

Classrooms as Sites of Resistance and Rebuilding:  
Constraints and Affordances of Washington Teachers Using the  
*Since Time Immemorial* Native Education Curriculum

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**Abstract**

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This qualitative case study examines how six educators in Washington state are adopting and using the state-mandated *Since Time Immemorial* Native education curriculum in their teaching contexts. This research seeks to understand what constraints educators face in using the *Since Time Immemorial* curriculum and how those constraints may direct us to better understand ways settler colonialism continues to pervade classrooms in Washington state and the U.S. education system despite legislation and curriculum promoting the understanding of tribal sovereignty and local Indigenous communities. This case study will also seek to understand the ways that these six educators use their agency to disrupt settler colonialism in their classrooms by creating anti-colonial, land-based learning activities. An analysis of these Washington educators does not speak to the experiences of all teachers or classrooms in Washington state; however, an examination of their constraints and their anti-colonial actions provides an invitation for other teachers, education leaders, and policy makers to consider how to create greater equity

through the inclusion of a decolonial curriculum that educates all students about tribal sovereignty and local tribes.

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To my students, you are the reason this work matters and the reason I will strive to be better and do better every day. You deserve a world that is ready for your brilliance and kindness, and I will keep fighting until our schools are able to be this for you.

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# Introduction

## Introduction and Research Questions

In 2015, Senate Bill 5433 was passed by the legislature and mandated that Since Time Immemorial, a Native education cultural curriculum, will be taught in all K-12 schools in Washington state. This research seeks to understand how this state-mandated curriculum, Since Time Immemorial, is being used by teachers across Washington state. There has been little formal, publicized data available on the implementation and usage of Since Time Immemorial (STI) since 2015 and reason to believe that the curriculum is being unused or underused in many K-12 classrooms across the state (Banker, 2014 and Office of Superintendent of Public Instruction, 2019). For this reason, this qualitative case study will focus explicitly on six teachers who are *already* aware of and using or attempting to use the STI curriculum in their diverse teaching contexts.

Having completed this report initially as part of an action research project, the initial question posed was what successes and challenges are practicing teachers facing when implementing the state-mandated Since Time Immemorial curriculum? As an elementary teacher myself attempting to use STI and experiencing some successes but many challenges since learning about STI in the 2017-2018 school year, I wanted to better understand the experiences of other teachers using STI. After the initial action research analyzing practicing teachers' successes and challenges, I found a more appropriate question for this study would be what are the affordances and constraints practicing teachers are facing when using or attempting to use the state-mandated Since Time Immemorial curriculum? The language of constraints and

affordances shifts the focus from individual teachers to the educational and socio-political systems that teachers work within.

This paper will reframe and reinterpret previous data and new data through Tribal Critical Race theory and the concept that the movement from invisibility to visibility is “dignity-conferring” and “rights-generative” (Espinoza and Vossoughi, 2014). This research has a series of primary research questions and secondary research questions. The first questions are:

- What are the affordances of the Since Time Immemorial curriculum and teachers using this curriculum?
- What constraints are practicing teachers facing when attempting to use Since Time Immemorial?

The findings from these first questions allow me to address the following questions in my discussion:

- How, if at all, is settler colonialism producing real or perceived constraints for teachers attempting to use Since Time Immemorial?
- How can the use of Since Time Immemorial position teachers to engage in anti-colonial liberatory work by disrupting settler colonialism in their teaching contexts?

The experiences of six current teachers in Washington state will be explored to better understand the constraints and affordances these teachers experienced while aiming to use the STI curriculum. The STI curriculum can afford more accurate learning that renders visible both the resistance of Indigenous peoples as well as the power of settlers and settler systems that create the need for Indigenous resistance and resurgence.

## **Positionality Statement: Why This, Why Me, Why Classrooms?**

To engage in this research I need to acknowledge that I am a settler on stolen Indigenous lands: currently--Duwamish and Coast Salish land; previously--Yakama, Spokane, Ktunaxa, and Washo land. It is not just the stolen land but the white supremacist, imperialist systems built on and into the land that have also inexplicably privileged me. I am a non-Indigenous, settler teacher and researcher committed to disrupting settler colonialism and engaging in anti-colonial and decolonization work. I am learning every day how to do this work better as I uncover all of the deeply embedded beliefs, patterns, existences, structures, and actions in me and around me that are a result of settler colonialism's unquestioned presence in my life for many years and a product of my own privilege.

Settler colonialism, white supremacy, and imperialism were deeply embedded in the ideas, activities, words, and dispositions brought into the classroom during my own K-12 public education. I can only recall two memories of learning about Indigenous peoples in my own schooling: a Thanksgiving feast enacted by first graders dressed as Pilgrims and Native Americans and a brief introduction to Sacagawea and the Native Americans Lewis and Clark encountered in fourth grade. Both examples were incredibly problematic in historicizing, ethnocentric biasing, perpetuating blatant inaccuracies, and objectifying Indigenous peoples (Ferguson, 2015; Shear et al., 2015). Perhaps even more problematic is that these were my *only* experiences learning about Indigenous peoples I could recall after thirteen years of schooling. In my AP U.S. Government *We the People* course, my class represented our state in Washington D.C. in a national competition where we debated and interpreted the Constitution historically and its application today. Not once were tribal governments and treaties included while discussing

the structure of our government or how the Constitution has failed to be upheld for minoritized peoples in the U.S. today. Indigenous peoples were almost entirely invisibilized to me through my public education.

Examining what was invisible to me in my own K-12 education became most urgent when I started teaching in a rural, agricultural community in central Washington. While teaching and learning with third and fourth grade students, it became more and more clear to me that schools can be one of the most powerful driving forces for social change or schools can be one of the most powerful forces in upholding systemic oppression and marginalization. I also learned that schools could simultaneously do both. Testing and curricula requirements place constraints on students, teachers, and schools aiming to use learning as a tool for systemic change. I became convinced that learning has to result in an attempt to change the current reality for my students, their families, and our community. I watched as my students had deep, complex, personal understandings of justice and injustice in their lives but few understood that these injustices were products of systems that intentionally disempower Latinx, immigrant, low-income, rural, and undocumented individuals.

What I was witnessing in my teaching practice and what I was learning from Friere (2018), McGuire (2007), hooks (2017), and Orr (2004) lead me to ask a question that ultimately drove me back to graduate school to pursue my Master of Education and to complete this work for my thesis: If I believe an aim of schools is social reconstruction and creating a society founded on justice and equity, how can we challenge a system that we were never positioned to understand? If “invisibility is not an innocent oversight but often a historically accumulated manifestation of power” (Bang and Vossoughi, 2016, p. 182) then “what is visible and what is

invisible, when, to whom, and why is deeply shaped by issues of power and privilege” (Jurow et al., 2016, p. 212). Our school was not creating the social change our community needed.

Sabzalian and Shear (2018) use Dolores Calderon’s term “colonial blindness” to speak to a larger challenge that we collectively face: when invisible and unquestioned, how do we change a system that we were never positioned to see or understand? The more academia and my teaching context met, the more I was able to see the relationship between power and visibility in schools disproportionately affecting the Latinx students and families I worked with as well as the Native students in a nearby district on the Yakama Indian Reservation where my co-worker’s partner was the principal. As I started learning more about the Yakama Nation and about issues facing Indigenous communities through the Since Time Immemorial curriculum, I saw how this question of visibility and systems change for my Latinx students had similar reverberations for Native students and communities.

As I concurrently do the work to understand what has been invisible to me for so long about tribal sovereignty and settler colonialism I also reflect on the responsibility I have as a settler educator to render visible both Indigenous peoples and the enduring structures and implications of settler colonialism. As an elementary teacher, I reflect on what curricula I teach and how the explicit, implicit, and null curricula have immense power (Eisner, 1985) in shaping and normalizing what we collectively believe to be true and important. If the foundation of society is what is collectively held to be true and “learning is conceived as the work of collective knowledge production across generations in support of activities necessary for sustaining and promoting life” (Bang et al., 2018, p. 155), how can I support my students in understanding a more accurate, unsettled version of history and our society today to expand our collective

memory? How can a new narrative lead to radical decolonization as current students demand agencies, families, businesses, and the government to honor treaty rights and as adults who were taught this as students move into various sectors of society understanding the implications of settler colonialism both for Indigenous peoples and for settlers?

### **Acknowledging Constraints**

The invisibility of Indigenous peoples is a product of settler colonialism in our society and schools despite the efforts of teachers, school and district leaders, and politicians committed to anti-colonial education. As Sabzalian (2019) argues, the absence of Indigenous peoples demonstrates that teachers are products of schools, teacher preparation programs, and a culture that has intentionally invisibilized Indigenous peoples: “It would be easy to assign blame to this individual teacher; yet the issue...is cultural, not individual” (p. 122). The Since Time Immemorial curriculum as well as HB 1495 and SB 5433 are the products of tireless advocates and champions who understand the need for anti-colonial education about Indigenous peoples and tribal sovereignty in Washington state. Any critique of the curriculum or state bills speaks to the immense power of settler colonialism to keep anti-colonial education out of our schools despite the incredible teachers, leaders, advocates, and politicians that seek to use schools as sites of resistance and birthing grounds for justice.

Significant and long-lasting systems change will require support from more than just teachers committed to anti-colonial education that disrupts the hegemonic master narrative that oppresses our most vulnerable students. For SB 5433 to fully actualize and deliver on its intended aims, there will need to be more accountability, funding, accurate data on current usage,

awareness of STI, and support from various stakeholders. However, this scope of advocating for and understanding the current usage of STI was beyond my locus of control. I did have access to and a personal understanding of how teachers were voluntarily using STI as a way to create a more conscious classroom. Teachers were not only chosen as the focus of this research because they were an entity I could relate to and access but also because I wanted to demonstrate how teachers can be at the forefront of radical social change. Although systemic change is complex, teachers can be paving the way in the work of social reconstruction and decolonization.

Despite the challenges around implementation and usage of STI, I want to acknowledge and celebrate that Washington state has emerged as one of only two states intending to formally address Euro-centrism and colonialism in our state curricula through the use of a mandate to require a Native education curriculum be taught in all public schools. As we celebrate this success, let us remember that this is an important step but only one step in the long journey of creating classrooms and a society that not only acknowledges but actively creates the conditions for Indigenous peoples to practice their lifeways on the ancestral land that has been stolen and overwhelmingly unreturned. Creating a generation of Indigenous and non-Indigenous land-based youth who understand both the historical and contemporary truth about Indigenous peoples and settler colonizers is essential for re-creating a more just society.

## **Purpose**

This work will look at the constraints teachers are facing within the system as a way to render visible the impacts of settler colonialism and hegemony in our schools; however, it will also look at the ways teachers are enacting their agency to disrupt unjust practices and systems to

expose their students to anti-colonial, land-based curricula in order to strive towards a more just society for Indigenous peoples in particular and all people in a settler society. I ultimately hope that exploring these questions will help me and other teachers better understand how individually and collectively we can push for an increased usage of STI as a way to challenge the settler colonialism that our education system reproduces and upholds when we fail to teach about Indigenous peoples and tribal sovereignty. If settler colonialism thrives on the power of invisibilizing Indigenous communities and issues (Tuck and Yang, 2012, p. 2 and p. 6; Gilio-Whitaker, 2018, p. 284), my hope is that this work will be consequential in creating visibility. Believing that STI is widely unknown, I hope that this work will bring greater awareness to this comprehensive, free resource.

My hope is that this work can meaningfully contribute to a small but emerging body of literature around Washington State's mandate for Native education to be required in all schools. My hope is that understanding what constraints teachers are facing in the adoption of STI can position settler teachers to advocate for and disrupt the Euro-centric, colonial master narrative (Shear et al., 2015, p. 74 and p. 91; Sabzalian and Shear, 2018, p. 157; Star, 1999, p. 384) within their classrooms, professional learning communities, schools, and districts until accountability measures are taken at the state and district level. My hope is that this research continues to create more dialogue and brings awareness to inequities Native students and tribal nations face while examining the role teachers can actively play in educating about tribal sovereignty in a way that generates respect, understanding, and revitalization of tribal nations in Washington.

## **Background: Since Time Immemorial Curriculum**

With the passing of Senate Bill 5433 in 2015, Washington state became the second state in the U.S. to formally require that each school district teach about tribal sovereignty and local Indigenous communities through the use of a free, standards-aligned K-12 Native education curriculum. This curriculum, Since Time Immemorial, was developed in collaboration with OSPI, Northwest Tribes, and public and tribal school teachers. It is approved by all twenty-nine federally recognized tribes in Washington state. Since Time Immemorial, STI, was originally developed as part of House Bill 1495, which was passed in 2005 to acknowledge the need to educate all students about “tribal history, culture, treaty rights, and the contribution of Indian nations to the state of Washington” and the failure of most schools to cover these topics (Fertakis et al., 2012). Both House Bill 1495 and Senate Bill 5433 acknowledge the opportunity/achievement gap experienced by Native students in our school system as well as the inequities that Indigenous communities continue to face in Washington state (Fertakis et al., 2012).

House Bill 1495 intended for schools and districts to educate students about tribal history, culture, and government (RCW 28A.320.170, 2015); however, the bill only strongly encouraged schools to educate about local Indigenous communities and tribal sovereignty rather than legally requiring it (Fertakis et al., 2012 and Holtyn, 2018). Despite HB 1495’s aims “only three districts and a handful of additional schools voluntarily adopted the new curriculum and made efforts to consult with local tribes” (Rawlings, 2018), and the legislature found that “merely encouraging education regarding Washington's tribal history, culture, and government is not sufficient” (RCW 28A.320.170, 2015). A decade later, Senate Bill 5433 was passed as the predecessor of

House Bill 1495 with the same intended outcomes of HB 1495; however, it also required that school districts use the Since Time Immemorial curriculum and formally adopt it as part of their district's social studies curriculum during the "regularly scheduled reviews and revisions of their social studies and history curricula" (RCW 28A.320.170, 2015).

Five years after SB 5433's adoption, there continues to be limited data on the usage and implementation of the Since Time Immemorial curriculum by districts across Washington state. Despite the availability of a more culturally sensitive and historically accurate curriculum with STI, "too few educators have taken advantage of the opportunity to acquire new, accurate, culturally sound training," (Banker, 2014), and there are ongoing challenges around data collection for the usage of STI (Banker, 2014 and OSPI, 2019). A preliminary<sup>1</sup> survey (Appendix A) completed by 18 educators, instructional coaches, and administrators in Washington reported less than 40% having heard of STI and only 22% having ever used STI in their classroom or school. Although this survey is limited in scope, there is no other formal, public data capturing the usage of STI after SB 5433's mandate. Although the STI website showcases how individual teachers have used STI and a Facebook page for educators interested in using STI exists with 940 followers<sup>2</sup>, the STI curriculum has little visibility and has fallen short of its intended aims of

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<sup>1</sup> This survey was administered by a three person team of graduate students at the University of Washington (Elisabeth Heftel, Kanza Hamidani, and Lindsey Hand) in October of 2019. This survey was sent to roughly 200 current educators, instructional coaches, and principals in Washington state. Eighteen responses were collected, which included representation from teachers, principals, and instructional coaches with diversity in age, race, years in education (novice and veteran), geographic region (western, central, and eastern Washington), grade levels (elementary, middle, and high school) and population of district (rural, suburban, and urban). Despite the diversity of survey participants, a much wider sample size would be needed to make conclusive statements about the usage of STI. Additionally, many of the educators who received and/or took the survey were within education circles of the three person team, which included current and former University of Washington students as well as Teach for America members and alumni. These two sub-groups may have been more likely to be exposed to equity oriented teaching and materials, including STI. Despite these limitations, we found this preliminary data to still be useful in suggesting that STI is widely underused by and unfamiliar to teachers across Washington state.

