Honoring Our Teachers

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Northern Arizona University's College of Education has published a series of monographs on Indigenous issues. These include *Stabilizing Indigenous Languages* (1996), *Teaching Indigenous Languages* (1997), *Revitalizing Indigenous Languages* (1999), *Learn in Beauty: Indigenous Education for a New Century* (2000), *Indigenous Languages Across the Community* (2002), *Nurturing Native Languages* (2003), *Indigenous Language Revitalization: Encouragement, Guidance & Lessons Learned* (2009), *Honoring Our Heritage* (2011), *Honoring Our Children* (2013), and *Honoring Our Elders* (2015). This new monograph includes papers from the Seventh American Indian /Indigenous Teacher Education conference held at Northern Arizona University 2016 as well as other papers.

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Introduction

All we know is what our teachers and experiences have taught us. Our way of life is passed down to each new generation. This is done today by family members, elders and other teachers in and out of our schools. As they age each new generation moves over time from being learners to becoming teachers as well. Our teachers deserve to be honored and respected for their knowledge and work. This monograph, *Honoring Our Teachers*, includes presentations at the seventh American Indian / Indigenous Teacher Education Conference (AIITEC) held at Northern Arizona University on June 16-18, 2016. *Honoring Our Teachers* is the fourth in a series of "Honoring" monographs that began in 2011 with *Honoring Our Heritage* and was followed by *Honoring Our Children* in 2013 and *Honoring Our Elders* in 2015, all of which were published on-line and in paperback by Northern Arizona University's College of Education and focus on culturally appropriate approaches for teaching Indigenous students. These monographs are designed to contribute to the ongoing professional development efforts that educational administrators and teachers need in order to continuously improve their schools and teaching.

A theme repeated by the contributors to this monograph is that teachers need to be treated with respect as professionals and not de-skilled by being forced to sign fidelity oaths that make them adhere to "evidence based" one-size-fits-all scripted curriculums that usually lack a solid research base as indicated by the U.S. Department of Education's What Works Clearinghouse,[1] and even when they do show a fairly solid research base, that research does not include a focus on how American Indian and other ethnic minority students perform using the mandated curriculum materials. It is relatively easy for teachers to just follow the scripted teachers' editions of textbooks, but the result will too often be more disengaged students, more discipline problems, lower test scores and higher drop out rates.

The 2016 Keynotes

The first two chapters of *Honoring Our Teachers* are adapted from keynote speeches delivered at the 2016 AIITEC conference. Sharon Nelson-Barber shares her insights about how current educational reform efforts in the United States are affecting Indigenous education in "The 'Perfect Storm' in Indigenous Education: Stories about Context, Culture and Community Knowledge." She expresses her concern about "many teachers' lack of experiential knowledge about the home and community lives of their students" and highlights their need to focus "on the strengths and competencies children" bring to school from their homes and communities (p. 3). She finds that "teachers must…be masterful in the ways they draw on local knowledge and thinking as they tailor [curricular] content, make use of local vernacular and build relationships with students" (p. 4). Then Tiffany S. Lee describes the limitations of formal classroom education in "'In School I

Learn from A to H, but the World is A to Z': Promoting Educational Relevance, Equity, and Sovereignty through Community-engaged Learning." Lee emphasizes the importance of teachers learning that students need "to be engaged in active ways if we want them to connect and learn" (p. 9) and describes the importance of Community Engaged Learning and Community-Based Education to counter unsuccessful "one-size-fits-all approaches in education, such as nationally promoted scripted curriculum or teaching methods" that have "permeated American public schools" (p. 11).

Improving Indigenous Education

In the next section the contributors focus on what is needed to improve Indigenous education and close the historical academic achievement gap that has hindered the progress of many American Indian and other Indigenous students. First, Joseph Martin, Richard Manning, Larry Steeves, Josephine Steeves and Jon Reyhner present the results of interviews with experienced indigenous educators in "What Educational Leaders See as Important for Improving the Education of Indigenous Youth." They first look at landmark studies of what educators have learned from teaching Indigenous students by Linda Cleary and Thomas Peacock (1998) and Terry Huffman (2013) and then report the findings of their own recent interviews with experienced Indigenous educational leaders that point to the need for school administrators and teachers to know about the communities where they work and to build relationships with those communities, including for teachers to get to know the parents and extended families of their students and to move away from textbook and lecture teaching methods to a more hands-on and engaging instructional approach. Then Larry Steeves and Sheila Carr-Stewart discuss a conceptual framework for improving Indigenous student learning outcomes. They review mostly Canadian research on the importance of parent, community and student engagement and the importance of teachers building relationships with their students and using culturally relevant pedagogy.

Next, Jonathan Anuik and Laura-Lee Kearns describe Métis and Ontario education policy that supports Métis holistic lifelong learning and the importance of schools recognizing Métis as a people and to value their identities and histories. Closing this section, Keiki Kawai'ae'a, Angayuqaq Oscar Kawagley and Kaiolohia Masaoka describe Kaiolohia's experiences as a first year teacher in a Hawaiian language immersion school. Kaiolohia writes how she observed many of her co-workers and the relationships that they formed with their students and how she enrolled in a language arts enrichment class during the summer to further improve her teaching repertoire. In addition, she describes how she learned from her students as well as taught them. A parent found that the success of the immersion school Kaiolohia taught in was built around the Hawaiian concept of aloha that is built around a "wholeness of mind, body and soul and connectedness to the universe" (p. 92). Kaiolohia found that teachers must be humbler than the children and that they are not just students, "but your own children and children of your friends and family" (p. 96). She also discovered that curricular content

needed to be interconnected, rather than mathematics, science, and other subjects being taught as separate, segregated subjects.

Literacy

The third group of essays focus on literacy with George Ann Gregory and Freddie Bowles presenting arguments for Indigenous literacy and then Margaret Vaughn, Kelly Hillman, Traci McKarcher and Cindy Latella describing their action research project on Indigenous student literacy practices. Gregory and Bowles write how colonialism has created an identity crisis among colonized people and the need to utilize literacy in the heritage languages of the students' communities to promote decolonization in order to help resolve that identity crisis. They go on to document successful bilingual programs that promoted Native language literacy. Then Margaret Vaughn and three of her college students reflect on how, as teachers, these students worked to engage their elementary school students by using culturally relevant reading materials with them that were not otherwise available in their schools.

History and Research

The fourth group of essays focuses on Indigenous educational history and research. George Ann Gregory discusses "Legacies of Colonialism: The Education of Maya in Belize." She describes the lingering effects of colonialism in Belize that exploits and displaces the Mayan people and made makes second class citizens receiving a second class education. She emphasizes the importance of improving the educational system so that Mayan identity is valued and teachers are prepared to provide Mayan students bilingual education. Then Tom Hopkins shares some of his experiences with English as a Second Language (ESL) teaching efforts, bilingual education and testing as a longtime employee of the U.S. Bureau of Indian Affairs in "A History of American Indian and Alaska Native Education: 1964-1970." He describes his involvement in Bureau Indian Affairs (BIA) education, including his work with BIA professional development for teachers and how the BIA's area director organization during this period worked against efforts to improve teaching in BIA schools by often excluding curricular reforms designed to utilize local research that focused on Navajo and other Indian students. Of special interest is his work with the Teachers of English to Speakers of Other Languages (TESOL) organization, the Navajo Reading Study project and his comments on the founding of Rough Rock Demonstration School, the first locally controlled BIA school, in 1966.

Next, Adam Murray discusses the type of research that is needed for evidence-based support of culturally responsive education in "Culturally Responsive Education: The Need and Methods for Demonstrating Effectiveness for Evidenced-based Practices." He reviews the history of and research on Culturally Responsive Education (CRE) and summarizes the type of evidence based research designs that could help win political and popular support for CRE. Closing out this section Naatosi Fish and Mizuki Miyashita present their research on guiding pronunciation of Blackfoot melodies. They provide an example of how a com-

munity member can partner with a university linguist to do research on "word melody," which can help students wanting to learn a Native-like pronunciation of their heritage language.

