).

Data Analysis

Data analysis proved a particularly complex aspect of Indigenous research methodologies given that coding has colonial implications (see Shear and Krutka, 2018; Stanton, 2014). Yet

with the under-theorization of qualitative methodologies in the social studies, and the positivist (or solely disciplinary) expectation of "scientific objectivity" of qualitative inquiry they often describe, alternatives can be evasive.

After each advisory group meeting, interview, observation, or teachers' circle, I planned to write analytic memos (Emerson, Fretz and Shaw, 2011) on the data and the ways that place, Indigenous presence, and my own positionality surfaced. These would help me identifying in physical and personally-felt terms the place, land, Indigenous peoples represented, and my own interactions within the power relations observed, grounding me in practices of *ǰeč*. Recording my own challenges and questions about how to be in good relationship with Indigenous peoples and lands throughout this project, I figured, would be essential for offering insights for non-Indigenous researchers working with Indigenous research methodologies.

With the long drives and concentrated nature of the data collection (up to two interviews and two observations per day), I shifted to audio memoing, which had unexpected benefits. On each drive to and from participating schools, I listened to podcasts recommended by Indigenous educator friends and created by local, national, and international Indigenous educators (e.g. Ross et al., 2019; Tuck, 2018; Wilbur & Keene, 2019). While I first appreciated the topics and teachings on Indigenous education, colonialism, and social justice, I slowly came to understand their wider influence on my data analysis. I entered classrooms with their insights and concerns fresh in my head. Driving home, I would voice memo about the interview or observation and research questions. Frequently I would stop and then start again after a podcast host or guest made a point that reminded me of an important detail or idea. Their voices became my road advisors, and with this routine, my thinking and research practice had to regularly consider their perspectives.

At the end of data collection, I shared early findings of visual and text examples with advisors and we discussed patterns and concerns to shape the analysis. After an open coding process and many thematic memos, I met with the advisors again. I was fortunate that an example from the data (tree rings) resonated with local Native ways of knowing, and that advisors also found it compelling for representing the analysis and findings. I drafted a sketch representing these themes, which Mentor made into a beautiful diagram (see Author, in preparation). Our conversations about its components and details also helped me center the purpose of honoring Native peoples, knowledges, and lands in the writing.

Teachers' Circles:

The model of teachers' circles in this study intended to support teachers' reflection in ways consistent with local Indigenous knowledges. My practice facilitating these circles also supported mine. Originally suggested by the ONE Program Supervisor, teachers' circles are a method of collaborative teacher development and inquiry based on a Yakama Nation model[18] (Lynn, n.d.). Their focus on personal and social transformation is similar to sharing circles developed by Tachine, Yellow Bird and Cabrera (2016) for Native college students (see also Fickel, 2005), and the Freirean culture circles for teachers facilitated by Souto-Manning (2010). This design supported insight-building and structural critiques. The circles would center teachers' successes, dilemmas and challenges as non-Native educators implementing Washington's *Since Time Immemorial* tribal sovereignty curriculum. As Patel (2015) argues, this

[18] The Yakama Nation called together Native and non-Native teachers from reservation schools and local districts implementing *STI* and serving Native students in Yakima Valley, many who moved between districts. Dr. Winona Wynn (Assiniboine/Sioux) of Heritage University led the process, which aimed to help teachers share strategies and a vision for successful and culturally relevant implementation, including how to navigate historical trauma and students' and community health.

approach focused on research as stewardship through fostering "productive and generative spaces that allow for finding knowledge" (p. 79).

While the teachers' circles developed did not offer a full expression of Indigenous research methodologies, they did offer important possibilities for this study. Originally envisioned as a series of four monthly events with Native advisor co-facilitators to teach and center Indigenous knowledges, this shifted with the project's late start and limited advisor availability. One teachers' circle concluded the study, with me as sole facilitator. Without being present, the advisors strongly shaped the event's structure, content, and tone.

Each district's version was slightly different. Both lasted two to three hours, with a meal I hosted at a tribal casino restaurant. I opened by sharing teachings from the advisors, then followed their advice: first asking teachers to share their strengths in *STI* work. Then teachers offered a dilemma from their *STI* practice, which we discussed together. Finally, each identified next steps and goals. The first group's teachers did not already know each other. When I asked the advisor about how to support them – particularly the teacher of color – she suggested inviting a district curriculum specialist they both knew. We met beforehand to clarify goals and when she joined the circle, clarified her role as being "here to listen and support." As preparation, I asked teachers to read Sabzalian's (2019) chapter *Little anthropologists*, seeking connections to their own social studies teaching dilemmas with *STI*. The second group already knew each other well, and none taught social studies, so I assigned a reading focused on non-Indigenous teacher identity work by Stanton (2019).

Drawing on notes from advisors' insights during our planning meeting, I opened each circle with a variation of these words:

> And the advisors who are working with me on this project wanted me to share some teachings and lessons. And they want you to know you are agents of change. You bring gifts and the healing work that you're doing around personal identity and family history is healing not just for you, but for others. It's important to understand that Native ancestors are literally part of the land, like these tree people. Their DNA are in the trees around us. The dust from their bodies are the soil. Just like the dust from our bodies becomes a part of our new homes here as settlers, as non-Indigenous people. So that our dust, our bodies, and our new homes have a role in honoring Native people.
>
> And it's our legacy, your legacy as educators, to create a legacy for others. They really appreciate your feedback, your concerns, your wisdom, your knowledges. And they want you to know that they are here to work with you so that we're all successful, so that the youth are successful. And we know that you don't have to be an expert in everything to do something well. Identifying your strengths and gifts in this work for *Since Time Immemorial* is important.
>
> So they wanted me to ask you, where have you had experience - maybe rather than expertise - that has helped engage your students? Like, what's something you're proud of, from your *Since Time Immemorial* teaching practice?
>
> (Teachers' circle, February 1, 2020)

Although I failed to memorize these words (as Mentor would have liked), I tried to convey deep respect for the message in ways that held the teachers and I both accountable to it ("our legacy"). Each time I shared these words, I noticed teachers' body language shift towards reflection: sitting back and breathing in. Both teacher groups did spontaneously cite and connect to the readings during the circle, describing them as useful. Teachers also supported my accountability,

asking me to share my own goals and next steps for honoring tribal sovereignty as a teacher educator. Each time, I was grateful that the advisors had shared their teachings and shaped discussion questions with me. Both seemed to motivate this discussion and learning towards trust, openness, and reciprocity.

As facilitator, I aimed to continue developing relationships with the teachers to build a shared discussion that could push all of us. With a one-time event featuring varied existing relationships, this was a goal full of tensions. I aimed to lovingly critique, in Paris and Alim's (2014) terms, our collective thinking – and to center teachers' voices. As a fellow teacher among teachers, I aimed to model personal humility and commitment to praxis, upholding a sense of strong teacher agency within institutional and societal critique, as Irizarry and Brown (2014) describe. I wanted to emphasize experience rather than a hierarchy of knowledge as a source of expertise, based on my learning with advisors. This vision entailed not giving answers but posing questions, sharing worthy stories and examples from my own realizations of the intertwined nature of settler colonialism and racism in my life and teaching. Being someone who often affirms others, I wanted to ensure that such forms of community-building or "support" did not recenter whiteness, settler colonialism, or false narratives of progress (see Patel, 2015; Tuck & Yang, 2018).

Enacting stances of reciprocity and being of use informed the gifts that advisors helped me choose for participating teachers at the close of the teachers' circle. Although two advisors and I looked in two Native-owned or -partnered gift shops close to our meeting sites, nothing stood out as useful. Then two advisors shared that another had been part of a food sovereignty art project. A local bookstore partner sold the posters and cookbook. These engaging materials emphasized Indigenous resurgence (see Corntassel, 2012): Native knowledges as beautiful,

powerful, and deeply necessary for decolonial Native futures. I hoped teachers might use them with students and their own children to learn with Native cultural knowledges across settings, tied to land and seasons. The vivid messages could proclaim new possibilities for knowledge from classroom walls. While drawing predominantly from one tribe, the Native cultural knowledge was accurate across locations. Teachers all expressed excitement and smiled as they started pointing at the pages, planning how they might use them. These attempts to be of use appeared successful.

Conclusion: "How has your heart changed?"

As the formal project wound down, Mentor asked me the most difficult question of my academic career: "How has your heart changed?" (January 9, 2020). Answering this question adequately extends beyond these pages. Yet, as I have come to envision research through a lens of ongoing relationships and responsibilities to honoring Indigenous sovereignty, my heart has opened and slowed. Learning to enact *x̌eč*, as she and others modeled for me, is an ongoing practice crucial for employing a critical Indigenous research methodology on Indigenous lands. Rather than the circular criticality (Andreotti, 2016) to which I can otherwise succumb, attending to *x̌eč* can center Indigenous futures, helping me work towards solidarity without recentering normative colonial knowledges. Leaving the final teachers' circle one month later, I realized through my emotional response how my heart's capacity for knowing had grown. Although data collection is complete, the relationships and learning continue: more gifts from this project. One advisor shared, "You have a genuine heart – lead with that." I strive to do so going forward, not kidding myself that it will/can be enough.

This research-practice partnership aims to illustrate that committed non-Indigenous qualitative researchers can – imperfectly but respectfully – enact methodologies consistent with

Indigenous education sovereignty. Doing so depends on collaborative relationships with Native mentors, friends, and advisors – and ongoing engagement with Native knowledges and lands. These stances and methods of being "answerable" to learning, knowledge and context (Patel, 2015) aim to make the research a useful gift – while reckoning with the impossibility of full reciprocity.

References

Ahenakew, C. R. (2017). Mapping and complicating conversations about Indigenous education. *Diaspora, Indigenous, and Minority Education*, *11*(2), 80-91.

Andreotti, V. (2016). The educational challenges of imagining the world differently. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, *37*(1), 101-112.

Archibald, J. (2008). The power of stories to educate the heart. In *Indigenous storywork: Educating the heart, mind, body, and spirit*, pp. 83-100. Vancouver: University of British Columbia Press.

Archibald, J. (April, 2015). Indigenous teacher education: Struggle and triumph for justice and more. A paper presented at the annual meeting of the American Educational Research Association, Chicago.

Archibald, J. (April, 2015). Indigenous teacher education: Struggle and triumph for justice and more. A paper presented at the annual meeting of the American Educational Research Association, Chicago.

Bang, M., & Vossoughi, S. (2016). Participatory design research and educational justice: Studying learning and relations within social change making. *Cognition and Instruction*. 34(3), 173-193. doi:10.1080/07370008.2016.1181879

Bang, M., Curley, L., Kessel, A., Marin, A., & Suzokovich, E. (2014). Muskrat theories, tobacco in the streets, and living Chicago as Indigenous lands. *Environmental Education Research*.