<sup>2</sup> This page is called "OSPI Tribal Sovereignty Curriculum Network," and its most recent post was in February 2018.

supporting Native students and educating all students in Washington state on the importance of local tribal communities.

## Literature Review

### Framework: Tribal Critical Race Theory and Visibility

There are many factors that warrant the study and analysis of *Since Time Immemorial's* usage, particularly through the lens of Tribal Critical Race Theory and an analysis of visibility. Tribal Critical Race Theory (TribalCrit) emerges from critical race theory but attends to the complex relationship between Indigenous peoples and the United States government as well as the legal, political, and social position of Indigenous peoples (Brayboy, 2006). Brayboy (2006) cites his earlier work (2001) when explaining that as tribal critical race theory emerged, the “basic tenet of TribalCrit emphasizes that colonization is endemic to society” (p. 429). Brayboy outlines nine additional tenets of TribalCrit; however, this research will focus on the primary tenet that “colonization is endemic to society” and the sixth tenet that “governmental policies and educational policies towards Indigenous peoples are intimately linked around the problematic goal of assimilation” (Brayboy, 2006, p. 429). The relationship between power and visibility is central to both of these tenets.

With a Tribal Critical Race Theory framework, the question is not *if* settler colonialism is present in our society and schools but *how* settler colonialism continues to be mightily and silently present in the United States. Asserting that colonization is endemic to society (Brayboy, 2006), colonization must also be endemic to every aspect of society, including our classrooms, our schools, our education system, and our political system. For this reason, settler colonialism and the violence of settler colonizers is “reasserted each day...making it a structure not an event” (Tuck and Yang, 2012, p. 5) that is “connected to ongoing, structural attempts to dispossess tribal nations of their land, heritage, and sovereignty” (Gonzalez, 2018, p. 96). If settler

colonialism is a structure (Shear et al., 2018) that is unquestioned, then the master narrative of settler colonialism and white supremacy is a “voice that speaks unconsciously from the presumed center of things” (Star, 1999, p. 384). Without conscious, intentional effort to examine or resist this master narrative, we unknowingly uphold settler colonialism as we move throughout our days. Individuals still exist within systems that sustain colonialism, so simple participation in these systems upholds settler colonialism despite conscious, intentional efforts to resist the master narrative or to introduce an alternative one. This lens will allow us to see how mandates and educators intending to support Native students and Indigenous communities face constraints when existing within a colonized society.

Settler colonialism is upheld by invisibilizing Indigenous peoples and tribal sovereignty, and this erasure is needed as justification for past and current actions of people in a settler society. Indigenous and non-Indigenous scholars, educators, and teacher-educators alike have noted the relationship between invisibility and power as central to colonialism’s enduring dominance. Tuck and Yang (2012) discuss how “Indigenous people must be erased, must be made into ghosts” because “for the settlers, Indigenous peoples are in the way, and in the destruction of Indigenous peoples, Indigenous communities, and over time and through law and policy, Indigenous peoples’ claims to land under settler regimes, land is recast as property and as a resource” (p. 6) allowing colonization to persist largely unquestioned. If “hegemony is characterized not only by what it includes but also by what it excludes: by what it renders marginal, deems inferior, and makes invisible” (Fasheh, 1990, p. 24) then there is an “ideological erasure of Indigenous populations” (Calderon, 2014, p. 29) through this exclusion or invisibility.

The second tenet of TribalCrit that this paper will attend to is the way schools maintain the eradication and invisibility of Indigenous peoples, thus upholding colonialism. Although Brayboy (2006) has previously “argued that the governmental relationship between tribal peoples and the U.S. allows for the possibilities of self-education and -determination for American Indians, the way in which these policies have been interpreted and carried out has instead been rooted in assimilation” (p. 436). Our education system is connected to issues of power and hegemony (Fasheh, 1990, p. 24). Esmonde and Booker (2017) discuss the power embedded in schools:

“Power is already there in the explicit and in the hidden curriculum of learning contexts. In all learning contexts, power is involved in the determination of what will or should be learned and in how that learning will be supported and measured. This is most readily seen in government-regulated schooling, in which a vast political process determines the explicit curriculum. This political process extends to the assessment and evaluation process, so that learning is only credentialed if it is expressed in state-sanctioned ways” (p. 168).

Shear, Knowles, Soden, Castro (2015) and Simpson (2014) further discuss the way standards, curricula, and policies further disenfranchise, invisibilize, and historicize Indigenous peoples and tribal sovereignty. This tenet will allow us to consider how constraints teachers are facing in the usage of Since Time Immemorial are tied to issues of power and the presence of settler colonialism in our education system.

The final assumption that this research will explore is how the movement from invisibility to visibility is a “dignity-conferring” and “rights-generative” act (Espinoza and

Vossoughi, 2014, p. 1). The invisibility of Indigenous peoples and tribal sovereignty is an outcome of settler colonialism that continues to lead to the denial of legal rights and in turn dignity for many Indigenous peoples and communities today. Fasheh (1990) speaks to the power of educative spaces to challenge the hegemonic assumptions that disempower and withhold dignity from marginalized groups when he concludes “education can do one of two things: it can either introduce hegemony into the community, or it can reclaim and develop what has been made invisible by hegemony” (p. 25). Although colonization in Fasheh’s context is different from the context of the U.S. as a colonized nation, the idea of schools having the potential to render visible what was invisible as an act of dignity is similar. Visibility affording a greater recognition of dignity and rights for Indigenous people will enable us to view the work of teachers using STI as an anti-colonial act of resistance that strives for education as the practice of freedom (hooks, 2017).

### **Native Education for All Students**

As the legislature and HB 1495 and SB 5433’s advocates understood, the inequities that Native students and Indigenous peoples continue to experience are unacceptable and public education is one way we can begin to address these inequities. Public education in the U.S. has “given little regard to meeting the unique needs of Native students, creating a negative learning environment...the long-term effects of such public education systems are seen today in high dropout rates, low self-esteem, and lack of cultural identity due to negative stereotypes represented in textbooks and in the media” (National Congress of American Indians, 2015). Native students experience “overt and covert racism on a daily basis” (Johnston-Goodstar and

Roholt, 2017) that compromises a sense of safety, comfort, and visibility in schools. The negative impacts of schools failing to create safety and visibility for Native students can be seen when considering that Native students have the highest dropout rates (National Congress of American Indians, 2015; Rawlings, 2018), which can be more accurately described as push-out rates (Johnston-Goodstar and Roholt, 2017), and the highest rates of school discipline (National Congress of American Indians, 2015). Native students experience the opportunity/achievement gap with only 22% of 4th grade and 17% of 8th grade Native students proficient in math (National Congress of American Indians, 2015). Native students benefit from seeing their cultures and identities accurately represented in the classroom, and students often experience negative outcomes when this is absent from their educational experience.

All students benefit from having their cultures and identities recognized, validated, and represented in the classroom (Nasir et al., 2014; Ferguson, 2015), and Indigenous people have been overwhelmingly absent or misrepresented in most schools (Johnston-Goodstar and Roholt, 2017). Specifically, “American Indian students gain self-confidence and respect when educational materials accurately reflect and validate their identities, cultures, and histories” (Ferguson, 2015, p. 2). However, Native students often face erasure and misrepresentation (Ferguson, 2015 and Fertakis et al., 2012) if Indigenous peoples are represented at all in the classroom and curricula. Gilio-Whitaker (2018) discusses erasure and misrepresentation: “Five centuries of colonialism have rendered Native people largely invisible, and when visible, they are educated to a myriad of stereotypes and mythological representations in a continual cycle of dehumanization and erasure (Dunbar-Ortiz and Gilio-Whitaker, 2016)” (p. 284). In addition to problematic representation or absence in curricula, assessments (Tuck and Yang, 2012) and

standards (Shear et al., 2015; Sabzalian and Shear, 2018; Shear et al., 2018) are also problematic in how “a tone of detachment...dismisses the humanity of Indigenous cultures and experiences in the United States” and how the “wording of the standards themselves across most states represents the re-colonization of Indigenous Peoples” (Shear et al., 2015, p. 90) by promoting Western ways of knowing and a Eurocentric justification for conquest (Shear et al., 2015, p. 90 and Shear et al., 2018, p. 12). The problematic ways in which Indigenous people are represented and fail to appear in schools contributes to the inequitable educational outcomes that many Native students experience in our education system. The need for historical and contemporary land-based, anti-colonial education that disrupts the master narrative of settler colonialism and western ways of knowing and existing is essential for Native students.

Movement towards land-based, decolonial education--through the intentional usage of curricula like *Since Time Immemorial*--not only supports Native students in being positioned to find greater academic “success” in school but is critical for *all* students in the U.S. to have a more accurate understanding of Indigenous peoples and tribal sovereignty. An unsettled account of both settlers and colonization as well as tribal nations (Sabzalian and Shear, 2018) benefits all students by fostering greater appreciation, understanding, and respect instead of stereotyping (Ferguson, 2015). If, as Sabzalian and Shear (2018) believe, “there is a connection between the silence in schools and the continual denial, erosion, and threats to Native sovereignty” (p. 155), then the visibility of Indigenous peoples and the ways in which our society continues to threaten, mistreat, and marginalize Indigenous peoples is necessary if we are to aspire for a more just society. A more just society can be strived towards when our education system recognizes that “*all* teachers and students...[have the] responsibility to learn and teach about the histories and

continued connections Indigenous peoples have to the physical, social, economic, and cultural spaces that were forcibly taken by settlers” (Stanton, 2019, p. 288) because all education takes place on Indigenous land (Sabzalian and Shear, 2018, p. 159). There is a pressing need for schools to become places where accurate, robust historical and contemporary learning about and with Indigenous peoples takes place if U.S. education is to work towards creating a more just society and a flourishing democracy that recognizes the rights of all peoples.

Accurate understandings of Indigenous peoples and rights both historically and currently will allow us to challenge the settler colonialism embedded in our education system and society. All students will be more equipped to recognize and challenge the injustices faced by Indigenous communities today by recognizing how settlers and settler society have contributed to the denial of constitutionally protected rights and the withholding of dignity that Indigenous peoples have faced and continue to face in the United States. If “schools, universities, states, and societies ought to exist to promote the full realization of humanity,” anti-colonial curricula and learning in all classrooms may be an answer to the questions of how learning can “give rise to an exalted quality like dignity” and how learning can “function as a crucible” for rights (Espinoza and Vossoughi, 2014, p. 287). Once schools start rendering visible that which has remained overwhelmingly invisible with colonization and tribal nations, all people will have a responsibility to act differently, in a way that honors and respects tribal nations with not only words but actions that seek to support tribal sovereignty and resurgence efforts. The movement from invisibility to visibility can afford greater recognition of dignity for Indigenous peoples and *all* people through understanding and honoring tribal sovereignty and Indigenous knowledges and lifeways.

## Teacher Agency

Teachers not only have a great deal of agency in their practice but teaching is an act of agency. Schools are inherently political because the education system is one of many systems in the U.S. that is influenced by issues of power and privilege. Education in the U.S. is constrained and influenced by hegemony and power in the same way that teachers face both real and perceived constraints as they choose to enact their agency, particularly when these choices challenge the status quo. Despite these constraints, teachers have immense power associated with the position they hold. Gale and Gourd (2019) state that “teaching *is* agency” (p. 1) because through each teacher’s individual and collective “choices and actions, the institution of *the school* is constantly recreated **and possibly changed**” (p. 3). Teachers can attend to “power as it is performed, expressed, or circulated” (Esmonde and Booker, 2017, p. 172) in their classrooms, schools, and districts by examining curricula, practices, and structures with a critical gaze for the ways that racism, classism, sexism, and colonialism are present.

Settler teachers are in the ideal position to advocate for and disrupt the Euro-centric, colonial master narrative (Shear et al., 2015, p. 74 and p. 91; Sabzalian and Shear, 2018, p. 157; Star, 1999, p. 384) within their classrooms, professional learning communities, schools, and districts until accountability measures are taken at the state and district level to address silences in curricula and opportunity gaps for Native students. Stanton (2019) discusses the role that all educators, particularly settler educators, need to have when it comes to enacting their agency to disrupt the colonialism that remains in our education system:

“This mentor taught me that when it comes to confronting settler colonialism within our schools, curriculum, and lives, *all* teachers have agency--and responsibility. Like the majority of teachers in the United States, I am a white woman, and my past, present, and future have been, are, and will continue to be influenced by settler actions and identities. Confronting this reality, I can throw my hands up and say ‘But that happened so long ago, there is nothing I can do about it now,’ or I can learn from/with Indigenous mentors and *do* something to change how I teach about Indigenous experiences” (p. 282).

To varying degrees, teachers can enact their agency to determine what they teach and visiblize in their classrooms, whom they teach for and with, how they position themselves in the classroom and in relationship to others in their communities, and why these acts of agency can be consequential in creating more equity for historically and currently marginalized communities in our society. Settler colonialism thrives on the power of invisibilizing Indigenous communities and issues (Tuck and Yang, 2012 and Gilio-Whitaker, 2018) in schools and society, and teachers have contributed and continue to contribute to the harm experienced by Native students when classrooms uphold and normalize settler colonialism. Teachers also, however, have the power to become aware of and commit to the anti-colonial, liberatory work of repositioning Indigenous peoples and visibilizing the impacts of settler colonialism on both Indigenous peoples and all people living in a settler society today in order to demand a more just society. This rendering visible that starts with teachers enacting their agency in the classroom can result in widespread demands for change beyond schools.

## Methods

### Qualitative Case Study

This qualitative research is a case study analysis of teachers who are preparing for and using the Since Time Immemorial curriculum in their teaching practice. A case study represents the reality of how STI is being used by practicing teachers “with all its crosscurrents and rough edges” (Ellet, 2009, p. 12). This research centers “teachers as holders and producers of knowledge” (Cochran-Smith and Lytle, 2009, p. 311), and each case study examines how teachers are engaging in liberatory education that disrupts settler colonialism specific to their context. Teaching is “radically local--embedded in the immediate relationships of students and teachers, shaped by the cultures of schools and communities, and connected to the experiences and biographies of individuals and groups” (Cochran-Smith and Lytle, 2009, p. 10). Attending to context was critical when attempting to understand how settler colonialism and visibility appear in schools, so the six case studies represent varied contexts of educators across Washington state. Additionally, the data was triangulated drawing on multiple artifacts from each teacher in this study to create more reliability (Mills, 2018). These case studies are not intended to be conclusive about all teachers or schools in Washington. The case studies are intended to highlight how settler colonialism appears across the six contexts and how these six teachers are enacting their agency to attempt to disrupt settler colonialism through the STI curriculum.

A case study analysis with a Tribal Critical Race Theory and visibility framework aims to understand “the complex ways in which the pursuit of knowledge is deeply embedded in the multiple layers of imperial and colonial practices” (Smith, 2012, pp. 31-32). This research, although deeply connected to Indigenous peoples, is aiming to see how *settler* educators can

challenge these colonial practices. As Smith (2012) states, research is a “site of struggle between the interest and ways of knowing of the West and the interests and ways of resisting of the Other” (p. 31). This research aims to serve the interests “of the Other” by creating visibility for an anti-colonial curriculum and for the ways settler educators can be co-conspirators in decolonization work with tribal communities in Washington.

