AN EXAMINATION OF NATIVE LANGUAGE, CULTURE

AND CULTURALLY RESPONSIVE TEACHING IN SCHOOLS

by

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DISSERTATION ABSTRACT

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The teaching of Native language and culture is described in the literature as a culturally responsive teaching approach. This study uses a sequential explanatory mixed-methods research design to examine the inclusion and teaching of Native language and culture in schools. Quantitative data from a grant funded teacher survey project was used to analyze teachers' culturally responsive teaching, teachers' years of experience, and AI/AN student density in schools. Qualitative data from the same teacher survey was analyzed to examine teacher responses to adjusting academic content and teaching approaches to impact Native students' learning. The Indigenous culturally responsive teaching framework, which centers on the teaching of Native language and culture as a culturally responsive teaching model of practice, was used to guide the research. Findings indicate Indigenous culturally responsive teaching is perceived differently by AI/AN teachers, teachers of color, and white teachers. Implications for practice are to support the development of a praxis for AI/AN culturally responsive teaching which includes Native language teaching, culture, and culturally responsive teaching.

Keywords: Culturally Responsive Teaching, American Indian/Alaska Native Education

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To Hawthaosa and all that walk on the wind

I love you all

Past, Present, and Future

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CHAPTER I

INTRODUCTION

Statement of the Problem

The education system has failed many American Indian/Alaska Native (AI/AN) students. Historically, Indian education was established to perpetuate the deconstruction of traditional Native culture in order to assimilate Native children into white society (Torres, 2016). The approach sought to remove children from their home at an early age and isolate them by placing them into boarding schools (Torres, 2016). From the 1880s through the 1920s, boarding schools were the means to assimilate Native children into the melting pot of America. Many Native children received an abusive education and survived deplorable conditions in boarding schools (Lopez, Scharm, & Vasquez Heilig, 2013). Frequently, once students were in boarding schools they were stripped of their identity and were cut off from family. The children were forbidden to speak their Native language and were subjected to psychological and physical abuse because of this system of education (Lopez, Scharm, & Vasquez Heilig, 2013).

The passage of the Indian Education Act of 1972 (P. L. 92-318 as amended) and the Indian Self-Determination and Education Assistant Act of 1975 (P. L. 93-638) opened the door for a new era in Indian education. Since 1975, there have been a variety of efforts to restore and revitalize Native languages and cultures through schools (Lipka, 2002). The 1990 Native American Languages Act (P.L. 101-477) brought forward legislation to protect the status of Native languages. The act cites, "convincing evidence that student achievement and performance, community and school pride, and educational opportunity is clearly and directly tied to respect for, the first language of the child or

student (P.L. 101-477, p. 3)." There is a growing concern among Native peoples about heritage[1] language and culture loss and the consequence of a long history of linguistic and cultural suppression.

Native Languages are identified clearly as an integral part of culture and identity and the United States recognizes the distinct cultural and political rights of Native American languages (P.L. 101-477). Because of this, the act includes the protection of these unique cultures and languages (P.L. 101-477). Language is integrally tied to cultural knowledge, identity, and sense of origin, all of which are essential to resilience (Bandura, 1993; Borman & Overman, 2004; Demmert et al., 2006; Lee, 2015; McCarty et. al., 2012). There are generations of Native students entering schools speaking English as a primary language. Yet, the English-speaking ability has not overcome the profound achievement disparities (McCarty & Lee, 2016).

When compared to the overall population of students in the United States, Native American students experience some of the greatest challenges to school success. Their low graduation rates are one reflection of these challenges. According to a 2017 report from the National Center for Education Statistics, Native American students show a graduation rate of 71.6%, as compared to an 82.3% graduation rate for white students. The same report indicated that Native American students experience the lowest graduation rate of any students in a racial/ethnic subgroup. In addition, Native students were reported as having the highest dropout rate in high school and the highest chronic absenteeism rate, and it is apparent from this data that profound achievement disparities

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[1] A heritage speaker is someone who grows up with a certain family language in the home which is different from the dominant language in the country. https://www.international.ucla.edu/apc/article/93215

exist despite the fact that English is the first language of most Native American students. (McCarty & Lee, 2016). What this paper will show is that Native American students thrive in classrooms where Native language, culture, and community are part of the everyday curriculum as they offer a rich environment that supports Native student identity and in so doing, provide a bridge for Native student success.

Oregon is not immune from these national challenges. In Oregon, academic success for AI/AN students is a priority and is reflected in the Oregon American Indian/Alaska Native education state plan of 2015 (Oregon Department of Education, 2017). The plan aligns with the Oregon Department of Education's strategic goals to boost attendance and graduation rates for Native students. Each section of the plan addresses different areas of achievement. For example, in the Learner's Section of the plan, it states "every student graduates from high school and is ready for college, career or civic life." Specifically, this relates to Objective One of the Learner Section, "Increase graduation rates for AI/AN students to meet or exceed statewide average for all students" (p. 2). This would include partnering with Tribes and other stakeholders and advocate culturally responsive approaches to increase graduation rates (p. 2).

Nearly 90% of Native American students in the United States attend public schools and, in more than half of these schools, Native students constitute less than a quarter of total school enrollments. Public, and often off-reservation schools, are much less likely to have Native American teachers or teachers with Indigenous cultural competency (McCarty & Lee, 2014). This lack of representation leads to further potential complications of teaching Native languages in formal education settings. There are numerous tensions inherent in the merging of Native language and formal education.

Formal education is product of colonization and assimilation practices in the United States, which again is historically unsupportive of Indigenous cultures and people (DeKorne, 2013). Developing effective practices for the instruction of Native languages in schools remains an issue of ongoing exploration and uncertainty (McCarty, 2003).

The state of Oregon formed a Native Language Preservation and Instruction Partnership through a collaborative effort between the Nine Federally Recognized Tribes of Oregon and the Oregon Department of Education in 1999 through the Department of Bilingual Education, now through the Office of Indian Education. The purpose of the partnership is to support the implementation of the endangered Native American languages of Oregon through instructional programs in Oregon schools (Oregon Department of Education, 1999). Through these efforts, the Nine Federally Recognized Tribes of Oregon, Teachers Standards and Practices Commission (TSPC), the Oregon Department of Education (ODE), and the Native Language Preservation and Instruction Partnership enacted the American Indian languages teaching license in 2001 (ORS 342.144).

The pathway to licensure is in place for the American Indian language teaching license: the license is issued to individuals who have a letter of sponsorship from a Native American Tribe that certifies that the individual is qualified to teach a language of the Tribe and TSCP provides licensure. How Native languages are taught is up to the Tribe and the teacher not ODE. Not all of the Nine Tribes want their languages taught in schools however, especially in public schools. This is a barrier and a perceived lack of understanding of the pivotal role that Native language and culture play as culturally responsive teaching strategies to support Native students (Brayboy & Castagno, 2009).

Because the state of endangerment of the Native languages of Oregon is life-threatening, many Oregon Tribes do have Native language curriculum developed; this in itself, developing language curriculum, is a *challenging* feat. Little language is accessible through Tribal websites for teachers to access and what curriculum is available is not located at a central point for teachers to access.

Culturally responsive teaching methods, as described by Brayboy and Castagno (2009) require a "firm grounding in the heritage language, [2] and culture Indigenous to a particular tribe is a fundamental prerequisite for the development of culturally healthy students and communities associated with that place" (p. 4). For the purpose of this study, heritage language refers to the Indigenous languages of the people native to the Americas (footnote 2). They go on to describe this as "an essential ingredient for identifying the appropriate qualities and practices associated with culturally responsive educators, curriculum, and schools" (p. 4).

In support of culturally responsive teaching, critical culturally responsive sustaining/revitalizing pedagogy described by McCarty & Lee (2014) addresses the sociohistorical contexts of AI/AI schooling to reclaim and revitalize AI/AN language education which was disrupted by colonization. The teaching of Native languages is inseparable from education and is vital to the "cultural continuity and community sustainability" (p. 103).

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[2] Indigenous heritage languages are the languages of the peoples native to the Americas.
https://www.cal.org/heritage/pdfs/briefs/What-is-a-Heritage-Language.pdf.

CHAPTER II

Literature Search Process and Review

To address the search for literature I followed an electronic search process and an ancestral search. The search process included articles related to Native American language teaching in schools. The following section will explain the search process to locate the articles, which resulted in the 15 studies. Table 1 describes the electronic search process in detail.

Literature Search

My literature search process included the University of Oregon library main search page, JSTOR and ERIC as the main search sites, followed by an ancestral search. I first started with the University of Oregon library search engine using the search terms "teaching Native American languages" and "Native American language teaching." I then applied this inclusion process to all searches, which included culturally responsive teaching, culturally responsive schools, American Indian/Alaska Native students, and the exclusion process to all searches which included, AI/AN teaching programs, college, drugs, diabetes, tobacco, suicide, addictions, bullying, and mental health.

The University of Oregon library search resulted in 15 articles of which I retained 3. Second, I conducted a JSTOR and ERIC search using the search terms from my previous search, "teaching Native American languages" and "Native American language teaching." I then applied the same inclusion and exclusion process, resulting in 18 articles, of which I retained 3. For all searches, all years were included, and I did not filter out or exclude older articles from the literature search.

The third and final step was an ancestral search in articles for my literature review search on AI/AN Native teaching regarding culturally responsive teaching methods. I used the same inclusion and exclusion process that I had established previously for this literature search, which resulted in 12 articles of which I was able to retain 9. Again, all years were included in the search, and I did not exclude older articles.

Literature Review and Summary

In the following section, I summarize the components of the literature review, beginning with the type of research included in the review. Table 1 summarizes the electronic search process. The research comprises a variety of methods and research designs to explore how Native American language is taught in schools.

Participants ranged from elementary grades K-6 to high school grades 9-12 and are identified as AI/AN or Native American students. Some references use the term, Indigenous students which, I used interchangeably with AI/AN or Native American students in this discussion.

Type of Research

Table 2 summarizes the type of research used for my final literature pool. The pool includes four literature reviews, one mixed-methods, nine qualitative and one quantitative study. The four literature reviews focus on culturally responsive schooling, culturally responsive teaching, and Native language teaching in schools. The articles include educational approaches to improve academic success for Native students, and a review on improving education for Native American students through culturally responsive teaching, Native language teaching, and culturally responsive schooling.

Table 1

Electronic Search Process

Name	Search Term	Inclusion Process	Number of Articles	Exclusion Process	Articles Retained
University of Oregon	"Teaching Native American Languages" "Native American Language Teaching"	Culturally responsive teaching, culturally responsive schools, American Indian/Alaska Native students	15	American Indian/Alaska Native teaching programs, college, drugs, diabetes, tobacco, suicide, addictions, bullying and mental health	3
STOR & ERIC	"Teaching Native American Languages" Native American Language Teaching"	Culturally responsive teaching, culturally responsive schools, American Indian/Alaska Native students	18	American Indian/Alaska Native teaching programs, college, drugs, diabetes, tobacco, suicide, addictions, bullying and mental health	3
Ancestral Search	"Teaching Native American Languages" "Native American Language Teaching"	Culturally responsive teaching, culturally responsive schools, American Indian/Alaska Native students	12	American Indian/Alaska Native teaching programs, college, drugs, diabetes, tobacco, suicide, addictions, bullying and mental health	9
Total					15

Table 2

Type of Research

Citation	Literature Review	Mixed-Methods	Qualitative	Quantitative
1			X	
2			X	
3			X	
4	X			
5	X			
6			X	
7	X			
8	X			
9		X		
10			X	
11			X	
12			X	
13			X	
14			X	
15				X
Total	4	1	9	1

A blueprint article on preparing Native American students for academic success is a topic of one literature review, which includes a framework for improving academic performance and self-sufficiency among Native students by including Native language and culture (Demmert, McCarle, Mele-McCarthy, & Leo, 2006).

The one mixed methods study focuses on culturally responsive schooling, Native language teaching, AI/AN achievement, and the resiliency of American Indian high school students. This included collecting data from surveys and then conducting a statistical analysis to determine the significance of culturally responsive schooling, and predictors of academic success.

The one quantitative study focused on teaching Native language and culture in the classroom in relation to culturally responsive teaching, factors that influence academic achievement, and teachers' relationships with students. The nine qualitative studies

discuss case studies, narratives, surveys, and interviews related to culturally responsive teaching, culturally responsive schooling, and the teaching of Native culture. These further explore how Native language related to the culturally responsive curriculum, schooling, and Native students' educational experiences.

Participants

Table 3 summarizes the participants from the literature pool. All participants in the 15 studies are identified as AI/AN or Native American students. All 15 articles include students in grades K-8 while 7 of them also include students in grades 9-12. Nine of the articles indicate the number of schools in the studies and one study indicates the number of states studied in relation to culturally responsive teaching and culturally responsive schooling.

One study on culturally responsive teaching and culturally responsive schooling studies the effect of educational programs on AI/AN students. Twelve articles reported population numbers ranging from a low of two to a high of 8,100. The one literature review includes a review of 77 programs related to AI/AN culturally responsive teaching, culturally responsive schooling, and Native language teaching.

Settings

The settings vary between reservation/urban, reservation, and urban communities. Table 4 summarizes the settings and locations of the studies. Nine studies were conducted in both reservation and urban settings. The studies compare communities and schools in culturally responsive teaching, culturally responsive schools, and Native language teaching between these geographic locations.

Table 3

Summary of Subjects

Citation	*n*	Elementary Grade K-6	Middle School Grade 7-8	High School Grade 9-12
1	12	X	X	
2	4	X	X	X
3	77	X	X	X
4	5	X	X	X
5	13	X	X	
6	52	X	X	
7	7	X	X	X
8	2	X	X	X
9	2730	X	X	
10	1	X	X	X
11	2	X	X	
12	5	X	X	
13	2	X	X	X
14	5	X	X	
15	8100	X	X	
Total		15	15	7

In the reservation settings, five studies were conducted, with one study targeting urban areas. The reservation studies focus on culturally responsive teaching, culturally responsive schools, Native language teaching, and community. The urban settings focus on achievement rates, culturally responsive teaching methods, Native language teaching, and AI/AN education experiences in school.