Barajas-López, F., & Bang, M. (2018). Indigenous Making and Sharing: Claywork in an Indigenous STEAM Program. *Equity & Excellence in Education*, *51*(1), 7-20.

Bates, D., Hess, T., & Hilbert, V. (1994). *Lushootseed dictionary*. University of Washington Press.

Battiste, M. (2008). Research ethics for protecting Indigenous knowledge and heritage: Institutional and researcher responsibilities. In N. K. Denzin, Y.S. Lincoln, & L. T. Smith (Eds.), *Handbook of critical and Indigenous methodologies*. Thousand Oaks, CA: Sage.

Battiste, M. (1998). Enabling the autumn seed: Toward a decolonized approach to Aboriginal knowledge, language, and education. *Canadian Journal of Native Education*, *22*(1), 16.

Behar, R. (1997). *The vulnerable observer: Anthropology that breaks your heart*. Boston, MA: Beacon Press.

Brayboy, B. M. J., Gough, H. R., Leonard, B., Roehl, I. I., Roy, F., & Solyom, J. A. (2012). Reclaiming scholarship: Critical indigenous research methodologies. In S. D. Lapan, M. T. Quartaroli, & F. J. Riemer (Eds.), *Qualitative research: An introduction to methods and designs* (pp. 423-450). San Francisco, CA, US: Jossey-Bass.

Brodkin, K. (1998). *How Jews became white folks and what that says about race in America*. Rutgers University Press.

Bullough Jr, R. V., & Pinnegar, S. (2001). Guidelines for quality in autobiographical forms of self-study research. *Educational researcher*, *30*(3), 13-21.

Cajete, G. (1994). *Look to the mountain: An ecology of indigenous education*. Durango, CO: Kivaki Press.

Calderón, D. (2014). Uncovering settler grammars in curriculum. *Educational Studies, 50*(4), 313-338.

Crowe, A. R. (Ed.). (2010). *Advancing social studies education through self-study methodology: The power, promise, and use of self-study in social studies education* (Vol. 10). Springer Science & Business Media.

Corntassel, J. (2012). Re-envisioning resurgence: Indigenous pathways to decolonization and sustainable self-determination. *Decolonization: indigeneity, education & society*, *1*(1).

Dei, G. J. S. (2011). Introduction. In G. J. S. Dei, (Ed.) Indigenous philosophies and critical education: A reader. New York, NY: Peter Lang.

Deloria, V. (1997). *Red earth, white lies: Native Americans and the myth of scientific fact*. Fulcrum Publishing.

Drawson, A. S., Toombs, E., & Mushquash, C. J. (2017). Indigenous research methods: A systematic review. *The International Indigenous Policy Journal*, *8*(2), 5.

Duwamish Tribe. (2018). *Chief Si'ahl*. Duwamish Tribal Services. https://www.duwamishtribe.org/chief-siahl

Dzidic, P., & Bishop, B. (2017). How do our values inform ethical research? A narrative of recognizing colonizing practices. *American Journal of Community Psychology*, *60*(3-4), 346-352.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.

Feldman, A., Paugh, P., & Mills, G. (2004). Self-study through action research. In J. J. Loughran, M. L. Hamilton, V. K. LaBoskey, and T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices* (pp. 943-977). Springer.

Feldman, A. (2003). Validity and quality in self-study. *Educational researcher*, *32*(3), 26-28.

Fickel, L. H. (2005). Teachers, tundra, and talking circles: Learning history and culture in an Alaska Native village. *Theory & Research in Social Education*, *33*(4), 476-507.

Gaudry, A., & Lorenz, D. E. (2018). Decolonization for the masses?: Grappling with Indigenous content requirements in the changing Canadian post-secondary environment. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 159-174). Routledge.

Grande, S. (2015). *Red pedagogy: Native American social and political thought* (Tenth anniversary ed.). Rowman & Littlefield.

Groves, P. (2003). Insider, outsider, or exotic other? Identity, performance, reflexivity, and postcritical ethnography. In Givens Generett, G. & Baynes Jeffries, R. (Eds.), *Black women in the field: Experiences understanding ourselves and others through qualitative research*, 103-115. Cresskill, NJ: Hampton Press.

Hamilton, M., Smith, L., & Worthington, K. (2008). Fitting the methodology with the research: An exploration of narrative, self-study and auto-ethnography. *Studying Teacher Education, 4*(1), 17-28.

Hawley, T. S., Crowe, A. R., Knapp, K. A., Hostetler, A. L., Ashkettle, B., & Levicky, M. (2010). I love it when a plan comes together: Collaborative self-study in graduate school as a space to reframe thinking about social studies teaching and teacher education. In *Advancing Social Studies Education through Self-Study Methodology* (pp. 177-196). Springer, Dordrecht.

Henrick, E.C., Cobb, P., Penuel, W.R., Jackson, K., & Clark, T. (2017). *Assessing Research-Practice Partnerships: Five Dimensions of Effectiveness*. New York, NY: William T. Grant Foundation.

Higgins, M., Madden, B., & Korteweg, L. (2015). Witnessing (halted) deconstruction: White teachers' 'perfect stranger' position within urban Indigenous education. *Race, Ethnicity and Education*, *18*(2), 251-276.

Hesse-Biber, S. N., & Leavy, P. (Eds.). (2010). *Handbook of emergent methods*. Guilford Press.

Holmes, A. & González, N. (2017). Finding sustenance: An Indigenous relational pedagogy. In *Culturally sustaining pedagogies: Teaching and learning for justice in a changing world*. Eds. Paris, D., & Alim, H. S. New York: Teachers College Press.

Irizarry, J. G., & Brown, T. M. (2014). Humanizing research in dehumanizing spaces: The challenges and opportunities of conducting participatory action research with youth in schools. *Humanizing research: Decolonizing qualitative inquiry with youth and communities*, 63-80.

Jacob, M. M., Sabzalian, L., Jansen, J., Tobin, T. J., Vincent, C. G., & LaChance, K. M. (2018). The gift of education: How Indigenous knowledges can transform the future of public education. *International Journal of Multicultural Education*, *20*(1), 157-185.

Jacobson, M. F. (1999). *Whiteness of a different color*. Harvard University Press.

Kanu, Y. (2011). *Integrating Aboriginal perspectives into the school curriculum: Purposes, possibilities, and challenges*. Toronto: University of Toronto Press.

Keene, A. (2018, February 27). On consenting to learn in public. *Native Appropriations*. https://nativeappropriations.com/2018/02/on-consenting-to-learn-in-public.html

Kennedy, A. & Lees, A. (2014). Merging professional preparation and development through blended practices and a tiered approach in Early Head Start. In Pretti-Frontczak, K., Grisham-Brown, J., & Sullivan, L. (Eds.), *Young Exceptional Children Monograph 16 – Blending practices to strengthen quality early learning programs for ALL children.*

Kerr, J. (2014). Western epistemic dominance and colonial structures: Considerations for thought and practice in programs of teacher education. *Decolonization: Indigeneity, Education & Society*, *3*(2).

Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Minneapolis, MN: Milkweed Editions.

Kincheloe, J. L., & Steinberg, S. R. (2008). Indigenous knowledges in education: Complexities, dangers, and profound benefits. In Denzin, N. K., Lincoln, Y. S. and Smith, L. T. (Eds). *Handbook of critical and indigenous methodologies*, 135-156.

Keene, A. (2018, February 27). On consenting to learn in public. *Native Appropriations*. https://nativeappropriations.com/2018/02/on-consenting-to-learn-in-public.html

Kovach, M. (2018). Doing Indigenous methodologies: A letter to a research class. In *The SAGE Handbook of Qualitative Research* (Fifth ed.), Denzin, N., & Lincoln, Yvonna S. (eds), pp. 213-234. Los Angeles: SAGE.

LaBoskey, V.K. (2004). The methodology of self-study and its theoretical underpinnings. In J.J. Loughran, M.L. Hamilton, V.K. LaBoskey, & T. Russell (Eds.), *International handbook of self-study of teaching practices* (pp. 817–869). Dordrecht, The Netherlands: Kluwer Academic Publishers.

Leonardo, Z. & Boas, E. "Other kids' teachers: What children of color learn from white women and what this says about race, whiteness, and gender." *Handbook of critical race theory in education*. Routledge, 2013. 333-344.

Lipsitz, G. (2006). *The possessive investment in whiteness: How white people profit from identity politics*. Temple University Press.

Lomawaima, K. T. (2000). Tribal sovereigns: Reframing research in American Indian education. *Harvard Educational Review*, *70*(1), 1-23.
Lynn, L. (n.d.). STI teachers learning circle. *Since Time Immemorial*. Retrieved from: http://www.indian-ed.org/resources/learn-tribal-sovereignty/teaching-more-about-tribal-sovereignty/
Madden, B. (2014). Coming full circle: White, Euro-Canadian teachers' positioning, understanding, doing, honouring, and knowing in school-based aboriginal education. *in education,* 20(1).
Manfra, M. M. (2017). Practitioner research in the social studies: Findings from action research and self-study. In M. M. Manfra & C. M. Bolick (Eds.), *The handbook of social studies research*. Wiley-Blackwell.
Marker, M. (2011). Sacred mountains and ivory towers: Indigenous pedagogies of place and invasions from modernity. In G. J. S. Dei (Ed.), *Indigenous philosophies and critical education: A reader*, 197-211. New York, NY: Peter Lang Publishing.
Marker, M. (2016). Indigenous knowledge, indigenous scholars, and narrating scientific selves: "to produce a human being". *Cultural Studies of Science Education*, *11*(2), 477-480.
Marker, M. (2000). Review essay: Ethnohistory and indigenous education: a moment of uncertainty. *History of education*, *29*(1), 79-85.
Marker, M. (2011). Teaching history from an indigenous perspective: Four winding paths up the mountain. *New possibilities for the past: Shaping history education in Canada*, 97-112.
Marker, M. (2015). Borders and the borderless Coast Salish: decolonising historiographies of Indigenous schooling. *History of Education*, *44*(4), 480-502.
McCoy, M. L. (2018). Preparing preservice educators to teach American Indian boarding school histories. In Shear, S. B., Tschida, C. M., Bellows, E., Buchanan, L. B., & Saylor, E. E. (Eds.), *(Re)Imagining elementary social studies: A controversial issues reader*. Charlotte, NC: Information Age Publishing.
McGregor, H. E., & Marker, M. (2018). Reciprocity in Indigenous educational research: Beyond compensation, towards decolonizing. *Anthropology & Education Quarterly, 49*(3), 318-328.
McWilliams, J. (2016). Queering participatory design research. *Cognition and Instruction*, *34*(3), 259-274.
Melamed, J. (2015). Racial capitalism. *Critical Ethnic Studies*, *1*(1), 76-85.
Melamed, J. (2011). *Represent and destroy: Rationalizing violence in the new racial capitalism*. Minneapolis, MN: U of Minnesota Press.
Meyer, M. A. (2008). Indigenous and authentic: Hawaiian epistemology and the triangulation of meaning. In N. K. Denzin, Y.S. Lincoln, & L. T. Smith (Eds.), *Handbook of critical and Indigenous methodologies*. Thousand Oaks, CA: Sage.
Million, D. (2009). Felt theory: An Indigenous feminist approach to affect and history. *Wicazo Sa Review*, *24*(2), 53-76.
Milner, H. R. (2007). Race, culture, and researcher positionality: Working through dangers seen, unseen, and unforeseen. *Educational Researcher*, 36, 388–400.
Nasir, N. I. S., & Hand, V. M. (2006). Exploring sociocultural perspectives on race, culture, and learning. *Review of Educational Research*, *76*(4), 449-475.
Obenchain, K. M., Pennington, J. L., & Orr, A. (2010). Angela: On a critical curve. *Theory & Research in Social Education*, *38*(4), 486-514.