## **Participants**

The research participants for this study were six current teachers in Washington state. While teaching full time, these teachers were taking classes as part of the University of Washington’s Accelerated Certification for Teachers (U-ACT) Program and are Masters in Teaching candidates. In 2018, Senate Bill 5028 required that all teacher education programs in Washington state integrate the Since Time Immemorial curriculum into existing history and government requirements preparing teachers to teach about tribal sovereignty and Indigenous peoples (Office of Superintendent of Public Instruction, 2019). The University of Washington’s U-ACT program created a one credit course, EDTEP 555 *Understanding Indigenous Perspectives: Implications for Teaching and Learning*, that extends throughout the year to meet and exceed this requirement. The course provides a foundation on tribal sovereignty, an exploratory engagement with anti-colonial tools and the Since Time Immemorial curriculum, exposure to land-based pedagogies that counter the Euro-centric practices and curricula in many schools, and multiple opportunities to design learning activities with Indigenous peoples and tribal sovereignty in mind. The participants in this study were enlisted through my position as the reader/grader for Dawn Hardison-Steven’s EDTEP 555 course.

EDTEP 555 students<sup>3</sup> were chosen as subjects for understanding how Since Time Immemorial was being used by teachers in Washington state for a few key reasons. EDTEP 555 ensured that all fifty students would be engaging with the Since Time Immemorial curriculum during the 2019-2020 school year. Although the degrees of engagement would vary based on the teacher and their context, all teachers would at minimum look through the STI curriculum for their grade level, examine the big five understandings and five essential questions of the curriculum, and plan a minimum of one learning activity, such as a lesson, using a portion of the STI curriculum. Some teachers would not have an opportunity to teach the learning activity or lesson with their students, and others designed comprehensive units around local tribal communities and tribal sovereignty with the support of STI that they have already used or will use in this school year or the 2020-2021 school year. EDTEP 555 students were guaranteed to be using it during the time of this research, making them ideal candidates for this study.

In addition to their engagement with STI during the time frame of this research, EDTEP 555 students provided a diverse sample that would allow for more representative data. All but one of the fifty EDTEP 555 students currently live and teach in Washington; however, there is diversity and representation by age, race, socio-economic status, years teaching, gender, type of school (traditional, public charter, and independent), and geographic location (rural vs urban as well as Eastern, Central, and Western Washington). The six focal teachers selected included diversity across all the above measures; however, only teachers in traditional public schools were selected as part of this study to more deeply understand what constraints teachers

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<sup>3</sup> A majority of the fifty students in EDTEP 555 are concurrently classroom teachers. EDTEP 555 participants will be referred to as students in the methods section for clarity; however, in the Findings and Discussion sections, the term teachers will be used to describe these six current EDTEP 555 students and practicing teachers as those sections will speak more broadly about the implications for all teachers, including those outside of the EDTEP 555 course.

face in schools where the impacts of system wide initiatives (such as high-stakes testing, curricular decisions, etc) would be most heavily and consistently experienced. Teachers included a range of ages and experiences from recent graduates in their twenties to middle-age veteran teachers with up to twenty years of teaching experience. The teachers included white educators and educators of color as well as educators from central Washington, the Greater Puget Sound Area, and south western Washington in a mixture of urban, suburban, and rural communities. This diverse sample of teachers would enable me to look at the systemic constraints and settler colonialism present in schools across various contexts.

Of the EDTEP 555 students, six focal teachers were selected based on two criteria. The first criteria sought teachers who demonstrated thorough engagement with the STI curriculum and other class materials. Because this research examines how teachers are voluntarily taking up teaching about tribal nations and sovereignty, teachers were selected who demonstrated a belief in the importance of Native education for all students and were aiming to create learning opportunities that would be intentionally used in their classroom this year or at a set time in the following school year. Some students completed the work for EDTEP 555 but for a variety of reasons did not plan to bring this learning to their classrooms. Although examining the reasons why would have afforded important understandings, a narrower scope was necessary for the completion of this research. As one of the central research questions examines how teacher agency and the STI curriculum are affording anti-colonial learning experiences for students, teachers who were choosing to enact their agency in this way were the individuals sought for this research. A survey of each teacher's submitted coursework was used to record which teachers fit this criteria.

The second criteria was intended to produce a diverse and representative sample of teachers. A spreadsheet of the fifty teachers' demographic information was created. Teachers in public school settings who filled the first criteria were highlighted. A list of fifteen teachers was created and eight of the fifteen teachers were selected. These eight teachers were selected to have a balance of representation across geographic region, gender, geographic area (rural vs urban), race, age, and years teaching. Canvas messages and emails were sent to eight students with an introduction to the researcher, a description of the research, and a consent form. Five students responded and returned consent forms. The remaining three did not respond or were hesitant to be part of the study. Two additional Canvas messages were sent to teachers from the original list of fifteen who would maintain the balance of diversity and representation for the three who would not be participating in the study. One teacher responded and returned the consent form, making them the final teacher included. An initial participant representing the central Washington region responded that they would join after they had expressed hesitation in email and phone correspondence before. This participant was not included as the researcher had already started coding and analyzing the data. This left representation for Eastern/Central Washington as only one person.

## **Procedures**

EDTEP 555 students were intentionally chosen to ensure diversity and representation from across contexts in Washington. A Google sheet was created to record each student's name, gender, region of living or teaching, grade, school name, district (when public), the type of school (public, public charter, independent), number of years teaching, general age, and race.

Each student's introduction was reread to capture this general information. The Module 1 discussion post and exit ticket were used to supplement general information when the introduction was missing critical information. Additionally, some teachers shared information about their race in the Module 2 discussion posts. Some identifying information, such as race, remained unavailable for many of the fifty students.

My role as the reader/grader for EDTEP 555 not only allowed me to get to know the students more deeply but also provided me direction on what artifacts would be most useful for this research when analyzing the six focal teachers' work. As the reader/grader for this course, I have read submissions for assignments in all four modules from many students<sup>4</sup>, and this allowed me to determine what coursework would be most beneficial to focus on. Each EDTEP 555 student had four modules of work to complete, and each module included required readings, discussion posts reflecting on the required readings in relationship to their context, and assignments primarily focused on creating materials that could be used in their classrooms to teach about local tribes and tribal sovereignty. In addition to looking at the syllabus' topic for each module and the directions for each individual assignment, having read multiple submissions for each assignment allowed me to see how students were responding. I learned that discussion posts, though counting for less points than most assignments, were places where students most deeply reflected on their own positionality as an educator.

EDTEP 555 uses the online platform Canvas, so all work was accessed through Canvas. All work is tied to the students' names; however, for the six focal teachers, all work was analyzed and coded after pseudonyms were added and identifying information was removed

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<sup>4</sup> EDTEP 555 does not have official due dates prior to June 7th. During the time of my data collection, not all students had submitted all or any of their coursework.

from their coursework. In order to keep the teachers' identities and teaching contexts anonymous, each teacher was assigned a pseudonym (i.e., Teacher 1). The pseudonym was correlated with each teacher's work from the Canvas site for EDTEP 555, and any additional identifying information was removed from within their responses.

## **Data Collection**

This research will examine the materials from Module 1, Module 2, and Module 3 accessed through Canvas. Module 2 asked students to analyze the required readings and resources then connect them to their teaching contexts. EDTEP 555 students were also asked to reflect on how Indigenous peoples have been represented during their schooling, in their classrooms, or in their lives currently, which would allow students to think about how these resources could help them in teaching about Indigenous peoples. The four discussion questions<sup>5</sup> resulted in many students anticipating or sharing what challenges or benefits could come or have come from learning about and using these resources. One of the main sources being analyzed for the Module 2 discussion post was the Since Time Immemorial curriculum, so each student explored the five essential understandings, five big questions, and lessons for their grade level. The Module 2 discussion post was the artifact most heavily relied on for data collection.

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<sup>5</sup>Module 2 Discussion Post questions:

1. With the 5 inquiry based essential questions that frame the "Since Time Immemorial" curriculum, how do you see the curriculum resources linking back to those questions? (*You may choose to focus on one or more of the essential questions specifically or make broad connections to the questions in general*)
2. What exciting resources/information was found (STI or other) to assist in your own teaching/working with youth? (*Here groups of 2-4 can be identified based on content taught for the culminating project*).
3. Reflect on the differing representations of Native people experienced in media and schooling. How does the evaluation tool support critical analysis of Indigenous focused teaching materials?
4. In what way(s) are you beginning to consider a relationship to tribal communities?

In addition to the Module 2 Discussion Post, The Module 1 Introduction, Module 2 Community Engagement Plan, Module 3 Land Based Education: Walking the Land--Phase 1, and Module 3 Lesson Sketch--Phase 2 were used to collect information on each individual's teaching context and to see how the lessons they were creating were supporting the affordances described in the Module 2 discussion post. These lessons were also used as supporting evidence for ways in which constraints limited what type of learning activities teachers ended up creating. Due to school closures for the remainder of the 2019-2020 school year, some students adjusted their lesson and unit plans or decided to create lesson and unit plans that would be used when schools opened again next school year. Although this limitation affected what some teachers chose to submit, the affordances and constraints still could be analyzed with these conditions in mind. Most of the assignments were submitted before school closures, so only the latter assignments would have been thought about differently.

### **Data Analysis**

The artifacts from EDTEP 555 classwork were analyzed in a variety of different ways. After removing identifying information and adding pseudonyms, the Module 2 discussion posts were printed and color coded for successes, challenges, affordances, and constraints. The Module 2 Discussion Post was coded for individual teachers' successes (Appendix B) and challenges first (Appendix C). Successes and challenges were viewed as either an outcome of the STI curriculum or an outcome of using the STI curriculum, columns 2 and 3 respectively. An "other" category, column 4, was created to account for indirect outcomes that were not outcomes of the

curriculum or of using the curriculum. Each teacher was analyzed separately for successes and challenges.

The Module 2 Discussion post was then analyzed for the constraints and affordances teachers experienced while using or planning to use the STI curriculum. The Module 2 Discussion Post was reread and coded to look at the constraints (Appendix D) and affordances (Appendix E) from a systemic perspective relying on tenets of TribCrit and visibility. On each student's coded discussion post, the constraint or affordance was summarized using language related to settler colonialism, anti-colonial pedagogy, and visibility. The summarized notes on each document were then used to look for recurring trends that informed the eight themes listed for constraints (Appendix D) and the ten themes listed for affordances (Appendix E). Once the themes were accounted for, the notes restating the affordance and constraint were sorted into the most appropriate thematic category. Comments associated with the teacher's pseudonym were recorded in the "Commentary" section on the appendices.

After the Constraints and Affordances appendices were completed, each theme was labelled as relating to settler colonialism or to the Since Time Immemorial curriculum. Next, the eight constraint themes and ten affordance themes were combined into a broader, related affordance or constraint when more than half of the participants had discussed that theme. Two additional matrices were created to summarize this process. The Matrix for Findings and Implications for Constraints (Appendix F) lists the three main constraints, the "Findings" column, and the implications, the "Implications" column, of each with three of the findings related to the usage of STI and none related to the STI curriculum itself. One teacher did discuss the limitations of the curriculum; however, constraints and affordances were only recorded when

it was mentioned by at least half of the teachers in the study. The Matrix for Findings and Implications for Affordances (Appendix G) lists the four main affordances, the “Findings” column, and the implications, the “Implications” column, of each affordance. Three of the findings related to the usage of STI and one related to the STI curriculum itself.

The final stage of data collection was intended to triangulate the data rather than relying primarily on the Module 2 Discussion Post. The Module 2 and Module 3 assignments were analyzed on three main indicators: “Evidence of counter narrative/Repositions and creates greater visibility for Indigenous peoples,” “Exposes or disrupts settler colonialism,” and “Land-based pedagogy.” The data was represented in a matrix (Appendix H) analyzing each participant individually to see if their lesson or unit plans had elements of anti-colonial or land-based pedagogy that would challenge settler colonialism or create greater visibility for Indigenous peoples. Four of the six teachers submitted work that could be analyzed, and the remaining two teachers had not yet submitted the assignments used for this evaluation.

### **Ethical Considerations**

All six focal teachers completed a consent form. All work was made anonymous and any identifying information was removed. In recognizing that teachers are disclosing their usage of STI, which is legally mandated, the utmost care was taken to ensure that the individual teachers and their specific teaching contexts (i.e., school names and district names, particularly in smaller sized districts) would remain unidentifiable. Additionally, informed consent was sought from each teacher who decided to be part of this study, and each EDTEP 555 student understood that there would be no positive or negative consequences on their grades for this course if they chose

to or chose not to partake in this research. Additionally, all Module 2 and 3 discussions and assignments were graded before the research started. A final draft of this study was sent to the six teachers in the case study to ensure their work was accurately represented and interpreted. Feedback was received from one teacher, and changes were made accordingly.

## **Findings**

The findings will discuss the constraints and affordances the teachers experienced when using or planning to use the Since Time Immemorial curriculum. The findings highlight three constraints and four affordances of teachers using STI to disrupt settler colonialism. With the use of a Tribal Critical Race Theory framework, I analyzed data with the understanding that settler colonialism is endemic to our education system (Brayboy, 2006). With the lens of visibility, I analyzed data with the understanding that power and visibility are inherently connected in our education system and society.

### **Themes: Constraints**

Three prominent findings emerged from the data. The first finding is that all teachers in this study discussed how the education system perpetuates inaccurate and biased information that miseducates all students about Indigenous peoples. All six teachers noted that either in their own education, in their current teaching context, or in both, they experienced how schools had played a role in miseducating about Indigenous peoples. Sometimes this miseducation came through stereotypes or inaccurate information about Indigenous peoples. In the Module 2 discussion post, Teacher 1 recalls how their understanding of Indigenous peoples today is flawed, in part, because of how they were educated in school: “my own narrative [is limited] based on what I think I remember learning in elementary school about ‘Indians who ate a meal with pilgrims.’” Teacher 3 reflects on their position as both a teacher and a student when discussing how teachers are criticized for teaching about “Native communities as if they were extinct or exotic,” which is a stereotype that held true in their own K-12 schooling. Other times this miseducation came

through omission, where the absence of any significant learning about Indigenous peoples was part of the learning experience. Teacher 6 discusses how despite the belief that their students are “much more knowledgeable about the world than I was at their age...many of them are mostly unaware of the indigenous (*sic*) communities less than 50 miles from their school.”

The second finding is that the invisibility of Indigenous peoples in schools today remains a problem with implications for all people, particularly Indigenous peoples and other marginalized groups. This invisibility is multifaceted. All six teachers noted the invisibility in some regard to their current teaching context. Teachers 1 and 6 noted this invisibility or misrepresentation of Indigenous peoples in other curricula within the school: “Schools and text read in schools reflect this still because, Native peoples are often portrayed not as the focus, but as the other, and as only living in history and not living in strength today” (Teacher 6). In this sense, misrepresentation is the invisibility of any narrative that contradicts the narrative of settler colonialism. Teachers 2, 3, and 5 discussed how the invisibility of Indigenous peoples still exists in our schools. This is evidenced in the usage of required curricula that renders invisible Indigenous peoples, in teachers’ limited understandings and knowledges about Indigenous peoples, and in the lack of recognition that Indigenous peoples and issues are relevant to all people.

Invisibility also remains in schools when teachers are not educated themselves on the biases they may have been exposed to, are not aware of the need for more accurate learning about tribal nations, and are unaware of the resources available to do this. Teachers 2, 3, and 5 explained how they would likely not know or teach about Indigenous peoples in unbiased and accurate ways had they not learned about the STI curriculum through the EDTEP 555 class.

Teacher 5 explains how invisibility existed for her prior to learning about STI: “I am thankful that the STI [curriculum] was provided for us through this course. It is not a resource I knew of before this [module’s] reading.” Students and teachers limited prior knowledge about Indigenous peoples may make it harder to move political and racial groups of people from invisibility to visibility.