Regional differences in the studies show how in urban settings, AI/AN educational experience is studied. This is a contrast to reservation studies which focuses on community. These differences come up in school climate and student's connection to community and how important community is to AI/AN student success. With community in place in reservation settings the teaching of Native language and culture is included into the school curriculum versus in urban settings students educational experiences

Table 4

Summary of Settings

Citation	Reservation/Urban	Reservation	Urban
1		X	
2	X		
3	X		
4	X		
5	X		
6	X		
7	X		
8		X	
9	X		
10		X	
11		X	
12		X	
13			X
14	X		
15	X		
Total	9	5	1

account for connection to community. The studies in these setting will inform the teaching of culturally responsive teaching, Native language, and culture and how these may be only offered when there is a high density of AI/AN students.

Measures

Table 5 summarizes the types of outcome measures used in the literature pool. Of the 15 studies, 11 include achievement data. Fourteen studies center on Native language literacy, and 15 articles focus on teaching and curriculum methods. There are eight survey methods used in the 15 studies, and two of studies focus on achievement tests and a survey. Three of the studies focus on graduation and dropout rates for the outcomes in their study. Only one study focused on dropout rates, achievement tests, and survey outcomes.

Table 5

Outcome Measures

Citation	Achievement	Teaching Methods	Curriculum Materials	Native Language Literacy
1		X	X	X
2	X	X	X	
3	X	X	X	X
4	X	X	X	X
5	X	X	X	X
6	X	X	X	X
7	X	X	X	X
8	X	X	X	X
9	X	X	X	X
10		X	X	X
11		X	X	X
12		X	X	X
13	X	X	X	X
14	X	X	X	X
15	X	X	X	X
Total	11	15	15	14

Analyses and Results

In the following section, I will discuss the results of the studies and then describe the implications for review. Table 6 summarizes the results identified in the pool of 15 studies and the five themes that emerged from my literature pool: (a) culturally responsive teaching, (b) culturally responsive schools, (c) school climate, (d) community/family, and (e) academic achievement.

Culturally Responsive Teaching

Eight out of 15 articles identified culturally responsive teaching as the primary theme of the article. All eight of the articles indicated culturally responsive teaching as a transformative teaching method beneficial for Native students. This included learning opportunities in culturally responsive teaching, which is inclusive of Native language teaching and enhances students' success. The data suggests that Native American

Table 6

Citation	Culturally Responsive Teaching	Culturally Responsive Schools	School Climate	Community/Family	Academic Achievement
1	X		X	X	
2		X	X	X	X
3	X		X	X	
4	X	X	X	X	X
5	X		X	X	X
6	X	X	X	X	X
7	X	X	X	X	X
8		X		X	X
9		X	X	X	X
10		X	X	X	X
11		X	X	X	X
12		X	X	X	X
13	X		X	X	X
14			X	X	X
15	X		X		X
Total	8	9	14	14	13

culturally responsive teaching provides students with the educational and overall life skills to transform and create possibilities for better outcomes for AI/AN students.

Culturally responsive teaching provides students the opportunity to thrive in equitable culturally responsive classrooms and can reduce the effects of alienation in the classroom that many AI/AN students experience. Native students experience poorer academic and student outcomes because the majority of their teachers are non-Native and do not practice culturally responsive teaching. American Indian/Alaska Native students thrive in academic teaching settings that are inclusive of Native American history, language, and learning opportunities to engage and explore local community culture.

Native students experience a learning disconnection when taught by non-Native teachers who have no training in the culturally responsive teaching of AI/AN students.

This disconnect leads to misunderstandings about culture and further creates a disconnect between teacher and student.

In turn, teachers see Native students as hard to connect with, and Native students see Non-Native teachers as not understanding their Tribal community and culture. In cases where there is engagement with the local Native community, it tends to occur during Thanksgiving which is the only time Native American history is taught (Demmert & Towner, 2003; Pewewardy & Hammer Cahape, 2003). This limited engagement continues to polarize AI/AN culture in the classroom.

Many teachers are not aware of what culturally responsive training is and how it relates to AI/AN students' success. Training all teachers in culturally responsive teaching methods and Native language teaching strategies (which in many cases would include bringing in a language teacher from the Tribe to provide an authentic learning experience for students) enhances their pedagogical strategies and provides them with meaningful opportunities for continuing their professional development and growth. There are many types of culturally responsive teaching and teachers need to be discerning in choosing which culturally responsive trainings relate directly to Indigenous Culturally Responsive Teaching.

Culturally responsive school curriculum and culturally responsive teaching methods promote the teaching of Native language and culture, which provides the promise of improving academic performance of Native students. These methods are proven successful in the overall education of AI/AN students. This approach and framework to teaching AI/AN students can serve as the healing point in a broken education system founded on past assimilation practices.

Culturally Responsive Schools

Out of the 15 articles, nine of the studies are identified as having culturally responsive schools along with the teaching of culture and language as the primary theme of the articles. Culturally responsive schooling for Indigenous youth is identified as a promising strategy for improving the education of American Indian students and increasing academic success. Culturally responsive schooling has six dimensions that are associated with academic outcomes (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008). These are described as the teaching of Indigenous language, culturally responsive pedagogy, culturally responsive teaching methods, place-based curriculum, strong community participation, and teaching Indigenous values in the classroom.

Many scholars, Tribal communities, and Indigenous leaders support the teaching of Indigenous culture and Native language in the classroom, which increase positive outcomes for AI/AN student success. The educational approach requires the shifting of teaching methods, curriculum materials, teacher dispositions, and school and community relations. Culturally responsive schooling utilizes Indigenous epistemologies and takes into account Indigenous sovereignty and Indigenous knowledge. Equally important is an awareness of Tribal communities and the racism which Indigenous students experience in educational settings.

A number of reasons are offered as to why educators should engage in culturally responsive schooling for AI/AN youth. First is the recognition of students' cultural backgrounds, and second is the educators' awareness of how students can benefit from culturally responsive teaching. In other words, educators need to be aware that AI/AN students come to school from many various cultural and linguistic backgrounds with different learning styles and cultural practices. Culturally responsive schooling is

necessary for AI/AN students because the end goal is to produce AI/AN students who are knowledgeable in mainstream and Tribal societies. To achieve this goal, teachers need to merge culturally responsive practices into their dominant teaching practices to benefit AI/AN students and all students.

School Climate

Out of the 15 articles, 14 identified school climate as important for AI/AN student academic success. Reflecting back on culturally responsive teaching methods, the student's culture is a bridge to success in school achievement. Teachers building a bridge requires the use and knowledge of cultural literacy and language, which is often absent in mainstream classrooms and may only be present in high density AI/AN schools. Teachers who share the same culture and learning as their students can enhance the students' learning experiences in the classroom. Many AI/AN students attend low density schools where the teaching of AI/AN culturally responsive methods is a low priority.

In this situation schools need to prioritize the recruitment and retention of AI/AN teachers to create learning environments which are reflective of the local Tribal community. This includes preservice teachers to be able to study the history, culture, and types of Native languages and include their values, stories, and music into the classroom in teaching programs (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008; Demmert, McCarthy-Mele, & Leos 2006).

Teachers with caring and trusting classrooms create a welcome learning environment for Native students and create an equitable classroom environment (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008; Demmert, McCarthy-Mele & Leos 2006). Teachers do not need to be experts in AI/AN culture and language, to provide an

inclusive learning atmosphere in the classroom, which promotes learning, challenges, and intellectual learning opportunities for AI/AN students (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008; Demmert, McCarthy-Mele & Leos 2006).

The removal of the assimilationists' educational approach needs to be replaced by including place-based Tribal history and Native languages into curriculum, classroom, and the inclusion of community (McCarty, 1998; McCarty & Lee, 2014; McCarty, Romero & Zepeda, 2006; Patrick, 2008). The educational approach of assimilation is a method of extermination and does not create an equitable education and academic success for AI/AN students. The assimilation model sought to eliminate the teaching of Native language and culture and all recognition of Tribal place-based sovereignty and history (Lipka, 2002; McCarty & Lee, 2014).

An atmosphere that is not welcoming for AI/AN students reflects a school climate that continues to knowingly or unknowingly create racism and inequitable educational opportunities. Teachers who do not have the opportunity to learn AI/AN culturally responsive teaching need to further engage in finding ways of teaching that are not harmful to AI/AN students in the classroom (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008; Pewewardy & Hammer Cahape, 2003).

Community/Family

Out of the 15 articles, 14 in the literature pool included the importance of community and family. Teachers must connect with the students' community and be able to interact and initiate the support of parents to participate in school activities. Teachers' outreach and connection to an AI/AN student's community is connected to AI/AN student success (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008).

Members of the community need to be invited and welcomed into the school to enhance the educational experience of Native students. These enhancements will aid in the cultural learning and language of the students. There are many ways in which teachers can include community in the classroom, such as encouraging families to visit the classroom and engage in classroom cultural activities.

In addition, teachers who become involved with the active local community will further understand the families and develop meaningful relationships. Teachers who become involved in the community provide enrichment to their pedagogy which no current professional development trainings could replace. The school itself can invite Elders and parents to participate in local school activities, which further builds the feeling of community and understanding.

The utilization of Elders from the local community to bring in culture and teachings will further create a welcoming environment for community and will break down barriers between teachers and students. There are respectful ways to bring Elders into schools. This includes extending a personal invitation, offering an honorarium, and providing food at the event which satisfies traditional protocols. A gift is given and in some cases, the offering of tobacco along with gift to honor the Elder for the teachings they will share.

Teachers and administrators can benefit from professional development from local Indian Education programs to help them understand the tribal protocols and how to respectfully approach Elders to participate in the classroom and local activities. To facilitate the development of this welcoming environment, schools must provide ongoing staff development to improve communication with Native parents. These staff

development opportunities can include participating in local professional development at the state level. This could also include the school district developing a community-based staff training about their community.

Parents and community have the capacity to help their children in the classroom, while also providing support for teachers to learn about the community and culture. Parents' input can also assist schools in refining curriculum to become more culturally relevant with place-based history and language of the community.

Teachers receiving community-based training on placed-based history and community are likely to further develop relationships with parents. Teachers may find that these relationships enhance their teaching skills and increase their ability to teach all students, especially if they have a low density of AI/AN students.

Academic Achievement

Out of 15 of articles in the literature search pool, 13 included academic achievement as a theme. Many specific examples of academic strategies were given that improve academic success for Indigenous students.

In general, these strategies are best described as schools providing learning opportunities for Native students to learn both the knowledge and skills in Native language and culture along mainstream societal norms. The articles further describe how Native students are not of *the culture of power* and situates Native students already at a disadvantage educationally. Furthermore, this description is problematic as it speaks to an inequity that is systematic as it privileges white culture over Indigenous culture.

These types of descriptions and narratives undercut the power of Indigenous culture and further create division and equity issues for AI/AN students and create

difficulties in learning for native students. Another issue is AI/AN students need to learn and be taught the meaning of roles and codes of the mainstream societal culture in order to be able to negotiate in it. Students who are bicultural are able to navigate multiple societal worlds and often have the strongest school outcomes (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008).

Indigenous youth need to learn about the dominant culture and how to negotiate in it but maintain their own cultural identity and language, which is key for AI/AN students (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008). Further described in the literature is AI/AN students needing to become multicultural to successfully negotiate two worlds and learn how to switch between cultures and school. Code switching results in Indigenous students who are both academically and culturally prepared to succeed in mainstream culture and their own Tribal culture (Brayboy & Castagno, 2009; Castagno & Brayboy, 2008).

The prevailing understanding of why Native students are dropping out of school has placed the blame on students and families. In order to alleviate this dynamic, the focus must shift to how teachers can reassess AI/AN learning and how schools can offer opportunities to teach culture and language. This shift benefits AI/AN student success and includes teaching all students place based AI/AN history, culture, and Native language.

Many AI/AN students are not dropouts but experience the push out of school by not having a connection to teachers or the classroom (Faircloth & Tippenconnic, 2010). The dropping out of school for AI/AN students is a culmination effect, which is precipitated by personal and academic difficulties that cause them to detach from school

and essentially become the disappearing student in the school system (Faircloth & Tippenconnic, 2010).

Many AI/AN students are uncounted and when AI/AN students drop out this is seen as insignificant with no follow up by the teacher or district to provide support for the family or student. There seems to be low expectations of AI/AN students, and schools normalize the failures by having these low expectations. This expectation is reinforced when families and students are seen as the problem, rather than viewing the issue as the presence of a culturally hostile learning environment.

American Indian/Alaska Native students represent the smallest student population in schools. To address drop-out rates and push out experiences of AI/AN students, future studies need to research why AI/AN students have the highest dropout compared to other ethnic and racial groups. These studies need to compare the dropout rates from schools where the focus is on non-Native approaches to the dropout rates from schools where culturally responsive teaching methods are taught (Faircloth & Tippenconnic, 2010).

Further, from the beginning of their school experiences, AI/AN students are disadvantaged as they encounter systematic inequitable education practices which contributes to them being behind throughout their entire primary and secondary years.

Once this pattern is established, it is not surprising that AI/AN students experience higher dropout rates and achieve the lowest grades. The implications of inequitable education are clear, and AI/AN students need to be participating in high levels of culturally responsive schooling, which includes the teaching of language and culture.

Summary

Implications

  The teaching of Native American languages in schools is included as a component of culturally responsive teaching and culturally responsive school practice. The literature describes the teaching of Native language and culture as culturally responsive teaching methods for AI/AN students, but do teachers know that Native language and culture is a culturally responsive teaching method for AI/AN students?

  The support of state policies and school administrators are frequently referred to in the articles to support teachers at the classroom level so they can receive professional development and be supported in their own efforts related to what culturally responsive teaching means to AI/AN students.

  To address this, the knowledge should be included in professional development, supported at the local district level, and recognized at the state-wide level. By adding Native language teaching and culture to a culturally responsive teaching approach, Native language and culture will no longer be a separate from mainstream teaching practices but will be a part of a holistic model of Indigenous culturally responsive practices.