Conclusion

Together, the contributors to this volume make a strong case for the importance of providing Indigenous students with a culturally appropriate education that builds on their cultural and experiential backgrounds. Teacher preparation programs need to ensure teacher education candidates are aware of how important it is to learn about the homes and communities that their students come from and return to as well as becoming subject matter experts and developing their instructional expertise. In addition, these aspiring teachers need to recognize the importance of their remaining lifelong learners through continued professional development. In return, we all need to honor teachers for their dedicated efforts to educate our children and thus empower them as family members and tribal and global citizens.

Notes

[1]U.S. Department of Education, Institute of Education Sciences' What Works Clearinghouse at https://ies.ed.gov/ncee/WWC/

References

Cleary, L. M., & Peacock, T. D. (1998). C*ollected wisdom: American Indian education.* Boston, MA: Allyn & Bacon.

Huffman, T. (2013). *American Indian educators in reservation schools*. Reno: University of Nevada Press.

The "Perfect Storm" in Indigenous Education
Stories about Context, Culture and Community Knowledge[1]

Sharon Nelson-Barber

An Urgent, Unmet Need

Despite on-going federal efforts to address the educational needs of Indigenous students in the United States, irrepressible calls for change in public Indian education have echoed across Indian country for some time (Indian Nations at Risk Task Force, 1991; Meriam, 1928; Nelson-Barber & Johnson, 2016; Reyhner & Eder, 2006; Special Subcommittee, 1969). Recent reports assert that the educational reforms of the 1990s and beyond, including those mandated by the federal No Child Left Behind Act of 2001, have resulted in no measurable improvements in the educational achievement of American Indian and Alaska Native (AI/AN) students (Education Trust, 2013; Musu-Gillette, Robinson, McFarland, KewalRamani, Zhang & Wilkinson-Flicker, 2016; NCES, 2012; Office of Civil Rights, 2016). Citing National Assessment of Educational Progress (NAEP) statistics at a recent conference, renowned Indian educator, Dr. Sandra Fox, noted that fewer than 20% of American Indian students in the fourth grade perform at "proficient" or "advanced" levels (Fox, 2014, 2015). When we revisit the many reforms carried out over past generations we note that they have been not only ineffective, but also detrimental to the educational performance of Native youth as well as to their well-being. These observations are confirmed by recent reports such as President Obama's 2014 Native Youth Report (The White House, 2014) and the US Department of Education's Office of Civil Rights data on equity and opportunity in our nation's public schools (USDOE, 2016).

These effects point to the high level of vulnerability that Indigenous students experience in the US educational systems, when at the same time entire Iknowledge systems are being lost due to the fast decline in Indigenous communities' use of heritage languages and cultural practices (House, 2014; Nelson-Barber & Johnson, 2016). In many ways, the difficulties faced by Indigenous learners and their communities can be characterized as a "perfect storm" that threatens to destroy our timeless and treasured Indigenous knowledge systems.

Table 1 on the following page lists some of the elements of the "perfect storm" that young Indigenous learners must overcome in order to attain educational success. To address this perfect storm, factors such as these must be well understood, and strategies available to enhance instructional responsiveness to local conditions. In fact, the "treasured" local indigenous knowledge systems mentioned above are not only invaluable in their own right but are the very foundation of prior knowledge on which to build new learning.

Capitalizing on Indigenous Success

Problem-based perspectives and deficit thinking have figured into the public discourse on American Indian and Alaska Native education for too long—to the point that there can be certain assumptions about who can succeed and who can-

not. We are all too familiar with the dismal portraiture associated with American Indian and Alaska Native student academic performance: frequent tracking into low ability groups, disproportionate representation in special education, high

Table 1: Elements that Converge to Create the "Perfect Storm" in Indigenous Education

Community-related Factors	*School-related Factors*
• Generations of cultural trauma (genocide, punishment for use of heritage language, abuse in boarding schools, etc.)	• Disconnection between what is considered to be important knowledge for daily life and what is taught in school
• Loss of community self-determination; loss of personal and collective self-efficacy	• Discontinuity between ways of communicating and interacting at home and in school
• Separation from ancestral homelands and land-based practices, leading to loss of cultural identity	• Lack of effort to forge common goals for children/students by parents and teachers
• Harmful effects of human intervention on the land (such as dams, mining, toxic waste sites, etc.)	• Barriers for Indigenous children in demonstrating knowledge in schools due to mismatch between values and approaches of Indigenous knowledge systems and the assumptions of Western knowledge systems (amplified by current testing methods)
• Disruptive impacts of weather and climate on subsistence activity and heritage practices vernacular, English dialect, or non-standard English	• Students' difficulty in demonstrating knowledge on formal testing owing to unrecognized community use of
• Compromised mental and physical health owing to stress and unhealthy diet	• Ongoing rapid loss of heritage languages and practices owing to lack of value in dominant culture and education
• Breakdown of the fundamental Indigenous cultural link between life activity and learning by colonial-era and modern-era formal educational systems	

drop out and retention rates (OCR, 2016). What is most frightening about this depiction is the extent to which the differential performance of Indigenous students has come to be a taken-for-granted "fact of life" in some classrooms—an expectation of low performance that is reflected, in off-hand remarks like, "This assignment worked really well; even the Indian students did a good job!" or "We need to know more about Indian students and other problems." These kinds of stereotypes, coupled with many teachers' lack of experiential knowledge about the home and community lives of their students, fuel the notion that there is nothing they can do about the challenges children face outside of the classroom and that these challenges prevent them from learning. The challenges are seen not as circumstantial, mutable, and open to discussion and intervention, but as fixed conditions of life over which teachers see themselves as powerless.

Now, in no way am I saying that the only successful teachers are those who share culture with students. However, the discourse within Indigenous communities does not center on under performance and disadvantage. Instead, the focus is on the strengths and competencies children have developed in their own contexts as bridges to learning. Listen in on just about any conversation among American Indian and Alaska Native educators and the discussion entails capturing ways of capitalizing on local ways of understanding the world alongside formal school learning, so that our children can make the best life choices that will prepare them as future leaders. And the literature backs this up. Research makes the strong case that students' culture-based experiences and ways of learning can be essential resources for designing daily instruction (Bang & Medin, 2010; Demmert & Towner, 2003; Hammer, & Elby, 2003, Kawagley, Norris-Tull, & Norris-Tull, 1998; Lave & Wenger, 1991; Lee, 2008; Moschkovich & Nelson-Barber, 2009; Lipka, 1998; McCarty & Lee, 2014; Nelson-Barber & Estrin, 1995, among others) .

The newest thinking in sociocultural theory and the learning sciences argues for an ecological approach that locates accountability in "the real world" of students' knowledge and experience (Lee, 2008; Sherin, 2006). This ecological approach finds central importance in aspects of learning that have gone unrecognized, such as relationships, contexts, languages, tools and practices based on community knowledge. Lee (2008) would say that these elements, occurring in the complex ecologies of people's lives, demand innovative approaches and offer great potential for creating more equitable, empowering, and sustainable change for communities and individuals.

Now that more and more Indigenous teachers are joining the work force, like those prepared by Northern Arizona University's College of Education, there will be more teachers providing strong models as they root their instructional approaches in Indigenous learning and systems of problem solving that are directly linked to their students' cultural experiences. As the research cited above demonstrates, when content areas are taught or learned in defined cultural contexts, students have increased opportunity to relate to them and find them meaningful. This is engaging and empowered education for any student.

Drawing on Local Context

So we know from learning science that knowing is a product of context, interactions, relationships (with people and others), and the tools and artifacts in a learning ecology, which includes language. Teachers determined to infuse important cultural concepts into lessons find many different ways to advance student achievement by building from within—honoring local worldviews, value systems and languages, and enabling the kind of family engagement in learning that is so essential to children's success in school. The mere presence of a cultural artifact of deep meaning to the local community can serve as a constant reminder to students of the cultural principles it embodies. For example, one Diné teacher from a farming community prominently displayed a corn stalk in her classroom. As part of her routine she regularly referred to it as a symbol of strength, sustainability and resilience, like their people. She not only uses it as a keystone to identity development, but also emphasizes how storytelling is essential to meaning making and draws connections to important moral lessons embedded in heritage stories about corn, linking important knowledge for daily life with school learning. This paves the way for bridging with other important knowledge, such as discerning a traditional home or hogan as a healing system, not just shelter—and that these cultural understandings are as important as standard content, all connected through language.