Paris, D. (2011). 'A friend who understand fully': notes on humanizing research in a multiethnic youth community. *International Journal of Qualitative Studies in Education*, *24*(2), 137-149.
Paris, D., & Alim, H. S. (2014). What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward. *Harvard Educational Review*, *84*(1), 85-100.
Paris, D., & Winn, M. T. (Eds.). (2014). *Humanizing research: Decolonizing qualitative inquiry with youth and communities*. Thousand Oaks, CA: Sage Publications.
Patel, L. (2015). *Decolonizing educational research: From ownership to answerability*. New York, NY: Routledge.
Penuel, W. R., Allen, A. R., Coburn, C. E., & Farrell, C. (2015). Conceptualizing research–practice partnerships as joint work at boundaries. *Journal of Education for Students Placed at Risk*, *20*(1-2), 182-197.
Philip, T. M., Bang, M., & Jackson, K. (2018). Articulating the "how," the "for what," the "for whom," and the "with whom" in concert: A call to broaden the benchmarks of our scholarship. *Cognition and Instruction*, *38*(2), pp.
Pinnegar, S., & Hamilton, M. L. (2009). *Self-study of practice as a genre of qualitative research: Theory, methodology, and practice* (Vol. 8). Springer Science & Business Media.
Lawrence-Lightfoot, S., & Davis, J. H. (1997). *The art and science of portraiture*. Jossey-Bass.
Madden, B. (2014). Coming full circle: White, Euro-Canadian teachers' positioning, understanding, doing, honouring, and knowing in school-based aboriginal education. *in education,* 20(1).
Marker, M. (2015). Borders and the borderless Coast Salish: decolonising historiographies of Indigenous schooling. *History of Education*, *44*(4), 480-502.
McCarty, T., & Lee, T. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard Educational Review*, *84*(1), 101-124.
McGregor, H. E., & Marker, M. (2018). Reciprocity in Indigenous educational research: Beyond compensation, towards decolonizing. *Anthropology & Education Quarterly, 49*(3), 318-328. Million, D. (2009). Felt theory: An Indigenous feminist approach to affect and history. *Wicazo Sa Review*, *24*(2), 53-76.
Million, D. (2009). Felt theory: An Indigenous feminist approach to affect and history. *Wicazo Sa Review*, *24*(2), 53-76.
Piercy, M. (1982) To be of use. https://www.poetryfoundation.org/poems/57673/to-be-of-use
Ross, G., Roach, W. B., & LongEarth, M. (2019). Breakdances with wolves: Indigenous pirate radio. http://www.breakdanceswithwolves.com/
Rubin, B. C., Freedman, E. B., & Kim, J. (Eds.). (2019). *Design Research in Social Studies Education: Critical Lessons from an Emerging Field*. Routledge.
Scott, D., & Gani, R. (2018). Examining social studies teachers' resistances towards teaching Aboriginal perspectives: the case of Alberta. *Diaspora, Indigenous, and Minority Education*, *12*(4), 167-181.
Shirley, V., (2017). Indigenous social justice pedagogy: Teaching into the risks and cultivating the heart. *Critical Questions in Education, 8,* 164-177.
Shear, S. B., & Krutka, D. G. (2018). Confronting settler colonialism: Theoretical and methodological questions about social studies research. *Theory & Research in Social Education*, 1-23.
Shirley, V., (2017). Indigenous social justice pedagogy: Teaching into the risks and cultivating the heart. *Critical Questions in Education, 8,* 164-177.

Simpson, A. (2014). *Mohawk interruptus: Political life across the borders of settler states*. Duke University Press.
Smith, L. (2012). Decolonizing methodologies: Research and Indigenous peoples (2nd ed.). Dunedin, NZ: Zed.
Smith, G. H. (2004). Mai i te maramatanga, ki te putanga mai o te tahuritanga: From conscientization to transformation. *Educational Perspectives*, *37*(1), 46-52.
Souto-Manning, M. (2010). *Freire, teaching, and learning: Culture circles across contexts* (Vol. 350). Peter Lang.
Souto-Manning, M. (2014). Critical for whom? Theoretical and methodological dilemmas in critical approaches to language research. In Paris, D. & Winn, M. T. (Eds.), *Humanizing research: Decolonizing qualitative inquiry with youth and communities*, 201-22.
Stanton, C. R. (2012). Hearing the story: Critical indigenous curriculum inquiry and primary source representation in social studies education. *Theory & Research in Social Education*, *40*(4), 339-370.
Stanton, C. R. (2014). Crossing methodological borders: Decolonizing community-based participatory research. *Qualitative Inquiry*, *20*(5), 573-583.
Styres, S. (2018). Literacies of Land: Decolonizing narratives, storying and literature. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.
Symonette, H. (2008). Cultivating self as responsive instrument. In Denzin, N. K. & Lincoln, Y. S. (Eds). *Handbook of social research ethics*, 279-294. Thousand Oaks, CA: Sage.
Tachine, A. R., Bird, E. Y., & Cabrera, N. L. (2016). Sharing circles: An Indigenous methodological approach for researching with groups of Indigenous peoples. *International Review of Qualitative Research*, *9*(3), 277-295.
Smith, L. (2012). Decolonizing methodologies: Research and Indigenous peoples (2nd ed.). Dunedin, NZ: Zed.
Suquamish Tribe. (2015). *History and culture*. https://suquamish.nsn.us/home/about-us/history-culture/
Tuck, E. (2018). The henceforward. http://www.thehenceforward.com/episodes
Tuck, E. (2009). Suspending damage: A letter to communities. *Harvard Educational Review*, *79* (3), 409-428.
Tuck, E., & Yang, K. W. (2014). R-words: Refusing research. In Paris, D., & Winn, M. T. (Eds.), *Humanizing research: Decolonizing qualitative inquiry with youth and communities*, 223-248. Thousand Oaks, CA: Sage Publications.
Tuck, E. & Yang, K. W. (2018). Series editors' introduction. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.
Utt, J., & Tochluk, S. (2020). White teacher, know thyself: Improving anti-racist praxis through racial identity development. *Urban Education*, *55*(1), 125-152.
Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Black Point, NS: Fernwood Publishing.
Whetung, M. & Wakefield, S. (2018). Colonial conventions: Institutionalized research relationships and decolonizing research ethics. In Tuck, E., Yang, K. W., & Smith, L. T. (Eds.), *Indigenous and decolonizing studies in education* (pp. 168-180). New York, NY: Routledge.

Wilbur, M. & Keene, A. (2019). All my relations. https://www.allmyrelationspodcast.com/podcast

Yoon, I. H. (2012). The paradoxical nature of whiteness-at-work in the daily life of schools and teacher communities. *Race Ethnicity and Education*, *15*(5), 587-613.

Zahir, Z., & Hilbert, V. (2000). *The mind = x̌eč ti*. Federal Way, WA: Zahir Consulting Services.

Zeichner, K. (2007). Accumulating knowledge across self-studies in teacher education. *Journal of Teacher Education*, *58*(1), 36-46.

Zeichner, K., & Melnick, S. (1996). The role of community field experiences in preparing teachers for cultural diversity. *Currents of reform in preservice teacher education*, 176-196.

Chapter 3. Towards a curricular water view: Tribal curriculum's challenges to curricular ownership and worthy knowledge

Introduction

As Indigenous[19]-led and tribal education mandates proliferate across states, provinces and educational systems (see NCAI, 2019), understanding how curriculum and teaching can meaningfully support Indigenous perspectives and sovereignty remains urgent. As Brayboy and colleagues (2015) argue, the stakes of schooling and Indigenous sovereignty are complex and charged:

> Education was and in many ways continues to be (1) a battle for the hearts and minds of Indigenous nations; (2) a colonial call for assimilation; and (3) a responsibility of the federal government arising from a series of agreements between Indian nations and the United States meant to open up land bases to a burgeoning immigrant population. In short, the education of Indigenous peoples is intricately intertwined with the legal/political relationship between Indigenous peoples and the U.S. government, as well as myriad racist policies and practices that have devastated Indian children and communities (p. 1).

Educators' awareness of these three competing forms, and their own responsibilities or allegiances to them, influence their approach to tribal curriculum implementation, which aims to

[19] Indigenous is an umbrella term for descendants of the first peoples in any region, who have maintained cultural, social, and national identities and memberships (Castagno & Brayboy, 2008, p. 983) and draw from particular, complex relationships to land as tied to identity and sovereignty (Kauanui, 2018; Simpson, 2014). This includes American Indians, Alaska Natives, Native Hawaiian/Pacific Islanders, First Nations, Inuit, Métis, and many others such as the Maori, Saami, and San who make up the estimated 370 million Indigenous peoples across the globe. Indian or Native American are terms that typically refer to the U.S. context, while Aboriginal is used in Canada (or First Nations or Native) and Australia. This paper generally uses Native in reference to the author's earlier study because of project advisors' use, but recognizes the transborder territories and cultures of many local Northwest tribes. I include nation/tribal affiliation for Indigenous scholars here to honor their communities and counter perceptions of Native/Indigenous identities as monolithic.

disrupt assimilative schooling. When public schools function as mechanism of assimilation and cultural subtraction, whether and how tribal curriculum can be implemented to meaningfully support Indigenous sovereignty remains an open question.