  With current systems in place, the offering of Tribal place-based history, language and culture is not included into systematic and structural offerings for AI/AN students, let alone for all students. The challenges teachers face is they are not able to develop and provide models of Indigenous culturally responsive teaching, which includes the inclusion of Native language and culture.

  In the case of teachers engaging in some practices of curriculum and history in the classroom, they do not have the experience to fully engage in teaching AI/AN culturally responsive pedagogy for all. In schools with a high density of AI/AN students, teachers

often teach AI/AN culturally responsive teaching, but when there is a low density of AI/AN students, the teaching of AI/AN culturally responsive teaching is less frequent.

Limitations of Research

Some of these studies identify how the geographic dispersion of AI/AN students is large and therefore makes it difficult to collect and report data. Another factor is trust and the willingness of AI/AN students to participate in research especially when research is done by non-Native researchers. Although the majority of Native students attend public schools, many attend schools funded by the Bureau of Indian Affairs and Tribes. The information is not readily available and in some instances information in not accessible. These ramifications create incomplete data, which some of the articles reported.

<div align="center">

Conclusion

</div>

The literature review provided strong evidence for the teaching of Native American language and culture in schools, which is linked to AI/AN student success. Van Ryzin, Vincent, and Hoover (2016) revealed that Native language and culture in schools related better to AI/AN students' reading and math scores when AI/AN students were the majority.

Culturally responsive teaching and culturally responsive schools strongly identified in all themes related to academic success for AI/AN students and again included the teaching of Native American language and culture. Culturally responsive teaching and culturally responsive schooling, when Native language and culture are included, relate to the academic success of AI/AN students.

The literature identified two gaps. First, it is not known whether teachers have a shared understanding of "culturally responsive teaching." Second, it is unclear whether

teachers perceive that Indigenous Culturally Responsive Teaching involves the teaching of Native language and culture.

To understand further how Native language and culture is included in the classroom by teachers, this study centered on five research questions:

RQ 1: To what extent do teachers view Native language and culture as important to their efforts in culturally responsive teaching with Native students?

RQ 1a: Is there a difference in culturally responsive teaching methods of teachers who are in their early or later teaching career?

RQ 1b: Is there a difference in culturally responsive teaching between teachers who teach in schools with a low population of Native students or a high population of Native students?

RQ 2: What are teachers doing to adjust content to better serve the needs of Native American students?

RQ 2 a: To what extent are Native language, culture, and culturally responsive strategies used in teaching?

Theoretical Framework

The theoretical framework for this study centers on an Indigenous culturally responsive teaching approach for AI/AN students. The Indigenous culturally responsive teaching framework brings Native language and culture into the classroom and the understanding of history. Community and family involvement connects teachers to the Native student's family and community to further enhance the culture and language learning in the classroom. (Native Alliance Initiative. Fostering culturally responsive

teaching (2011). Retrieved September 7, 2017. https://www.teachforamerican.org/about-us/our-initiatives/native-alliance-initiative).

The Indigenous Culturally Responsive Teaching model is adapted from the Native Alliance Initiative. The Native Alliance Initiative works in partnership with Tribal communities to grow the number of Native teachers to improve AI/AN student success outcomes and provide teachers with culturally responsive teaching opportunities. Native teachers are in need across the country and the Native Alliance supports Indigenous education and partnerships in all communities (Native Alliance Initiative. Retrieved July 8, 2019 from https://www.teachforamerica.org/life-in-the-corps/your-tfa-network/native-alliance).

Figure 1. *Indigenous Culturally Responsive Teaching Model*
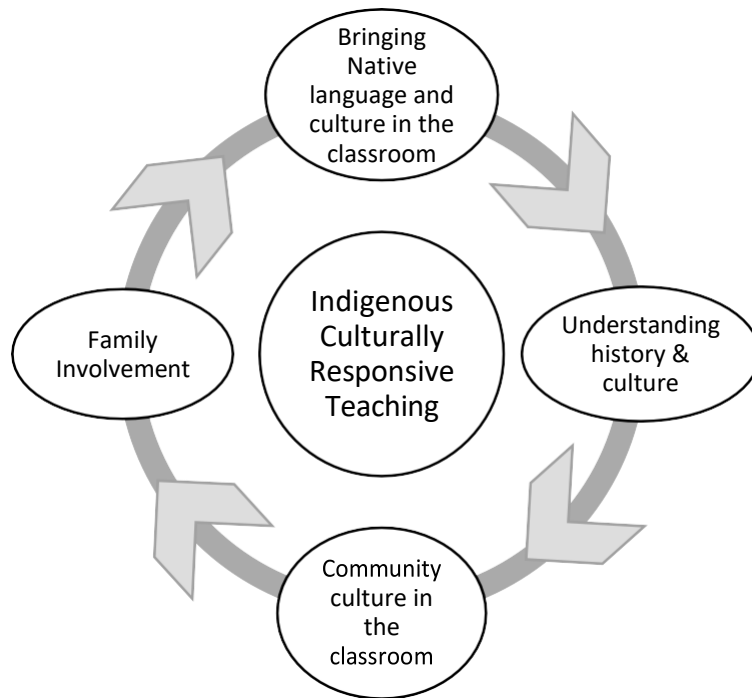
Adapted from (the Native Alliance Initiative, 2017).

Indigenous culturally responsive teaching cannot be approached as a series of steps for teachers to follow but instead relies on the development of certain dispositions teachers have toward learners (Pewewardy & Hammer Cahape, 2003). This includes creating a learning environment so AI/AN students can see their own experiences reflected in their curriculum.

At the center of the model is Indigenous culturally responsive teaching, the model highlights areas the teaching Native language and culture. The teacher is the facilitator and brings in the opportunity for teaching Native language and culture into the classroom. This may include Elders and local Tribal language speakers who visits the classroom several times a week. The model is cyclical and goes into the understanding of local and national Indigenous history, which is not only a benefit to AI/AN students, but all students.

The model includes community culture in the classroom, which includes placed-based history of the surrounding Tribal community and may include the involvement of cultural education activities from a local Tribal organization or educational program. Finally, the last aspect is including the involvement of family. Family is central to the support of AI/AN students and offers more opportunities for teachers to develop meaningful learning opportunities by learning about the local place-based culture and how language connects to the land which is important for all students.

Because "culturally responsive teaching" is a broad term, in this study, I will refer to "Indigenous culturally responsive teaching." A working definition of Indigenous culturally responsive teaching methods includes the teaching of Native language and culture. In traditional Native society, language is culture, and language is central to

society, community, and family. Language transmits the societal life teachings and cultural teachings.

Through the assimilation practices and devastation of Indigenous culture, colonization had sought to separate language from culture. Indigenous culturally responsive teaching is intended to heal the destruction of past settler colonialism and bring forward AI/AN languages and cultures which have been suppressed through extermination practices and termination of Native nations.

CHAPTER III

METHODS

Indigenous Research Model

This study is centered on an Indigenous research model influenced by Deyhle &
Swisher (1997), Tuhiwai Smith (2012) and Wilson (2001). The researcher is a citizen of a
federally recognized Tribe, and the dissertation is centered on American Indian/Alaska
Native education (Deyhle & Swisher, 1997; Tuhiwai Smith, 2012; Wilson, 2001). The
research was conducted in an urban American Indian/Alaska Native community, on
original Indigenous land, which is surrounded by local federally recognized Tribes

Figure 2. *Indigenous Research Model*
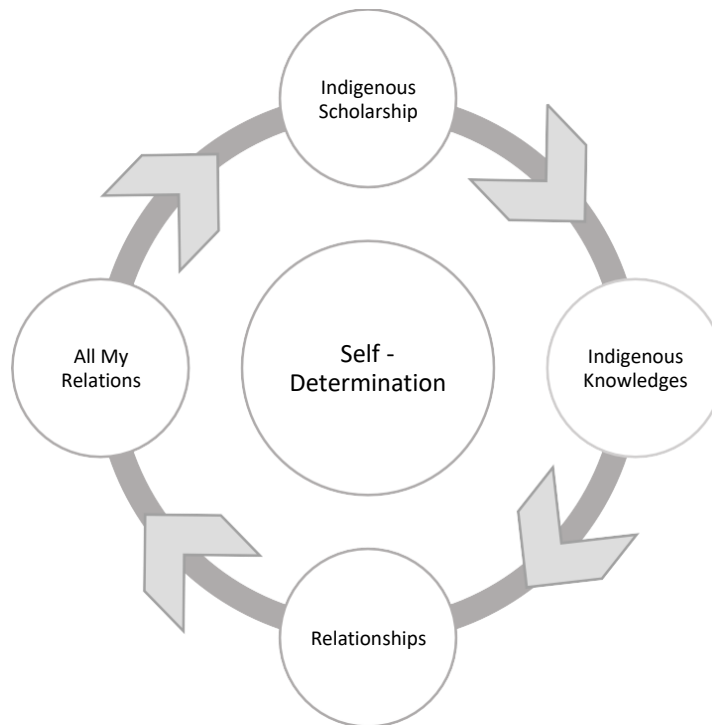
Adapted from (Dehyle & Swisher, 1997; Tuhiwai Smith, 2012; Wilson, 2001).

The model is grounded in self-determination, which guides the intent of the
Indigenous based research. Self-determination is described in terms of the Indian Self-

Determination and Education Assistance Act of 1975 (Public Law 93-638). The act is to provide the maximum Indian participation in government and education of Native people in the United States. This act is to ensure American Indians through law rightfully participate as sovereign nations to determine the programs and services related to membership (Public Law 93-638). Specifically, they have the right to establish and enhance Indian Education (Public Law 93-638), (Deyhle & Swisher, 1997; Tuhiwai Smith, 2012; Wilson, 2001).

These rights provide the foundation for Tribes to control their own educational activities and establish programs to advance education services (Public Law 93-638). In terms of self-determination in defining Indigenous research, this same approach is used by Native American researchers to uphold the right of American Indian Education and present research that is essential to the continual growth in American Indian Education for AI/AN student success (Deyhle & Swisher, 1997).

Indigenous scholarship further defines and upholds self-determination to support Indigenous voices in American Indian education. The Native American voice is critical to make connections with Indigenous community needs. Indigenous scholars see themselves as servants of the people who understand this service to uphold and protect individual Indigenous and Tribal rights (Dehyle & Swisher, 1997.)

Over the years Indigenous knowledges has become more central to Indigenous based research Dehlye & Swisher, 1997). The research has brought forward the voices of Indian people who through scholarship advocate for the inclusion of Native language and culture in schools to achieve academic success for Native American students (Dehyle & Swisher, 1997). Tribal voices lead the way to define Native language and culture and

self-determine the needs of their communities to answer to all my relations and to heal the past, present and future. Relationships, as defined by community-based educational research, are important in Indigenous research and are based on relationships with people, ideas, concepts, and the universe (Dehlye & Swisher, 1997).

Because relationships are shared and Indigenous knowledges is shared, this means in essence that Indigenous methodology and Indigenous knowledges cannot be owned or discovered. Indigenous knowledges as defined through relationships is shared knowledge through relationship with all creation. This moves into relational accountability and rather than asking about validity and reliability, you ask as an Indigenous researcher, am I fulfilling my role in this relationship? (Wilson, 2001). As an Indigenous researcher, you are answering to "all your relations," which includes the past, present, and future (Smith, 2001).

Research Design

This mixed-methods study used an explanatory sequential design, in which I analyzed quantitative and qualitative data sequentially, and concluded with interpreting how qualitative findings helped explain quantitative results (Creswell, 2014). The reason for gathering both quantitative and qualitative data is to provide a deeper analysis to address the research questions (Creswell, 2014). There are different and multiple perspectives in this study and a mixed methods study provides a more complete understanding of the results (Creswell, 2014). The core assumption of this form of inquiry is the combination of quantitative and qualitative approaches, which provides a more complete understanding of a research problem than either approach alone (Creswell, 2014).

Figure 3. *Explanatory Sequential Mixed Methods Design*
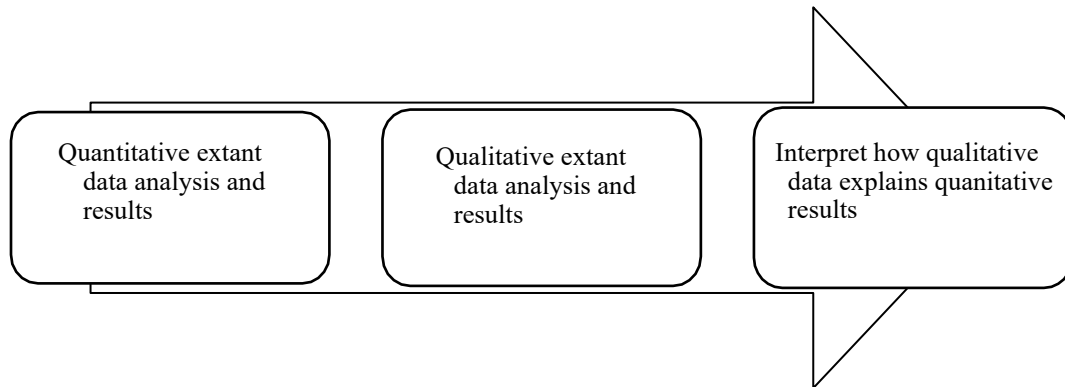
Adapted from (Creswell, 2014).

Research design model. Creswell (2014) suggests that a mixed-methods integrated approach provides a more comprehensive analysis of the research problems and is often informed by a theory. The mixed methods research design allows influential factors and themes to be determined in two different ways. The integration of quantitative and qualitative data collection in a sequential explanatory approach was intended to help identify factors and themes that influenced and motivated the study (Creswell, 2014).

Analytical plan for quantitative research. In the first phase, I completed a descriptive analysis of extant quantitative data from the teacher survey. To provide a better background on the history of the survey, it was developed by the University of Oregon (UO) research team in the third phase of a three-phase study. Though the project included data from the pre-existing National Indian Education Survey (NIES) in phase one, the team designed an additional teacher survey in phase three to fill in the gaps in the NIES survey and to learn more about Native language and culture among teachers of AI/AN students. The UO team hypothesized that to reap the full benefits of culturally

responsive teaching classrooms, AI/AN students needed to perceive them as culturally responsive (Vincent, et al, 2018).