These informal strategies work well in conjunction with more formal context-adaptive, culture-focused programming to enhance learning for Indigenous students. However, in Alaska it turns out that elementary students from all cultural backgrounds, both urban and rural, who experienced the *Math in a Cultural Context* curriculum, showed significant improvement on pre- and post-tests when compared to diverse students who followed the regular mathematics curriculum (Lipka, et al., 2005; Nelson-Barber & Lipka, 2008). The *Math in a Cultural Context* program is composed of modules (Grades 2 and 6) that focus on everyday Yup'ik knowledge related to mathematical thinking directly linked to students' subsistence lifeways and cultural experiences. Teachers' instructional approaches are rooted in Yup'ik learning and systems of problem solving, but they also align with national and state mathematics standards like number and operations, patterns, functions and algebra, geometry and spatial sense, measurement, data analysis, statistics, probability, reasoning and proof, representation, and so on.

Since just about everyone in Alaska knows something about the subsistence lifestyle—at least about hunting or fishing, the activities are familiar and engaging to most students because they can relate to the material as associated with their own lives. The fact that the activities are tied to local culture makes them more unique and interesting for all students.

Of course teachers must also be masterful in the ways they draw on local knowledge and thinking as they tailor content, make use of local vernacular and build relationships with students, all of which are critical to teaching success in their settings.

Though there are certainly idiosyncrasies in pedagogy across these classrooms, teachers use common strategies that are grounded in their community

values and lifeways. They teach concepts in the contexts in which they will be needed. Adults (teachers, parents, elders, aides) and older peers serve as models, guides, or facilitators rather than always being direct instructors. Typically, children have considerable responsibility over their own learning, often working together in small groups to solve real-world problems or to accomplish tasks. It is often viewed as inappropriate to compare children to one another directly, as is done in norm-referenced testing. Children have latitude to choose when they will demonstrate their mastery of a particular task or competence, a feature that supports autonomy, self-evaluation and perseverance until mastery is achieved (Nelson-Barber, Trumbull & Mitchell, 2002). It is interesting to note that traditions of education in Indigenous communities that emphasize lived-experience, cooperation and reflection in meaningful contexts exemplify some of the best elements of the research-based instruction called for by current school improvement efforts (see Table 2 below). These elements are more fully described in Nelson-Barber, Trumbull and Mitchel (2002).

Table 2: Selected Features of Indigenous and Reformed Pedagogies

Indigenous Pedagogy	Reformed Pedagogy
• concepts are taught in meaningful contexts and serve authentic purposes	• concepts are taught in meaningful contexts, in more authentic ways
• adults serve as models and facilitators, guiding children to learn by observing and doing	• adults serve as models and facilitators; teachers are encouraged to get beyond strictly verbal methods of instruction
• children are encouraged to take responsibility for their own learning	• students are encouraged to take responsibility for their learning
• children are encouraged to evaluate their own learning	• students are encouraged to reflect on their own learning and self-evaluate
• children are allowed choices about when and how to display learning (i.e., choices about being tested)	• new forms of assessment, such as portfolios, allow more student choice

The overlaps here are clear. It seems Indigenous pedagogy could serve as a model for reformed pedagogy, and one might guess then that today's Indigenous students have a decided advantage over other students. As we know, that does not seem to be the case.

Ultimately we can do an exemplary job of infusing culture in the curriculum and making use of instructional strategies that capitalize on students' cultural and linguistic strengths. However, if our assessment systems are not set up to recognize excellence when students demonstrate it we will not be doing enough to support students to achieve advanced levels of excellence. We must remember that many Indigenous students, even those who are not fluent speakers of their languages, but are raised in tribal communities, may fundamentally experience the

world differently than non-Indian students. How one is socialized to understand the world, to identify and solve problems, and to make decisions, for example, influences that person's ways of thinking and interacting. Conflicts can arise for students whose home culture may not align directly with the conventional culture of schools. If culture influences the way in which people construct knowledge and make sense of the world, then culture may influence the way in which students interpret test items and respond to them. Testing must take into account sociocultural influences such as values, beliefs, experiences, communication patterns, teaching and learning styles, and epistemologies that are expressions of students' cultural backgrounds, and include their socioeconomic conditions (Solano-Flores & Nelson-Barber, 2001). New research is now considering ways for assessments to capture students' comprehension more precisely and accurately given their varying worldviews. In my own work, I look to reconstruct test items in ways that elicit student responses that reveal a more representative sample of their knowledge and providing the "evidence" we need in our evidence-focused system of education.

The sessions that I experienced at the 2016 American Indian / Indigenous Teacher Education Conference (AIITEC) in Flagstaff, Arizona, demand that schools create classroom communities that grant voice and legitimacy to the perspectives and experiences of local cultures—communities that will not require students to surrender personal and cultural identity in exchange for high academic achievement.

To optimize the benefits of strategies and innovations and truly enhance learning for Indigenous communities, a higher standard of context-adaptive, iterative and empirical testing must be applied. Locally-driven research that is responsive to multiple contexts and uniquely-situated communities requires this very different "standard" of evidence for best practices.

Note

[1]This chapter is an abbreviated version of the keynote address delivered at the 7th American Indian/ Indigenous Teacher Education Conference, June 18, 2016, at Northern Arizona University in Flagstaff, Arizona. These ideas also contributed to the 2016 American Educational Research Association Knowledge Forum as part of its Centennial year programming.

References

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

Demmert, W. G., & Towner, J. C. (2003). *A review of the research literature on the influences of culturally based education on the academic performance of Native American students*. Portland: Northwest Regional Educational Laboratory. Retrieved from http://educationnorthwest.org/sites/default/files/resources/cbe.pdf.

Education Trust. (2013, August). *State of education for Native students*. Washington, DC: Author.

Executive Office of the President. (2014). *Native youth report.* Washington, DC: The White House.

Fox, S. (2014, July 11). Keynote address: In a culturally appropriate way. Fifth American Indian/Indigenous Teacher Education Conference, Northern Arizona University, Flagstaff: AZ.

Fox, S. (2015). The need for Indian education reform. In J. Reyhner, J. Martin, L. Lockard, & W. Gilbert (Eds.). *Honoring our elders: Culturally appropriate approaches for teaching Indigenous students.* Flagstaff, AZ: Northern Arizona University.

Hammer, D. & Elby, A. (2003). Tapping students' epistemological resources. *Journal of the Learning Sciences, 12* (1), 53-91.

House, D. (2005). *Language shift among the Navajos: Identity politics and cultural continuity.* Tucson, AZ: University of Arizona Press.

Kawagley, A., Norris-Tull, D., & Norris-Tull, R. (1998). The Indigenous worldview of Yupiaq culture: Its scientific nature and relevance to the practice and teaching of science. *Journal of research in science teaching, 35*, 133-144.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, England: Cambridge University Press.

Lee, C. D. (2008). The centrality of culture to the scientific study of learning and development: How an ecological framework in education research facilitates civic responsibility, *Educational Researcher, 37*(5), 267-279.

Lipka, J. (Ed.), (1998). *Transforming the culture of schools: Yup'ik Eskimo examples.* Hillsdale, NJ: Lawrence Erlbaum.

Lipka, J., Hogan, M., Webster, J, Yanez, E., Adams, B., Clark, S., & Lacy, D. (2005). Math in a cultural context: Two case studies of a successful culturally based math project. *Anthropology & Education Quarterly, 36*(4), 367–385.

McCarty, T. L., & Lee, T. S. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard Educational Review, 84*(1), 101-124.

Meriam, L. (1928). *The problem of Indian administration.* Baltimore, MD: The Johns Hopkins Press.