The third finding is that there are barriers or challenges teachers face when adopting and using STI primarily related to time constraints. Four of the six teachers referred to a time related barrier. The time related barriers were nuanced and dependent on a teacher’s context even though broadly fitting into the constraint of time. A first challenge to adopting STI is the additional time that was required to familiarize, understand, and adapt the STI curriculum--or *any* curriculum--to existing curriculum and plans. Two teachers noted that incorporating STI into content-specific learning had some challenges, particularly around math and science. The challenge came with how components of STI would fit in with their required content, rather than from the STI curriculum being devoid of mathematical and scientific components. The challenge came with the time required to adapt material to meet subject specific content requirements. Another teacher, who taught all subjects at the elementary level, mentioned the extra time that would be required to assess students’ background knowledge and cover content prior to their grade level’s content:

“I would take a step [back] and do a formative assessment to decide how much prior knowledge my scholars have of tribal history or even current legacy. I have no scholars that identify or families that identify as tribal therefore my scholars may need to take a few steps back within the curriculum” (Teacher 5).

Three of the teachers named that making STI fit into their teaching context currently would require additional time. Although time was how teachers most often described the barriers, the constraint of time manifested because of subject, content, or schedule requirements the teacher faced. The time related challenges that teachers faced were varied, complex, and dependent on context.

### **Themes: Affordances**

Four noteworthy findings emerged from the data. The first finding is that the design and usage of Since Time Immemorial recenters tribal nations and Indigenous peoples, according to five of the six teachers. How each teacher believed that STI did this varied, but in each instance power was shifted to Indigenous peoples. One instance was how the curriculum was written in collaboration with current tribal leaders and members, so it shifted the power dynamic by including Indigenous voices and minds in the writing of the mandated curriculum. Teacher 1 reflects on the ways STI and materials from the Module 2 readings incorporates Indigenous voices:

“...quality materials that will help students get a glimpse into what life was really like for indigenous (*sic*) people at that time and then to bring current voices into the picture so students understand that American Indian culture does not end after the first thanksgiving (*sic*), but is thriving today.”

Another instance was how the content of the STI curriculum recenters Indigenous peoples historically *and* currently as citizens of sovereign nations that have political, economic, and cultural practices.

Four of the six teachers also discussed how the design of the STI curriculum itself recenters Indigenous peoples. To most effectively teach STI, partnerships and relationships with members from local tribes is important. Having a person as a resource to ask questions or to invite in to teach a lesson moves Indigenous peoples from places of invisibility or exclusion in classrooms to a more central place. Teacher 1 discusses how they “would love to work with a tribal community to invite someone who can come in and speak to my class” with the intention of “[building] a consistent relationship with the local tribal community so they can inform my curriculum and we can share ideas with one another about how to engage students in topics related to tribal sovereignty.” The partnership and support of a local tribe becomes a critical resource when tribal members are knowledge holders who are essential to the quality of student learning.

A second finding is that Since Time Immemorial disrupts and challenges the hegemonic master narrative that settler colonialism has worked to create and pass on through our education system. Every teacher in this study discussed the role that STI can have in challenging the problematic and inaccurate understandings that exist at large in our schools and our society. Teachers discussed how STI provides an opportunity to change the narrative perpetuated in schools that historicizes and victimizes Indigenous peoples and instead shows them as still alive and thriving (Teacher 3 and Teacher 4). Teacher 3 shares that STI and the other resources of Module 2 can be used “for a really rich education” by allowing teachers to “work to change the narrative that is often perpetuated in our schools that Native Communities are only meant to be studied as a historical community as opposed to communities that still live and thrive today.” Similarly, Teacher 1 stated how they are looking forward to using STI “in a way that will help

tell a more cohesive story.” Additionally, it promotes a deeper understanding of tribal nations (Teacher 2, Teacher 3, and Teacher 4) and shows that tribal governments are active in protecting their economic and cultural resources today (Teacher 2). In addition to disrupting the Euro-centric master narrative that is taught through most curricula, STI challenges settler colonialism by providing opportunities to reflect on one’s own positionality and to see one’s self in the colonization story (Teacher 6). Informed students are more likely to engage in action where they take a stand to “respect, honor, and support the community towards the fight for sovereignty” (Teacher 5).

Another finding that five of the six teachers discussed was the way that Since Time Immemorial works to create visibility. Teachers’ identified STI affording greater visibility in four key ways. First, STI creates visibility for Indigenous peoples by bringing in a curriculum that shares anti-colonial learning about the historical and contemporary culture, government, action, and resistance of Indigenous peoples. Second, STI renders visible the impacts of settler colonialism. It creates visibility for teachers when they reflect on their own education and the miseducation they received about Indigenous peoples. Teacher 4 repeats the term “I can now…” to discuss how STI afforded them a greater understanding of Indigenous peoples. Describing what they now can see or do after exploring STI suggests that the anti-colonial curriculum visibilized Indigenous peoples for the teacher.

Through STI teachers have a tool (Teacher 1) and an opportunity (Teacher 3) to re-educate students more accurately, and a more accurate education simultaneously creates greater visibility. A more accurate re-education renders visible the resistance of Indigenous peoples as well as the settlers and settler systems that create the need for Indigenous resistance

and resurgence. STI allows students to see a bigger picture that connects history to the student's position in our current system: "We will learn together what grounds these are and how it ties to the history of the indigenous (*sic*) people in that location" because the STI curriculum "is really introducing me and the students to the indigenous (*sic*) people (*sic*) way of life" (Teacher 4). This visibility allows them to not only better teach about tribal nations but also understand why it is critical to do so. Finally, visibility can lead to changed actions and a greater recognition of dignity and rights for Indigenous people (Teacher 3 and Teacher 4).

The fourth finding spoke to the quality of STI as a curriculum. Teachers discussed how this curriculum was designed for high student engagement (Teacher 3, Teacher 5, and Teacher 6) with small group work and inquiry based lessons. Four of the six teachers also discussed how it aligned with other required curricula and learning standards for their grade level (Teacher 3, Teacher 4, Teacher 5, and Teacher 6). Teacher 6 shared how the Hanford unit "directly applies to a book many of my students are reading now," and the STI lessons provide them with "additional articles, videos, maps, and resources" that their students have found really compelling. STI aligned not only with the content standards but also with the skills and dispositions that students were learning. Teacher 5 explicitly named the ease of implementing STI with the high-quality lessons, supporting materials, and essential questions and understandings. Overall, the quality of the curriculum was a significant finding that speaks directly to the curriculum itself whereas the other three findings speak to the affordances that come from the usage of the curriculum.

## **Key Findings: Anti-Colonial, Liberatory Work**

The teachers in this case study demonstrated a commitment to and belief in challenging settler colonialism in their classrooms. The teachers experienced constraints that limited how easily or to what extent they were able to bring lessons using STI into their classrooms. These constraints and possibly others kept some teachers from using the lessons they planned with their students. Four of the six teachers still planned lessons that created greater visibility for local tribal communities and lands, and the remaining two had not yet submitted lesson plans at the time of this analysis (Appendix H). However, all six teachers reflected on their positionality and role as educators to bring forth truthful, unbiased narratives of Indigenous peoples and settler society.

The EDTEP 555 course created conditions that encouraged and supported teachers in unsettling settler colonialism in their classrooms. During class sessions and in independent work, teachers discussed the importance of this course content to them as educators, even though the demanded time commitment of completing assignments was considered burdensome at times. Although this has been shared by many educators informally and formally in this EDTEP 555 section as well as educators from the previous two sections, Teacher 5 specifically shared this with their small group during a class discussion (breakout session on Zoom, April 15th). Of the six teachers who submitted a majority of the work for this course, there was evidence that each one was bringing elements of anti-colonial, land-based pedagogy into their practice. This final finding shows that EDTEP 555 as a requirement of the U-ACT program likely prepares teachers in Washington to use their classrooms to visibilize Indigenous peoples in more truthful and unbiased ways.



## **Discussion**

This section will begin with a discussion interpreting the findings for constraints and affordances, which pertain to the primary research questions. The secondary research questions will be explored in response to the interpretation of the constraints and affordances the six teachers in this study experienced while using the Since Time Immemorial curriculum. The limitations of this qualitative case study will be examined before sharing implications for teachers, schools, tribal nations, and all people living in a settler society. This case study does not intend to be conclusive for all teachers or schools in Washington. This case study does, however, invite educators to think about their own teaching contexts and how they can enact their agency to resist and disrupt settler colonialism and hegemonic power when it creates inequities in their classrooms, schools, and society. It also invites policy makers and leaders in education at the school, district, state, and national levels to consider teachers' and schools' roles in the movement for greater equity. This case study is intended to create greater visibility by recognizing that power invisibilizes what threatens its existence.

### **Interpretation of Constraints: Settler Colonialism in the Classroom**

For the teachers in this study, schools played an active role in the production and maintenance of colonial narratives by miseducating about Indigenous peoples and settlers. The first finding, that all teachers in this study discussed how the education system perpetuated inaccurate and biased information about Indigenous peoples, reinforces Calderon's (2014) assertion that "education models produce colonial understandings of place" through settler ideologies present in educational materials that provide a lens to make sense of the world in a

way that maintains settler colonialism (p. 25). Schools are “products of settler colonialism” (Calderon, 2014, p. 25), and social studies education in particular often reinforces the settler colonial master narrative (Stanton, 2019, p. 288).

The settler colonial narrative requires the exclusion of Indigenous perspectives because accurate information about the actions of settlers historically and settler society currently threatens the foundation of the U.S. as a democratic nation (Sabzalian and Shear, 2018) built on the ideals of life, liberty, and justice for all:

“Settler colonialism requires routine reversal of the legitimacy of the United States, and routine disavowal of Indigenous claims to land, which complicate the master narrative of the United States as a democratic nation” (Sabzalian and Shear, 2018, p. 157).

The colonial master narrative often seen in textbooks misrepresents “who the enemy was at that time, ‘a time when Natives were starving on reservations,’ and not engaged in ‘intertribal warfare’ as much as oppression and colonization inflicted by the U.S. government” (Sabzalian, 2019, p. 126). An examination of the master narrative as a settler state and a democratic nation provides insight as to why each teacher in this study had experienced misrepresentations or blatant inaccuracies either in their own K-12 education or in their current teaching contexts.

In addition to misrepresentation, schools play an active role in erasing or rendering invisible Indigenous peoples. The role of schools in invisibilizing Indigenous peoples is the first part of the second finding; however, it is closely related to the first finding. In many ways, the misrepresentation or miseducation about Indigenous peoples is an act of invisibilizing the counter narrative of European settlers. Invisibility or erasure is another tool of settler colonialism to maintain a cohesive master narrative that validates the historical and contemporary acts of

settlers on Indigenous lands and nations, among other marginalized communities. Bonds and Inwood (2016) discuss the relationship between settler colonialism and invisibility: “Settler colonialism is an ongoing *historicized process* (rather than a historical fact) that requires the continued disappearance and displacement of myriad ‘undesirable peoples’ from the landscape” (p. 722). Either the schools that the six teachers in this case study attended or the schools they currently teach at contributed to the disappearance and invisibility of Indigenous peoples and tribal nations.

The historicized process of settler colonialism actively and quietly works to make tribal nations and tribal sovereignty invisible, which relates to the second part of the second finding for constraints. This work to invisibilize has implications for all members of society, including non-Indigenous people who do not know a counter narrative. Tribal Critical Race Theory explains how “the everyday experiences of American Indians, the Indigenous inhabitants of the Americas, have essentially been removed from the awareness of dominant members of U.S. society” (Brayboy, 2016, p. 222), which results in a “widespread ignorance about Indigenous peoples” (Sabzalian, 2019, p. 137). Not only is there ignorance created by the erasure of Indigenous peoples as citizens of sovereign nations, there is also ignorance created by the lack of explicit naming and recognizing settler colonialism as the dominant hegemonic structure in our society. This ignorance “that likely stems from socialization in mainstream public schools and society” (Sabzalian, 2019, p. 137) has implications for all students because these “invisibilized dynamics of settler colonialism mark the organization, governance, curricula, and assessment of compulsory learning” (Tuck and Yang, 2012, p. 2). Like Teacher 3 mentions, “the lack of proper education on Native communities leads to major political and cultural ramifications in life today”

(Discussion Post 2). The invisibility of settler actions and structures as well as invisibility of Indigenous perspectives can lead to widespread societal misinformation. How can actions towards tribal communities, Indigenous peoples, and tribal lands change when invisibility remains in our schools?

The constraints that the teachers in this study faced were often indirectly products of teaching in a settler society. The third finding for constraints was that teachers face barriers or challenges when adopting and using the STI curriculum. The challenges were often related to time; however, the specific reason the teachers faced time constraints varied across contexts. Not having one dominant or recurring barrier to usage or adoption at first seemed contradictory. However, when thinking about the pervasiveness of settler colonialism as “endemic to society” (Brayboy, 2006, p. 429), it made sense that teachers would experience nuanced challenges that depended upon how settler colonialism was most pressing in their unique teaching context. Teachers’ mentioned the planning time required to learn a new curriculum, to adopt material to meaningfully fit into both the daily schedule as well as the year long pacing guides, to assess students’ understanding, and to self-educate on specific topics where teachers felt their own knowledge of Indigenous peoples and tribal sovereignty was limited. Despite the usage of STI being required, the unenforced nature of this mandate meant that the burden of time is placed on teachers and is often unrecognized or uncompensated. The adoption of other required curricula by a district often requires mandatory training or additional paid planning time that is often compensated. However, for these six teachers whose schools and districts did not require the usage of STI, the time required to prepare for using the curriculum was uncompensated.

Another challenge some teachers faced when aiming to use STI was that it did not “fit” into their subject area. As noted by Teacher 3, the lessons rely on group work and collective learning, which may require additional instruction for students on how to engage and learn in this way. Both of these constraints may point back to Western ideologies related to colonialism’s demand for assimilation, individualism, and capitalism. Orr (2004) discusses how many schools’ single-subject classes at the secondary level or subject-specific blocks of time at the elementary level mirror the structure of capitalism. With the increasing demand to perform well on high-stakes testing, McGuire (2007) discusses how many schools, particularly underserved elementary schools, formally remove social studies from schedules to provide more time for tested subject areas, such as math and ELA. The creation of standards often contrasts land-based learning and traditional Indigenous knowledges and ways of learning by requiring that every student learn the same concept or skill at the same time. This fundamentally differs from what Simpson (2014) describes as the primary purpose of learning, which is to nurture a generation of “land based intellectuals, philosophers, theorists, medicine people, and historians who embody Nishnaabeg intelligence” who are concerned with the regeneration of Indigenous nations (p. 13). This learning and the resurgence of tribal nations is not possible within the current structure of our schools: “We cannot bring about the kind of radical transformation we seek if we are solely reliant upon state sanctioned and state run education systems” (Simpson, 2014, p. 13). Although the challenge or barrier to using STI was nuanced from teacher to teacher, most challenges with usage were indirectly related to settler colonialism’s enduring presence in schools.

The current structure of schools reinforces assimilation, which creates constraints for teachers when trying to educate in anti-colonial, culturally revitalizing ways. One of Brayboy’s

(2006) tenets of Tribal Critical Race Theory supports these findings: “governmental policies and educational policies towards Indigenous peoples are intimately linked around the problematic goal of assimilation” (p. 429). Although the challenges to adoption were different between teaching contexts, the consistent presence of barriers speaks to the enduring structures of settler colonialism in the six teachers’ schools. All of the teachers for this study were chosen because they demonstrated a desire and action to implement STI lessons this year. However, barriers kept many of the teachers in this case study from using their STI or land-based lessons, despite the intention to use the lesson plans they had created. The systemic barriers including curricular requirements from the district, emphasis on preparation for high stakes testing, reliance on Common Core standards, scheduling, the structure of learning, and hegemonic learning behaviors and attitudes limited teachers’ abilities to use STI despite their intentions to do so.