I reviewed this same teacher quantitative survey, and reviewed items in each of the two scales on culturally responsive teaching and community engagement. With the help of a graduate student, I performed t-tests and dropped items with low reliability. In the second phase, I reviewed the extant quantitative findings to obtain better insight into culturally responsive teaching practices, community engagement, early versus later career, and AI/AN student density (Creswell, 2014).

The UO team's teacher survey instrument used for this study was designed to assess the extent to which teachers implement practices associated with the use of Native language and culture. The survey queries teachers about their practices on: (a) relationships, (b) teaching academic content, (c) social support, (d) community engagement, and (e) specific examples of teacher practices. To further share the reliability of the UO team's teacher survey the Cronbach alpha (significant level) for relationships is .85, academic teaching Cronbach alpha .93, and community engagement Cronbach alpha .88 (Vincent, et al, 2018). The Cronbach alphas for the current variables used in the analyses is reported in the measures section.

The research funded project within which the teacher survey was developed is "The Role of Native Language and Culture in Decreasing Discipline Problems and Increasing Academic Achievement for AI/AN students" (#R305A140162), funded by the Institute of Education Sciences. The UO team's teacher survey was administered to elementary, middle, and high school students serving AI/AN students. A total of 317 participants completed the survey; 25 participants did not enter information; and 36

participants provided partial information. There was one open ended qualitative question which had a total of 110 participant responses

The first part of the study was to query Native students about their classroom and allow them to nominate teachers whom they felt were culturally responsive. Second, interviews were conducted with teachers nominated by the Native students to learn about their instructional and social support practices. The third part was the development of the UO team's teacher survey, which was administered to teachers to assess which teachers implement a range of culturally responsive classroom practices (Vincent, et al, 2018). This teacher study generated the data that is the focus of this dissertation.

The teacher survey instrument received prior IRB approval from the University of Oregon. I was approved through a separate IRB from the University of Oregon to review the data from the UO team's teacher survey to be used in the analysis. All data used in the analysis were de-identified to preserve the anonymity and confidentiality of teacher respondents.

Analytical plan for qualitative research. The second phase of the design and analysis includes a review of the extant data collected from the one open ended question on the same UO team teacher survey to search for themes (Creswell, 2014). The open ended question asked teachers what adjusted content or teaching approaches they used and the effects of the adjustments that were made for AI/AN students.

The review of the qualitative data is to understand examples of teaching practices in which teachers adjusted their teaching approaches and how these impacted Native American students (Creswell, 2014; Dehyde & Swisher, 1997). I explored these adjusted teaching approaches through identifying themes loosely organized around teachers'

inclusion of Native language and culture in general, and specifically into their culturally responsive teaching (Creswell, 2014; Dehyde & Swisher, 1997).

Description of Extant Data (*n=110*)

The qualitative data is from the one open ended question in the UO team's teacher survey. I analyzed the data by familiarizing myself with each of the teachers' responses and then proceeded to develop codes based on the literature review, theoretical framework, and research questions.

Once the codes were established, I used a qualitative software system (Quirkos) to code excerpts into themes. Once the coding was completed, I compared the themes I found using Quirkos and hand coded the analysis. This method is based on grounded theory (Corban & Strauss, 1990), which is an inductive approach to generate themes from the data, compare data, and identify gaps.

Measures

In this section the variables used for the analysis is described. A key variable for the analyses was the disaggregation of teachers by self-reported ethnicity and race. This is a multi-part variable that was transformed into a three-part variable reflecting 1-American Indian/Alaska Native (AI/AN), 2-teachers of color (TOC – Asian and Pacific Islanders, Latino and Multiracial), and 3-white teachers. In response to the single question about self-reported race, 10 teachers reported they were AI/AN. However, upon examination of an open-ended question regarding Tribal affiliation, an additional 12 teachers who selected "multi-racial" in response to the quantitative race question self-identified as being a member of a Native American tribe. This was not included

specifically in the research question but central to understanding how AI/AN teachers, TOC and White teachers perceived culturally responsive teaching.

These 22 teachers were identified as AI/AN teachers for purposes of analyses. "Teachers of color" included teachers who reported a race other than AI/AN and white, and excluded the 12 teachers who reported qualitatively that they were Tribal members (n = 35). White teachers were teachers who self-identified as white in response to the race question (n = 209).

Four main variables were used for my quantitative analyses: culturally responsive teaching, community engagement, years of teaching experience (early vs later career), and density of Native students within schools. Though the UO team's teacher survey included questions about social support, for the purposes of the current study, I focused on the teaching of academic content as this is central to understand teachers' culturally responsive teaching. The following describe the calculations involved in the creation of these variables.

Culturally responsive teaching. This variable is a construct that includes 12 questions. Item examples are included in Appendix C. A mean score was computed for all items constituting the final teacher self-report culturally responsive score. The Cronbach alpha for this construct is .94.

Community engagement. This variable is a construct that includes 3 questions. Item examples are included in Appendix C. A mean score was computed for all items constituting the final teacher self-report community engagement score. The Cronbach alpha for this construct is .91.

Years of overall teaching experience (early vs later career). This variable was transformed from a categorical four-part variable to a two-part variable reflecting 1-early career (0-5 years of teaching experience) and 2-later career (6 years and more of teaching experience).

American Indian/Alaska Native student density. This variable was transformed from a five-part variable to a three-part variable including values of 1 (1-10% AI/AN student enrollment), 2 (11-50% AI/AN student enrollment), and 3 (51% and higher AI/AN student enrollment).

Unit of Analysis

Babbie defines a unit of analysis as "the what or whom being studied" (2013, p. 97). The population for this study is teachers and included all teachers in the participating schools that were recruited in the grant project "The Role of Native Language and Culture in Decreasing Discipline Problems and Increasing Academic Achievement for American Indian/Alaska Native Students."

The goal of the project is to explore relations between the presence of Native language and culture in the classroom. Also included in this exploration was to look at educational outcomes related to the use of Native language and culture for AI/AN students. The research project (2014-2017) used a pre-existing national data set, called the National Indian Education Study (NIES), in phase one, which for the duration of the grant was accessed through a password protected computer housed at the University of Oregon. In phase 2 and 3, the UO team designed their own surveys to learn more about the experiences of students and teachers in relation to Native language and culture in schools.

The teacher survey was developed by the University of Oregon research team to understand the extent of teachers' implementation of culturally responsive teaching practices through a variety of questions focused on how they built relationships with AI/AN students and AI/AN communities. As part of the recruitment process, teachers who participated were able to receive an incentive for their school. The schools have been de-identified for this study and included schools on or near reservations and several schools from urban areas.

Table 7 includes the number of participants for each school, racial/ethnic background, and teaching experience. The percentage of AI/AN participants are 3.2%, multi-racial 7.3% and white 68.1%.

Table 7

Demographics of the Setting

Racial/Ethnic Background	Teaching Experience	Schools	Number of Participants
AI/AN: 3.2%	0-2 yrs: 7.9%	School #1	18
Asian: .6%	3-5 yrs: 9.1%	School #2	9
Latino: 1.9%	5-10 yrs: 11.7%	School #3	35
Multiracial: 7.3%	11 plus: 51.7%	School #4	15
White: 68.1%		School #5	6
		School #6	10
		School #7	22
		School #8	28
		School #9	12
		School #10	36
		School #11	16
		School #12	15
		School #13	20
		School #14	14
		Total Surveys Completed	317

Data Analysis and Interpretation

Quantitative: For the first phase, a descriptive quantitative analysis consisted of using SPSS statistical software. The purpose of a descriptive analysis was to use a central tendency to describe the data (Creswell, 2014). This includes the mode, which is the measurement that has the greatest frequency (Creswell, 2014). The median is the measurement of centrality and the mean the average of the data that will help describe how teachers responded to the questions in teaching academic content (Creswell, 2014).

A descriptive central tendency analysis provided information on which of the 21 questions teachers most frequently answered and did not answer. This information provided me with understanding the depth of content teachers had in culturally responsive teaching and enabled me to further regroup questions to answer my research questions (Creswell, 2014; Dehyde & Swisher, 1997).

To answer research questions 1a and 1b, I conducted a repeated measures analysis of variance (ANOVA) with post-hoc Bonferroni comparisons. In research question 1a, teachers self-reported culturally responsive teaching practices and question 1b, looked at whether culturally responsive practices were more frequent in higher density and/or lower density schools. Question 1a was analyzed using a t-test. This was to investigate how teachers' years of experience (early or later career) may or may not influence culturally responsive teaching.

Qualitative: For the second phase, the analyses consisted of reviewing extant data ($n = 110$), which were collected through the one qualitative question (e) on the teacher survey instrument. These analyses sought to answer RQ: 2 and RQ: 2a. The analysis consisted of reviewing the responses and establishing themes to understand the specific examples of teaching practices and adjusted teaching approaches (Creswell,

2014; Dehyde & Swisher, 1997). These adjusted teaching approaches explored additional themes regarding the inclusiveness of Native language and culture; most importantly, how these approaches were included in the teachers' culturally responsive teaching (Creswell, 2014; Dehyde & Swisher, 1997).

The quantitative and qualitative results was analyzed separately (Creswell, 2014). In the final phase, the (QUANT + QUAL) analysis was combined to explain how qualitative results expanded the quantitative results (Creswell, 2014). The (QUANT + QUAL) results are reported in the discussion and the qualitative results is used to further illuminate findings from the quantitative survey (Creswell, 2014).

Validity and Reliability

Mixed methods are founded upon the idea that all methods, as well quantitative and qualitative data, have bias and weaknesses. Through mixed methods analyses, the weakness of each form of data is neutralized to provide an overall view (Creswell, 2014). The two forms of extant data are integrated in the design analysis through the merging of extant data in order to answer the research questions (Creswell, 2014).

The explanatory mixed methods approach offers validity concerns with regards to the researcher not considering or weighing all of the quantitative results and drawing on extant data for each phase of the study (Creswell, 2014). Another way to approach the threats to validity is through a triangulation lens. Creswell and Miller delineate triangulation as "a validity procedure where researchers look for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller 2000).

With mixed methods using two types of methodology, two forms of triangulation are formed: between-method triangulation and within-methods triangulation (Hussein, 2009). "The between-method of triangulation is used for the aim of achieving convergent validity and testing the degree of external validity" (Hussein, 2009, p.4). "The within-method of triangulation implies that multiple complementary methods within a given single paradigm are used in data collection and analysis" (Hussein, 2009, p.4). Therefore, when combined together there is a great possibility of neutralizing flaws of one method and strengthening the benefits of both methods to increase internal credibility of the results through multiple methods of triangulation.

Triangulation. Triangulation is defined as the use of multiple methods for increasing a study's credibility, and the multiple methods of triangulation consist of the following five types: methodological, investigator, theoretical, analysis and data triangulation. According to Creswell (2014), researchers can triangulate different data sources in order to examine evidence, build coherent themes, and once those themes are established (based on converging data), the process will have added to the validity of the study (p. 201). This study consisted of multiple methods of triangulation to control for possible threats to validity and to increase credibility of the study.

Methodological Triangulation. Methodological triangulation is the use of two or more methods in studying the same idea under investigation (Creswell, 2014). This form of triangulation occurs during the research design process or extant data review stage (Creswell, 2014). Three considerations provide a thorough examination of the mixed methods design and strengthen this study: (a) sequential timing to review the extant data from the quantitative and qualitative to provide a more comprehensive understanding to

answer the research questions; (b) the use of extant qualitative data to build directly on quantitative results to explain the analyses in more depth; and (c) extant data triangulation that depicts the use of multiple extant data in the same study to provide a complete examination of the research questions (Creswell, 2014).

Creswell (2014) identifies potential threats to validity using the sequential explanatory approach from lack of qualitative data follow up; potential to focus on one primary factor instead of all that the quantitative data provide (i.e., demographics only); and drawing on different extant data for each phase in the study. The potential threats to validity are addressed through a single survey in the design of this study. The blending of data provides a stronger understanding of the research questions than either analysis by itself (Creswell, 2014).

Analysis Triangulation. Data analysis triangulation is described as the use of more than two methods of analyzing the same set of data for validation purposes (Hussein, 2009). Hussein (2009) states, whenever a researcher uses both qualitative and quantitative data in the same study, then more than two methods are needed in the analysis toward attaining data validation, and further extending the analysis between the two paradigms for a thorough analyses.

Data Triangulation. Data triangulation, also known as data sources triangulation, refers to the use of multiple data sources in the same study for validation purposes (Hussein, 2009). As described in the discussion of methodological triangulation, data are collected at a single point in time from the same participants. This allows for open-ended qualitative questions at the end of the quantitative questionnaire to explain the data findings. For the purposes of these analyses, extant data from the survey, which was

collected at a single point in time, was used for both the quantitative and qualitative analyses. There was no new data collection for the analyses.

Theoretical Triangulation. The final stage within the process of triangulation is theoretical triangulation, defined as the use of multiple theories in the same study for the purpose of supporting or refuting findings, with the idea that different theories help researchers to see the problem using multiple lenses (Hussein, 2009). This study's theoretical framework centers on Indigenous culturally responsive teaching and an Indigenous research model, which centers on Indigenous self-determination.

Limitations

Two limitations of the study are the use of a single teacher survey instrument and the use of quantitative and qualitative extant data. The school districts that participated in the teacher survey varied by state, geographic location, and urban versus reservation. Having various schools represented in the data provided various explanations in the results and limitations section, and these will be further addressed in the final analysis.

Recommendations will be made if further research is needed to understand how Native language and culture is inclusive in the classrooms and if teachers understand these to be culturally responsive teaching practices for Native students. In addition, there are many layers to the integration of Native language and culture in schools and this will be further explained in the limitations section.