Moschkovich, J., & Nelson-Barber, S. (2009). What math teachers need to know about culture and language. In B. Greer, S. Mukhopadhyay, S. Nelson-Barber & A. Powell (Eds.). *Culturally responsive mathematics education*. Mahwah, NJ: Taylor and Francis Group.

Musu-Gillette, L., Robinson, J., McFarland, J., KewalRamani, A., Zhang, A., & Wilkinson-Flicker, S. (2016). *Status and trends in the education of racial and ethnic groups 2016* (NCES 2016-007). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from http://nces.ed.gov/pubsearch

National Center for Education Statistics. (2012). *National Indian education study 2011: The educational experiences of American Indian and Alaska*

Native students at grades 4 and 8 (NCES 2012-466). Washington DC: U.S. Department of Education, Institute of Education Sciences.

Nelson-Barber, S., & Johnson. Z. (201`6). Recognizing the perils of "best practices" in an Indigenous community. *Contemporary Educational Psychology,* Special Issue on Indigenous Issues in Education and Research: Looking forward, *47,* 44-50.

Nelson-Barber, S., Trumbull, E., & Mitchell, J. (2002). Enhancing mathematics instruction for Indigenous American students. In J. Hankes & G. Fast (Eds.), *Changing the faces of mathematics: Perspectives of Indigenous people of North America*. Reston, VA:NCTM, pp. 1-17.

Nelson-Barber, S., & Lipka, J. (2008). Rethinking the case for culture-based curriculum: Conditions that support improved mathematics performance in diverse classrooms. In M. Brisk (Ed.), *Language, curriculum & community in teacher preparation* (pp. 99–123). Mahwah, NJ: Lawrence Erlbaum Associates.

Nelson-Barber, S., & Estrin, E. (1995). Bringing Native American perspectives to the teaching of mathematics and science. *Theory into Practice, 34* (3), 174-185.

Office of Civil Rights. (2016). *A first look: Key data highlights on equity and opportunity gaps in our nation's public schools*. Washington, DC: US Department of Education.

Public Law 107-110—*No Child Left Behind Act of 2001*

Reyhner, J., & Eder, J. (2006). *American Indian education: A history*. University of Oklahoma Press.

Senate, U. S. (1969). *Indian education: A national tragedy, a national challenge*. Report of the Committee on Labor and Public Welfare Special.

Sherin, B. (2006). Common sense clarified: Intuitive knowledge and its role in physics expertise. *Journal of Research in Science Teaching, 33*(6), 535-555.

Solano-Flores, G., & Nelson-Barber, S. (2001). On the cultural validity of science assessments, *Journal of Research in Science Teaching 38*, 1-21.

Special Committee on Indian Education, Senate Committee on Labor and Public Welfare. (1969). *Indian education: A national tragedy, a national challenge* (Senate Report 91-501 [Kennedy Report].

US Department of Education. (1991). *Indian Nations at risk: An educational strategy for action: Final report of the Indian Nations at Risk Task Force.* Washington, DC: Indian Nations at Risk Task Force.

"In School I Learn from A to H, but the World is A to Z": Promoting Educational Relevance, Equity and Sovereignty through Community-engaged Learning

Tiffany S. Lee

I open this conversation about community-engaged learning with a story I heard from Dr. Joseph Suina, University of New Mexico Professor Emeritus and former Governor of Cochiti Pueblo. He shared a story about his observations of the youth in his community in a presentation he was doing with several educators. When his community prepares for a traditional event that involves learning and singing original songs created by community members, several men and boys of the community will meet at their ceremonial house in the village about two weeks prior to the event to listen and practice the songs. He noticed that the young boys who have been doing this type of activity as they grew up in the village would display tremendous patience, discipline and respect for the two or more hours that they have to sit in one place, listen, and eventually sing the songs. One time, he noticed a young boy about age eleven or twelve who was new to the activity and who was having a difficult time sitting still, showing patience, and learning to listen respectfully. It made him notice how much the youth of his community who attended these activities regularly were engaged in their learning and displaying culturally appropriate behavior. It made him ask himself how such learning could take place in our school systems if it can take place in these type of ceremonial settings.

I have observed this with many young children and youth in traditional Navajo ceremonies as well. They are focused and attentive to the context, which requires sitting and listening for long periods. This is community-based and culturally-relevant learning. It is cultural, valued, and communal. The youth are engaged in the experience and actively listening, learning, and participating. Their learning is rooted in the community context and relevant to the culture.

Contrary to this type of learning, the schooling contexts in the United States primarily takes on a Western cultural experience, from the schooling structure, the curriculum, the pedagogy, and the overall school climate. This type of schooling experience in the U.S. has not changed for the last 100 years (Mondale & Patton, 2001).

Teachers in these schools today have the hard job of creating engaging lessons, assessing learning, and being held accountable to state tests, school leaders, and families and communities. That pressure from the state has grown since the time I was a high school teacher. But I remember learning as a high school teacher that students needed to be engaged in active ways if we want them to connect and learn. One particular learning experience for me happened when I was teaching U.S. History at a high school on the Navajo Nation. I remember giving a lecture in my class about Native people's resistance to settler colonialism and land theft in the late 19th century. I felt the students would really resonate

with this content since it was about their own people. As I was finishing up my inspirational, informative, and meaningful lecture that had my students on the edge of their seats (so I thought), I was elated to see one student raise his hand to ask a question. Excitedly I called on him and he said, "Can we go now?" I realized at that moment that while some of the students were attentive and listening, some were not. It also prompted me to wonder how many were learning the material? The content was fascinating but my delivery did not engage all the students in ways I had hoped. While I believe students do need to own their education and be responsible for their own learning, as teachers, we are their conduits to learning; we provide the tools for their construction of knowledge; and we are their coaches, their facilitators, and their motivators. So after hearing Dr. Suina's story about engagement of youth in his community, I continue to ask how, as teachers, can we create in our classrooms the level of engagement described by Dr. Suina? One that students value, find relevant to their lives, and that treats them as equal participants in learning.

Understanding Community-Engaged Learning as Indigenous education

Based on my experience as a teacher and from what I have learned through research, I have found that Community Engaged Learning (CEL) is an effective way to stimulate student excitement in their education and thus their learning. CEL places the community in the center of the learning experience and builds curriculum based on community priorities and interests making education, whether in or outside the classroom, relevant to students and making their learning applicable in community contexts. It moves education away from being individualistic and from dominant societal goals of serving American needs, but instead, it moves education toward serving our communities' needs and goals. CEL is similar to many other approaches that focus on community, culture, and students' lived experiences. For example, such approaches include community-based learning, place-based learning, experiential learning, culturally relevant learning, and culturally sustaining pedagogy. Mostly, CEL is aligned with philosophies of Indigenous education as articulated by many scholars. They explain that Indigenous education outside of western schooling structures, like the education one learns at home or in the community about their heritage, is rooted in place and experience. Indigenous education is how children learn who they are, and the roles they can play in their community (Cajete, 1994, Kawagley & Barnhardt, 2004, Deloria & Wildcat, 2001).

I have heard many Indigenous folks talk about the purpose of life is to become a complete human being – meaning a well-rounded, balanced, and connected human (Lester, 1995; Trudell, 2001). Our stories, traditions, and ceremonies shape our people toward achieving this holistic goal. This philosophy of our purpose in becoming a complete human being is also a state of hózhǫ́, which in Navajo refers to a state all Diné aim to achieve. It is a state of balance and harmony, where you know you are related to everything in your natural environment and your daily life is to remain in congruence with the environment, family, community, self, and all of life (Haskie, 2013).

In this respect, CEL fosters critical Indigenous consciousness (Lee, 2006), which is an awareness of how one's self, family, and community are situated in the larger political, social world, including how historical events shape our lives today. It is understanding how the events and situations like forced relocation, poor access to healthcare, inadequate schools, under and unemployment, and other oppressive policies that limit our self-determination have a direct impact on our lives and the social conditions of our communities. Gaining this critical consciousness helps one to understand they, their family, or community are not to blame for these conditions, but they are a result of this larger set of influences that have systematically oppressed our peoples. Critical consciousness becomes critical Indigenous consciousness when it motivates Native people to create positive change in their communities. Freire (1970) asserts that critical consciousness is liberating for individuals to see beyond their oppression; critical Indigenous consciousness extends that effect by inspiring individuals to contribute back to their communities in transformative ways.