To offer examples here and throughout this paper, I draw on my recent qualitative study of five non-Native teachers[20] implementing tribal curriculum in Coast Salish lands (see Author, in preparation), which informs this argument. These teachers expressed varying understandings of their own roles within colonizing schooling structures and histories. Yet all worked within fifteen miles of the Indian boarding schools that their Native students' ancestors and living family members had attended.[21] All described grading systems, standardized testing, school schedules, existing curriculum, or other policies that diminished or contradicted the aims of the state's mandated *Since Time Immemorial* (*STI*) tribal sovereignty curriculum.

This paper inquires into tribal curriculum as an "alternative" education practice, and explores the meaningful challenges it offers to effective teaching, curriculum implementation, and curriculum decision-making. As I will show, tribal curriculum aligns well with philosophical inquiry traditions of "pressing the limits of the possible" in Burbules and Warnick's (2006) words (p. 496). I explore how tribal curriculum's content and implementation processes unearth taken-for-granted assumptions in dominant schooling practices. Guided by Indigenous feminism and learning sciences scholarship, I illustrate an approach to curriculum implementation building

[20] Although I distinguish these teachers as non-Native here, in the rest of the manuscript I do not specify teachers' tribal affiliation(s) or lack thereof. This is not meant to exclude Native or other Indigenous teachers. Many were highlighted in my research preparation by Native education leaders as exemplars of tribal curriculum implementation. However, Native education leaders also acknowledged that some Native educators faced their own challenges with tribal curriculum. Being Native, in other words, did not guarantee access to Indigenous knowledges or necessarily ease the way of implementing tribal curriculum.

[21] Impacts of this forced placement in American Indian mission and boarding schools – until 1978 – on Native communities are difficult to overemphasize (see Adams, 1995; Lomawaima & McCarty, 2006; Reyner & Eder, 2017). The intergenerational trauma and knowledge loss resulting from these policies has likely influenced the challenges of Native educators with tribal curriculum.

from this work – a *curricular water view* – and offer questions to support practitioners in applying it.

A practitioner's words may best introduce the challenges that tribal curriculum poses to teaching, curriculum, and worthy knowledge presented in school curriculum. Middle school teacher Francis[22]' experiences paralleled findings of the structural challenges associated with mandated Indigenous education efforts in Montana (Stanton & Morrison, 2018), Oregon (Sabzalian, 2019), Canada (e.g. Battiste & Henderson, 2009; Scott & Gani, 2018), and Australia (e.g. Kanu, 2011; Nakata et al., 2014). While Francis has worked with local Native educators for four years in a collaborative work group developing curriculum, implementation is still far from straightforward. "It's not like any other curriculum that I've dealt with," she explained, in large part because "it's still being built," especially at the local level. Although her eight year teaching career had been in the same school serving many Native students, her words reflected a strong hesitancy:

> I guess I'm trying to know my place in a lot of ways. So [tribal curriculum] seems heavier and kind of scarier at times because of the demographics [serving Native students]. I just want to make sure I do it right, but I also want to make sure I *do* it. So it's a cross between I don't want to be too nervous and not do enough, but at the same time not be like, [*takes on overly confident tone*] "Well, I got this," and totally just roll it over. And totally get it totally wrong. So it's just a learning process… To get it right is better than rushing it through. (December 16, 2019)

Francis highlights implementation as "a learning process," where place, identity, and commitments are central. Growing up in an "incredibly white" community, Francis' ability to

[22] Teacher names are participant-chosen pseudonyms.

recognize – let alone teach with – Indigenous knowledges has taken significant time, motivation, and support from Indigenous educators. Her experiences of participating in and being accountable to structural processes *of* Indigenous sovereignty through the curriculum development training and group work supported her understanding of and respect *for* Indigenous sovereignty. This is consistent with Alutiiq scholar Leilani Sabzalian's (2019) findings with teachers in nearby Oregon (p. 191). Yet Francis continues to struggle with "getting it right," and to "know [her] place." This struggle is familiar as someone who also identifies as white and non-Indigenous. Thus in this inquiry, I lean on scholarship from and learning with Indigenous feminists, learning scholars, and practitioners.

"Getting tribal curriculum right" embodies the contested status of Native sovereignty and the contested nature of tribal curriculum taught by non-Native teachers in public schools in settler colonial nations[23] like the U.S. Ironically perhaps, understanding this complexity as an entanglement, rather than teachers or Native nations as autonomous subjects, can clarify the work. Osage scholar Jean Dennison (2017)'s concept of entangled sovereignty applies clearly to tribal curriculum: as "ongoing negotiated compromises, which are both full of strain and mutually beneficial, often at the same time" (p. 686). Bringing Indigenous perspectives and knowledges into the same institutions that have long sought to devalue and erase them (L. T. Smith, 2012; Willinsky, 1998) represents one negotiation. Doing so with curricular goals of supporting Indigenous sovereignty of local tribes and Native communities marks another negotiation, relative to dominant purposes of schooling (see Simpson, 2014; Sabzalian, 2019).

[23] Settler colonialism operates as an ongoing structure, rather than an event (Wolfe, 2006) based on a logic of elimination (Veracini, 2011). Settler nations (e.g. the United States, Canada, Australia, New Zealand, and arguably many others) form when settlers remain in occupied lands and position themselves as normative and superior to Indigenous and racialized others, seeking to justify the erasure, assimilation or absence of Indigenous peoples, knowledges and ways of being (Bang et al., 2015).

As Brayboy and colleagues (2015) argue above, these (local) compromises relate to broad and long-standing patterns of political and educational policy, inextricable from history and epistemology.

With this backdrop, teacher commitments, agency and action related to *Since Time Immemorial* can be clearly understood as political. Simply put, by living on Native lands and being non-Native, teachers are implicated - in myriad, differentiated ways - in historic and ongoing structures of settler colonialism. The final guiding principle in the *STI* curriculum cues students and teachers to ongoing action required for teaching sovereignty: "Emphasize that co-responsibility for change involves developing allies who know how to take action" (Appendix A). Teaching for tribal sovereignty – versus simply "checking the box" by using one *STI* worksheet – is to teach "against the grain" in Cochran-Smith's (2005) terms: an endeavor in counter-socialization that may necessitate critical consciousness for meaningful implementation, and an inquiry stance to critically interpret one's own practice. The commitments and relationships (political or otherwise) necessary to learn to teach tribal sovereignty consistently and meaningfully for non-Indigenous teachers remain complex (see Author, in preparation).

Thus, I argue that implementing tribal curriculum meaningfully and consistently[24] requires two interdependent elements. First, sharing authority with and responsibility for tribal curriculum implementation is necessary because of teachers' limited familiarity with Indigenous peoples, knowledges, and sovereignty. Indeed, teachers' content knowledge and pedagogical content knowledge (see Shulman, 1988) reflect limitations capable of contradicting the aims of

[24] This focus on meaning and consistency (rather than accuracy, efficacy, or fidelity) aligns with the Native education advisors' guidance from the qualitative study (see Author, in preparation). Being a non-Indigenous scholar, my ability to ascertain what is most accurate, effective, or true to local Indigenous knowledges and tribal curriculum reflects serious limitations. This study focused instead on the consistency with which teachers implemented tribal curriculum, and its meaningfulness for them and their students, as evidenced by teacher and student interviews, observations, and document analysis.

tribal curriculum. Secondly, working towards such distributed curricular stewardship requires individual and collective commitments to intentional, direct, and ongoing (enmeshed) relationships with local Indigenous peoples and lands. While tribal curriculum can be minimally implemented to teach *about* tribal sovereignty, this approach reflects the purposes and relationships needed when teaching *for* (consistent with) local Indigenous sovereignty. In the sections below, I contextualize these two claims for the reader, and offer the concept of a *curricular water view* as a lens for such curriculum implementation.

Teachers and *Since Time Immemorial*, Washington State's Curriculum

Washington state's *Since Time Immemorial (STI)* tribal sovereignty curriculum – required for early learning through teacher education – illustrates this entanglement well. The curriculum aims to teach *about* tribal sovereignty – and it represents a manifestation *of* tribal sovereignty movements (see Clearinghouse, 2008). All of the state's 29 federally recognized tribes approved the curriculum, officially recommended by the legislature since 2009. With the 2015 mandate, all Washington schools must recognize tribal sovereignty by implementing the online *STI* curriculum, or by consulting with local tribes/nations to create a more regionally specific version[25]. When reviewing or adopting new social studies curriculum, districts must consult with the nearest federally recognized tribes to develop materials and programs reflecting tribal history, culture and government. However, this consultation process remains the most vexed aspect of *STI* implementation: in 2015, less than a third of Washington districts formed such consulting relationships or taught the curriculum (Rawlings, 2018). With *STI*'s curricular flexibility (from one hour to six week lessons), limited funding and training, and the absence of monitoring, assessment, or evaluation, implementation has faced widespread challenges.

[25] I use *Since Time Immemorial* (*STI*) and tribal curriculum interchangeably, both to maintain participant anonymity and to recognize their parallel goals.

Even for teachers with awareness of and access to the online curriculum, curricular gatekeeping then powerfully shapes implementation. The state's predominantly white[26], non-Indigenous teachers and administrators – rather than tribal nations – determine the depth of content engagement. "Teachers can choose to spend as little as one hour or as much as six weeks of class time… on the tribal perspectives of an historical issue, era, or event" (OSPI, n.d.). As Thorton (2006) writes, "Teachers' purposes, then, guide how far they open the curricular-instructional gate; for whom, when, and which gates to what they open" (p. 418; see also Barton & Levstik, 2004). Teachers' use, mis-use, or non-use of *STI* curriculum has direct implications for Native students and Native futures. Minimal teacher preparation (Stanton & Morrison, 2018), as well as structural, pedagogical, and ideological obstacles threaten the goals of tribal curriculum implementation for local Indigenous students and communities elsewhere (Gaudry & Lorenz, 2018; Kanu, 2011; Scott & Gani, 2018).

Teachers may not realize the extent to which their own views of curriculum, history, or Indigenous sovereignty are shaped by absences and perceived deficits. Typical U.S. textbooks reinforce inaccurate and damaging myths about Indigenous people (Stanton, 2014; Sleeter & Stillman, 2005). These are mirrored in curriculum standards (Journell, 2009; Shear et al., 2015) and popular online curriculum (Author, 2019). Since most U.S. adults lack personal contact with Indigenous peoples and blame "insular" Indigenous groups for this absence (First Nations Development, 2018), educators' motivations and capacities to recognize – let alone build reciprocal relations with – Indigenous peoples and nations may vary widely. Implementing tribal sovereignty curriculum then represents a significant and ongoing entanglement, as most educators facilitating the learning reflect schooling experiences, teaching practices, worldviews,

[26] While APA style encourages capitalizing "White" for racial groups, I follow Indigenous and critical race scholars in using the lower case version and by capitalizing Indigenous.

absence of relationships, and institutional contexts that contradict *STI*'s content, perspectives, and aims.