CHAPTER IV

RESULTS

This chapter begins by presenting the results of the quantitative analysis by research question and the results of qualitative analysis. The quantitative analysis begins with the descriptive analyses, one-way ANOVAs, and post hoc multiple comparisons. The qualitative analysis reviews the extant data from the one qualitative survey question and presents a table with codes and key themes for each code.

Quantitative Analysis

Research Question 1: To what extent do teachers view Native language and culture as important to their efforts in culturally responsive teaching with Native students?

Table 8 provides descriptive statistics for teachers' self-reported culturally responsive teaching in the classroom. Teachers of color (*n=35*), had the highest scores for self-reported culturally responsive teaching (*M* = 4.41; *SD* = 1.01), followed by AI/AN teachers (*n* = 22)*,* with a mean score of 3.90 (*SD* = 1.03). White teachers (*n* = 209*)* reported the same scores for culturally responsive teaching in the classroom (*M* = 3.90; *SD* = .93) as AI/AN teachers.

A one-way between subjects' ANOVA (see Table 9) was conducted to compare teachers' reports of their own culturally responsive teaching. There was a significant difference at the *p* < .05 level for the three conditions [F(2, 263) = 4.42, *p* = .01]. Post-hoc Bonferroni analyses (see Table 10) indicate significant differences in teachers' reports of their own culturally responsive teaching between teachers of color and white teachers (*p* = .01). Interestingly, there were no significant differences in reports by AI/AN and white teachers (*p* = 1.00).

Table 8

Descriptive Statistics for Teachers' Culturally Responsive Teaching (n=266)

Culturally Responsive	*n*	*M*	*SD*	CI[3]	
				LL[4]	*UL*[5]
AI/AN	22	3.90	1.03	3.44	4.36
TOC	35	4.41	1.01	4.06	4.76
White	209	3.90	.93	3.77	4.02

Note: AI/AN Teachers, (TOC) Teachers of Color, White Teachers

Table 9

One-Way ANOVA for Teachers Culturally Responsive Teaching (n=265)

Source	*SS*	*df*	*MS*	*F*	*p*
Between Groups	7.95	2	3.97	4.42	.01
Within Groups	236.46	263	.89		
Total	244.41	265			

Table 11 provides descriptive statistics for teachers' community engagement in the classroom. Findings show that AI/AN teachers (*n=8*), had the highest scores for self-reported community engagement (*M* = 4.29; *SD* = .65), followed by teachers of color (*n* = 32)*,* with a mean score of 4.18 (*SD* = .96). White teachers (*n* = 201) reported the lowest scores for community engagement in the classroom (*M* = 3.24; *SD* = 1.20).

A one-way between subjects' ANOVA (see Table 12) was conducted to compare teachers' reports of their community engagement.

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[3] CI (Confidence interval).
[4] LL (Lower limit).
[5] UL (Upper limit).

Table 10

Post Hoc Multiple Comparisons of Mean Differences for Teachers Culturally Responsive Teaching (n=265)

Culturally Responsive		*M*	*SE*	*P*	CI LL	CI UL
AI/AN	TOC	-.51	.26	.15	-1.1	.11
	White	.00	.21	1.0	-.51	.51
TOC	AI/AN	.51	.26	.15	-.11	1.1
	White	.51	.17	.01	.09	.93
White	AI/AN	-.00	.21	1.0	-.56	.51
	TOC	-.51	.17	.01	-.93	-.09

Note: AI/AN Teachers, (TOC) Teachers of Color, White Teachers

Table 11

Descriptive Statistics for Teachers Community Engagement (n=241)

Community Engagement	*n*	*M*	*SD*	CI LL	CI UL
AI/AN	8	4.29	.647	3.75	4.83
TOC	32	4.18	.959	3.84	4.53
White	201	3.24	1.20	3.08	3.41

Note: AI/AN Teachers, (TOC) Teachers of Color, White Teachers

There was a significant difference at the $p < .05$ level for the three conditions [$F(2, 238) = 11.52$, $p = .000$]. Post-hoc Bonferroni analyses (see Table 13) indicated significant differences in teachers' reports of their own community engagement between AI/AN teachers and white teachers ($p = .04$) and teachers of color and white teachers ($p = .000$). There were no significant differences in reports by AI/AN teachers and teachers of color ($p = 1.00$).

Table 12

One-Way ANOVA for Teachers Community Engagement (n=240)

Source	SS	df	MS	F	p
Between Groups	30.95	2	15.48	11.52	.000
Within Groups	319.90	238	1.34		
Total	350.84	240			

Table 13

Post Hoc Multiple Comparisons of Mean Differences for Teachers Community Engagement (n=240)

					CI	
Community Engagement		*M*	*SE*	*P*	*LL*	*UL*
AI/AN	TOC	.11	.46	1.0	-.10	1.2
	White	1.0	.42	.04	.04	2.1
TOC	AI/AN	-.11	.46	1.0	-1.2	.10
	White	.94	.22	.00	.41	1.3
White	AI/AN	-.10	.42	.04	-2.1	-.04
	TOC	-.94	.22	.00	-1.5	-.41

Note: AI/AN Teachers, (TOC) Teachers of Color, White Teachers

Research Questions 1a: Is there a difference in culturally responsive teaching of teachers who are in their early or later teaching career?

Table 14 provides an overview of an independent-samples t-test to compare early and later career in culturally responsive teaching. There was no significant difference in the scores for early career ($M = 4.04$, $SD = .86$) and later career ($M = 3.95$, $SD = .98$) in reported culturally responsive teaching conditions; $t(245) = .58$, $p = .56$.

Table 14

T-test Results Comparing Career Level in Culturally Responsive Teaching

Career Level	n	M	SD	df	p
Early Career	52	4.04	.86	245	.56
Later Career	195	3.95	.98	89.60	

Note: Early Career -5 years and less , Later Career – 6 years and more

Research Question 1b: Is there a difference in culturally responsive teaching between teachers who teach in schools with a low population of Native students or a high population of Native students?

Table 15 provides descriptive statistics for teachers' culturally responsive teaching in the classroom. Findings show that teachers ($n = 35$), in schools whose AI/AN student density is high have the highest scores for self-reported culturally responsive teaching ($M = 4.61$; $SD = .70$), followed by teachers ($n = 129$), in schools with medium AI/AN student density ($M = 3.96$; $SD = .90$). The lowest reported scores were teachers ($n = 76$), in schools with low AI/AN student density ($M = 3.66$; $SD = .99$).

Table 15

Descriptive Statistics for Teachers' Culturally Responsive Teaching in AI/AN Student Density (n=240)

AI/AN Student Density	*n*	*M*	*SD*
Low	76	3.66	.99
Medium	129	3.96	.90
High	35	4.60	.70

Note: Low 1-10%, Medium 11-50%, High 51% and higher

A one-way between subjects' ANOVA was conducted to compare teachers'

reports of their own culturally responsive teaching according to AI/AN student density (see Table 16). There was a significant difference at the $p < .001$ level for the three conditions [F(2, 237) = 13.35, $p = .000$].

Table 16

One-Way Analysis of Variances for Teachers Culturally Responsive Teaching in AI/AN Student Density (n=239)

Source	SS	df	MS	F	p
Between Groups	21.53	2	10.77	13.35	.000
Within Groups	191.19	237	.81		
Total	212.73	239			

Table 17

Post Hoc Multiple Comparisons of Mean Differences on Teachers Culturally Responsive in AI/AN School Density (n=239)

AI/AN Student Density		M	SE	P	CI LL	CI UL
Low	Medium	-.30	.13	.07	-.61	.01
	High	-.95	.18	.00	-1.4	-.51
Medium	Low	.30	.13	.07	-.01	.61
	High	-. 65	.17	.00	-1.1	-.24
High	Low	.95	.18	.00	.51	1.4
	Medium	.65	.17	.00	.24	1.1

Note: Low 1-10%, Medium 11-50%, High 51% and higher

Post-hoc Bonferroni analyses (see Table 17) indicate significant differences in teachers' reports of their own culturally responsive teaching between low and high AI/AN student density ($p = .000$). Significant differences in teachers reports of their own culturally responsive teaching reported were medium and high ($p = .000$). There were no

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statistically significant differences in teachers' self-reported culturally responsive

teaching in schools with low and medium AI/AN student density.

Qualitative Analysis

Summary of Qualitative Data

Table 18 provides an identification and overview on the themes, and key quotes

associated with the identified codes (Corban & Strauss, 1990).

Identification of Themes

Table 18

Qualitative Codes and Key Themes (n=110)

Code	Themes	Key Quotes
Community/Family	Teachers in Native communities reach out and bring in Native community and family	"By bringing in Native Elders. Our students felt honored and more proud (#239)"
Culturally Responsive	Few teachers mention culturally responsive teaching	"I teach math, so I find it difficult to find culturally responsive content (#180)"
Culture	When Native students are in the majority, teachers bring in more about Native culture	"We were doing a unit involving Native American culture - I hired a Native American drummer to come in (#69)"
Edit Teaching Content	Teachers with Native students edit books and resources for correct	"I generally skip the page or words that I see as disrespectful to their culture (#74)"
History	Teachers teach a variety of aspects in Native history	"Incorporating historical information regarding how and why cultural traditions began also encourages open discussion (#126)"

Table 18, continued

Native Language	Teachers with Native students use Native Language teaching in multiple ways	"I used Native Language for vocabulary terms when I was teaching (#97)"
No Adjusted Content	When Native American students are in low density, teachers see them as no different than other students	"I do not treat my Native students any differently then I treat other students (#113)"
Teaching Multiple Perspectives	Teachers teach multiple perspectives on European and Native content	"When teaching about European explorers, I try to include sources from Native peoples as well as those from European (#112)"

Community/Family

Community and family are described in the Indigenous Culturally

Responsive Teaching theoretical framework as including and bringing both in the

classroom. Community and family cannot be seen as separate from each other in the

Native community, as community is seen as the extended family. Community and

family are combined within the Culturally Responsive Teaching theoretical

framework to reflect these as cultural values. The themes for community indicated

that the teachers shared the same themes in utilizing Native community. This

included Native parents and families coming into the classroom, bringing in Elders

and teachers connecting with Native families in the community. For example, one

teacher shared, "…in past years, I invited Native American men and women into my

classroom to share customs and beliefs with our class. We made meals together and

shared many stories and legends". (#221).

Another teacher shared that "for more contemporary Native historical events, I

brought in an Elder to speak to the students about their personal experience, thoughts,

and viewpoints or specific timeline issues at hand" (#258). To provide another example of community, a teacher went out in the Native community and sought out local Native people. For example, "I had talked to local Native Americans about local roots and plants used for food" (#118). Another teacher reported, "I love our Native American families and look for ways to always connect with them whether it is visiting with them when I am around town or seeing them at sporting events" (#221).

Family involvement brings the family into the classroom to support the student and teacher and is important for student success. Teachers when engaging with Native American families, also have the opportunity to learn more about the students' culture and language. For example, one teacher shared, "when I see a Native student in the hall or classroom, I speak Arapaho with them, find out who their relatives are and family" (#201). One teacher shared, "I attempted to learn more about his culture. I also tried to get his family involved in teaching culture" (#174). Another teacher shared, "when teaching about Native American groups, I asked students to share family histories and culture" (#18). Another teacher went further in learning about their Native American students and family and shared, "I continue to try and learn about our Tribal families. I am constantly trying to learn about generational trauma and how that impacts our current students and their families" (#157).

In summary, community and family are seen by the teachers as valuable to include in the classroom, which fits into the theoretical framework of including community and family in the classroom. Teachers utilized local Native communities, which included teachers connecting with Native families and utilizing Elders by bringing them into the classroom. Family involvement is just as important, and teachers utilized families and brought them into the classroom to support the student and teacher, which is

important for AI/AN student success.

Culturally Responsive

In the Indigenous Culturally Responsive Teaching theoretical framework, culturally responsive teaching is described as including the teaching of Native language. Culturally responsive teaching is described in a variety of ways . For example, one teacher reported, "I teach math, so I find it difficult to find culturally responsive content" (#180). Another teacher reported, not in the words of culturally responsive teaching but described their experience in teaching Native American students as students "walking in two worlds." For example, "the impacts I came across from teaching Native American students that I have discovered is they walk in two worlds, their Native cultural and Euro-American lifestyles" (#265).

"Culturally responsive" was further described by another teacher who had a Native student in the classroom who was being bullied by other classmates. The teacher reported, "I wish there would have been more culturally responsive bullying prevention awareness or focus placed on bullying. Kids called a Native student a girl because he had long hair" (#216). Another teacher described their experience in culturally responsive teaching as, "this year I do not have any Native Americans and so being culturally responsive is not as apparent in the classroom or teaching practices" (#216).

In summary, "culturally responsive" teaching was described by teachers in several different ways which ranged from students seeing the world in a different way to one teacher recommending it be used as a prevention strategy for bullying. What is definite in the data is that "culturally responsive" teaching and its meaning for AI/AN students varies from teacher to teacher. Teachers do not have a clear definition of "culturally responsive" teaching and how these practices should be used in the classroom for AI/AN

students.

Of interest, we see that "culturally responsive" teaching or the use of culturally responsive is not present in the classroom unless Native students are present. This opens the discussion as to whether teachers believe that only selected groups of students benefit from culturally responsive teaching practices, and if so, why?

Culture

The Indigenous Culturally Responsive Teaching theoretical framework describes "culture" as teachers understanding and including the teaching of Native culture in the classroom. By bringing culture into the classroom, teachers described ways in which they connected with Native American students in the classroom and how they engaged in culture with their students.

For example, one teacher shared "when teaching about Native American groups, I asked students to share family histories and culture" (#83). Another teacher wrote, "students are allowed to choose a specific culture and many Native American students choose to research this" (#99). Further, culture in the classroom also included a teacher who shared, "when teaching content about Native content/culture I always try to address the events or issues" (#112).

In summary, teachers were sensitive to how "culture" was taught, specifically with AI/AN students in the classroom. The teachers asked students to share their history and culture. They were concerned with accuracy of events and ensured it was taught with accuracy. and to ensure that it was taught with events and important issues to ensure accuracy. Teachers seemed to have a clear understanding of bringing in "culture" into the classroom, which is important part of the Indigenous Culturally Responsive Teaching

theoretical framework.