CEL also teaches students academic content and important skills by the nature of working with communities – they learn communication and presentation skills, problem-solving skills, research skills, practical application skills, critical thinking skills, and they learn these skills as they are integrated with the academic content. This integration of experiential learning and academic content aligns well with the Aztec metaphor Cajete (1994) referred to, which is finding face, finding heart, and finding foundation. Finding face is finding your identity; finding heart is finding your passion; and finding foundation is where you are grounded – your community, home, place. This is Indigenous education

CEL Promotes Education Equity, Justice, and Self-determination

One-size-fits-all approaches in education, such as nationally promoted scripted curriculum or teaching methods, have permeated American public schools, particularly those serving underrepresented populations. Bartolome (1994) argues that the problem with such approaches is the belief that underachievement can be fixed by a particular teaching method and that schools are neutral apolitical sites that students should conform to in order to succeed. There is no interrogation that schools may be the problem in terms of their curriculum, structure, climate, teaching methods and how the schools continue to fail students and blame them for their failures. The quote in the title of this article is in reference to this lack of scrutiny of schools. I interviewed Bahii, a young male Navajo student, when I was working with a team of researchers conducting a study examining the state of education in New Mexico for Native students (Jojola, et.al., 2010). He recognized the limitations of schooling and how it was inadequate for preparing him for the world that he experienced on a daily basis. He saw the disconnect when he related school to the alphabet and said that school only teaches from A-H but he wants the whole alphabet from A-Z. In other words, he wants an education that addresses the whole picture as it is relevant to his life.

Kulago brings this perspective of making education relevant to students' entire lives to light when she argued that education should be conceptually

viewed through the Navajo concept of k'é (2016). K'é translates to mean kinship and family, but it also connotes how people relate to one another and their love, support, and responsibility to one another. K'é is a community working together for sustainability and cultural continuity. It is a "gathering of families" and ""enriching and deepening relationships of mutual support within the family and community" (Benally, 1994). Kulago asserts that when considering family, community, and school partnerships, family and community are one and the same when viewed through the conceptual framework of k'é and that for Indigenous communities, education and community are inseparable. Consequently, schools should view their role and partnerships with communities in this way, as a reciprocal relationship that supports the overall wellbeing of the students of that community. This framing promotes a true democratic education and educational equity and justice for students and families.

Kulago's work is especially significant for understanding the importance of CEL and for demonstrating how CEL is an exercise of self-determination in education. Self-determination in education is the practice of community control and the integration of knowledge, perspectives, and values important to the community, like the formation of partnerships rooted in relationships based on k'é. Achieving self-determination in education has been a goal that has been highly valued and sought out by Native communities. There are many early examples from the 1970s when the Indian self-determination in education act was passed and through this legislation, support was provided to communities to create community-controlled schools with more autonomy than typical public schools. Examples include Rough Rock Demonstration School, Rock Point Community School, and Santa Fe Indian School (Lomawaima & McCarty, 2006). Although more difficult today in this age of heightened national accountability based on the No Child Left Behind Act, and national standards such as the Common Core, we see the multiple ways in which Native people have enacted self-determination and control in education, many of whom utilize CEL practices to empower themselves. Educational self-determination necessitates community-control and through CEL, communities are partners and decision-makers who are enabled to exercise that control. This next section will highlight two models of CEL in practice, one at the high school level and another at the university level.

Community-Based Education Model

I was a high school Tribal Government and Language Arts (Communications) teacher in the Community-Based Education Model (CBEM) at Santa Fe Indian School (SFIS) from 1999 to 2001. The philosophy underlying CBEM was to impact learning in meaningful ways that responded not only to students' educational achievement and experiences, but also to the partnering Pueblo communities' needs and interests. Leading to "sustainable higher levels of academic performance, motivation, and interest in learning about, and contributing to, [students'] home communities is central to the approach" (CBEM, 1997, p. 1). SFIS recognized that many of the students' communities have environmental concerns that were tied to social, economic, and cultural traditions, which im-

pacted and influenced the quality of life in those communities for generations. Community leaders and educators at the school believed that involving students with community members in exploring and investigating these issues would be more meaningful for students than traditional core curriculum and would result in outcomes that benefit both the students and the communities. To support this approach, students had immediate and in-depth interaction with community members and learned about environmental issues that impacted the communities over the course of an academic year. In this way, the community sites become the learning environments through the involvement of community members as partners and mentors.

Students who enrolled to participate in CBEM primarily did so to fulfill their science and language arts requirements. There were no academic standards a student needed to meet to enter the program and thus, their choice to participate was more a consequence of scheduling convenience. As the students across the school learned more about the program, students who were attracted to the idea of weekly field trips and use of technology also selected to participate.

Participating students attended CBEM every afternoon of the school week in which their community work was integrated with their classroom-based work. Their classroom work and academic credit was based on an interdisciplinary curriculum in which the students took four courses in environmental science, tribal government, math modeling, and communications. Three teachers taught the courses and facilitated the core experiences of the program, which were the community visits the students took each week with one of the four Pueblo communities who participated in the program and who worked with CBEM students and staff throughout the year. Once a week, a group of students visited their assigned Pueblo and worked directly with the environmental departments in the Pueblo. The department administrators along with the Pueblo leadership identified themes of study related to their own work and concerns in the Pueblo for the students to learn about. The teachers then designed curriculum around those themes. The teachers developed the specifics of the curriculum organized around these thematic issues so that the field experiences and classroom learning supported and complemented one another. For example, in one community, the leadership and people were concerned with the effects of the Cerro Grande fire on their community. This fire impacted much of Los Alamos, New Mexico in May of 2000, and it reached the Pueblo's tribal land. The Pueblo asked the CBEM students to help with determining the impact of this fire on their natural environment with particular attention to contamination from Los Alamos National Labs where nuclear technology is used and toxic substances are produced. The teachers developed curriculum around this theme so that students could learn about and perform such tasks as taking water samples to determine the water quality, testing air quality, and taking soil samples to test for contamination from spring run-off. In addition, the students learned about the social and cultural impacts of the fire on the Pueblo and the associated legal rights of the Pueblo in rehabilitating their tribal land.

Technology was heavily incorporated into both field experiences and classroom-based learning. Students learned how to utilize such equipment at geographic positioning satellite systems and associated mapping software programs. They communicated their findings in writing using word processing software and orally through powerpoint presentations on the computer. Students enjoyed the use of this technology, and it motivated their participation. In turn, the Pueblos benefited from what the students produced using such state of the art equipment. The Pueblos often did not have such technology to study these issues of concern. In the end, the students presented highly organized and sophisticated information to the tribal members and the general public. The relationship between the students, CBEM staff, and the communities was reciprocal with each educating one another and becoming a resource for one another. It also resulted in human capacity building where the CBEM students now had skills in research, critical thinking, problem-solving, writing, technology, and oratory presentation that could be applied in many contexts within the Pueblo.

Native American Studies

When I became a professor in Native American Studies (NAS) after teaching at SFIS, I aimed to integrate much of the CEL practices I learned from the CBEM program into my courses at NAS. Teaching in a university setting allows for more flexibility than teaching high school where protocols such as obtaining permission slips and liability insurance are less of an issue at the university level. However, the university system is structured in a rigid way to present its own obstacles to doing site-based, service work. Additionally, many NAS students have their own obligations to work, family, and community making time for CEL outside of class time more limited. So in this section, I will discuss how I was able to integrate CEL within the classroom setting through primarily project-based activities that were still community driven.