### **Interpretation of Affordances: Anti-colonial Liberatory Education for *All***

Recentering tribal nations, citizens, and sovereignty in mainstream public education is an act of resistance to colonialism that the STI curriculum affords. Five of the six teachers in this study discussed how STI--both as a curriculum and as an outcome of using the curriculum--shifts power to local tribal nations and Indigenous peoples. When Indigenous perspectives are notoriously removed from curricula and schools, anytime Indigenous thinkers are positioned as “central in unlocking the confounding aspects of public schooling,” then “settler colonial structuring and Indigenous critiques of that structuring are no longer rendered invisible” (Tuck and Yang, 2012, p. 3). This movement of Indigenous peoples from invisibility to visibility or from the margins to the center are acts of resistance to settler colonialism. The STI curriculum

dispels the stereotyping of Indigenous peoples being “dead and buried” (Ferguson, 2015, p. 1) because it was written by tribal leaders and teachers across Washington state who are active citizens of their tribes.

The Since Time Immemorial curriculum’s recentering of Indigenous peoples and nations also challenges the hegemonic, Euro-centric master narrative by presenting a retelling of both historical events and contemporary issues through the lens of local tribal nations. Gilio-Whitaker (2018) describes the position public education needs to take in order to create anti-colonial classrooms and more just communities:

“If public education is to be responsive to Indigenous peoples as living, vibrant communities, and to the Native students it serves, rather than continuing to perpetuate patterns of erasure and invisibility, it must be willing to present them as such in classrooms at every grade level” (p. 284).

With SB 5433, Since Time Immemorial is required in every classroom at every grade level in Washington state. As the six teachers in this study demonstrated, using STI allowed them (or would have allowed them) to share a more truthful narrative with their students. Public education in the U.S. has been “notoriously silent about Indigenous sovereignty” (Shear et al., 2018, p. 12), and the usage of STI allows teachers to “explicitly name settler colonialism and empire and challenge the very foundation of democracy, freedom, and justice for which the United States claims to be built” (Sabzalian and Shear, 2018, p. 158). Counternarratives presented in STI’s curriculum fundamentally challenge the settler structures and practices that shape our schools and society today.

The Since Time Immemorial curriculum works towards social reconstruction through what it visibilizes. Closely aligned with the recentering of Indigenous peoples and the challenging of the master narrative, Indigenous peoples and tribal nations are afforded greater visibility when STI is used in classrooms. Visibility affords a greater recognition of dignity and rights. By visibilizing the inequitable impacts of settler structures on Indigenous peoples (Sabzalian and Shear, 2018, p. 155 and p. 157), students are led to question the structures that organize life in the U.S.. This questioning allows students to think about how our democratic nation has treated and continues to treat sovereign tribal nations and Indigenous peoples. Teacher 2's *Culvert and Fish Unit Plan* (Appendix I) demonstrates how structures challenge the legally-protected sovereignty of Native nations in ways that limit how Indigenous peoples can practice their lifeways. Teacher 2 integrates components of STI's Indigenous Historical Cultural Framework in reference to Boldt II among many other supporting materials to create the unit plan. The lesson's focus on destruction and reclamation of land examines structures that are results of colonialism and how Indigenous and non-Indigenous people have advocated for the removal of culverts. When intentional barriers limit how Indigenous peoples can practice their lifeways, there is a loss of rights, which, this paper argues, is followed by a loss of recognized dignity. In this lesson, STI depicts Indigenous peoples as active in resistance and resurgence movements to reclaim rights and protect the environment. STI also creates learning activities that model how students can be involved in supporting these efforts, for instance by writing an opinion letter to the editor of the Port Angeles Evening News (Indian-Ed.Org, 2017)<sup>6</sup>. Tribal

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<sup>6</sup> The Port Angeles Evening News is no longer in circulation; however, the skills acquired in this learning activity can be applied to current news sources or other entities, such as governmental agencies or businesses, to express support of tribal nations in protecting the environment and advocating for recognition of treaty rights.

nations and settler structures are rendered visible when teachers use STI in their teaching contexts.

The visibility that is a product of the usage of STI, as required by SB 5433, played a key role in supporting educators in more deeply understanding tribal nations and Indigenous peoples. For the six teachers in this case study, prior knowledge of Indigenous peoples varied. Some teachers had family members or friends who worked near a reservation or worked with Native students or communities in some capacity. One teacher had not had much exposure to learning about Indigenous peoples growing up but had started the process of learning about their local tribe once they started teaching students who identified as Native. Overwhelmingly across Module 1, Module 2, and Module 3 assignments, the six teachers in this study talked about deepening their understanding about tribal nations and sovereignty. Teachers discussed how this course has made them realize how little they knew before taking the EDTEP 555 course. These statements resounded with Shear, Knowles, Soden, and Castro's (2015) position statement:

“This study has been a labor of love for each of us over the past 2 years, and we find inspiration in McCaslin and Vreton's call for reflexivity on the part of non-Indigenous Peoples working in Indigenous contexts: I know that decolonization necessarily challenges my privileged treatment, and I also know that I and my fellow colonizers have vested material interests in keeping things ‘as is.’ But more than that, I know my social conditioning and socially constructed sense of who I am--all the mental, emotional, and material habits that I have been raised to accept--support oppression in a thousand subtle and blatant way...The decolonizing work begins here with naming these dynamics, so that I can engage the lifelong work of breaking their hold. (McCaslin & Breton, 2008, p. 519)

We hope this article opens new doors for critical dialogue about how, for what purposes, and who makes decisions about teaching Indigenous Peoples' cultures and histories to all students, both Indigenous and non-Indigenous" (p. 71).

One of the perhaps unintended consequences of SB 5433 and the STI curriculum is that it allowed *teachers* to start the process of understanding and reflecting on their own positionality to see ways that settler colonialism was deeply embedded in their understandings of self and in the ways they showed up to their classrooms as teachers.

This visibility that STI affords to teachers in their own understandings of self in relationship to Indigenous lands, tribal nations, settler society, *and* their teaching practice shows the immense power that teachers hold. This is the same power that Gale and Gourd (2019) discusses when thinking about teachers as human actors that both work within a system, experiencing it's constraints and affordances, while also reconstituting and recreating the system by which actions teachers take. If the power of schools is "**not** located in an institution...but is instead diffuse, to be found in the relationships between individuals" (Gale and Gourd, 2019, p. 4), then teachers can enact their agency to disrupt colonialism in their classrooms, in their schools, and in their districts. With STI as the product of Senate Bill 5433 and the learning about STI through EDTEP 555 as the product of Senate Bill 5028, greater visibility as an affordance of this curriculum helps position teachers to be liberatory actors in their contexts. When thinking about how to bring forth greater equity in education or radical decolonization in society, "teachers are in an ideal position to play this role" of attending to the culture of power present in schools "by understanding one's own power, even if that power stems merely from being in the majority, by being unafraid to raise questions about discrimination and voicelessness" (Delpit,

1988, p. 297). How can teachers “employ refusal as a stance” and be “educators willing to divest from the longstanding colonial investments and patterns of looking” (Sabzalian, 2019, p. 135) who are committed to new ways and purposes of teaching? For the six teachers in this study, learning about and attempting to use STI allowed them to begin or continue this process of reflecting on their own relationality to power and colonialism in order to use teaching as a way to recreate a more just society starting with educating themselves.

The Since Time Immemorial curriculum is a powerful resource because it affords a new visioning of a decolonial curriculum that disrupts settler colonialism while also meeting the current demands of the education system that asks for compliance with content, standards, and skills requirements. The final finding for affordances spoke to the high quality of the STI curriculum as it supported, deepened, or addressed the content requirements the teachers in this study needed to attend to when planning instruction. The attempt to unsettle the concept of settler colonialism is challenging because it demands that we question the foundation of our understandings about the world (Stanton, 2019 and Sabzalian and Shear, 2018), making it a challenge to teach. Having decolonial lessons and materials that are ready to use with the STI curriculum removes one of the barriers making adoption more possible. Additionally, the materials being aligned with standards helps teachers both meet the demands of the current system while striving to bring in learning that can help recreate a new system with time that is built on the recognition, respect, and reparative action for tribal nations in Washington. STI’s ability to exist within both spheres is critical because it makes decolonial learning more accessible now, and schools teaching more accurate, unsettled accounts of U.S. history and contemporary society is critical. STI makes liberatory, unsettled learning more likely in

classrooms, and this is important not only for Native students “but *all* students seeking to become citizens who embrace the values of diversity and social justice as essential to democracy” (Sabzalian and Shear, 2018, p. 157). As Gilio-Whitaker (2018) argues, now is a crucial time to begin counteracting the stereotypes with a decolonizing approach in education (p. 288) because education can be a tool used to transgress and move into the planes of greater freedom and justice (hooks, 2017).

### **Limitations of This Research**

Limitations specific to this case study as well as broader limitations of research in this field presented themselves. Limitations of this particular study included sample size, available teachers, representation challenges, and school closures. This specific research as well as other research that examines teacher agency as resistance to hegemony has limitations when considering the vast intersectional identities of teachers and the disproportionate consequences of enacting one’s agency. A final limitation of this specific research and the broader field of research for educational transformation is the focus on the collective action of individuals rather than a deep examination of action to be taken at the systems level to address settler colonialism in schools and society.

The first limitation specific to this research is that the findings may have been affected by the small sample size of my study. Despite having chosen six teachers representing diversity across multiple indicators, representation from the eastern and central regions of Washington was limited. Beyond demographic indicators, experiential diversity of teachers using STI can vary widely between teachers within the same region, within the same district, and even within

the same school. A second limitation specific to this study is that school closures as a result of COVID-19 limited if and how teachers were able to teach their lessons about tribal sovereignty and Indigenous peoples. Although this research did not distinguish between who taught their lessons because the intent was to see how the STI curriculum could position teachers as liberatory actors and to see what constraints kept them from doing so, the planning and reflections may have changed due to the new context and challenges of teaching remotely. The EDTEP 555 course had been designed and intended to be taught remotely from October of 2019 to June of 2020; however, teachers' schools being moved to remote instruction was a constraint unrelated to settler colonialism. Another limitation of this research is that all six teachers examined are part of the University of Washington Accelerated Certification for Teachers (U-ACT) Program. This program may disproportionately attract certain educators. For example, many teachers in the U-ACT program are also part of Teach for America (TFA), and both University of Washington's College of Education and Teach for America's mission center around educational equity.

Another critical limitation is that this paper positions and celebrates teachers as agents relying on Gale and Gourd's (2019) assertion that all teachers can enact agency given a set of constraints and resources available to them. Although this sentiment is true, both the constraints and resources as well as the consequences of enacting one's agency are often disproportionately experienced by teachers of marginalized backgrounds. As Bonds and Inwood (2016) discuss, settler colonialism structurally disempowers not only Indigenous peoples but also people of color and other marginalized identities. This research calls in settler educators to work towards creating more equity by teaching about settler colonialism and Indigenous peoples, but asking

teachers to enact agency when historically and currently marginalized teachers often face harsher consequences is inequitable and problematic. Additionally, celebrating the ways teachers are resisting and disrupting settler colonialism to recreate more just schools and communities is important to grow a movement; however, it is fundamentally problematic that settler educators are being celebrated for this anti-colonial, resistance work when it was settler society that created and continuously recreates the conditions where settlers are needed to advance the rights of Indigenous peoples. As Curnow and Helferty (2018) state, “this position requires us, as settlers, to constantly reckon with the contradictions of our work and our positionality on stolen land in a movement that is foundationally quite problematic” (p. 155).

A final limitation of this research’s focus on STI through the lens of teachers resisting settler colonialism in schools is that it places the burden of systems change on the shoulders of individual teachers. A systems problem, although often relying on individuals to apply pressure, may be more effectively addressed with a systems-wide response. If decolonial learning for all students in Washington and changed outcomes for Native students is an intended aim of the STI curriculum, addressing the colonialism inherent in our housing system, legal system, political system, and food system among other systems is necessary as well. This limitation asks us to consider who should be pulling the levers to demand change, and when the levers are pulled, how much change can happen without a systems response?

### **Recommendations for Future Research**

This research aims to contribute to a small but emerging body of literature around Washington state’s mandate for Native education (i.e., STI) to be required in all schools. This

qualitative case study specifically highlights constraints and affordances practicing teachers in Washington face as they plan to use the STI curriculum. Additionally, this research aims to examine specific ways settler colonialism keeps teachers from using STI while simultaneously showing how the STI curriculum positions teachers as liberatory resisters to settler colonialism.

Some important gaps in research around STI still exist related to data, accountability, and visibility. Data around current usage of STI remains insufficient. This qualitative case study did not attempt to investigate the extent to which STI is not being used in many classrooms across Washington state. Further research collecting data on usage is necessary. Despite a legal mandate requiring all students in Washington receive education about local tribes and tribal sovereignty, there have been few accountability mechanisms to ensure that STI is being used. The lack of accountability built into the language of SB 5433 is a disservice to the pressing aims of the mandate. Further research on how to create greater accountability is necessary for SB 5433 to reach its intended aims. Without greater accountability, STI serving as a high-quality decolonial curriculum remains overwhelmingly invisible. Further research on how to visibilize this curriculum for practicing teachers is necessary. Until accountability measures are taken at a systems level, teachers voluntarily deciding to teach about Indigenous peoples in culturally revitalizing and unsettled ways will be key to addressing colonialism in schools. More discussion and understanding of this curriculum is needed among practicing teachers.

More resources will be needed to collect data around usage, to create accountability measures for adoption, and to address the constraints teachers face when aiming to use the curriculum if we hope to move STI from a place of general invisibility to greater visibility. For more specific recommendations, see Holtyn's (2018) work and the Office of Superintendent of

Public Instruction's (2019) report on the state of Native Education in Washington discussing next steps to be taken at the school district, educational service district, and state levels.

### **Conclusions: Deconstructing and Reconstructing Classrooms as Anti-Colonial Spaces**

At the core of this research is the belief that the classroom remains a radical space of possibility (hooks, 2017, p. 207) for social change. Classrooms that teach to transgress and liberate critically examine the social, political, and cultural foundations of society. These classrooms imagine new ways of existing that honor and respect all people, particularly those on the margins. A liberatory education aims to cultivate “dignity through learning, an experience with the potential to incite an internal riot that no slave driver can suppress, no high-pressure hose can quell, and no deportation can disperse” (Espinoza and Vossoughi, 2014, p. 309). As Fasheh (1990) argues, at its best, education “reclaims people’s lives, their sense of self-worth, and their ways of thinking from the hegemonic structures, and facilitates their ability to articulate what they do and think about in order to provide a foundation for autonomous action” (p. 26). The Since Time Immemorial curriculum allows us to begin imagining how our schools can be used to resist Euro-centrism and colonialism. Taylor (2018) discusses how a liberatory education invites all people in a settler state to question hegemony, to make explicit problematic structures, and to become better historical actors than those before us:

“How could the curriculum help us White kids see and address how we were consciously and unconsciously responsible for dehumanizing...? Not knowing our history meant that those who would have acted differently with new information remained inert, and those

who would not have acted differently persisted under the cover of a fallacious backstory” (p. 195).