Edit Teaching Content

"Edit teaching content" is a code that describes an emerging theme. This theme identifies that teachers are recognizing negative stereotypes and an inaccurate history which leads them to edit content that is not suitable for teaching. Specifically, content that is used in the classroom and exhibits negative stereotypes and inaccurate history. For example, one teacher shared "I was uncomfortable with the negative stereotypes and certainly did not want my students to learn that inaccurate and unkind history" (#286). Another teacher shared, that in teaching Native American students, "If I am reading something about American Indian culture, I try to be sensitive to what the content is and if it is accurate" (#226).

Teachers went further from recognizing the inaccuracies to changing the the materials they were using in the classroom. One teacher described, "I have changed my clip art and usage to turkeys and fall animals, trees, and woodland animals instead of the pilgrims and Native American art that I used to use" (#162). Another teacher described, "the history books and texts do not always present the Native people in a way that is right or acceptable; we have to add their narrative back into our history" (#209).

In summary, the emerging code, "edit teaching content" addresses how teachers recognized inaccuracies and sought to correct content and materials in order to have teachable materials on AI/AN culture and history. Specifically, this focus included culture and stereotypical images and inaccurate history, which the teachers found problematic and unacceptable to teach. This is an important aspect of Indigenous Culturally Responsive Teaching methods, and yet teachers did not tie this to any

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culturally responsive teaching methods but to that of correcting uncomfortable negative stereotypical images.

History

The Indigenous Culturally Responsive Teaching theoretical framework describes the understanding history as culturally responsive teaching. Understanding the history of the students you serve and providing opportunities for students to be in a successful learning environment is key. For example. teachers shared various aspects of understanding history, which included the need for more information on traditions, designing curriculum for Native students, and understanding how history encourages more participation AI/AN students.

For example, one teacher shared, "It is critical to understand that Native students come from a history of education that was not designed for their success, but created to ensure that they are to maintain their obedience to a white dominant culture. This form of education is generations deep and that history must be honestly addressed before Native families believe we have their best interest in mind" (#101).

Another teacher shared, "we study the historical basis of the Native culture and watch a couple short videos about the culture" (#284). Another teacher wrote, "It would be beneficial for me to have resources to teach all students about Native American history that includes traditions" (#310). Another teacher further shared, "Incorporating historical information regarding how and why cultural traditions began also encourages open discussion, interests, and appreciation of diversity within the student population" (#126). Further, another teacher shared, "I was given the freedom to choose my curriculum, and since a majority of the class was Native, I decided to focus on Native literature, history and current events" (#124).

In summary, teachers recognized the need for adequate resources to teach Native American history that would fully provide historical content and engage students. Teachers also recognized that the dominant culture created the narrative on Native American history and what to teach with another teacher choosing curriculum on what to focus on. Teachers saw that historical materials were inaccurate and as a result, chose to seek out curriculum and materials that were appropriate for AI/AN students.

Native Language

The Indigenous Culturally Responsive Teaching theoretical framework describes bringing Native Language into the classroom as Indigenous Culturally Responsive Teaching. In including Native language in the classroom, teachers are the facilitator and create opportunities for the students so Native language can be taught in the classroom. Teachers who work specifically with Native American students are facilitating the opportunity for students to learn phonetics, learn on iPads, and invite community to come into the classroom.

One teacher described how, "Once students learn phonetic spelling (which helps them with reading any language) they can write, say, and remember the language their grandparents heard growing up" (#201). Another teacher wrote, "we visit websites that include information about their Tribe and have an app for their language on iPads" (#266). One teacher explained, "we have Native American adults come to our school and teach language lessons to our students and staff" (#162). With the teaching of Native language in their classroom, a teacher shared their enthusiasm that, "I want to add more language into our classroom as I learn more" (#194).

In summary, when Native students were in the majority, teachers were bringing

"Native language" into the classroom. This included using an app with the "Native language" and bringing in community to teach lessons. Teachers reported using creative ways so AI/AN students could learn their language, and the teachers wanted to learn more about bringing "Native language" into the classroom, they wanted to learn more about how they could do that.

No Adjusted Content

No adjusted content is a code that describes an emerging theme with teachers in the analysis. This is an important emerging code that identifies teachers who do not adjust content for Native American students. For example, one teacher shared, "I do not treat my Native students any differently than I treat any other of my students, I cannot honestly say that I have adjusted content for them, but I do adjust content for all of my students" (#113). The teacher further shared, "to say that I adjust my curriculum based on my Native students' response would mean that I am focusing specifically on those students" (#113). Another teacher wrote, "I do not feel that I have needed to adjust curriculum because I don't feel that Native American students are at a disadvantage or biased against with regard to mathematical concepts" (#285). Further, another teacher explained "I am still learning how to properly work with and connect with Native students and they mainly go to the Indian Education teacher for guidance" (#277).

In summary, the "no adjusted content" code provides a view on teachers who did not adjust their content. Teachers with AI/AN students in the classroom and with core classes such as math did not see the need to adjust the content to include any indigenous math concepts which might aid in learning. Also, teachers saw adjusting content for AI/AN students as focusing on them specifically and taking away time from other students.

In the case of AI/AN students needing additional supports one teacher reported sending the AI/AN student to Indian Education, which is supportive but then avoids the opportunity for that teacher to make a connection with the AI/AN student. These teachers are not engaging in any type of culturally responsive teaching and seem unaware of these opportunities that would help benefit them in teaching and supporting AI/AN students.

Teaching Multiple Perspectives

Teaching Multiple Perspectives is a code that describes an emerging theme with teachers in the analysis. This is an important code that identifies teachers who use multiple perspectives in their classroom teaching. Teaching Multiple Perspectives includes the teaching of multiple perspectives in relation to Native content, culture, history and holidays just to name a few. Teachers teaching multiple perspectives touches on all these areas and focuses on aspects such as colonization. For example, one teacher shared, "if teaching about world history, or the founding of the US, I would make sure, to include them in the discussion, talk about the negative impact of colonization and make sure both sides of the story are taught" (#215).

Teachers include teaching multiple perspectives in relation to teaching Native content, "when teaching about Native content, I always try to address the events or issues from multiple perspectives" (#112). Another teacher shared, "I include different types of text/stories in my class. I make sure the stories show different cultures" (#302). Another described how instead of focusing on Thanksgiving, they focus on an understanding of thanksgiving. The teacher shared, "now I focus more on family and community to be THANKFUL, than on the traditional American historical version of Thanksgiving" (#157).

In summary, the "teaching multiple perspectives" code provided a view on how teachers are teaching about Native content and included multiple perspectives such as the negative impact of colonization. This includes looking at Thanksgiving not as the day of the pilgrims but as a day focused on family, community, and being thankful. These teachers teach both sides of history and include other cultures in their classroom. These teachers do not see themselves as engaging in culturally responsive teaching practices but as being inclusive with "teaching multiple perspectives."

CHAPTER V

DISCUSSION

In this chapter, I will describe the quantitative and qualitative discussion by research question and summarize (QUANT+QUAL) the overall results and findings. A research question may only address a quantitative or qualitative discussion summary. Following the overall summary by research question, the limitations of the study are discussed, and future research, implications for practice, and the dissemination of research are presented.

Discussion of RQ 1

To what extent do teachers view Native language and culture as important to their efforts in culturally responsive teaching with Native students?

Interpretation of Results (QUANT+QUAL)

The Indigenous Culturally Responsive Teaching theoretical framework describes bringing Native Language into the classroom as Indigenous Culturally Responsive Teaching. Quantitative findings show that teachers of color had the highest scores for self-reported culturally responsive teaching followed by AI/AN teachers and white teachers. Interestingly, AI/AN teachers and white teachers shared the same scores in teachers reported scores for culturally responsive teaching.

To take a closer look at how AI/AI teachers, teachers of color and white teachers perceived culturally responsive teaching, I went back and conducted a qualitative focused coding on the one qualitative question on the survey and compared the three groups, AI/AN teachers, teachers of color and white teachers. I observed differences in how "culturally responsive teaching" is understood between AI/AN teachers, teachers of

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color, and white teachers. Teachers of color (TOC) understood culturally responsive teaching as the opportunity to have open discussions and incorporate Native culture into a variety of lessons plans.

American Indian/Alaska Native teachers focused specifically on adding language, culture, and the philosophy of cultural teachings into the classroom. White teachers did include culture, language, and community into the classroom but only when a high density of AI/AN students were present in the classroom. Even then, many white teachers did not provide any adjusted content is some classes, and some white teachers adjusted content in history which was centered around Thanksgiving, and colonial history.

Community engagement which is included in the theoretical framework of Indigenous Culturally Responsive Teaching includes bringing in Elders and family in the classroom. Quantitative scores for community engagement revealed that AI/AN teachers reported the highest levels of community engagement, followed by teachers of color, with white teachers reporting the lowest levels of community engagement.

Culturally responsive teaching is perceived differently by AI/AN teachers, teachers of color, and white teachers. The closest to the model of Indigenous Culturally Responsive Teaching is that of AI/AN teachers and teachers of color. White teachers and AI/AN teachers did report the same scores in the quantitative findings and in further review with the qualitative coding findings reveal culturally responsive teaching has different meanings between AI/AN teachers and white teachers.

What I observed from this comparison is that culturally responsive teaching and its meaning varies from teacher to teacher. What one teacher incorporates may not extend to all teachers, and culturally responsive teaching is not used in the classroom unless a

Native student is present. Many of the teachers do not have a clear definition of culturally responsive teaching and how these practices should be used in the classroom for AI/AN students.

In looking back at the literature Brayboy & Castagno (2009) describe culturally responsive as the teaching of Indigenous language, culturally responsive pedagogy, place-based curriculum, strong community participation and teaching Indigenous values. The AI/AN teachers had the same approach as described which included Indigenous language, values, and strong community participation. TOC and White teachers did include Native culture into a variety of lesson plans, but it was AI/AN teachers who were the strongest in including community and Indigenous philosophies.

Discussion of RQ 1 a

Is there a difference in culturally responsive teaching of teachers who are in their early or later teaching career?

Interpretation of Results (QUANT ONLY)

This question was designed to further look at differences in culturally responsive teaching of teachers who are in their early and later career and see if there are any differences. The quantitative analysis shows there is no significant differences in the scores for early career and later career in reported culturally responsive teaching. What is important to highlight is this does not mean that early and later career teachers are receiving AI/AN culturally responsive teaching. This may mean pre-service teacher training as well as professional development and other in-service training opportunities are offered inconsistently to address AI/AN culturally responsive teaching.

In the literature review it states that many teachers are not aware of what culturally responsive training is and how it relates to AI/AN students' success. There are many types of culturally responsive teaching and, if teachers are receiving culturally responsive training, they need to understand what culturally responsive teaching means to AI/AN students. The literature reported that teachers do not have a clear definition of what culturally responsive teaching means and how these practices should be used in the classroom for AI/AN students.

Discussion of RQ 1 b

Is there a difference in culturally responsive teaching methods of teachers who teach in schools with a low population of the Native students or a high population of Native students?

Interpretation of Results (QUANT+QUAL)

Findings show that teachers working in schools with high (51% and higher) AI/AN student density have the highest scores for self-reported culturally responsive teaching, followed by teachers working in schools with medium (11-50%) AI/AN student density. The lowest reported scores are teachers working in schools with (1 -10%) AI/AN student density. These findings support qualitative findings in which culturally responsive teaching is not utilized unless AI/AN students are present in the classroom.

As AI/AN student density increases for example, more teachers will include more Native language, culture, history, and community into the classroom. Culturally responsive teaching is again not clearly defined in how this is perceived, and all teachers had different reports of culturally responsive and what this means to them in teaching AI/AN students and all students. The literature reports that many AI/AN students attend

low density schools where including culturally responsive methods is a low priority and teachers can teach to Indian Education to all by including Tribal history, place-based Native language and include community to enrich the classroom experience (McCarty, 1998; McCarty & Lee, 2014; McCarty, Romero & Zepeda, 2006; Patrick 2008).

Discussion of RQ 2

What are teachers doing to adjust content to better serve the needs of Native American students?

Interpretation of Results (QUAL ONLY)

The qualitative code, "edit teaching content" addresses how teachers recognize inaccuracies and seek to correct content and materials to counter stereotypical images and inaccurate history, which the teachers found problematic and unacceptable to teach. This is an important aspect of Indigenous culturally responsive teaching methods and yet, teachers did not tie this to any culturally responsive teaching but to that of correcting uncomfortable negative stereotypical images.

Another result of this research question is an emerging theme "no adjusted content." This an important code that identifies teachers who did not adjust content for AI/AN students. Teachers with AI/AN students in their classroom and with core classes such as math did not see the need to adjust the content to include any Indigenous math concepts which may aid in learning. The literature reports teachers can build a bridge but need the knowledge to do so in cultural literacy. This is often absent in low density schools and only present in high AI/AN schools where teacher prioritize to the teaching of AI/AN students.

Also, what I observed is teachers see adjusting content for AI/AN students taking time away from other students. An example is when a student needed additional support, the teacher would send the student to Indian Education. This is what Indian Education is designed to do—to offer support in these areas for AI/AN students–but this may cause teachers to disconnect from their students and forfeit any responsibility for responding to the culturally responsive needs of AI/AN students. What I observed is teachers did not see the need to adjust content in some instances for AI/AN students and did not include Native language, culture, and culturally responsive teaching.

Discussion of RQ2 a

To what extent is Native language, culture and culturally responsive used in teaching?

Interpretation of Results (QUAL ONLY)

The Indigenous Culturally Responsive Teaching model includes the bringing in of Native language, understanding culture and history, and including community and family involvement. When there is a high density of AI/AN students in the classroom, teachers provide a variety of creative ways for AI/AN students to learn Native languages. This matches the literature that in low density AI/A schools culturally responsive teaching is a low priority and whereas in a high-density school of AI/AN students, teachers will prioritize the teaching of Native language and culture. Many teachers in these majority classes reported wanting to learn more about bringing Native language in the classroom and using technology to establish the teaching of Native language. The teachers did not report the teaching of Native language as a culturally responsive teaching practice for AI/AN students.