Curriculum Implementation

Whether and how educators can employ this tribal curriculum in ways that promote Indigenous sovereignty and decolonial futures – rather than managing or enclosing Indigeneity as "difference" (Richardson, 2011) – remains largely unknown. Moreover, tribal curriculum draws on ideologies and pedagogies that define teacher competencies and curricular authority quite differently from normative schooling.

At first glance, tribal curriculum might seem consistent with what McLaughlin (1976) calls a "mutual adaptation" approach to implementation, wherein the teacher/user and curriculum content adapt to each other. Findings did reflect some critical attributes of mutual adaptation. Francis, like all the teachers I interviewed (Author, 2020), readily identified *STI* implementation as "fundamentally a learning process" (McLaughlin, 1976, p. 348). Similarly, all five teachers emphasized the complexity of context in curriculum decision-making and implementation, particularly with varied student and family demographics (see Cho, 1998). Teachers wanted to ensure that tribal curriculum was tied to conceptual learning. They designed learning experiences and adapted existing or suggested tribal curriculum with the aims of ensuring tribal curriculum was "meaningful" (Frankie), and "powerful" (Elliot) for their classes, that students would "[be] able.. to connect it to their own self and their own family" (Ester). Yet all teachers acknowledged limitations to their own content knowledge and pedagogical content knowledge with Indigenous knowledges that impacted the consistency and meaningfulness of their implementation. Teachers expressed that their ability to implement tribal curriculum meaningfully hinged on applying ("think through" "use") Indigenous knowledges. The greater the frequency and depth of local

Indigenous knowledges applied in curriculum and teaching, they suggested, the more meaningful their implementation.

Access to Indigenous knowledges requires particular roles, experiences, and/or relationships, which complicates understandings of curricular authority. Each teacher in the study clarified that their ongoing relationships with local Native peoples, particularly elders and not necessarily formal educators, were essential for their learning. Teachers without regular interaction with such experts – as sources of knowledge, guest speakers, and teaching consultants – expressed greater levels of fear and hesitancy with implementation. While Indigenous pedagogies reflect vast diversity, the Native communities in this study reflected trends of situated knowledge access. Promotion to deeper levels of understanding is based on an individual's present and future roles, strengths and specializations, moral and spiritual maturity, and development (see also Cajete, 1994; Rogoff et al., 2014; Smith, Tuck & Yang, 2018). Access requires a relationship of responsibility and reciprocity, where learners engage spiritually and/or metaphysically to enact those relations with the land and others (see Battiste, 2008). Knowledge may represent wealth, and is shaped by specialized roles and responsibilities assigned to families or forms of labor within the community. Knowledge cannot and should not be available to anyone at any given moment (see Tuck & Gaztambide-Fernandez, 2013). Rather, learning and knowing reflect ongoing roles within familial, sociopolitical, ecological, and/or economic systems.

Tribal curriculum thus problematizes existing understandings of successful curriculum implementation and decision-making. Particularly when considering Indigenous knowledges and experiences of schooling, positioning most teachers (usually non-Indigenous and new to Indigenous knowledges) as authoritative, autonomous curricularists "with full decision making

capacities and expertise" (Misco, 2010, p. 184) carries risks with this content. Most U.S. Americans, including teachers, cannot explain Indigenous sovereignty, nor recognize any relationships with living Native people (First Nations Development, 2018). Most representations of Native peoples in other curriculum and standards reflect omissions, inaccuracies, and stereotypes (see, e.g. Shear et al., 2014; Stanton, 2012). Few teacher education programs in the U.S. include or require knowledge of Indigenous peoples (see Haynes Writer, 2010; Kulago, 2019). Indeed, Washington's 2018 teacher education law intended to complement *Since Time Immemorial* faces similar challenges with implementation (Lynn & Banker, 2019).

Without attention to *whose* needs, knowledges, and judgments should most shape curricular decision-making, implementation of tribal curriculum can further the disrespect for Indigenous sovereignty and lands present in settler education systems. Reliance on the wisdom of teacher's practice may instead reflect a dominant colonial perspective of knowledge (through curriculum) as an entity that can be possessed or dominated (see Moreton-Robinson, 2016). While Misco (2010) argues that teacher resistance to curriculum implementation exists primarily within a generally outdated fidelity approach, teachers' deep struggles with Indigenous curriculum mandates elsewhere indicate structural and ideological challenges (Scott & Gani, 2018). Sharing or partially abdicating curricular expertise and authority is then the first essential challenge that tribal curriculum puts forth to educators. Recognizing broader pedagogical relationships and considering them during curricular decision-making offers one responsible path forward.

Water View and Native Feminist Curricular Standpoints

Indigenous feminist scholars Melanie Yazzie (Diné) and Cutcha Risling Baldy (Hoopa, Yurok, Karuk; 2018) recently offered the concept of *water view* as a lens for decolonial

education and struggle. Rather than a tool of individual consciousness raising, they clarify water view as a form of collective radical relationality. Decolonization – like Indigenous sovereignty – is not an individual choice or only in the mind; therefore, critical frameworks emphasizing individual liberation prove insufficient (Simpson, 2014; Tuck & Yang, 2012; Yazzie & Risling Baldy, 2018). Considering the view "from the river, not of the river," they argue, allows for "(re)claiming knowledges not just for the people, but also for the water; not just looking at our relationship to water, but our accountability to water view" (p. 2). Within Indigenous feminist frameworks, water represents a relative or family member, not a resource to be extracted or weaponized. Water view supports the recognition of political, ecological, and social relationships premised on reciprocity and responsibility, allowing for ethical forms of interdependence and respect.

A curricular water view complements Sabzalian's (2018) analysis of Native feminist curricular standpoints. Native feminist scholarship, she writes, is "epistemically and politically advantageous" for curricularists, offering "an ethical imperative for theorizing within settler nation-states on Indigenous lands" (p. 361). Indigenous feminist scholars Sabzalian, Kimmerer (Potawatomi; 2013), and Simpson (Nishnaabeg; 2017; 2014) all emphasize ethical relationships of enmeshment as essential for moving towards meaningful engagement with Indigenous peoples, knowledges, and place. Ongoing action and direct involvement (rather than "professional" distance or limits) that honor sovereignty characterize enmeshment, which foregrounds learning enabled through intentional relationships: "with land, through stories, through Indigenous contexts, practices, and processes, and through embodiment" (Sabzalian, 2018, p. 373). This may require uncomfortable learning: about one's ancestors, one's ongoing role, and the limitations of one's own thinking and ways of being (Boudreau Morris, 2016; Kerr,

2014). Yet relationships of enmeshment allow non-Indigenous educators to develop reciprocal responsibilities and felt knowledge (Million, 2009) with/in Indigenous lands, languages, relationships, knowledges, processes, and practices. Developing ethical relations of enmeshment (versus cultural appropriation) can support educators in understanding "traditional values" as dynamic and vital: for example, core Nishnaabeg values of "consent, individual self-determination, diversity, and non-interference" (Simpson, 2017, p. 139). These motivations can sustain everyday acts and relations of decolonization (Hunt & Holmes, 2015; Corntassel & Scow, 2017), which can enable non-Indigenous teachers to present Indigenous knowledges more meaningfully (see Frickel, 2005; Madden, 2014). Approaching water as a relative and cultivating a water view also supports the work of culturally sustaining and revitalizing pedagogies (McCarty & Lee, 2015; Paris & Alim, 2014) by attending directly to the lands and waters that sustain cultural practices of students and communities marginalized in schools. Recognizing water as both a life form and a form of life (Bang et al., 2013; McGinty & Bang, 2016) is essential for educators seeking to apply this lens.

Salmon and the River: a Tribal Curriculum Implementation Analogy

This section turns toward envisioning the role of educators in a curricular water view. To understand how tribal curriculum implementation challenges individual teachers, and systems and structures of curriculum and schooling, an analogy developed by two regional Native education leaders offers important interpretive power.

Eight regional Native education leaders constituted the advisory group that co-designed this study, representing the three federally recognized tribes (among others) of the area. Dr. Dawn Hardison-Stevens (Omushkeg Cree, Ojibway, Cowlitz, Steilacoom) and Dr. Laura Lynn (Chickasaw) played particular leadership roles in establishing and organizing this group with me.

Dawn, Laura, and other advisors shared understandings of *STI* as a place-specific, "living curriculum" that positions teachers as continual learners and must be responsive to local Indigenous sovereignty. These attributes were consistent with *STI's* Guiding Principles (Appendix A).

In a conversation nine months before data collection began, Dawn and Laura offered this extended metaphor for tribal curriculum that builds on a keystone water species: salmon. With their permission, I share and add to this analogy below:

> "Coming to understanding of sovereignty is a tumbling process," Laura says, "like the salmon making its way home. Salmon are not in opposition to the river – they are of the river. In education, we create this current. Now [with tribal sovereignty curriculum], we're putting ourselves into the river in a new way, with a new purpose, a different lens. When is the time to intensely kick the tail? Salmon can change the course of the river sometimes with this, laying the redd [nest]."
>
> Dawn smiles. "I always use the analogy of life, floating downriver: like in an inner tube or kayak. Many times we go with the flow and you don't know what's around the bend. You go downstream but you always go back home."
>
> Laura nods. "And spawning is not linear. The current is the Western education system. The vessel we float in [classroom] is a created space. There is intention of that current. This project [with tribal curriculum] is about turning the direction of the river. It's collective work, no single salmon can do it."
>
> Dawn points to a challenge I have experienced: "Non-Native educators are like young fry [baby salmon], just following the river downstream. Coming home," – she pauses – "that involves real work." (January 14, 2019)

In this analogy, the river of learning or education constitutes a broad, dynamic, living force. Laura initiated this analogy by talking about the need to "identify the current." Current and curriculum both originate from earlier terms for course, as in a race course (Merriam Webster, 2020). A river current offers a definite direction to water – and here, for the constant flow of learning. As Laura hints, the current defined by the dominant schooling system offers particular destinations, foreclosing others. The physical spaces and standardized systems of Western schooling shape not only where the salmon travel and what they consume (types of knowledge), but their life chances and legacy.