First, I would like to explain the context and goals of NAS. In the 1950s, the Native American students involved in the student organization the Kiva Club at the University of New Mexico (UNM) mobilized and organized to demand more inclusion of Native perspectives and knowledge in their courses. Their activism set into motion the evolution of NAS – one of the oldest NAS programs in the country. Today, we offer a Bachelor of Arts Degree, a Minor Degree, and we have a Masters Degree proposal working its way through the channels of the approval process. The majority (90-95%) of our students are Native American from Southwest Native communities, and all of our faculty and staff is Native also from Southwest regions. The mission of our department is to support Native nations' sustainability and growth into the 21st century. We integrate Indigenous knowledge systems and interdisciplinary research into our courses and are building our focus on CEL to strengthen the connections and applications of knowledge and skills our students can take with them into community contexts. We also draw heavily on our students' prior knowledge and experiences when in class to create experiential learning within classroom settings.

I created the course NATV 461: Community-based learning in Indigenous contexts to offer students an opportunity at CEL and to integrate what I had learned from working in CBEM. We begin the course by examining theories of service-learning and philosophies of Indigenous education. Then we learn about the topic or theme the community partner has identified. In my most recent course, we worked with the Bureau of Indian Education (BIE), which is a federal agency, and not a community, but we worked through the BIE on projects to support students who attend BIE schools located on tribal lands. The issue the BIE identified was locating resources for the approximately 2000 houseless or inadequately housed Native American students who attend BIE schools across the nation. My NAS students met with school leaders who work with these students and their families to learn about their specific needs and interests with regard to resources. The students shared their experiences and knowledge that they could apply and connect to the work, and in this sense, drawing on the strengths of their experiential knowledge to support the project.

After these discussions, the school leaders and students determined that their project would involve identifying resources for the BIE students to access higher education, such as financial aid, scholarships, the application process, and based on the NAS students' own experiences, suggestions for how to succeed and seek out support. Seeking support was framed as a strength, not a weakness, and the project's overarching message was to promote students taking ownership over their own education.

In this first semester's work on this project, the students developed a video sharing their own stories of their pursuit of higher education and in some cases, their stories of houselessness. In their research about the demographics of the BIE students identified as houseless or inadequately housed, they found they could relate to the students' circumstances as many of them or their families had been in similar situations. Thus they wanted to share their stories through video, which they titled Coming full circle: From assimilation to self-determination. Their message in the video was about empowerment and deriving strength from difficult situations.[1]

A second component to the project the students undertook that semester was the creation of a college success guide in the forms of a brochure and newsletter. The brochure was developed to distribute to the schools across the nation and thus, includes information on resources that are typical at any university. It also encompasses strong statements of encouragement and advice. For example, one statement reads, "Make your voice heard. The faculty and staff of your college are there to support you as you get your college education. You have a right to learn in an environment that's safe, engaging, and where you feel like you belong. If you have questions, comments, or complaints about your school, voice them! One great way to do this is through student government. Otherwise, you can talk to a professor, a department head, or the Dean of Students. You have a right to be heard."

This message in a section about making the most of college energizes students to think beyond resources and pushes them to think about and assert their

rights as students. Other parts to the brochure share messages around academic success and financial support, such as advice on locating emergency scholarships and shopping around to find affordable textbooks, tools, and supplies for classes. The figure below is the college success guide created by the students.

Figure 1: College Success Guide for Native Youth, 2014

The newsletter that was created by the students was specific to the University of New Mexico's resources and support for Native students and houseless students. Many of the BIE schools are located in the Southwest so the students felt it was important to create a guide that was specific to one university in the Southwest and the one they had the most experience and knowledge about. Our BIE administrator partner distributed the brochures and newsletters to the BIE schools and posted them along with a link to the video on their website.

The following semester, the students enrolled in the course extended the project work by creating websites specific to each BIE region across the nation.[2] They also incorporated a broader array of resources for schools, families, and students to access. For example, they researched and shared information on foundations (for schools to seek grants), local community services, community gardens, personal services, and foster/run away resources. They also shared their own stories as well as a way to connect with the BIE students and families.

The students and I still engaged with the local community around Albuquerque to reinforce our learning while working on the projects. We did this through community gardening at several local sites. A large concern we learned about from the school leaders was their students' access to healthy foods. The students incorporated this focus in their websites and participated in community gardening to gain knowledge in hands on ways. At the end of the semester, the students were able to continue their work under the auspices of the Tribal Service Corps in UNM's Community Engagement Center, where they undertake such projects throughout the year and the Tribal Service Corps is able to pay the students for their work.

Conclusion: CEL, Relationships, and Academic Skills

CEL in CBEM and NAS connected students to prominent community issues as determined by those communities. There were direct benefits to the communities with the knowledge shared and projects delivered back to them. The students benefited by developing meaningful relationships with the community partners, and they gained important academic skills. Their work strengthened their research, communication, problem-solving, writing, and computer technology skills. The CBEM students learned at an advanced scientific and sociocultural level about the impact of various environmental conditions on the community. The NAS students gained important knowledge about houseless Native students and the significance of framing the students in ways that did not label them for their living conditions. Both groups of students connected their topics and projects to health, environment, land, politics, economics, social justice and many other areas through interdisciplinary means contextualized by their communities' circumstances. In the end, CEL partnerships with students and communities supports a practice of K'é (our responsibility, love, and support for one another) and Ḥózhǫ́ (balance and harmony) in school settings. CEL promotes the goals of Indigenous education by creating a learning environment that provides relevancy, that values community knowledge and experiences, that connects students to communities in meaningful and powerful ways, and that shows students how to apply their knowledge and contribute to their communities' growth and sustainability.

Notes

[1]The video is publicly available on youtube at https://www.youtube.com/watch?v=i6k5sMaYrBM.

[2]Houseless Youth Project websites: http://tslee44.wix.com/navajo-houseless, http://bieeastguide.weebly.com/ and http://ftp.communityresourceguide.altervista.org/

References

Bartolome, L. (1994). Beyond the methods fetish: Toward a humanizing pedagogy. *Harvard Educational Review, 64* (2), 173-194.

Benally, H. (1994). Navajo philosophy of learning and pedagogy. *Journal of Navajo Education, 12* (1), 23-31.

Cajete, G. (1994). *Look to the mountain: An ecology of Indigenous education.* Skyland, NC: Kivaki Press.

CBEM - Community-Based Education Model. (1997). *CBEM Overview.* Santa Fe, NM: Santa Fe Indian School.

Deloria, V. Jr., & Wildcat, D. (2001). *Power and place: Indian education in America.* Golden, CO: American Indian Graduate Center and Fulcrum Resources.

Freire, P. (1970). *Pedagogy of the oppressed.* New York, NY: Continuum Press

Haskie, M. (2013). Teaching Sociology at a Tribal College: Navajo Philosophy as a Pedagogy. *American Sociology, 44,* 378-384.

Jojola, T., Lee, T. S., Alacantara, A., Belgarde, M., Bird, C., Lopez, N., and Singer, B. (2010). *Indian education in New Mexico, 2025*. Santa Fe, NM: Public Education Department

Kawagley, O., & Barnhardt, R. (2004). *Education Indigenous to place: Western science meets Native reality.* Fairbanks, AK: Alaska Native Knowledge Network. Retrieved from http://www.ankn.uaf.edu/curriculum/Articles/BarnhardtKawagley/EIP.html

Kulago, H. (2016). Dewey called them Utopians, I call them ancestors. *Educational Philosophy and Theory*. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/00131857.2016.1225560

Lee, T. S. (2006). "I came here to learn how to be a leader": An intersection of critical pedagogy and Indigenous education. *InterActions: UCLA Journal of Education and Information Studies, 12* (1), article 3, http://repositories.cdlib.org/gseis/interactions/vol2/iss1/art3

Lester, A. D. (1995). *TRIBES student and parent handbook*. Albuquerque: University of New Mexico.

Lomawaima, K. T., & McCarty, T. L. (2006). *"To remain an Indian": Lessons in democracy from a century of Native American schooling*. New York: Teachers College Press.

Mondale, S., & Patton, S.B. (Eds.). (2001). *School: The story of American public education.* Boston, MA: Beacon Press.