Community and family are important for culturally responsive teaching of AI/AN students. Teachers with a high density of AI/AN students in the classroom shared the same themes in utilizing Native community and family, which included bringing an Elder into the classroom and connecting with Native families. Teachers in high density AI/AN schools also described including the family in the classroom to support the student and teacher, which is important for Indigenous culturally responsive teaching. Teachers when engaging with Native American families, also described taking advantage of the opportunities to learn more about the students' culture and language.

When there is a high majority of AI/AN students, teachers engage in Native history and culture and ensure there is accuracy in important events and issues. With the understanding and teaching of culture, teachers did not report this as culturally responsive teaching for AI/AN students. What I have observed is culturally responsive teaching and its meaning to AI/AN students varies from teacher to teacher. Teachers do not have a clear definition of culturally responsive teaching and how these practices should be used in the classroom for AI/AN students.

Overall Summary (QUANT+QUAL)

Quantitative findings indicate that teachers of color have the highest scores for self-reported culturally responsive teaching, followed by AI/AN teachers and white teachers with the same reported scores for culturally responsive teaching. There were no detected differences between early and later career teachers in regards to reported culturally responsive teaching. Teachers' reports of culturally responsive practice increased with density of AI/AN students in the school, with the highest reports of

culturally responsive teaching reported by teachers in schools with 51% and higher AI/AN density.

Qualitative findings revealed that teachers have diverse definitions of culturally responsive teaching, and that little consensus exists across teachers by ethnic/racial group. Findings imply the need for greater clarity regarding the elements of culturally responsive teaching, and more attention to the most effective ways to train teachers in culturally responsive teaching, particularly for AI/AN students.

In summary, culturally responsive teaching is perceived differently by AI/AN teachers, teachers of color, and white teachers. White teachers and AI/AN teachers did report the same scores in the quantitative findings and in further review with the qualitative coding findings reveal culturally responsive teaching has different meanings between AI/AN teachers and white teachers. Community engagement which includes bringing Elders and family in the classroom reports the highest scores for AI/AN teachers, followed by teachers of color and then white teachers with the lowest scores.

Limitations of the Study

The extant data used in this study were collected from schools in which AI/AN enrollment ranged from <1% to 100% students. The data enabled me to answer the research questions related to how teachers bring in Native language, culture, and culturally responsive teaching, and which teachers are most likely to engage in these Indigenous culturally responsive practices. The extant data showed how high AI/AN student density confirmed that Native language and culture is brought more into the classroom. There were some incomplete and missing data on the survey due to teachers deciding which questions they wanted to complete. The large size of the sample,

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however, provided enough information to be able to answer the research questions for this study.

Future Research

More areas need to be considered in AI/AN culturally responsive teaching and how these can be developed into an Indigenous Culturally Responsive Teaching framework. The framework may need to be referred to as AI/AN culturally responsive teaching, as "Indigenous" includes many other Indigenous groups and communities. Future research can look at case studies between an urban school district with a high density of AI/AN students and a reservation school, which might provide insights into the bringing in and teaching of Native languages and how community and family can help in understanding place-based history of the community.

Many states are working with Tribal communities to develop curricula which includes accurate Native history, culture, and language. States currently working with AI/AN curricula include Montana Indian Education for all, North Dakota Native American Essential Understanding, Oregon Senate Bill 13, South Dakota Indian education for all, Washington State House Bill 1495 (SB 5433 & Basic Education Act 29), and Wyoming Indian education for all. With this growth of AI/AN curriculum at the state level, determining what is culturally responsive teaching with these new curricula will help teachers to understand their role and how culturally responsive teaching with AI/AN students differs from other types of culturally responsive teaching.

With the continual development of AI/AN culturally responsive teaching methods that complement new state curricula, a praxis can be developed to support teachers and show different levels of culturally responsive engagement with AI/AN students and all

students. This focus might help address equity issues that account for only offering AI/AN culturally responsive teaching when there is a high density of AI/AN students in the classroom.

Also, nationally, with the Every Student Succeeds Act (ESSA), Native languages are primary languages and no longer secondary, which brings the teaching Native languages to the forefront in schools. The National Indian Education Association reports that Tribes and Native communities have made significant gains under ESSA. ESSA has acknowledged the importance of language and is establishing a grant program to support the use of Native languages as the primary language of instruction (National Indian Education Association, retrieved: June 2021 https://www.niea.org/essa-implementation).

American Indian/Alaska Native communities will need to decide how to best approach the teaching of Native language within their schools. Future research can look at and decide best practices in states where language is part of the curriculum and further look at implementing new Native languages into school systems.

Implications for Practice

Culturally responsive teaching is used more in the classroom when AI/AN students are present in the classroom. There may be many students in the multiracial category, and they are not accounted for; particularly when teachers rely on students self-identifying themselves in order to identify which students are AI/AN. Knowing teachers are sending a few students to Indian Education programs is good but may be problematic for teachers to be able to engage with students in relation to their cultural background. These programs serve to support and provide culture programs for AI/AN students but should not replace the culturally responsive teaching of teachers.

Teachers were not clear on culturally responsive teaching practices as was evident in the fact that they described culturally responsive teaching in various ways. A praxis and model showing the different levels of Indigenous Culturally Responsive teaching and how teachers can engage in Native language and culture would provide the support that teachers need for Indian Education for all. This can include everything from teachers talking about Native languages to bringing in Elders and local Tribal communities to teach Native language to students.

In schools with a high density of AI/AN students, teachers invited Elders and community into the classroom. Teachers on reservation-based schools (high density) engaged in Native language speaking at school and invited Elders and community into the classroom. A praxis with different levels of culturally responsive teaching can show how teachers can gauge the level of AI/AN language in their classroom, either by talking about place-based language or actual language learning. Another piece of engaging community is for school administration and teachers to learn how they can approach Elders to respectively to visit their classrooms. These can be part of professional development on how to respectfully approach Elders and how to include Native communities in the classroom.

In schools with low density, teachers have the belief that they do not need to engage in Indigenous Culturally Responsive Teaching. The need for Indian Education for All needs to be clearly stated in school policies, to support the AI/AN curriculum initiatives which will push back against inaccurate histories. The support of policy needs to support Indian Education for All and AI/AN curriculum is to be taught no matter the density size of AI/AN students.

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Native American languages teaching is not included, and healing needs to be done to include Native language teaching in AI/AN culturally responsive teaching. Tribes and teachers need clarity and support on how to bring these together to define and provide direction in their schools and communities

Disseminate Research

To further support the development of research, a praxis is recommended for AI/AN culturally responsive teaching which includes Native language teaching, culture, and culturally responsive teaching. A praxis will add to research in the areas of AI/AN culturally responsive teaching and support teachers in high-density and low-density schools. The literature review shows clearly that the teaching of Native language is culturally responsive teaching for AI/AN students.

The praxis will offer different levels of Native language engagement from introducing Native language into the classroom to offering the teaching of Native language. The praxis would have different levels of Native language engagement and would include an introductory level, intermediate and advanced Native language learning. Community engagement is an important part of Native language and AI/AN culturally responsive teaching. Teachers can bring community into the classroom to support the teaching of Native language and educate on place-based culture. The praxis will provide the teachers with a guide on how they can engage in culturally responsive teaching with AI/AN students.

A praxis in AI/AN culturally responsive teaching will contribute to what is present in the many states where Tribal curriculum is in development and contribute to teacher to professional development and training programs. Many states (see Appendix

E) are implementing statewide AI/AN curricula, and the need for culturally responsive teaching for AI/AN students supports these efforts and initiatives. This will also contribute to the delivery of AI/AN curriculum and elements in the classroom that teachers can continue to expand on to deliver the AI/AN curriculum, that invites pride, curiosity, and respect. The continuum will provide teachers with the skills to facilitate important conversations around who AI/AN people are and for non-Native students to be engaged in these interests as well to achieve AI/AN education for all.

Further research can be conducted on how well the praxis is informing the different levels of AI/AN culturally responsive teaching. These can be case studies which can included high-density and low-density schools and how well teachers are working with praxis. These research and findings will continue to contribute to AI/AN culturally responsive teaching scholarship and for AI/AN culturally responsive teaching scholarship to continue to grow.

Tribal voices, inherent in the definition of self-determination, play a substantial role in educational programming of Native students, as these voices are the experts on the unique needs of their Tribal communities. Tribal voices look to change local, state, and federal policy through self-determination to add to the essential growth of Indian Education and continue to heal from effects colonization. The statewide Indian Education for all curricula provides the opportunity for Tribal voices to ensure curriculum is historically accurate, culturally relevant and community based. This includes the teaching of Tribal history, sovereignty, treaty rights and contemporary issues. Indian Education for all reaches all students to become better informed and to have more knowledge on Native American culture and history.

In conclusion, as an Indigenous researcher, I followed a theoretical model grounded in self-determination, which guided the intent of this Indigenous based research (Deyhle & Swisher, 1997; Tuhiwai Smith, 2012; Wilson, 2001).

Self-determination is described in terms of the Indian Self-Determination and Education Assistance Act of 1975 (Public Law 93-638). In terms of self-determination in defining Indigenous research, I used this same approach to uphold the right of American Indian Education and present research that is essential to the continual growth in American Indian Education for student success (Deyhle & Swisher, 1997).

Indigenous scholarship further defines and upholds self-determination to support the Indigenous voice in research involving American Indian education (Dehyle & Swisher, 1997). The Native American voice is critical in scholarship in order to make connections with Indigenous community needs (Dehyle & Swisher, 1997). As described in the model, I am an Indigenous researcher who upholds and brings forward the voices of Indian people through this research to inform Native American language, culture, and culturally responsive teaching in schools (Dehyle & Swisher, 1997).

Indigenous knowledges as defined through relations is shared knowledge through relationship with all (Wilson, 2001). Therefore, as an Indigenous researcher, one must be accountable to the tenet that knowledge is relationship based and relates to the whole. One considers relational accountability first, rather than asking about validity in understanding and processing of research questions and in interpreting data. You ask as an Indigenous researcher, *Am I fulfilling my role in this relationship?* (Wilson, 2001).

As an Indigenous researcher, I have endeavored to hold up the principle of relational accountability and to fulfill my role and I have answered to "all my relations,"

which includes the past, present, and future. This research is fulfilling those relationships (Smith, 2001). I offer this to scholarship to teachers, researchers, and the field to inform practices on AI/AN education.

Teacher Survey

Project Introduction: This project is funded by the Institute of Education Sciences of the U.S. Department of Education (Grant # R305A140162) and focuses on examining to what extent a focus on Native Language and Culture in the classroom contributes to the school success of students from American Indian/Alaska Native backgrounds. To date, our project activities have largely focused on examining extant data from the National Indian Education Study as well as behavioral data collected through the School-wide Information System, an office discipline referral data collection tool. The outcomes of these analyses have been somewhat inconclusive and suggest that we might not know enough about classroom practices that support American Indian students.

Purpose of the Survey: We would appreciate your participation so that we can learn more about how teachers' practices within classrooms relate to American Indian students. We hope that you will feel comfortable completing this survey so that we can learn more about your teaching philosophy, approaches, and classroom environment. Your contribution will benefit other teachers and ultimately students. We know your time is valuable and are grateful to you for taking time to inform our work. We have organized our survey items around (a) relationships, (b) teaching academic content, (c) social support, and (d) community engagement. Your information will be kept confidential, survey results will be shared with stakeholders only in aggregate form,

Survey: We are interested in finding out how you perceive your teaching practices, classroom, and role as a teacher in relation to Native American students. Please rate your agreement with the following statements. As a final note, please consider the statements below in relation to Native American students throughout the year. We specify this because Native topics and issues are typically discussed in the month of November. You may skip any question to which you do not feel comfortable responding. There are no right or wrong answers.

Section 1
Relationships (Self, Students, Families)

1_1. I consistently work to support positive relationships among my Native students and their peers.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_2. I have a strong cultural identity.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_3. I am proud of my cultural heritage.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_4. I am confident of my ability to discuss my own background in relation to Native students' backgrounds.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_5. I am confident of my ability to discuss race, class, gender and sexual identities in relation to Native students' lives and experiences.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_6. I teach myself who my Native students are by talking with them about their families and traditions.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_7. I teach myself about my Native students' values and cultural backgrounds.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_8. I talk to my Native students individually to learn where they come from and about their circumstances.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_9. I respect my Native students' family knowledge.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

1_10. I build relationships with my students' families.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

Section 2
Teaching Academic Content

2_1. I use a curriculum to teach Native topics and issues provided to me by the district.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_2. In my teaching, I model critical thinking by questioning the content of class materials and media.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_3. I consistently assess the impacts of the academic content I provide on my Native students' engagement in learning.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_4. I consistently assess the *emotional* impacts of the academic content I provide on my Native students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_5. I modify the academic content I provide based on the impacts on Native students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_6. I modify my instruction based on the impacts on Native students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_7. I consistently provide instruction in Native American history and culture to all my students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_8. I consistently relate academic content to my Native students' cultural experiences.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_9. I consistently create opportunities for Native students to relate academic content to their own experiences.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_10. I vary my instructional delivery mode every day to keep things interesting and allow each student to learn.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_11. When I make a mistake, I acknowledge that I was wrong.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_12. My school administrators support me to provide culturally responsive content and teaching.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_13. My school administrators make sure I have access to colleagues and resources necessary to help Native students succeed.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_14. My teaching colleagues support me to provide culturally responsive content and teaching.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_15. I can speak credibly to my students about the indigenous people whose land our school is founded on.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_16. Before teaching, I think about and prepare for the potential impacts of the lesson on my Native students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_17. If I perceive that a Native student is negatively impacted by a lesson or class discussion, I will immediately figure out ways to affirm and recognize that student's experience.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_18. If I perceive that a Native student was negatively impacted by a previous lesson or class discussion, I will figure out a way to affirm and recognize that student's experience as soon as possible.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_19. I actively seek out narratives that offer critical perspectives to those of our class textbooks.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_20. I can speak credibly about contemporary Native political and social issues.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

2_21. I can speak credibly about the historic and present-day sovereignty of indigenous people in the United States.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

Section 3
Providing Social Support

3_1. I teach my Native students to advocate for themselves.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_2. When I notice discriminatory behavior from a student or adult, I make it a teachable moment.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_3. When I sense that a Native student has a problem, I talk to him or her individually to try to help.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_4. When I can't help a Native student with a personal problem, I try to find others who can help.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_5. I teach my Native students that prosocial behavior is rooted in age old values.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_6. I interpret my Native students' non-attendance as a problem with the school environment.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_7. I interpret my Native students' non-attendance as a consequence of the demands of families and cultural responsibilities.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_8. When Native students miss my class, I find out why they were absent.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

3_8. I focus on building my Native students' self-confidence.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

Section 4
Community Engagement

4_1. I attend most of my school's extracurricular activities and functions involving my Native students or their families (e.g., sports games, dances, recitals, family nights).