Salmon life stage offers a parallel for educator development in meaningfully implementing tribal curriculum, as Dawn suggests. Fry (baby) salmon may sometimes swim, other times float tail first towards the ocean. Like many U.S. Americans and educators who cannot explain Indigenous sovereignty (Clearinghouse, 2008; First Nations Development, 2018), the fry's awareness of being in the water and being in relationship to others outside of it – the people and nations that tend and shape their waters and adjoining lands – may be fledgling at best. Teachers early in their journey of tribal curriculum implementation may experience *STI* as a confusing dalliance: a river section that turns them in reverse before continuing down the main current. Many factors maintain the current, as described in the introductory context above.

Yet salmon have agency and motivation – like teachers and other learners – in both mundane and spectacular forms. Their tails propel them up waterfalls two meters high (Pacific Salmon Foundation, 2020). As salmon mothers kick stream gravel to prepare their nests, they collectively change the course of rivers and shape of mountains over time (see Fremier et al., 2018). Similarly, for learners and teachers, a sense of agency strongly influences learners' and

teachers' identities, learning processes, and judgment (Darling-Hammond & Bransford, 2005; Nasir and Hand, 2006).

As salmon return from the ocean to spawn (reproduce) and then die in their headwaters, they enact an intense homecoming necessary to sustain future generations. After traveling thousands of miles, salmon's ability to recognize and navigate to their home stream requires "real work" that parallels meaningful *STI* curriculum implementation. Coming home for educators involves understanding our own genealogies (headwaters) through often difficult learning about ancestors, place, whiteness, and settler colonialism (see Boudreau Morris, 2016; Zembylas, 2018). While of the water, salmon face constant challenges within it, and daunting odds. Bears, eagles, human fishers, rockfall, waterfalls, silt after a rainstorm may all be challenges salmon expect as parts of the river community. Other challenges have been imposed within the past few generations: escaped farmed fish, competition with hatchery fish, and efforts to control the flow and current through dams. Homecoming or spawning thus requires active engagement with relationships and beings across our river systems. Otherwise, the direction of the river remains unchanged, Laura clarifies.

As educators, our primary responsibility is to those we serve: our students and communities, who represent the legacy of our work. Similarly, to construct a living legacy, salmon struggle to reach home. They do it "for the youth, for the next generation, for salmon, for eggs of the next generations," as Dawn explained. "They feed all," Laura added. "The trees, the land, the plant people, young ones," she continued. "It's not just the salmon people that they feed: there isn't anyone that they're not feeding, if you start to connect multiple ecosystems. That's part of their story too, that even after, their legacies continue to fuel others." Wherever it happens, death is not wasted. Salmon's bodies and eggs – like teachers' work – continue to feed

others. Teaching *for* tribal sovereignty goes against the current, so fry educators may adopt strategic compliance approaches that flow with it, by teaching minimally *about* sovereignty (e.g. by assigning one *STI* worksheet). Implementing *STI* meaningfully for the next generation, this spawning analogy suggests, involves collective commitments and relationships (political, curricular, and otherwise) necessary to move the stream. Just as salmon shape the river's form over time, turning its course also requires collective effort.

Navigating Disciplined Waters: Tribal curriculum's Challenge for Knowledge

This legacy that teachers offer through a curricular water view relate to individual and collective responsibilities to students, communities, lands, and waters. In this section, I focus on epistemic responsibilities. Drawing on Bang and colleagues' (2013) work on settled expectations, I clarify how particular knowledges taught in schools reinforce existing power structures, and the purpose of education as a vehicle of assimilation. Educators willing and able to engage in the "real work" of implementing tribal curriculum must challenge settled views of school knowledge to move toward sharing curricular stewardship and accountability. Doing so involves confronting history and forming legacies of relationship and knowledge accumulated across time, place, and generations. Without such commitments, tribal curriculum implementation cannot counter assimilative schooling.

Recognizing the scope of historical, political, and epistemic challenges to Indigenous peoples, sovereignty, and knowledges is necessary for understanding tribal curriculum as an intervention. Although education has been a trust responsibility of the federal government for Native peoples for centuries (Brayboy et al., 2015), Native American and other racialized communities continue to experience a particularly strong education debt (Ladson-Billings, 2006). For Native peoples, the extent of schooling systems serving as weapons of colonization and

genocide has been well-documented by generations of Indigenous people, historians, and scholars, from colonial contact to boarding schools to contemporary Native education policies (see, e.g., Adams, 1998; Lomawaima & McCarty, 2002; Masta, 2018; Reyner & Eder, 2017; Rogoff, 2008). In other words, the dominant current of schooling continues to move away from Indigenous knowledges and serving Indigenous communities *by design*, directing its power towards other futures. Among other impacts, this contributes to an epistemic injustice (Fricker, 2007) that should deeply concern those who care about curriculum and education.

Advancing epistemic justice in learning communities, as many learning scientists call for (e.g. Barajas-López & Bang, 2019; Barzilai & Chinn, 2018; Bricker and Bell, 2016), then entails an epistemic responsibility for educators. We who live and teach on Indigenous lands as non-Indigenous people are not innocent. And as Medina (2013) argues, this epistemic responsibility – to ethical and political relationship – must be "extremely sensitive to context and to social positionality" (p. 130) given the uneven distribution of social injustice. Some of the teachers in this study clearly understood their epistemic responsibilities in direct relationship with local Native community members and families. As Elliot insisted, "If you're not careful, you have another Carlisle [boarding school] on your hands. We've got to be cognizant of that." This responsibility fueled what he described as a daily "fight" to prioritize Indigenous knowledges, including with his school administration, who saw testing gains as more important. Indeed, stamina in teaching is as necessary as in salmon spawning. Although a teaching career or salmon life can end at any point, an influence on the (school or river) system is noticeable. Some teachers will leave the work before coming home with *STI* implementation, just like some fry never reach the ocean. This is not by accident: schooling systems and subject matter have reinforced some limits.

Waters have been disciplined into this particular current, Indigenous scholars teach us. By not accounting for which knowledges and power systems continue to structure disciplinary knowledge, and by approaching students' everyday knowledges as a monolith, dominant teaching and curricular approaches bolster epistemic (and other) injustices. In science education research, Bang (Ojibwe) and colleagues (2013) argue for the need to "desettle" the implicit, entrenched expectations in schools guided by institutional privilege – that also inform deficit views of nondominant students and communities. As they argue, these settled expectations – such as a perceived nature/culture divide – narrow the current in ways that predetermine "failures" of Indigenous learners and others (see also McGinty & Bang, 2016; Marker, 2016).

> In science, technology, engineering and mathematics (STEM) education, and biology specifically, these normative descriptions of subject matter…border and define, usually in hierarchical terms, acceptable STEM understandings and practices, including relationships between humans, other organisms, and the environment. These boundaries function ideologically to (a) restrict the content and form of science knowledge valued and communicated through education and (b) devalue and dismiss boundary-expanding forms of knowledge, experience, and meaning-making with which students approach scientific phenomena. One consequence of STEM-related settled expectations as manifested through the nature-culture divide is to locate students, particularly those from nondominant communities, in untenable epistemological positions that work against engagement in meaningful learning of scientific ideas, practices, and phenomena. (p. 303-4)

As these authors contend, settled expectations work through teaching methods and schooling practices that center dominant disciplinary (often fixed, usually Eurocentric) classifications as

the only powerful knowledge. In some ways, these imposed limits on the possible flows of sense-making and learning act to discipline water, like a dam. For example, Francis' training in disciplinary history did not support her with understanding local Indigenous knowledges of story (see Archibald, 2008). She described "mysticism" in some of the oral traditions she learned from local Indigenous educators, and having difficulty when some of the stories were "outrageous":

> It [the story] probably is relating to some historic event… like the flood and all that kind of stuff. So, it gets into this really tricky place that's kind of the same as teaching religions, where you're like, "Well..." Like, it's kind of the same with biblical things. Like if you're going to say that those things are just stories, there is a group of people that are going to be like, "Nope, that's not a story, that's truth." … [So] What is fact? I guess fact is in the eye of the beholder a little bit.

Francis here struggles to see Indigenous accounts as legitimate because they do not conform to clear distinctions between historical and religious accounts, consistent with dominant Western secular cosmologies and historiographies (Deloria, 1997; Kerr, 2014; Marker, 2015). As Kerr (2014) argues, dominant secular cosmology works to silence Indigenous knowledges and pedagogies in educational institutions, creating epistemic collisions when this dominance is made visible. Francis has not learned to understand Indigenous teachings through Indigenous epistemologies; she relies on dominant disciplinary ones. Such lenses present Indigenous knowledges as not only (uniquely) subjective, but primitive and incoherent. However, recent research shows disciplinary perspectives as insufficiently powerful to address challenges that our students, water, and earth currently face, whereas many Indigenous knowledges, for example, offer urgently-needed analytic and interventive power (IPBES, 2019). This pattern unfortunately repeats itself in other subjects, as evidenced above. To shift the river current, educators must

examine knowledge-power relations that limit what constitutes "fact" or validity to dominant disciplinary epistemologies and university trained academics.

To be clear, challenging patterns of epistemic dominance that align with institutional privileges does not mean all disciplinary knowledge should be thrown out, nor that all claims to knowledge in this "post-truth" era are valid. This critique does not reflect goals of overwhelming epistemic relativism. Rather, because educational systems have long emphasized academic disciplinary knowledge as the primary guide for curriculum selection (Deng, 2015; Jacob, 1999; R. Smith, 1997) and because such knowledges have sought to devalue and exclude Indigenous knowledges (Deloria & Wildcat, 2001; L.T. Smith, 2012; Willinsky, 1998), schools have then upheld an epistemic injustice. Those most likely to benefit from this epistemic hierarchy (dominant identity academics with dominant epistemological training – and those taught by them) have operated as the sole or primary arbiters of worthy knowledge for diverse societies on Indigenous lands. By emphasizing disciplinary or scientific objectivity, and remaining silent about the ongoing entanglements of empire, race, and modern science, curriculum authors and educators can contribute to this epistemic injustice (see Dozono, 2020).

And on the other hand, grafting Indigenous knowledges onto lives, ways of being, and contexts understood only in Western/colonial terms will only uphold dominant ways of knowing as totalizing and benevolent (Ahenakew, 2016). A focus on collective and institutional change, rather than solely individual transformation, is necessary. While developing a shared sense of what tribal sovereignty curriculum should prioritize or look like proves to be its own challenge, (even within the same region), it is necessary endeavor for meaningful tribal curriculum implementation. Individual and collective educator responsibility for promoting epistemic justice, particularly with local Indigenous epistemologies, remains a crucial part of this effort.