Trudell, J. (2001). *What it means to be a human being*. Retrieved on July 8, 2016 from https://ratical.org/many_worlds/JohnTrudell/HumanBeing.html

What Educational Leaders See as Important for Improving the Education of Indigenous Youth

Joseph Martin, Richard Manning, Larry Steeves,
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Despite costly efforts to close the gap between Indigenous students' test scores and U.S. national averages—including those funded by the No Child Left Behind Act in 2001—a disparity continues to exist (*Native Americans*, 2013). These efforts often failed to consider the lived experiences of teachers and school administrators who have worked with Indigenous students and communities. Earlier studies that sought the input of professionals experienced in Indian education largely reported these professionals emphasized the importance of utilizing culturally relevant pedagogy, curriculum and school leadership approaches that have proven effective to advance academic performance of Indigenous students (Cleary & Peacock, 1998; Huffman, 2008, 2013). This chapter builds on this knowledge and reports on findings from interviews with five experienced Navajo educators in the United States and four experienced First Nations educators (one non-Indigenous) in Saskatchewan, Canada. These interviews provide information on mainstream American and Canadian perspectives for educational reform as compared to the views about the types of instruction and curriculum Indigenous students need according to these nine experienced school administrators working with schools serving Indigenous students.

North American Indigenous students lag academically behind their non-Indigenous peers (*Native Americans*, 2013). This trend shows no sign of reversal unless changes are made to how Indigenous students are educated. Leadership within schools is an essential and vital component to student success, regardless of demographics or other factors like access to resources. As research on Indigenous student achievement is still a limited subject of study, we must look for ways to build on the knowledge we have. Experienced Indigenous educational leaders and teachers have a wealth of knowledge about how to educate their people. The study reported in this chapter builds on previous studies that sought the knowledge of Indigenous educators to learn what is needed to improve education for Indigenous students in North America (Cleary & Peacock, 1998; Huffman, 2008, 2013). Five experienced Navajo educators in the United States and four experienced First Nations educators—including one non-Indigenous educator who had worked extensively within Indigenous education—in Saskatchewan, Canada, were interviewed about student achievement and their experiences within Indigenous education structures. We approached this study with a recognition that Indigenous education—as recognized by Tribal Crit theory (Brayboy, 2005)—is burdened by a history of colonialism and needs to be decolonized by listening

to Indigenous peoples, including experienced Indigenous school administrators who know what is important and needed for their children's education.

This research project began with a literature review of previous studies focused on examining the knowledge of practicing Indigenous educators and Indigenous leadership styles (see e.g., Aguilera-Black Bear & Tippeconnic, 2015; Goulet & Goulet, 2014). Then interviews were conducted with nine school administrators in Saskatchewan and the Navajo Nation. Five participants were Navajo school administrators in Arizona and the remaining four were senior educational administrators from Saskatchewan. With the exception of one school administrator from Saskatchewan, all participants were Indigenous. The research protocol was approved by the Institutional Review Boards of the University of Regina and Northern Arizona University and individual interviews were done by Dr. Larry Steeves in Canada and Dr. Joseph Martin and Dr. Jon Reyhner in the United States.

Cleary and Peacock's *Collective Wisdom* Study

One of the largest previous studies examining what educators have learned from teaching Indigenous students was reported in Linda Miller Cleary and Thomas D. Peacock's (1998) *Collected Wisdom: American Indian Education*. Their study drew upon interviews with over 60 Indigenous and non-Indigenous teachers of Indigenous students working on or near nine reservations located across the U.S. and in two cities with high Indigenous populations. It also involved more than 50 other teachers in Australia and Costa Rica. These teachers reported that teaching styles coming from the dominant culture often failed to meet the needs of Indigenous students. For example, one non-Indigenous teacher stated:

> We're basically bussing them into a white school, teaching them all of our history and our language and our culture, and then tossing them back out and expecting them to get a job and conform and be exactly like us. (Cleary & Peacock, 1998, p. 70)

This perspective was reinforced by the findings of the *Seeking Their Voices* (2014) study in Canada where the interviewees described sub-oppression—the continuing tragedy of internalized oppression—that affects adversely students who struggle with identity issues, self-confidence, and self-destructive tendencies (see also Freire, 1990). Students struggling to find balance and harmony in their traditional teaching—should they be lucky enough to have intact teachings—can see school as a place for becoming white. In other words, these students felt like they were losing their Indigeneity (Peshkin, 1997). The tragedy of boarding and residential schools remains current; parents rightly associate state-sponsored education with losing their traditions and forced assimilation. This impacts a parent's willingness to support education and their ability to instill its worth into their children (Child, 2014; Reyhner & Eder, In Press).

Another manifestation of oppression discussed by Cleary and Peacock (1998) was the pressures schools put on students to culturally assimilate into

the dominant culture, which can lead to delayed adolescence, attendance issues, anger, hopelessness, fear of success, passive aggressive behaviors, and low self esteem. All these pressures can work against the efforts that dedicated teachers can make to create the conditions for these students to empower themselves.

Teachers interviewed by Cleary and Peacock described how to make the experience of living in two worlds—"white" and "Indigenous"—less destructive and how to build bridges between these two worlds. Teachers were able to better meet the needs of their students by knowing the environments their students came from each morning. Some Indigenous students grow up in very traditional families—especially in rural areas—while others grow up in families who have been largely assimilated into the dominant White culture—especially in urban areas. Some Indigenous students and families may not be interested in their own traditional culture, having grown up away from the more traditional teachings of their tribes. All Indigenous students need to be inspired to develop their own sense of purpose and worth, without regrets based on decisions made by or for their ancestors.

Teachers discussed the impact of Indigenous language loss, and that "if a language dies, the culture also dies because the language contains and perpetuates the depth, subtleties, and nuances of culture" (1998, p. 125). Language issues include privacy and exclusion rights in order for a cultural group to preserve their religious freedom. The Hopi do not separate their language from their religion; instead, language provides the very structure of religious preservation. Bernita Humeyestewa, a Hopi teacher, stated:

> Its got to be valued at home. And that's why we have so many conflicting opinions about where it should be taught. I knew I was getting into a delicate situation this year by teaching it but I was really surprised that no one complained. (as quoted in Cleary & Peacock, 1998, p.143)

Indigenous students can have difficulties learning in school "because the ways children learn at home conflict with the ways schools teach" (Cleary & Peacock, 1998, p. 156). Based on their interviews, Cleary and Peacock recommended teachers emphasize group work with lots of dialogue in contrast to competitive classroom strategies as competence and self-assurance are vital issues with many Indigenous students. Therefore it is important to remove the pressure to perform and be singled out from those students who are threatened by competition. However, this does not mean that all Indigenous students are going to conform to this profile.

Teachers also emphasized the need for relevant reading material, the problem of student labeling in remedial programs, dialect interference, the influence of oral tradition, the need for explicit lessons in writing, and cultural differences in thought (see also Cleary, 2008). For example,

> People from oral traditions contextualize their articulation of thought; they depend on shared knowledge of the people who will be listening

> to them and do not necessarily articulate what others already know. People from literate traditions tend to decontextualize thought, to add the context that a distant audience will need to make sense of speech or writing. (Cleary & Peacock, 1998, p. 188)

The teachers Cleary and Peacock interviewed found that incentives used by mainstream schools often do not work with Indigenous students, and they summed up what they learned from the educators they interviewed, writing "The key to producing successful American Indian students in our modern educational system...is to first ground these students in their American Indian belief and value systems" (1998, p. 101).

Huffman's *American Indian Educators* Study[1]

A second seminal study was done by Terry Huffman (2013) and reported in his *American Indian Educators in Reservation Schools*. In it he summarized the results of interviews with 21 American Indian educators (14 teachers and 7 principals) on five reservations in South Dakota and Montana with an average of 18 years' experience. Half had attended tribal colleges and 12 are described as affinitive educators, most interested with personal relations with students, and nine as facilitative educators, most interested in effective instruction, with both types supporting the teaching of tribal cultures. This book was a follow-up to Huffman's 2008 study reported in *American Indian Higher Educational Experiences: Cultural Visions and Personal Journeys*. In it, he also found Indigenous educators highlighting the importance of Indigenous cultures and languages.