Learning happens “unabated and without permit on an everyday basis” (Espinoza and Vossoughi, 2014, p. 286) both within and outside of schools. If schools are a place most youth spend on average seven hours each day, schools can work to change the master narrative and eventually introduce a new one that creates visibility and demands dignity for Indigenous peoples and all groups of people on the margins in a settler society.

A curriculum like *Since Time Immemorial* is fundamentally threatening because decolonization “implicates and unsettles everyone” (Tuck and Yang, 2012, p. 7). A decolonial curriculum is only one small step in what should be a collective commitment to honor the people who are native to the land that our schools exist on by upholding treaties and returning land. Decolonization, first and foremost, is the long-overdue step needed to reposition Indigenous peoples who have suffered inexplicable trauma at the hands of settlers and settler systems, including schools. Decolonization should be a goal we strive for in our schools “in the interest of restoring the humanity of all people in the settler state” (Gilio-Whitaker, 2018, p. 288) because “while the narrative of American history might appear to become grimmer for some, the power of a more complex narrative to liberate us from the grasp of hegemony is a worthy struggle that could lead to a more just society” (Shear et al., 2015, p. 91).

As teachers and as people in decision making roles that affect formal learning in Washington and the U.S., this research leaves us with important questions that we need to ask ourselves. How can we “place Indigenous and non-indigenous students as co-conspirators in an effort to humanize curriculum and pedagogy” where students and teachers “work alongside their

Indigenous peers to challenge and create knowledge that affords everyone dignity and respect” (Sabzalian, 2019, p. 139)? As teachers, how can we overcome the constraints of adopting curricula like STI in an effort to construct anti-colonial liberatory education with our students? How can classrooms be leading the way as sites of resistance and rebuilding? Aside from teachers, who else needs to be invited in to do this work of challenging settler colonialism in schools to recreate more just schools and society? How can all of us commit to be better historical actors who “mutually recognize our collective selves as subjects who, in making our worlds, have the power to transform it” (Gonzalez, 2018, p. 108)?

## References

- Bang, M., Marin, A., & Medin, D. (2018). If Indigenous Peoples stand with the sciences, will scientists stand with us? *Daedalus*, *147*(2), 148-159.
- 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.
- Banker, J. (2014). *The State of Native Education* (pp. 1–12).
- Bonds, A., & Inwood, J. (2016). Beyond white privilege. *Progress in Human Geography*, *40*(6), 715–733.
- Brayboy, B. M. J. (2006). Toward a tribal critical race theory in education. *The Urban Review*, *37*(5), 425–446.
- Calderon, D. (2014). Speaking back to manifest destinies: A land education-based approach to critical curriculum inquiry. *Environmental Education Research*, *20*(1), 24–36.
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. New York: Teachers College Press.
- Curnow, J., & Helferty, A. (2018). Contradictions of solidarity. *Environment and Society*, *9*(1), 145–163.
- Delpit, L. (1988). The silenced dialogue: Power and pedagogy in educating other peoples children. *Harvard Educational Review*, *58*(3), 280–299.
- Eisner, E. (1985). The three curricula that all schools teach. *The Educational Imagination*. 87-107. New York: Macmillan.
- Ellet, W. (2009). *The case study handbook: How to read, discuss, and write persuasively about cases*. Boston, MA: Harvard Business School Press.
- Esmonde, I., & Booker, A. N. (2017). *Power and privilege in the learning sciences critical and sociocultural theories of learning*. New York: Routledge, Taylor & Francis Group.

- Espinoza, M. L., & Vossoughi, S. (2014). Perceiving learning anew: Social interaction, dignity, and educational rights. *Harvard Educational Review*, 84(3), 285–313.
- Fasheh, M. (1990). Community education: To reclaim and transform what has been made invisible. *Harvard Educational Review*, 60(1), 19–36.
- Freire, P. (2018). *Pedagogy of the oppressed*. New York: Bloomsbury Academic.
- Ferguson, L. (2015). *Evaluating American Indian materials & resources for the classroom: Textbooks, literature, DVDs, videos, and websites*. Helena, MT: Montana Office of Public Instruction.
- Fertakis, M., Adams, J., Forsman, L., & Thomas, B. (2012). *Teaching Washington State tribal history, culture, government and language: A progress report on HB 1495*.
- Gale, D. S. J., & Gourd, T. Y. (2019). *Radical educators rearticulating education and social change: Teacher agency and resistance, early 20th century to the present*. London: Routledge.
- Gilio-Whitaker, D. (2018). MNI Wiconi: Teaching the #NoDapl movement, Native American sovereignty, and Indigenous knowledge in elementary classrooms. In *(Re)Imagining elementary social studies: A controversial issues reader* (pp. 281-294). Charlotte, NC: Information Age Publishing.
- Gonzalez, S. L., Kretzler, I., & Edwards, B. (2018). Imagining Indigenous and archaeological futures: Building capacity with the Confederated Tribes of Grand Ronde. *Archaeologies: Journal of the World Archaeological Congress*, 85–114.
- Holtyn, J. (2018). *Since Time Immemorial: An appreciative inquiry of Washington State's curriculum for Indigenous studies* (Doctoral dissertation, Fielding Graduate University, 2018) (pp. 1-99). Ann Arbor, MI: ProQuest LLC.
- hooks, bell. (2017). *Teaching to transgress: Education as the practice of freedom*. Routledge.
- Indian-Ed.Org: Since Time Immemorial. (2017). Retrieved from [www.indian-ed.org](http://www.indian-ed.org)
- Johnston-Goodstar, K., & Roholt, R. V. (2017). “Our kids aren’t dropping out; They’re being pushed out”: Native American students and racial microaggressions in schools. *Journal of Ethnic & Cultural Diversity in Social Work*, 26 (1-2), 30-47.

- Jurow, A. S., Teeters, L., Shea, M., & Steenis, E. V. (2016). Extending the consequentiality of “Invisible Work” in the food justice movement. *Cognition and Instruction*, 34(3), 210–221.
- McGuire, M. E. (2007). What happened to social studies? *Phi Delta Kappan*, 88(8), 621-624.
- Mills, G. E. (2018). *Action research: a guide for the teacher researcher*. NY, NY: Pearson.
- Nasir, N. S., Rosebery, A., Warren, B., & Lee, C. D. (2014). Learning as a cultural process: Achieving equity through diversity, *The Cambridge Handbook of the Learning Sciences* (2), 686-706, New York, NY: Cambridge University Press.
- National Congress of American Indians, Embassy of Tribal Nations. (2015). *Tribal nations and the United States: an introduction*. Washington, DC.
- Office of Superintendent of Public Instruction. (2019). *Update: The state of Native education*. Banker, J. and Lynn, L.
- Orr, D. W. (2004). *Earth in mind: On education, environment, and the human prospect*. Washington, D.C: Island Press.
- Rawlings, A. (2018, November 15). Since Time Immemorial: Tribal Sovereignty Education in Washington State. Retrieved from: <https://harvardlpr.com/2018/11/15/since-time-immemorial-tribal-sovereignty-education-in-washington-state/>
- RCW 28A.320.170 Curricula—Tribal history and culture, (2015, July 20)
- Sabzalian, L. (2019). Little anthropologists. *Indigenous Children’s Survivance in Public Schools*, 115–146.
- Sabzalian, L. & Shear, S. B. (2018). Confronting colonial blindness in citizenship education: Recognizing colonization, self-determination, and sovereignty as core knowledge for elementary social studies teacher education. In S. B. Shear (Ed.), *(Re)Imagining elementary social studies: A controversial issues reader* (pp. 153-176). Charlotte, NC: Information Age Publishing.
- Shear, S. B., Knowles, R. T., Soden, G. J., & Castro, A. J. (2015). Manifesting Destiny: Re/presentations of Indigenous Peoples in K–12 U.S. history standards. *Theory & Research in Social Education*, 43(1), 68–101.

- Shear, S. B., Tschida, C. M., Bellows, E., Buchanan, L. B., & Saylor, E. E. (2018). *(Re)imagining elementary social studies: a controversial issues reader*. Charlotte, NC: Information Age Publishing, Inc.
- Shear, S. B., Sabzalian, L., & Buchanan, L. B. (2018). Affirming Indigenous sovereignty: A civics inquiry. *Social Studies and the Young Learner*, 31(1), 12-18.
- Smith, L. T. (2012). *Decolonizing methodologies: Research and Indigenous peoples*. Dunedin, N.Z.: Otago University Press.
- Stanton, C. (2019). "Now you can't just do nothing": Unsettling the settler self within social studies education. *Social Education*, 83(5), 282–289.
- Star, S. L. (1999). The Ethnography of Infrastructure. *American Behavioral Scientist*, 43(3), 377–391.
- Taylor, K. H. (2018). The role of public education in place-remaking: From a retrospective walk through my hometown to a call to action. *Cognition and Instruction*, 36(3), 188–198.
- Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society*, 1(1), 1–40.

# Appendices

## Appendix A

### Preliminary Survey for STI Familiarity and Usage (October 2019)

What do you teach?	Have you heard of or used Since Time Immemorial with students?	If you have used it, how did you become familiar with it?
Middle - social studies/history	Yes, I have heard of this and used it in my classroom.	I have learned about and used Since Time Immemorial for a class in my undergraduate or graduate Education program.
High - math, ELA, science, other	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Middle - math, ELA, science, other subjects	Yes, I have heard of it but have not used it in my classroom.	I have learned about and used Since Time Immemorial for a class in my undergraduate or graduate Education program.
Elementary - all subjects	Yes, I have heard of this and used it in my classroom.	I have learned about and used Since Time Immemorial for a class in my undergraduate or graduate Education program.
Elementary - all subjects	Yes, I have heard of this and used it in my classroom.	My district, school, or PLC encourages me to use Since Time Immemorial curriculum as an optional resource.
Elementary - all subjects	Yes, I have heard of this and used it in my classroom.	I have learned about and used Since Time Immemorial for a class in my undergraduate or graduate Education program.
Elementary - all subjects	Yes, I have heard of it but have not used it in my classroom.	
Elementary - all subjects	Yes, I have heard of it but have not used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Elementary - all subjects	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.
Instructional coach/ Interventionist/Administration	No, I have not heard of it or used it in my classroom.	
Instructional coach/ Interventionist/Administration	No, I have not heard of it or used it in my classroom.	I have not heard of or used Since Time Immemorial before.

## Appendix B

**Successes From Focal Teachers in Discussion 2 Forum**

Context/ Educator	Successes of Curriculum	Successes from Using Curriculum	Other
Teacher 1	<ul style="list-style-type: none"> <li>● Curriculum correlates with 5 inquiry based essential Qs</li> <li>● Place based curriculum leads students to familiar areas and to see significance to Native tribes</li> <li>● Passes "evaluation" criteria</li> <li>● Because it passes evaluation criteria, simpler to immerse self without worry/time needed to check information making it easier to bring into classroom</li> <li>● Helps tell a more cohesive story</li> </ul>	<ul style="list-style-type: none"> <li>● Place based nature makes it more relatable for students</li> <li>● Excited to use</li> </ul>	<ul style="list-style-type: none"> <li>● Aim to build relationship with tribal member and bring in guest speakers</li> </ul>
Teacher 2	<ul style="list-style-type: none"> <li>● Clearly shows sovereign tribal governments active in managing and protecting resources that are culturally and economically significant to the tribe</li> <li>● Appreciate lessons written on contemporary issues to fight the narrative of historicizing ("dead and buried") Indigenous people</li> <li>● Connected to great resources that help teachers (us) teach about Native history and culture</li> </ul>		
Teacher 3	<ul style="list-style-type: none"> <li>● Curriculum addresses 5 essential questions in direct ways</li> <li>● Allows students to personalize learning and develop an emotional connection with history</li> <li>● Promotes understanding of tribal cultural as well as political and economic life</li> <li>● Interactive worksheets</li> <li>● Designed for group work and high engagement</li> </ul>		

**Appendix B (continued)**

	<ul style="list-style-type: none"> <li>● Relevant curriculum that allows for better retention</li> <li>● Allows for proper/rich education on Native communities and understand current ramifications of lack of proper education</li> <li>● Can be personal and engaging</li> <li>● Allows for a changed narrative</li> </ul>		
Teacher 4	<ul style="list-style-type: none"> <li>● General excitement for the curriculum</li> <li>● Now starting to see the bigger picture of STI and why it exists</li> <li>● “Living curriculum” by vast and alive Indigenous people</li> <li>● Repeated term “can now see”</li> <li>● Local and place based curriculum connects to WA tribal communities</li> <li>● Likes placed based nature, focus on geography, and the relationship between Indigenous people and this land</li> <li>● Appreciates lay out</li> <li>● Appropriate way to refer to Native peoples</li> <li>● Like how information is introduced</li> <li>● Culturally sensitive</li> <li>● Talks about Indigenous lifeways</li> <li>● Shows that NA are not a vanishing race</li> <li>● Allows real and authentic learning and connecting with Native people/culture</li> </ul>	<ul style="list-style-type: none"> <li>● Helps push past stereotypes and brings greater respect and dignity to Indigenous peoples</li> <li>● Connects to Salmon project already in schools and allows students to see connection between settler actions on the land/Indigenous people who depended on the land and how they can be part of restoration movements</li> </ul>	
Teacher 5	<ul style="list-style-type: none"> <li>● Tied to multiple standards across different subject areas; will enrich the skills that students are already currently learning</li> <li>● High quality curriculum and many amazing resources</li> <li>● Designed to bring positive discourse and conversations</li> </ul>	<ul style="list-style-type: none"> <li>● Can use STI to supplement curriculum</li> <li>● Teacher-ready lessons that are immediately implementable</li> <li>● Can invite local tribal community members in to</li> </ul>	<ul style="list-style-type: none"> <li>● Grateful STI was brought to teacher’s awareness through EDTEP 555</li> <li>● Curriculum has helped see what areas teacher still</li> </ul>

## Appendix B (continued)

	<ul style="list-style-type: none"> <li>● Encourages exploration of local land</li> <li>● Precise goals and teacher guided in delivering lessons</li> <li>● Accessible to students and build classroom community</li> <li>● Uncovers bias and stigmas and presents a more truthful narrative about Indigenous people</li> <li>● Curriculum is appropriate and fun</li> </ul>	<p>share stories of culture, history, and current day experiences and to encourage students to take a stand to respect, honor, and support the community towards their fight for sovereignty</p> <ul style="list-style-type: none"> <li>● Encourages inviting members of tribal communities into classroom</li> <li>● Can build partnership with teachers across grade levels in school (i.e. Kindergarten and 5th grade reading buddies as K curriculum discusses oral stories)</li> </ul>	<p>needs to grow in understanding Indigenous people and local tribes (learner's stance, understanding sovereignty, understand positionality, build relationships, prioritize this learning in classroom, invite Native community members in, build relationship for self and students with Indigenous people)</p>
Teacher 6	<ul style="list-style-type: none"> <li>● Themes of place, society, and political tension and change tie directly back to the essential questions</li> <li>● Units directly relate to questions</li> <li>● Allow students to access the content in engaging and inquiry based ways</li> <li>● Encourages students to be thoughtful about their own place in this story             <ul style="list-style-type: none"> <li>○ <i>Positionality and place based curriculum</i></li> </ul> </li> <li>● Because curriculum spreads throughout grades, allows students opportunity to revisit same ideas with added layers of complexity throughout schooling</li> </ul>	<ul style="list-style-type: none"> <li>● Compelling resources connected to what I teach, unit 2 directly applies to a book students are reading now</li> <li>● Students find it really compelling</li> <li>● Unit provides additional articles, videos, maps and resources</li> <li>● Built in lessons on primary source analysis awesome because hoping to do more of that anyway</li> </ul>	