Cultivating a Curricular Water View

Accessing and sharing Indigenous knowledges and perspectives responsibly in public schools then requires two interdependent moves from educators and schooling systems seeking to apply a curricular water view, and/or meaningfully implement tribal curriculum. The first is a willingness and ability to share curriculum responsibility and accountability with local Indigenous peoples, and recognition of the limitations of educators' understanding. Secondly, individual and collective commitments to building ongoing relationships of reciprocity and enmeshment with local Indigenous peoples (particularly students and families), lands, and waters. Learning with (not about) local Indigenous Native educators and community members through participation in local ways of knowing and teaching – when public or invited – can deepen relationships to and knowledge of Indigenous ways of knowing and place (Frickel, 2005; Madden, 2014). Upholding the epistemic responsibilities of tribal curriculum by challenging epistemic hierarchies consistent with fixed conceptions of disciplinary knowledge can subsequently come more easily. As educators grow in their epistemic awareness – particularly about their content areas and their own cultural worldviews – settled expectations can shift. Making these moves visible to P-20 students and pre-service teachers requires deep learning, planning, and commitment. Institutional commitments to enmeshed and reciprocal relations (in financial and other programmatic forms) can model this work while honoring Indigenous educators' time and expertise.

These two interdependent commitments reveal tribal curriculum implementation as a means of necessary, ongoing educator learning through relationships to local Indigenous peoples, lands, and sovereignty that support such epistemic responsibilities. This learning requires taking action: small and imperfect steps to move tribal curriculum implementation towards its desired

goals. Such efforts, like tribal curriculum, require more than individual work for success. Doing so can affirm the transformative power of Indigenous knowledges for *all* teachers and students: gaining more accurate histories and perspectives, and understanding their own places and roles within these as gifts (Battiste & Henderson, 2009; Jacob et al., 2018).

A curricular water view supports this radical relationality (Yazzie & Risling Baldy, 2018) by expanding the relationships and memberships that lesson structures support across a broad range of stakeholders, particularly those otherwise unrecognized or marginalized. Stakeholders include students, educators, and family members, of course: especially those whose ancestral and community knowledges have been erased or devalued in schooling systems and disciplinary knowledges. 'Stakeholders' also reflects the active, often implicit role that water, land, and Indigenous nations play in learning experiences, regardless of their visibility. Although indoor classroom spaces typically communicate a division between mind/body and culture/nature (Cajete, 1994), a curricular water view recognizes marginalized assets in place for learning and important sources of collective accountability. Seeing ourselves as salmon and river stewards – rather than dam or flow managers – can remind educators of the stakes of our pedagogical and curricular work.

Tribal curriculum – and a curricular water view – thus replace curricular ownership or teacher leadership with *distributed curricular stewardship*. Here, curriculum is developed through, shared with, and responsive to local Indigenous sovereignty, lands, and waters. Like the frame of mutual adaptation, this approach attends carefully to diverse local contexts and institutions, understanding curriculum implementation as a learning process (McLaughlin, 1976; Misco, 2010). Yet this curriculum – and lens – are accountable to curricular agency and reciprocal relationships beyond humans and schooling institutions. Although schooling systems

in the U.S. and elsewhere have many similarities, each school has distinct relationships (acknowledged and otherwise) with Indigenous nations, histories, and ecosystems that transcend nation-state and school district borders. Overcoming most teachers' and curriculum writers' lack of familiarity with sovereignty, Indigenous knowledges, and place requires embracing this learning process, more horizontal relationships, and dialogue – including curricular dialogue led by "non-curricularists." To enact a curricular water view within broader curriculum, policy, and practice is a collective effort of epistemic responsibility. The ability to identify and counteract bias and exclusion within the scope of curriculum is a key part of individual efforts here. Teachers can recognize their accountability beyond (a static conception of) disciplinary knowledge, through relationships of reciprocity and enmeshment, desettling expectations, and collective change work.

Below I offer three initial questions for making a curricular water view actionable and generative for curriculum theorists, developers, and practitioners. These questions aim to reflect the challenges and possibilities of a curricular water view through the ethical and practical dilemma of "what to teach on Monday," by focusing on learning experiences that are "co-created and grounded in the cultural historical practices of the communities involved" (Gutiérrez & Vossoughi, 2010, p. 100). I illustrate each with a brief example from social studies education, a field with scant examples of disciplinary pedagogies beyond dominant epistemologies (for exceptions, see Author, in review; Dozono, 2019). Indelibly tied to particular places, relationships, and collective change work – rather than a universalizing or "teacher-proof" approach – these prompts point optimistically towards possible next right moves:

- ***How does this lesson/unit engage with relationships to place: these particular lands, waters, more-than-humans, region, borders and territories of Indigenous nations and settler nation state(s), etc.?***

This question highlights humans' reciprocal relationships and responsibilities to lands, waters and Indigenous nations as subjects and teachers (see Calderón, 2014; Gruenewald, 2003; Simpson, 2014). Such specificity reminds us that any lesson needs revision if moved to another ecological region or location. Ideally this includes an explicit, stated connection to local tribes, sovereignty, treaties, and/or local places. For example, how could learning from the perspective of water or fish change how we understand the formation of nations (Indigenous and settler) here, in terms of time, place, and the endorsement of settler logics (Calderón, 2014)? Presenting Indigenous nations and homelands accurately also requires specificity: as particular communities, rather than a monolith (not "the Native perspective" or even "the Coast Salish perspective"). Similarly, to avoid presenting Indigenous peoples and lands in us/them and other inaccurate binary terms, non-Indigenous educators may need to consider language – and investigate their ancestral and personal relationships or perceived distance with nearby Indigenous nations (see Dion, 2009).

- ***Whose futures and roles would this lesson/unit content typically center, and how?***

When unexamined, typical curricula can reinforce perceived limits on worthy knowledge – and worthy futures. When we promote students as problem solvers, for example, attending to the framing of such problems matters. With environmental curriculum, this framing may presuppose hierarchical and/or extractive relationships between humans and nature as natural or beneficial – or that effective resource conservation relies on humans' distance. Understanding fish as relatives, or water as a lifeform, may be foreclosed as unscientific (see Bang et al., 2013).

Yet how could history curriculum, for example, change if accountable to the futurity of native fish, river systems, and Indigenous nations (rather than the nation-state or capitalism)? History curricula frequently present Indigenous peoples as extinct or dying (Shear et al., 2015; Stanton, 2014), and removed from modern urban life (Bang et al., 2014; Author, 2019). Turning away from damage-centered views of Indigenous peoples – and ecosystems – relies on desired-centered thinking that centers Indigenous resilience and futures (Tuck, 2009).

This question prompts us to consider the salmon's legacy: which futures our teaching supports through its placement relative to the current. Teaching for water's future requires learning for the greater-than-human good, and an openness to multiple explanations and multiple sources of knowledge. By building on or towards recognition of students' ongoing and future roles (as tribal members, citizens, community members, leaders, etc.), such connections can illustrate specific relationships and/or responsibilities with Indigenous peoples and lands. Ties with other communities or regions can honor students' multiple national, tribal, and other political and place-based memberships, by recognizing them as strengths.

- ***How could these lesson/unit structures (e.g. activities, learning goals, central questions, forms of participation, assessments, learning environment) broaden the epistemologies perceived as generative?***

Teaching across epistemologies can support deeper and more complex engagement with disciplinary learning – and problems of global consequence (Bang et al., 2013). Recent studies offer examples of disciplinary pedagogies operating beyond dominant epistemological perspectives in science (e.g. Bang & Medin, 2010; Rosebery et al., 2010), math (e.g. Nasir, 2002; Saxe & Esmonde, 2005), literacy (e.g. Gutierrez et al, 2009; Lee, 2001), and history (e.g.

Dozono, 2017; Author, in review). Many of these examples transform participation structures and curricular framing in order to broaden epistemological possibilities, particularly for students and knowledges from marginalized communities. Rather than centering the teacher's speech or expertise, as is typical (Cazden, 1988), such approaches often broaden discourse and applications beyond the classroom, through experiences such as mapping waters and lands over time. Such activities may connect to students' current and future roles and responsibilities above, and/or share student learning with a larger audience. This work can empower students to challenge the status quo when it does not serve local Indigenous communities or the greater-than-human good through personal, school-based, or broader initiatives.

Conclusion

In addition to suggestions for practice, this conceptual inquiry offers larger contributions to curriculum studies. Bringing water view to curriculum studies clarifies the epistemic responsibilities of tribal curriculum for teachers and curriculum practitioners, and reveals the essential problem of teacher expertise. A curricular water view understands tribal curriculum implementation as a distributed endeavor of *curricular stewardship* answerable to salmon, rivers, and local Indigenous peoples. This shifts our individual and collective commitments, regardless of content area. To avoid contradicting the aims of tribal curriculum, educators must recognize the necessity of sharing responsibility for its implementation. Doing so requires that educators move beyond norms of limited knowledge of and familiarity with Indigenous peoples, knowledges, and sovereignty. Supporting distributed curricular stewardship then requires individual and collective involvement with local Indigenous peoples and lands. Such relationships require intentions of learning, challenging assimilative schooling practices, and ongoing participation that works towards relational enmeshment. Essential ongoing work with

this epistemic task is identifying settled expectations (Bang et al., 2013) in disciplinary knowledges and working to challenge hierarchical knowledge-power relations that devalue Indigenous knowledges across curricula. A curricular water view supports this transition from a lens of curricular ownership and authority consistent with colonial knowledges (Moreton Robinson, 2016; Simpson, 2014) towards a lens of distributed curricular stewardship and enmeshment consistent with relationships for sovereignty.

A curricular water view reminds us that stamina is a necessary virtue for curriculum implementation. Stamina for one's own difficult homecoming journeys, for collective change, for facing epistemic challenges with learning and access to knowledge. These three endeavors, the salmon remind us, are intertwined. When we consider rivers and salmon as not only part of our learning communities, but as relatives and curricular guides, such stamina may not seem so aspirational.

Appendix A: Since Time Immemorial Guiding Principles

Tribal Sovereignty Curriculum Guiding Principles

1. Teach with a multiple perspective

2. Focus on the tribal group(s) closest to the school first.

3. Deal with real life, sometimes controversial issues.

4. Connect the head with the heart with the hands for learning.

5. Recognize that culture is dynamic and always evolving.

6. Stress the resiliency of Native cultures, despite intentional oppression and neglect.

7. Emphasize that co-responsibility for change involves developing allies who know how to take action.

(rev. 10/15)

References

Adams, D. W. (1995). *Education for extinction: American Indians and the boarding school experience, 1875-1928*. Laurence, KS: University of Kansas Press.