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_2. I seek out my Native students in their communities outside of the school campus.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_3. I seek out my Native students' families in their communities outside of the school campus.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_4. I participate in local Native communities.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_5. I visit my Native students' homes.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_6. I rely on our local Native community to teach me what is important to my Native students.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_7. I stay in touch with my Native students even after they are no longer in my class.

Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Don't know/NA
○	○	○	○	○	○	○

4_8. **Specific examples of teacher practices:** In the section above on teaching academic content, we asked about your experiences in the classroom. To provide us with more information about this topic, please think of a time when you adjusted class content, or your teaching approach based on the impacts on Native students. What was your content or teaching approach? What were the impacts you perceived on Native students? How did you respond to these impacts? What were the effects of the adjustments you made on Native and all students? Reflecting on this experience, what further changes would you make in the future?

_____
_____
_____
_____
_____
_____
_____
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_____
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_____
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_____

Demographics

4_9. What is your professional role? (please mark below all that apply)
  a. General education teacher   _____
  b. Special education teacher   _____
  c. Education Assistant   _____
  d. School psychologist   _____
  e. Counselor   _____
  f. Administrator   _____

4_10. How many years have you been in your current position? (please mark one answer below)
  a. 0-2   _____
  b. 3-5   _____
  c. 5-10   _____
  d. 11 or more   _____

4_11. What is the grade level of your current position? (please mark one answer below)
   a. Elementary _____
   b. Middle _____
   c. High _____
   d. Other: _____

4_12. What is your school's Native American enrollment? (please mark one answer below)
   a. 0-10% _____
   b. 11-25% _____
   c. 26-50% _____
   d. 51-75% _____
   e. 76-100% _____

4_13. How many years' experience do you have as an educator? (please mark one answer below)
   a. 0-2 _____
   b. 3-5 _____
   c. 5-10 _____
   d. 11 or more _____

4_14. What is your ethnicity? (please mark one answer below)
   a. Latino/Hispanic _____
   b. Non-Latino/Non-Hispanic _____

4_15 What is your racial background? (please mark one answer below)
   a. American Indian/Alaska Native _____
   b. Asian _____
   c. Black _____
   d. White _____
   e. Pacific Islander _____
   f. More than one race _____

4_16. What is/are your tribal affiliation(s)? (please write-in):

_____

_____

_____

4_17. What is your gender? (please mark one answer below)
   a. Male _____
   b. Female _____
   c. Other _____

4_18. What is the name of your school?

   _____

Teacher Survey Scales

Culturally Responsive Teaching (12 items; Cronbach Alpha .94)	
Question number	Question text
2 – 1.	I use curriculum to teach Native topics and issues provided to me by the district.
2 – 3.	I consistently assess the impacts of the academic content I provide on my Native students' engagement in learning.
2 – 5.	I modify the academic content I provide based on the impacts on Native students.
2 – 6.	I modify my instruction based on the impacts on Native students.
2 – 7.	I consistently provide instruction in Native American history and culture to all my students.
2 – 8.	I consistently relate academic content to my Native students' cultural experiences.
2 – 9.	I consistently create opportunities for Native students to relate academic content to their own experiences.
2 – 15.	I can speak credibly to my students about their indigenous people who land our school was founded on.

2 – 16.	Before teaching, I think about and prepare for the potential impacts of the lesson on my Native students.
2 – 19.	I actively seek out narratives that offer critical perspectives to those of our class textbooks.
2 – 20.	I can speak credibly about contemporary Native political and social issues.
2 – 21.	I can speak credibly about the historic and present-day sovereignty of Indigenous people in the United States.

Community Engagement (3 Items; Cronbach Alpha .91)	
Question Number	Question Text
4 – 2.	I seek out my Native students in their communities outside of the school campus.
4 – 3.	I seek out my Native students' families in their communities outside of the school campus.
4 – 4.	I participate in local Native communities.

APPENDIX C

A Model for Indigenous Culturally Responsive Teaching
Native Language Teaching Example

Introductory Native Language Teaching	Materials and Activities
Learning in a place-based framework. Connecting language to the local Tribes. Elders visit and share language history.	Placed based AI/AN curriculum. Local history and culture. Family involvement. Elders in the classroom.
Beginning Native Language Teaching	Materials and Activities
Elders sharing words and phrases. Learning basic intro phrases. Practice writing basic words.	Placed based AI/AN curriculum. Local history and culture. Family involvement. Elders in the classroom.
Intermediate Native Language Teaching	Materials and Activities
Elders sharing sentences. Learn intermediate sentences. Practice writing sentences.	Placed based AI/AN curriculum. Local history and culture. Family involvement. Elders in the classroom.
Advanced Native Language Teaching	Materials and Activities
Elders sharing stories. Learn storytelling in language. Language speaking during class.	Placed based AI/AN curriculum. Local history and culture. Family involvement. Elders in the classroom.

APPENDIX D

Summary of American Indian/Alaska Native Curriculum Initiatives

Montana Indian Education for All (IEFA) – Seven Tribal Nations	
Dates	Key Points
IEFA passes as unfunded mandate. 2004 – Montana Quality Education Coalition sues state. 2000- Indian educators create the Essential Understandings. 2005 – State legislature funds the IEFA.	Every Montanan whether Indian or non-Indian learn about the heritage of American Indians. All educational personal work cooperatively with Montana Tribes. All school personnel have an understanding and awareness of Indian Tribes.
North Dakota Native American Essential Understanding (NDNAEU) – Four Tribal Nations	
Dates	Key Points
2014 – Indian Education Summit held. 2015 – Elders meet to determine the understandings about Native Americans in North Dakota. Educational materials are developed, sent to schools, and posted online. 2016-2017 – Workshops for teachers. 2017 – Funding for professional development is incorporated into state budget.	All students become better more informed citizens and have more knowledge of Native American culture and history. Graduation rates for Native American students improve. Teachers have a better understanding of Native American students. The goal of this document is to increase learning, understanding and well being among all North Dakota students, educators, and communities.
Oregon – Senate Bill 13 – Nine Federally Recognized Tribes	
Dates	Key Points

1991 – First AI/AN State Plan created. 2006 – Second AI/AN State Plan created. 2015 – Third AI/AN State Plan created with included developing a legislature concept and Enrolled Bill (SB 13). 2017 – SB 13 passed. 2019 – 2020 – Curriculum to be implemented in Oregon public schools	Develop and requirement implementation of curriculum relating to the Native American experience in Oregon that is inclusive of tribal history, sovereignty issues, culture, treaty rights, government, socioeconomic experiences, and current events. Ensure the curriculum is historically accurate, culturally relevant, community based, contemporary and developmentally appropriate. Ensure that federally recognized Tribes in Oregon are consulted and provided funds to support collaboration. Make the curriculum available to school districts, provide professional development related to the curriculum.

South Dakota Indian Education Act – Nine Tribes

Dates	Key Points
2007 – Indian Education Act passed and curriculum work begins. 2008-2015 – Initial funding and curriculum work begin. 2012 – Indian Education Act revised. 2016 – Funding approved for a specialist with up to three schools and para-educators to go to schools. Programs scheduled to be implemented in Fall 2019.	Disseminate Oceti Sakowin: Essential Understandings and Standards (EUS). Implement the WoLakota project which involves mentoring for teachers. Improve outcomes for Native American students a few schools at a time. Students and public school instruction staff become aware of and gain an appreciation of South Dakota's unique American Indian Culture.

Washington State House Bill 1495 and Senate Bill 5433 – Basic Education Act – 29 Tribes

Dates	Key Points
2005 – House Bill 1495, which encourages districts to teach Washington tribal history, culture and government passes.	Create and integrate Since Time Immemorial (STI): Tribal Sovereignty in Washington State curriculum into current

2007 – Since Time Immemorial (STI) curriculum developed. 2015 – SB 5433 mandates curriculum on tribal history, culture and government, is signed by the Governor 2016-17. Mandate goes into effect and the state, Tribal nations and private organizations provide funding.	and newly adopted social studies or history curricula. Collaborate with federally recognized Indian Tribes within or near neighboring district boundaries.

Wyoming Indian Education for All – 2 Tribes

Dates	Key Points
2014-2015 – Social studies content and performance standards relating to the study of American Indian Tribes are developed. 2016 – House Bill 76/House Enrolled Act 119 passes the legislature's Select Committee on Tribal Relations. 2017 – Governor signs the bill. No specific funding allocated, but Governor previously allocated funds for tribal liaison.	Educate all Wyoming students about American Indian Tribes of the region, including the Northern Arapaho and Eastern Shoshone Tribes. Consult with Tribes of the region. Review existing state social studies content and performance standards to ensure the cultural heritage, history and contemporary contributions of American Indians are addressed. Hold community input meetings as part of this review. Make available materials and resources on the departments official website to assist school districts in meeting social studies benchmarks within Wyoming social studies content and performance standards relating to the study of American Indian Tribes.

Adapted from: Jacob et al (2018)

APPENDIX E

OAR 584

584-210-0080 Teacher Standards and Practices Commission (TSPC)

American Indian Languages Teaching License*

(1) **Purpose of the License:** The American Indian Languages Teaching License is issued to qualified individuals to provide the essential teaching of American Indian languages. It qualifies its holder to teach prekindergarten through grade 12 Oregon public school district, education service districts, and charter school assignments in the American Indian Language authorized by the license.

(2) **Tribal Sponsorship:** The American Indian Languages Teaching License requires sponsorship of a tribe, as provided in ORS 97.740, whose language will be taught. The sponsoring tribe must submit a statement that certifies that:

(a) The applicant is qualified to teach the language of the tribe; and

(b) Pursuant to ORS 342.123, the applicant has demonstrated knowledge of:

(A) Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and other relevant federal and state statutes prohibiting discrimination; and

(B) Ethical standards of professional conduct for licensees.

(3) **Term of Licensure:** The American Indian Languages Teaching License is valid for three years and is renewable as provided in subsection (7) of this rule. The date of the first expiration of the license is three years from the date of issue plus time until the applicant's birthday.

(4) **Assignment and Endorsement Authorization**: The American Indian Languages Teaching License qualifies the teacher to accept:

(a) Any instructional assignment from prekindergarten through grade 12 within the scope of the American Indian Language on the American Indian Languages Teaching License; and

(b) Substitute teaching assignments within the scope of American Indian Language on the American Indian Languages Teaching License.

(c) The Commission-adopted endorsements for the American Indian Languages Teaching Licenses are:

(A) American Indian Language: Cayuse

(B) American Indian Language: Chinuk Wawa

(C) American Indian Language: Dee-ni

(D) American Indian Language: Kalapuya

(E) American Indian Language: Kiksht

(F) American Indian Language: Klamath

(G) American Indian Language: Klamath-Modoc

(H) American Indian Language: Lushootseed

(I) American Indian Language: Miluk

(J) American Indian Language: Nez Perce

(K) American Indian Language: Northern Paiute

(L) American Indian Language: Newe

(M) American Indian Language: Siuslaw-Hanis

(N) American Indian Language: Takelma

(O) American Indian Language: Tolowa

(P) American Indian Language: Tututni

(Q) American Indian Language: Umatilla

(R) American Indian Language: Walla Walla

(S) American Indian Language: Ichishkin

(5) A holder of an American Indian Languages Teaching license who does not also have a teaching license or registration issued under ORS 342.125 may not teach any subject other than the American Indian language the holder approved to teach by the sponsoring tribe.

(6) **First License:** To be eligible to apply for the American Indian Language Teaching License, the applicant must:

(a) Possess the personal qualifications for licensure including attainment of at least eighteen years of age and possessing good moral character and mental and physical health necessary for employment as an educator;

(b) Submit a statement from a sponsoring tribe as provided in subsection (2) of this rule;

(c) Complete a background clearance that includes:

(A) Furnishing fingerprints, if required;

(B) Providing satisfactory responses to character questions in the form and manner prescribed by the Commission; and

(d) Submit a complete and correct application in the form and manner required by the Commission, including payment of all required fees as provided in OAR 584-200-0050.

(7) **Renewal:** To be eligible to apply for renewal of the American Indian Language Teaching License, an applicant must:

(a) Submit a statement from the original sponsoring tribe verifying the applicant continues to be qualified to teach the tribal language;

(b) Complete professional development as provided in Chapter 584, Division 255, Professional Development; and

(c) Submit a complete and correct renewal application in the form and manner required by the Commission, including payment of all required fees as provided in OAR 584-200-0050.

Statutory/Other Authority: ORS 342
Statutes/Other Implemented: ORS 342.120 - 342.430, 342.455 - 342.495 & 342.553
History:
TSPC 3-2020, minor correction filed 02/25/2020, effective 02/25/2020
TSPC 5-2017, amend filed 11/14/2017, effective 11/15/2017
TSPC 1-2016, f. & cert. ef. 2-10-16
TSPC 12-2015, f. 11-13-15, cert. ef. 1-1-16

*ORS 342.144 – oregonlaws.org/ors/342.144
Oregon Administrative Rules Teachers Standards and Practices Commission:
https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=268095

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