## Appendix C

Challenges from Focal Teachers in Discussion 2 Forum

Context/ Educator	Challenges of Curriculum	Challenges of Using Curriculum	Other
Teacher 1		<ul style="list-style-type: none"> <li>Not all subject areas are as easy to adapt material for (specifically math)</li> </ul>	<ul style="list-style-type: none"> <li>Partial or flawed understandings of Native Americans from own childhood ed</li> </ul>
Teacher 2	<ul style="list-style-type: none"> <li>Not a direct fit for teaching context of 8th grade science</li> </ul>	<ul style="list-style-type: none"> <li>Need to be creative in adapting material and come up with own materials</li> <li><i>Additional time taken to do this</i></li> </ul>	<ul style="list-style-type: none"> <li>I can never paint an accurate picture with what I know</li> <li>Names own education misrepresenting Native Americans which challenges how they teach now</li> </ul>
Teacher 3	N/A		
Teacher 4	<ul style="list-style-type: none"> <li>Taken time to wrap head around all there</li> </ul>	<ul style="list-style-type: none"> <li>Very sensitive to teaching anything that might hurt students or make them feel they or their ancestors did something wrong</li> </ul>	<ul style="list-style-type: none"> <li>In part took time to digest because had to face all the bias they've been taught</li> <li>Admits will be learning with students</li> </ul>
Teacher 5		<ul style="list-style-type: none"> <li>Would need a formative pre-assessment first to understand students' background knowledge before using STI</li> <li>No students/families identify as Native so may need additional background and to start at an earlier grade level for curriculum</li> </ul>	<ul style="list-style-type: none"> <li>Need to have a learners stance and be a curious listener and observer as I continue to learn</li> <li>Need my connection to go stronger than just people (i.e., family members or friends who are Indigenous or work with Indigenous people)</li> </ul>
Teacher 6	<ul style="list-style-type: none"> <li>Currently isn't a 6th grade unit</li> </ul>	<ul style="list-style-type: none"> <li>Still was able to look through other grades for resources               <ul style="list-style-type: none"> <li><i>Additional time</i></li> </ul> </li> </ul>	

## Appendix D

Constraints Teachers Face from Coded Data in Discussion 2 Forum

#	Constraint	Teachers	Commentary	STI combats
1	<p>Invisibility also remains because other required materials still misrepresent Indigenous peoples</p> <p>Other materials require more critical gaze to ensure that the material is unbiased and accurately represents Indigenous communities</p>	1, 6	<ul style="list-style-type: none"> <li>• Other materials not necessarily accurate</li> <li>• Texts still biased and inaccurately portray (6)</li> </ul>	<ul style="list-style-type: none"> <li>• STI allows for teachers to accept material which takes less time and combats educators being unsure of what material is or is not good</li> </ul>
2	<p>Teachers coming to recognize the bias/miseducation they hold and how that challenges their ability or confidence in teaching about tribal sovereignty and Indigenous communities</p>	1, 2, 3, 4, 5, 6	<ul style="list-style-type: none"> <li>• Teachers don't share their own biased narrative (1)</li> <li>• Childhood education only sporadically mentioned Native peoples so could "never paint an accurate picture with what I know" (2)</li> <li>• Recognized ways K-12 education made extinct or exotic Indigenous people (3)</li> <li>• "Taken me moment to wrap my head around because of all the bias I've been taught" (4)</li> <li>• Recognizing that just knowing Native people is not enough, needs to additional self work to understand tribal communities and</li> </ul>	<ul style="list-style-type: none"> <li>• STI provides teachers with tools to share or highlight other narratives</li> <li>• Allows teachers to recognize their own biases and educates teachers through the process of them attempting to educate their</li> </ul>

Appendix D (continued)

			<p>sovereignty (5)</p> <ul style="list-style-type: none"> <li>Named their own education rendered invisible NA which means they are NOW doing the learning and continuing to learn; constantly need to check own biases (6)</li> </ul>	students
3	<p>Burden on teacher to figure out how to incorporate STI</p> <ul style="list-style-type: none"> <li>Takes additional time</li> <li>Hard to incorporate into all subjects for subject specific teachers</li> <li>Need to search for additional material</li> <li>Need to take time to pre-assess for background knowledge</li> </ul>	1, 2, 5, 6	<ul style="list-style-type: none"> <li>Difficult task to incorporate into math (1)</li> <li>Not a direct fit for my context of 8th grade science...Have to be creative and develop own material (2)</li> <li>Need to pre-assess for background knowledge (5)</li> </ul>	
4	<p>When Native students are not part of the school community, then connecting with and representing them in curricula is not as pressing</p>	2, 5	<ul style="list-style-type: none"> <li>After getting to know and work with tribal members when students identified, moving into new role with no students identifying meant it was no longer as pressing/required for him to build relationship with tribal folks (2)</li> <li>No identified students so will have less background knowledge (5)</li> </ul>	<ul style="list-style-type: none"> <li>Creates visibility for Indigenous even when no students directly identify which is important!</li> <li>Teacher (who identifies/knows Indigenous people) didn't include self in class as representation... internalized invisibility!</li> </ul>

Appendix D (continued)

5	Invisibility (and the implications of this invisibility) remains in schools because it remains in our society, in our curricula, and in our teachers	2, 3, 5	<ul style="list-style-type: none"> <li>Said that the recognition of local tribes "should have been obvious" but wasn't until being required to do a mapping exercise for EDTEP 555...systemic invisibility and colonial blindness (2)</li> <li>Need to start with re-education in our classrooms to or this poor education will lead to major political and cultural ramifications today (3)</li> <li>STI was unknown to me before EDTEP 555 (5)</li> </ul>	
6	Resources and curricula being provided is not enough <ul style="list-style-type: none"> <li>Lack of awareness around the curriculum remains</li> <li>Even with awareness, still limitations on if a teacher is actually able to use it</li> <li>Authentic way to integrate this type of learning (if inquiry/place-based/SS not already part of schedule)</li> <li>Doesn't undo settler harm</li> </ul>	2, 3, 4, 5	<ul style="list-style-type: none"> <li>Despite seeing importance and believing in the high quality of STI there is a difference between actually using it and hoping to/planning to/wanting to use it (2)</li> <li>Having an anti-colonial curriculum does not mean Native people will necessarily trust the US public education system (3)</li> <li>Time and ability to integrate not promised because authentic learning opportunities not always available in classroom (4)</li> <li>Doesn't undo negative societal representations at large (5)</li> </ul>	
7	White/settler guilt fragility and fear to teach about controversial issues that may upset younger students	4	<ul style="list-style-type: none"> <li>Don't want to hurt student or make them think they did something wrong or their ancestor did something wrong</li> </ul>	<ul style="list-style-type: none"> <li>Interesting to note that this is actually a teacher of</li> </ul>
			<ul style="list-style-type: none"> <li>Removal of responsibility by not taking ownership...can skirt around challenging and naming settler colonialism (4)</li> </ul>	color, not a white teacher
8	Missing information on website	6	<ul style="list-style-type: none"> <li>No 6th grade curriculum and need to search through other grades</li> </ul>	

## Appendix E

Affordances of STI From Coded Data in Discussion 2 Forum

#	Affordance	Teachers	Commentary
1	Disrupts settler colonialism and the hegemonic master narrative (helps teachers be anti-colonial, liberatory educators)	1, 2, 3, 4, 5, 6	<ul style="list-style-type: none"> <li>Knowing that it passes the evaluation is helpful; high quality material written by and with approval from tribes (1)</li> <li>Shows sovereign tribal govts today being active in protecting economic and cultural resources (2)</li> <li>Anti-colonial promoting understanding of cultural, political, and economic history and present of Indigenous peoples (3)</li> <li>Works to change narrative perpetuated in our schools; combats historicizing and victimizing and shows that Indigenous peoples are still alive and thriving (3)</li> <li>Shows not vanishing race (4)</li> <li>Brings more truthful narrative and uncovers biases and stigmas Indigenous people face (5)</li> <li>Informed students leads to action where youth are encouraged to take stand and “respect, honor, and support the community towards the firth to sovereignty” (5)</li> <li>Helps other teachers partner with other grade levels and teachers to encourage the usage of STI (5)</li> <li>Allows students to see positionality and see self in colonization story (6)</li> <li>Cyclical nature means revisit ideas again with more complexity (6)</li> </ul>
2	Place-based/land-based curriculum that recenters land, Indigenous peoples, and tribal sovereignty; Promotes relationship building with Indigenous folks	1, 3, 4, 5, 6	<ul style="list-style-type: none"> <li>high quality material written by and with approval from tribes (1)</li> <li>Recenters indigenous peoples and relies on/encourages collaborative partnerships with Indigenous folks (1)</li> <li>Land based learning connects to history of land (3)</li> <li>Shows tribal sovereignty (4)</li> <li>Land-based (5)</li> <li>Encourages partnership with local tribal folks to teacher curriculum well (5)</li> <li>Promotes relationship building and learn how to be in relationship with Indigenous folks (6) <ul style="list-style-type: none"> <li>Modeling for students as teachers learn themselves</li> </ul> </li> </ul>
3	Allows teachers who feel like their own	1, 2, 3, 4,	<ul style="list-style-type: none"> <li>A tool (1)</li> </ul>

## Appendix E (continued)

	understandings are flawed to rely on material they trust and can learn from as they learn how to teach with it  <u>Teachers also learning!</u>	5	<ul style="list-style-type: none"> <li>● Allows teachers to give rich education to students (3)</li> <li>● “Can now” (4)...visibilizes for teacher</li> <li>● “I reflect” and “I remember” language allows teacher to learn and think about own positionality and own education about Native Americans; STI → creates visibility for teacher as well, not just student</li> </ul>
4	Creates greater visibility for Indigenous peoples and the implications of settler colonialism  Also, note EDTEP 555 is what is bringing STI to teachers → teacher ed program creates greater visibility	2, 3, 4, 5	<ul style="list-style-type: none"> <li>● Great resource that makes Indigenous people more visible (2)</li> <li>● Creates space for “proper education on Native communities” and urges for re-education in our classrooms (3)</li> <li>● Allows to see bigger picture (4)</li> <li>● Allows students to make this connection between history and self currently in system (4)</li> <li>● EDTEP 555 made this curriculum and resource visible to teacher (5)</li> </ul>
5	Affords greater dignity after learning about Indigenous peoples	3, 4	<ul style="list-style-type: none"> <li>● Allows us to address the political, economic, and cultural ramifications of invisibility when now visible (3)</li> <li>● Brings respect and dignity (4)</li> </ul>
6	Connects to other required curricula or standards/objectives; can supplement	4, 5, 6	<ul style="list-style-type: none"> <li>● Connects to Salmon (4)</li> <li>● Connects to standards and supports current skills being learned by students (5)</li> <li>● Cross disciplinary (5)</li> <li>● Can be used to supplement other curricula/lessons already being used (5)</li> <li>● Other curricula is supported by STI resources (6)</li> </ul>
7	High quality curricula supports learning for required standards, skills, dispositions, etc	3, 5, 6	<ul style="list-style-type: none"> <li>● High expectations for students but lots of support available (3)</li> <li>● Creates space for positive discourse/discussion (5)</li> <li>● Amazing, high quality curricula (5)</li> <li>● Clearly defined learning goals/outcomes and provided all tools to reach the desired outcome (5)</li> <li>● Accessible to all students and helps strengthen classroom community (5)</li> <li>● High quality, engaging, and inquiry-based (6)</li> <li>● Related to standards (i.e., built in primary source analysis) (6)</li> </ul>
8	Lots of student engagement	3, 5, 6	<ul style="list-style-type: none"> <li>● Relevant curricula leads to higher engagement (3)</li> </ul>

			<ul style="list-style-type: none"> <li>● Creates space for lots of student discussion (5)</li> <li>● Accessible to all students and helps strengthen classroom community (5)</li> <li>● Engagement (6)</li> </ul>
9	Implementable	5	<ul style="list-style-type: none"> <li>● Can be easily/immediately implemented because the curriculum doesn’t require much/any adjusting (5)</li> </ul>
10	Creating partnerships	1, 4, 5	<ul style="list-style-type: none"> <li>● Partnerships with Indigenous folks to support in learning activities and to build relationships (1, 4, 5)</li> <li>● Partnerships with other teachers and grade levels (5)</li> </ul>

## Appendix F

### Findings and Implications for Constraints

Constraint #	Finding (What the data says)	Implications (What it means)
Constraint 1 -speaks to settler colonialism	All teachers named how the education system they grew up in and/or the one they currently work in had/s inaccurate or biased information that miseducates/d about Indigenous peoples.	The education system is not neutral but plays a role in what students and society understand about Indigenous peoples. Settler colonial thinking has been and continues to be present in many classrooms and lives of teachers and students despite curricula like STI being mandated.
Constraint 2 -speaks to settler colonialism	There remains a lack of visibility of and for Indigenous peoples. The invisibility is multifaceted. Teachers noted invisibility in required curricula, in teachers' <u>understandings</u> and <u>knowledges</u> about Indigenous peoples, and in the lack of recognition that Indigenous peoples and issues are relevant to all people because all education takes place on Indigenous land regardless if Native students are present/recognized in a classroom.	Invisibility is likely an intentional tool of settler colonialism that works to keep Indigenous peoples on the margins because a recognition of Indigenous peoples with full dignity and rights (sovereignty) would unsettle our current structures. Regardless of intention, invisibility allows for schools to re-invisibilize Indigenous peoples and settler colonialism. In general and at this stage of time, settler colonialism is greater than anti-colonial curriculum in our schools.
Constraint 3 -speaks to settler colonialism	There are barriers or challenges teachers face when adopting and using STI. There are various barriers dependent on a teacher's context. A barrier for usage for one teacher may not necessarily be a barrier for another teacher.	The nature of having various and different barriers to usage may affirm how deeply settler colonialism is embedded in our schools. This may allow us to conclude that barriers are multifaceted and that addressing just one barrier does not necessarily mean adoption and usage of STI will be more effective across all contexts after that change. This also shows that barriers range and overlap between structural challenges (i.e., how the school day is set up, limitations on teacher and student time, what curricula is tested, etc), cultural challenges (i.e., a changed curriculum doesn't undo settler harm or settler attitudes immediately without changed actions in society), socio-political/personal challenges (i.e., needing teachers to become educated to learn how to teach this and also why they need to teach it when they were likely not taught this in their own K-12).