Ahenakew, C. (2016). Grafting Indigenous ways of knowing onto non-Indigenous ways of being: The (underestimated) challenges of a decolonial imagination. *International Review of Qualitative Research*, *9*(3), 323-340.

Archibald, J. (2008). The power of stories to educate the heart. In *Indigenous storywork: Educating the heart, mind, body, and spirit*, pp. 83-100. Vancouver: University of British Columbia Press.

Bang, M., Warren, B., Rosebery, A. S., & Medin, D. (2013). Desettling expectations in science education. *Human Development*, *55*(5-6), 302-318.

Bang, M., & Medin, D. (2010). Cultural processes in science education: Supporting the navigation of multiple epistemologies. *Science Education*, *94*(6), 1008-1026.

Battiste, M. (2007). Nourishing the learning spirit. *Education Canada*, *50*(1).

Battiste, M. & Henderson, (2009). Naturalizing Indigenous knowledge in Eurocentric education. *Canadian Journal of Native Education*, *32*(1), 5.

Barton, K. C., & Levstik, L. S. (2004). *Teaching history for the common good*. Routledge.

Brayboy, B. M. J., Faircloth, S. C., Lee, T. S., Maaka, M. J., & Richardson, T. A. (2015). Sovereignty and education: An overview of the unique nature of Indigenous education. *Journal of American Indian Education*, *54*(1), 1-9.

Burbules, N. C. & Warnick, B. R. (2006). Philosophical inquiry. In J. Green, G. Camilli & P. Elmore (Eds.), *Complementary methods of research in education* (3rd ed., pp. 489-502). American Educational Research Association.

Calderón, D. (2014). Uncovering settler grammars in curriculum. *Educational Studies, 50*(4), 313-338.

Clearinghouse on Native Teaching and Learning. (2008). From where the sun rises: Addressing the educational achievement of Native Americans in Washington State. https://www.wssda.org/wp-content/uploads/2019/11/From-Where-the-Sun-Rises.pdf

Corntassel, J., & Scow, M. (2017). Everyday acts of resurgence: Indigenous approaches to everydayness in fatherhood. *New Diversities*, *17*(1), 55.

Curriculum. (2020). *Merriam-Webster.com Dictionary*, Merriam-Webster. https://www.merriam-webster.com/dictionary/curriculum

Deloria, V. (1997). *Red earth, white lies: Native Americans and the myth of scientific fact*. Fulcrum Publishing.

Deng, Z. (2017). Rethinking curriculum and teaching. *Oxford Research Encyclopedia of Education*. http://doi:1093/acrefore/9780190264093.013.55

Deng, Z. (2015). Organizing and sequencing of subject matters. In M. F. He, B. D. Schultz & W. H. Schubert (Eds.), *The Sage guide to curriculum in education* (pp. 78-86). Thousand Oaks, CA: Sage.

Dennison, J. (2017). Entangled sovereignties: The Osage Nation's interconnections with governmental and corporate authorities. *American Ethnologist*, *44*(4), 684-696.

Fickel, L. H. (2005). Teachers, tundra, and talking circles: Learning history and culture in an Alaska Native village. *Theory & Research in Social Education*, *33*(4), 476-507.

Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing*. Oxford University Press.

Fremier, A. K., Yanites, B. J., & Yager, E. M. (2018). Sex that moves mountains: The influence of spawning fish on river profiles over geologic timescales. *Geomorphology*, *305*, 163-172. https://doi.org/10.1016/j.geomorph.2017.09.033

Dozono, T. (2017). Teaching alternative and indigenous gender systems in world history: A queer approach. *The History Teacher*, *50*(3).

Gaudry, A., & Lorenz, D. E. (2018). Decolonization for the masses?: Grappling with Indigenous content requirements in the changing Canadian post-secondary environment. In E. Tuck, W. K. Yang & L. T. Smith (Eds.), *Indigenous and decolonizing studies in education* (pp. 159-174). New York, NY: Routledge.

Gruenewald, D. A. (2003). The best of both worlds: A critical pedagogy of place. *Educational researcher*, *32*(4), 3-12.

Hunt, S., & Holmes, C. (2015). Everyday decolonization: Living a decolonizing queer politics. *Journal of Lesbian Studies*, *19*(2), 154-172.

Holmes, A. & González, N. (2017). Finding sustenance: An Indigenous relational pedagogy. In *Culturally sustaining pedagogies: Teaching and learning for justice in a changing world*. Eds. Paris, D., & Alim, H. S. New York: Teachers College Press.

IPBES. (2019, May 6). Indigenous peoples, local communities, and nature. *Nature's dangerous decline 'unprecedented' species extinction rates 'accelerating.'* Geneva: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). https://ipbes.net/news/Media-Release-Global-Assessment#2-Indigenous

Jacob, M. C. (1999). Science studies after social construction: The turn toward the comparative and the global. In Bonnell, VE; Hunt, L. (Eds.*), Beyond the cultural turn: new directions in the study of society and culture*. University of California Press.

Jacob, M. M., Sabzalian, L., Jansen, J., Tobin, T. J., Vincent, C. G., & LaChance, K. M. (2018). The gift of education: How Indigenous knowledges can transform the future of public education. *International Journal of Multicultural Education*, *20*(1), 157-185.

Journell, W. (2009). An incomplete history: Representation of American Indians in state social studies standards. *Journal of American Indian Education*, 18-32.

Kanu, Y. (2011). *Integrating Aboriginal perspectives into the school curriculum: Purposes, possibilities, and challenges*. Toronto: University of Toronto Press.

Kerr, J. (2014). Western epistemic dominance and colonial structures: Considerations for thought and practice in programs of teacher education. *Decolonization: Indigeneity, Education & Society*, *3*(2).

Kimmerer, R. (2013). Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants (1st Ed.). Minneapolis: Milkweed.

Lomawaima, K., & McCarty, T. (2002). When tribal sovereignty challenges democracy: American Indian education and the democratic ideal. *American Educational Research Journal,39*(2), 279-305.

Lynn, N. and Banker, J. (2019). Update: The state of Native education. Report to the Legislature. Office of the Superintendent of Public Instruction. https://www.k12.wa.us/sites/default/files/public/communications/2019-12-UPDATE-The-State-of-Native-Education.pdf

Madden, B. (2014). Coming full circle: White, Euro-Canadian teachers' positioning, understanding, doing, honouring, and knowing in school-based aboriginal education. *in education,* 20(1).

Marker, M. (2016). Indigenous knowledge, indigenous scholars, and narrating scientific selves: "to produce a human being". *Cultural Studies of Science Education*, *11*(2), 477-480.
McCarty, T., & Lee, T. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard Educational Review*, *84*(1), 101-124.
McGinty, M., & Bang, M. (2016). Narratives of dynamic lands: science education, indigenous knowledge and possible futures. *Cultural Studies of Science Education*, *11*(2), 471-475.
McLaughlin, M. (1976). Implementation as mutual adaptation: Change in classroom organization. In *Social program implementation* (pp. 167-180). Academic Press.
Medina, J. (2013). *The epistemology of resistance: Gender and racial oppression, epistemic injustice, and the social imagination*. Oxford University Press.
Misco, T. (2010). Moving beyond fidelity expectations: Rethinking curriculum reform for controversial topics in post-communist settings. *Theory & Research in Social Education*, *38*(2), 182-216.
Nakata, M., Nakata, V., Keech, S., & Bolt, R. (2014). Rethinking majors in Australian Indigenous studies. *The Australian Journal of Indigenous Education*, *43*(1), 8-20.
Nasir, N. I. S., & Hand, V. M. (2006). Exploring sociocultural perspectives on race, culture, and learning. *Review of Educational Research*, *76*(4), 449-475.
National Congress of American Indians. (2019). Becoming visible: A landscape analysis of state efforts to provide Native American education for all. http://www.ncai.org/policy-research-center/research-data/prc-publications/NCAI-Becoming_Visible_Report-Digital_FINAL_10_2019.pdf
Pacific Salmon Foundation. (2020). Salmon Facts. https://www.psf.ca/learn/salmon-facts
Paris, D., & Alim, H. S. (2014). What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward. *Harvard Educational Review*, *84*(1), 85-100.
Richardson, T. (2011). Navigating the problem of inclusion as enclosure in Native culture-based education: Theorizing shadow curriculum. Curriculum Inquiry, 41(3), 332–349.
Rosebery, A. S., Ogonowski, M., DiSchino, M., & Warren, B. (2010). "The coat traps all your body heat": Heterogeneity as fundamental to learning. *The Journal of the Learning Sciences*, *19*(3), 322-357.
Sabzalian, L. (2019). *Indigenous children's survivance in public schools*. New York, NY: Routledge.
Sabzalian, L. (2018). Curricular standpoints and native feminist theories: Why native feminist theories should matter to curriculum studies. *Curriculum Inquiry*, *48*(3), 359-382.
Simpson, L. (2017). As we have always done: Indigenous freedom through radical resistance. Minneapolis: University of Minnesota Press.
Simpson, L. B. (2014). Land as pedagogy: Nishnaabeg intelligence and rebellious transformation. *Decolonization: Indigeneity, Education & Society*, 3(3), 1–25.
Smith, R. (1997). *The Norton history of the human sciences*. WW Norton & Company.
Smith, L. T. (2012). *Decolonizing methodologies: Research and Indigenous peoples*. Zed Books Ltd.
Stanton, C. R. & Morrison, D. (2018). Investigating curricular policy as a tool to dismantle the master's house: Indian Education for All and social studies teacher education. *Policy Futures in Education*, 16(6), 729-748.
Thornton, S. J. (2006). What matters most for gatekeeping? A response to VanSledright. *Theory & Research in Social Education, 34*(3), 416-418.

Smith, L. T. (2012). Decolonizing methodologies: Research and indigenous peoples (2nd Ed.). London: Zed.
Tuck, E., & Gaztambide-Fernandez, R.A. (2013). Curriculum, replacement, and settler futurity. *Journal of Curriculum Theorizing*, 29(1), 72–89.
Veracini, L. (2011). On settlerness. *Borderlands*, (10)1, 1-17.
Wolfe, P. (2006). Settler Colonialism and the elimination of the Native. *Journal of Genocide Research*, *8*(4), 387-409.
Yazzie, M. K., & Risling Baldy, C. (2018). Introduction: Indigenous peoples and the politics of water. *Decolonization: Indigeneity, Education & Society*, *7*(1).
Young, M. (2013). Overcoming the crisis in curriculum theory: A knowledge-based approach. *Journal of Curriculum Studies*, *45*(2), 101-118.