Constraints related to society/settler colonialism: 3/4

Constraints related to the STI curriculum: 1/4 (However, was not statistically significant because only 1 teacher mentioned it)

## Appendix G

### Findings and Implications for Affordances

Affordance #	Finding (What the data says)	Implications (What it means)
Affordance 1 -rows 2 and 10	The design and usage of STI recenters Indigenous folks. It shifts the hegemonic power dynamic by re-centers Indigenous voices in the writing of the curriculum and in the content of what is shared in the curriculum. This also recenters Indigenous folks because to teach STI well, it relies on the partnership and support of a local tribe, so Indigenous folks become critical resources and knowledge holders who are essential to the success of student learning.	The design and usage of STI in schools has the potential to recenter and shift power to Indigenous peoples and tribes in Washington. The structure of the curriculum encourages and some may argue requires the partnership with local tribes or Indigenous people in order to most effectively teach STI. This shifting of power uses schools and teachers as a way to move the margins to the center, which is an anti-colonial act of resistance that white/settler educators can engage in to be co-conspirators working towards greater justice with and for Indigenous peoples in the PNW.
Affordance 2 -row 1	STI disrupts and challenges the hegemonic master narrative that settler colonialism has worked to create and pass on through our education system and society.	STI affords teachers an opportunity to challenge and disrupt settler colonialism's master narrative. If schools are often a site of miseducating or invisibilizing Indigenous peoples, then the usage of STI allows for teachers to challenge/disrupt/unsettle what has been settled. This unsettling is critical in the movement to creating a more just society for Indigenous folks and all folks on the margins. Education systems have the power to disrupt or reaffirm, and STI allows for a start to this disruption.
Affordance 3 -rows 3 and 4	STI works to create visibility. It creates visibility in 4 main ways. <ol style="list-style-type: none"> <li>1) STI creates visibility for Indigenous folks by bringing in a curriculum that shares anti-colonial learning about the historical and contemporary culture, government, and action/resistance of Indigenous peoples.</li> <li>2) STI renders visible the impacts of settler colonialism. It creates visibility for</li> </ol>	The movement from invisible to visible is a "dignity-conferring" and "rights-generative" act. The recognition that our society has not been and is still not neutral is critical in addressing how settler colonialism actively works to disempower and marginalize Indigenous peoples and other folks of non-dominant backgrounds.  STI visibilizes what settler colonialism is for teachers and students. Starting to understand the impacts of settler colonialism (with STI as a helpful tool/guide) demands a
	<ol style="list-style-type: none"> <li>3) Using STI creates visibility for Indigenous peoples as well as the impacts of settler colonialism on society for students when it is used in the classroom.</li> <li>4) Visibility can lead to changed actions and a greater recognition of dignity and rights for Indigenous people.</li> </ol>	reflection of and change in actions. It also encourages students and teachers to think about their own positionality (gender, race, sexuality, SES, etc as well as their status as settler on stolen Indigenous land).  STI visibilizes Indigenous peoples and issues that often might be absent or invisible in culture and in curricula/schools. This movement to visibility is critical. The movement from invisible to visible no longer allows colonial blindness to excuse actions. There is responsibility that accompanies visibility. The impacts of this should lead towards the recognition of Indigenous folks as sovereign nations who have both inherent and legally-recognized rights in the U.S.. The withholding of rights is intimately linked with the withholding of dignity, so visibility should lead to greater rights and dignity for Indigenous folks.
Affordance 4 -rows 6, 7, 8, 9	The STI curriculum is high-quality, implementable, connected to standards and other required curricula, and is designed for lots of student engagement.	While being anti-colonial in nature it has enough connection and socially recognized validity within the current education system. This is significant because it allows it to be adopted into our schools currently as an anti-colonial curriculum that still has a place in schools that are confined by mandates and social expectations around what skills, standards, and outcomes of learning will occur in schools.

Affordances related to society/settler colonialism: 6/10 → 3/4

Affordances related to the STI curriculum: 4/10 → 1/4

## Appendix H

### Triangulated Data (Module 2 and Module 3)

<b>Teacher</b>	<b>Evidence of counter narrative; Repositions and creates greater visibility for Indigenous peoples</b>	<b>Exposes or disrupts settler colonialism</b>	<b>Land-based pedagogy</b>	<b>Limitations</b>
<b>Teacher 1</b>	M2: Community Engagement Plan	M2: Community Engagement Plan	M2: Community Engagement Plan	
<b>Teacher 2</b>	M3: Lesson Sketch-- Phase 2	M3: Lesson Sketch-- Phase 2	M3: Land Based Education: Walking the Land M3: Lesson Sketch-- Phase 2	
<b>Teacher 3</b>	N/A	N/A	N/A	Not turned in at time of analysis
<b>Teacher 4</b>	M2: Community Engagement Plan	M2: Community Engagement Plan	M2: Community Engagement Plan	
<b>Teacher 5</b>	N/A	N/A	N/A	Not turned in yet
<b>Teacher 6</b>	M2: Community Engagement Plan	M2: Community Engagement Plan	M3: Lesson Sketch-- Phase 2	

# Appendix I

## UNIT PLAN – CULVERTS AND FISH

Topic	Grade Level	Timeframe	
Science > Life Science > Ecology	7-8	5 class days (50 minutes per day)	
NGSS Performance Expectation(s)	NGSS Science and Engineering Practices		
MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.	<ul style="list-style-type: none"> <li>Engaging in Argument from Evidence</li> </ul>		
MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	<th>NGSS Crosscutting Concepts</th>		NGSS Crosscutting Concepts
	<ul style="list-style-type: none"> <li>Stability and Change</li> <li>Influence of Science, Engineering, and Technology on Society and the Natural World</li> <li>Science Addresses Questions about the Natural and Material World</li> </ul>		
Anchoring Phenomenon	Essential Questions		
Across the Washington and around the world, culverts are an impediment to the travel of migratory fish, which impacts fish populations and the ecosystems those fish were once part of. When access is restored, fish soon return to upstream habitat and integrate back into the ecosystem.	<ul style="list-style-type: none"> <li>How do culverts impact fish populations? (PRIMARY)</li> <li>How do salmon participate in local ecosystems?</li> <li>How may a culvert be designed for fish passage?</li> <li>What costs are associated with different culvert designs?</li> </ul>		
Why Does the Lesson Matter? (Fit with Course)			
This unit addresses two NGSS performance expectations in the life sciences for middle school, so it is aligned with the standards that must be taught for this grade band. At present, we do not have curriculum to address these performance expectations in middle school. More importantly, though, students come with pre-existing connections to both the place and the subject of this unit. The trails and the creek are familiar to students as a consequence of attending our school. As residents of the Bainbridge Island, students are also familiar with the state highway and the Suquamish Tribe. Moreover, students who attended school in our district in 5 <sup>th</sup> grade will have studied salmon migration, reared salmon fry, and launched the fry into the same creek that is context for this unit. Thus, students will be invested and knowledgeable in the unit's context before it even starts.			
Instruction / Learning Activities			
<b>Activity 1. Walk the Land (1 day)</b> <i>Learning Targets</i> Identify human impacts on the local forest ecosystem. Identify specific causes of fewer salmon in a local stream. <i>Instruction Plan</i> <ul style="list-style-type: none"> <li>Hike forest trails behind the school to the site on Woodward Creek where students in 5<sup>th</sup> grade launched salmon fry. Students to write in their notebooks their observations and questions about the area as we walk through it.</li> <li>Class discussion in the forest to capture observations and questions. Record on chart pad.</li> </ul>			

## Appendix I (continued)

- Segue into how this area might have been different 100 and 200 years ago. Turn and talk on human impacts from 200 years ago to 100 years ago to today, followed by class discussion to capture student ideas. Record on chart pad.
- Bring focus to the creek and how it has changed in that time. Expect students to bring up fewer salmon in the stream. Brainstorm reasons why and record on chart pad.
- Take note of the impact of salmon in this place for next day's activity and return to the building.

### *Materials/Tools Needed*

Chart Pad

### *Handouts/Copies to Be Made*

None

### *Resources*

None

### *How Land Is Involved in the Lesson*

The land is the subject of this activity and the lesson. Students will be observing the land, asking questions about it, and offering possible explanations for those questions.

## **Activity 2. What Happens to the Land if the Salmon Disappear? (1 day)**

### *Learning Targets*

Determine the roles of salmon in the local forest ecosystem: producer, consumer, decomposer  
Determine the impact on this ecosystem of losing salmon.

### *Instruction Plan*

- Warm-up activity: "Salmon in the Food Web." Table groups construct a food web using provided cards.
- Table groups answer discussion questions together, followed by class summary discussion. Key questions: How do salmon help the forest, and if salmon are removed, how are other organisms affected?
- Lab activity: Effect of Decomposed Fish on Plant Growth. Students plant seeds as table groups, with varying amounts of fish emulsion to simulate presence of salmon in the forest. Monitor growth rates over time. The activity will extend beyond the lesson, as students will have to come back after the lesson to see any growth. (2 handouts)
- Reinforce conclusions with video, "Salmon: Running the Gauntlet."

### *Materials/Tools Needed*

Salmon in the Food Web game boards and card sets (1 per table group)

4" flower pots and saucers (5 pots per table group)

Plant tray (1 per table group)

Bean seeds (25 per table group)

Fish liquid emulsion fertilizer

Peat moss, perlite, and vermiculite for the "soilless mix"

Five 5-gallon buckets

### *Handouts/Copies to Be Made*

Lab instructions for Effect of Decomposed Fish on Plant Growth (2 per table group)

Data analysis sheet for Effect of Decomposed Fish on Plant Growth (1 per student)

### *Resources*

"Salmon in the Food Web" from Science World of Vancouver, B.C., <https://www.scienceworld.ca/resource/salmon-food-web/>

## Appendix I (continued)

<p>Effect of Decomposed Fish on Plant Growth from the journal <i>Nature</i>, <a href="https://www.nature.org/content/dam/tnc/nature/en/documents/nature-lab-lesson-plans/ManagingSalmontoSupportHealthyForests-NL.pdf">https://www.nature.org/content/dam/tnc/nature/en/documents/nature-lab-lesson-plans/ManagingSalmontoSupportHealthyForests-NL.pdf</a>, Session 1, Part 2</p> <p>"Salmon: Running the Gauntlet" from the television series <i>Nature</i>, <a href="https://www.pbslearningmedia.org/resource/nat11.sci.living.eco.salmeco/nature-salmon-running-the-gauntlet-salmon-in-the-ecosystem/#.Xo9oypl7mUk">https://www.pbslearningmedia.org/resource/nat11.sci.living.eco.salmeco/nature-salmon-running-the-gauntlet-salmon-in-the-ecosystem/#.Xo9oypl7mUk</a></p> <p><i>How Land Is Involved</i> The land remains central in this activity, as students examine how salmon are integral to life on the land.</p>
<p><b>Activity 3. What Is a Good Solution for Bad Culverts? (2 days)</b></p> <p><i>Learning Targets</i> Identify potential biological and environmental problems associated with culverts that are not fish friendly. Design and model a replacement structure for local culvert that impairs fish passage.</p> <p><i>Instruction Plan</i> Warm-up question: How are culverts a problem for migratory fish? Set context in teacher-led instruction, built upon the Indigenous Historical Conceptual Framework from <i>Since Time Immemorial</i> "Tribes continue their battle for salmon recovery, thus beginning the second phase of the Boldt Decision, known as "Boldt II" where tribal and non-tribal governments equally share the cost of salmon habitat recovery. Tribes insist that state and local governments fulfill their obligation by unclogging or widening the over 1,000 road and highway culverts that block salmon spawning. The state estimates they would have to spend ten times what they currently spend on culvert repair." <ul style="list-style-type: none"><li>• Review tribes' action resulting in the so-called "culvert case," which is forcing WSDOT to replace culverts as a consequence of Boldt II</li><li>• Use Washington State Fish Passage map to illustrate the size of the problem</li><li>• Discuss Suquamish partnership with state and county governments in Chico Creek restoration</li></ul>Introduce culvert replacement design challenge, adapted from FWS resource for SR 305 culvert over our creek (4 handouts) Students prepare designs and build models in table groups and then present designs to class. Students rate others' designs on a teacher-provided rubric. OPTIONAL: Invite a representative of the Suquamish Tribe Fisheries Department to hear and see students' presentations and to share about the Tribe's involvement with culvert removal on the Kitsap Peninsula.</p> <p><i>Materials/Tools Needed</i> Assorted paper and craft supplies for culvert models</p> <p><i>Handouts/Copies to Be Made</i> The Problem with Woodward Creek (1 per student) WDFW Culvert Assessment Report (1 per student) Designing Fish-friendly Culverts (1 per student)</p> <p><i>Resources</i> <i>Since Time Immemorial</i>, Indigenous Historical Conceptual Framework, <a href="https://www.k12.wa.us/student-success/resources-subject-area/time-immemorial-tribal-sovereignty-washington-state/supplemental-resources/indigenous-historical-conceptual-framework">https://www.k12.wa.us/student-success/resources-subject-area/time-immemorial-tribal-sovereignty-washington-state/supplemental-resources/indigenous-historical-conceptual-framework</a> [Note: STI also refers to Boldt II in 7th-grade lessons (<a href="#">Unit 3, The Boldt Decision 40 years Later</a>) and 12th-grade lessons (<a href="#">Unit 2, Environmental Issues: The Boldt Decision</a>), but neither lesson set nor the framework has been updated to reflect the 2018 conclusion of the culvert case.] United States v. Washington (<a href="#">853 F.3d 946 (2016)</a>), a.k.a. the "culvert case" and the "Martinez decision" Washington State Fish Passage map, published by Washington Department of Fish and Wildlife at <a href="https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html">https://geodataservices.wdfw.wa.gov/hp/fishpassage/index.html</a> "Suquamish Tribe pulls together \$1.7 million to remove Chico Creek culvert." <i>Kitsap Sun</i>, 12/31/2010, <a href="http://archive.kitsapsun.com/news/local/suquamish-tribe-pulls-together-17-million-to-remove-chico-creek-culvert-ep-419064303-357396901.html">http://archive.kitsapsun.com/news/local/suquamish-tribe-pulls-together-17-million-to-remove-chico-creek-culvert-ep-419064303-357396901.html</a></p>

## Appendix I (continued)

"Kitsap's Elwha: state seeks to build Highway 3 bridge at Chico Creek." *Kitsap Sun*, 4/1/2019, <https://www.kitsapsun.com/story/news/local/2019/04/01/kitsaps-elwha-state-seeks-build-highway-3-bridge-chico-creek/3301610002/>

Culvert replacement design challenge, adapted for SR 305 culvert over Woodward Creek (the creek running behind the school) from a resource published by U.S. Fish and Wildlife Service resource at <https://www.fws.gov/fisheries/fish-migration-education.html>

### *How Land Is Involved*

Restoration of the land is the focus of this activity.

### **Activity 4. Resiliency (1 day)**

#### *Learning Targets*

Observe the rapid recovery of a river ecosystem following removal of large barriers to fish passage, two large dams.  
Complete a summative assessment for the lesson.

#### *Instruction Plan*

Warm-up question: How quickly do salmon respond to removal of barriers to habitat?

Show *Renewal* video on restoration of the Elwha from the perspective of a Klallam scientist, and debrief as a class the successes of this large restoration project.

Written summative assessment: Using the claim-evidence-reasoning format, write an argument to support the claim that barriers to fish passage in Washington must be remedied. Include both scientific and political arguments in your response.

#### *Materials/Tools Needed*

None

#### *Handouts/Copies to Be Made*

None

#### *Resources*

Renewal video, published by Howard Hughes Medical Institute/Nautilus at <http://tias.nautil.us/video/291/how-the-elwha-river-was-saved>

### *How Land Is Involved*

The Elwha recovery story shows the resiliency of the land.

### **Anticipated Challenges and Potential Solutions**

#### *Role of Suquamish Tribe in habitat restoration*

I expect students will understand the cultural motivation of the Tribe for habitat restoration, but the political motivation to be less clear. Illustrating the Tribe acting as a sovereign nation, through its actions in litigation and as an equal partner in habitat restoration projects, is intended to bring the political motivation to light. Furthermore, if I am able to get a Tribal fisheries person with speak to the class, I expect sovereignty will naturally flow from the conversation.

#### *Bean plants will not grow overnight*

Of course, there is no way to plant the beans and take plant measurements in the same day. I considered starting the bean plants before we get to this unit, so that students can take plant measurements and conduct their analysis in the flow of the unit, but there is no motivation for students to be planting out of context. Thus, I have students plant their seeds during the unit and come back later to confirm their hypothesis. They can continue through the unit assuming their hypothesis will be confirmed by the experiment, which I expect they will readily accept as fact before the data are in.