An Indigenous school principal interviewed by Huffman lamented:

> No Child Left Behind has changed teaching so much. I mean, assessment is the drive and it's like we are forgetting the child…. We are leaving the child behind because we have forgotten teaching styles and, like I said, the language and the culture. That has all been put on the back burner when they should actually be up front. (2013, p. 95)

Huffman noted how this principal's view of the No Child Left Behind (NCLB) Act of 2001 reflected the view of most of his interviewees. Her views also mirrored the findings of the National Indian Education Association's study, *Preliminary Report on No Child Left Behind in Indian Country* (Beaulieu & Sparks, 2005), which found that federal government's effort through NCLB to improve the education of ethnic minorities in the U.S. was deeply flawed, and its focus on English language skills and math led to the devaluing of other knowledge, including Indigenous cultural knowledge.

The academic achievement issues faced by many American Indians and other students do not end with teachers and what goes on in their classrooms, which have been the focus of most recent educational reforms. "Virtually all the challenges identified" by the Indigenous educators Huffman interviewed "were related to larger social issues in the community," including poverty (2013, p. 74).

In fact, increased pressures on teachers to raise student achievement, as well as making students pass high-stakes examinations for graduation, and threats of job termination have aggravated long-standing problems of teacher morale and turnover and made teaching a less attractive profession. Teacher shortages are being noted today not only on Indian reservations, but nationwide in the United States (Will, 2016).

Huffman's (2013) interviews and comprehensive review of the literature on Indigenous education highlighted the historical use "of formal education … as a weapon in the assault on indigenous cultures," helping lead to a "general disregard for education" and "persistent indifference on reservations toward education" by some Indigenous people (pp. 27, 69 & 115). Huffman (2013) found that due to this historical trauma it was common for "some families to actively discourage the academic success of their children" (p. 61). Schools serving Indigenous students can be places for becoming white, leading to "academic apathy" (Huffman, 2013, p. 65; Peshkin, 1997). Schooling often separates Indigenous children from their parents and heritage rather than strengthening Indigenous communities and helping students build strong and positive identities (Bishop & Berryman, 2010; Milloy, 1999; Reyhner, 2015).

Huffman (2013) found the educators who participated in his study "generally regard a strong cultural identity reinforced by culturally relevant pedagogy and curriculum as important to the success of students" (p. 140), and he found these findings support transculturation theory that contends that a strong sense of Native identity helps Native people to be academically successful. In order for many Indigenous students to find success within "mainstream institutions," including schools, they need to develop a "strong cultural identity," which they can rely upon for strength and stability as they learn to navigate these institutions (p. 159).

Nine 2016 Navajo and Saskatchewan Interviews

Our current interviews sought to find out what some experienced school administrators thought was needed to improve the academic performance of Indigenous students and to see how their ideas compared to the results of Cleary and Peacock's, Huffman's and other studies. One of the main themes that came out of these new interviews with educational leaders was the importance of place consciousness/cultural competence, attention to tribal and First Nation education needs, knowing the community that students come to school from as well as the students' families, and a perceptive knowledge on how best to instruct Indigenous students, particularly for those attending schools primarily serving Indigenous students. This includes knowing the community's history, the tribal cultural and community dynamics, and the impact of poverty as regards to students' readiness to learn. In addition it is useful to know whether family members attended residential in Canada or boarding schools in the United States and may have passed down negative attitudes towards schooling. Many American Indian and First Nation people who attended boarding schools experienced personal trauma and according to research most lacked knowledge on how to cope with the emotional

stress they endured and passed on negative aspects of their experiences without understanding the impact on their families today (Colmant, et al., 2004). Knowing a community's possible divisions, such as among practitioners of traditional tribal religions, Native American Church members, and members of different Christian sects is also important. As one of the Navajo school administrators noted:

> Not only the community external of the school, but within the school itself. Usually the school community is kind of independent of the community. When I first stepped in there, I saw that it was kind of isolated from the outside community itself, and even the teacher housings are separate from the community itself—gated, right now, in fact. We tend to look at the school as that one entity within the community, and I think that the first thing that needs to happen is for both communities to come together and share, share their outcomes, their desires, their goals, their dreams, not only for the students but for the staff, the families, like you said, the school board, the administrators, and the teachers. I think there needs to be a sharing both ways.[2]

He continued to speak about the different types of students that can come to school:

> A lot of times, I see two different kinds of teens coming into the high school. I see the teen who has been very much supported by the family, by the school system, and overall just has a general positive outlook about their whole experience. The second teen I see coming into the high school are those that experience very traumatic events, no support, and I mean no support from family and school, for some reason they have a negative experience based on some of the educators they encountered, some of the schools they've been in, in our district, and some of the relationships they did or didn't have. So I think it's really important that the well-being, the mentality of the student, the social, emotional well-being of that child from K12 really needs to be examined and supported in order for them to be successful in their learning.…
>
> You push the limit too far on Indian-ism dealing with people, parents especially, there could be Navajos, Navajo families who are not so traditional who expect a little bit different opportunities for their kids. For example, college bound kids. They're not going to want to hear about cultural philosophies of learning.
>
> They're going to want to hear… 'Okay, you're the principal of the school. You're getting my child ready for college, that we're about reading to spend a lot of money on because we make too much money and the Tribe isn't going to give us any money. How are you getting

> my kid ready for college? I want these high standards, I want these high expectations."
>
> So, trying to deal with them in a Navajo way is not going to work. You're going to have to (finger snap) switch gears and adjust and say, 'Okay, we're talking now about the real aspect of education now…. This is probably a family that's probably typical in those communities now. They're wanting to know how we're going to prepare their child for college. And that could be a drawback if you kind of go back to a different approach that way.

A Saskatchewan interviewee noted how a school's curriculum needs to mesh with the history of the community that the students come from:

> Well, you need to know your communities. You need to know your culture and your knowledge. You need to understand treaties. Treaties are important to First Nations, even though, let me be blunt, treaties like a big fog, comes rolling in and everybody says, there's the fog but nobody knows exactly what it is. And a lot of times with treaties people don't understand what they're talking about, but they're still important. And the thing is the mainstream has to understand the importance of treaties as well because in international law you don't sign treaties with a village. You don't sign treaties with a town. Treaties are nation to nation. They sign treaties in Canada so you can't get around it.

Building Relations

Several interviewees emphasized the need to build relations with the Indigenous community, including extended families and tribal government and religious leaders. Having an educational leader listen to community members and their staff, letting them know who you are and what you believe, and taking time to think things through before taking action were among the leadership skills often mentioned to build relations. However, owing to high staff turnover and the hard-to-staff school conditions, some schools find it very difficult to forge those relationships on an ongoing basis. A Canadian educator discussed how efforts at school improvement were:

> being spearheaded by the focus on building relationships, I think that's critically important… recognizing that there is something to a cultural way of learning, way of knowing that differs and respecting that is another thing that's absolutely critical. Good teachers and good administrators will create an environment that welcomes a student and recognizes them is strength based, builds on what they bring and tries to help them expand that. If we don't do that, it's very easy to turn people off, and that's what I think oftentimes happens. Then the school, the culture, the bias, the prejudice, the racism has a tendency to turn kids off…. I would think in some cases I would say we see large numbers

> of Indigenous kids who are a little less secure, and it's really easy, it can be really easy to turn them off and turn them away from the school. There's a lot of cultural influences in that, you know the perception that the parents have that the residential schools, all of those things have a tendency to pull them, could pull them back from school.… But in order to be successful, you're going to have to build the relationship with the kids. You're going to have to understand what connects with them, how do they learn, what are the rewards that they see as important to them, to help them gain confidence and strength and be willing to try.

He also used the metaphor of good sports coaches to describe effective administrators. He shared how coaches:

> have always been able to find ways to use the talent they have and make it work, you know, for the betterment of the whole team. A good school administrator and a good teacher, will find ways to do the same thing. They'll look at the students as individuals, they'll begin to understand their culture, they'll validate their culture, their way of learning, their way of knowing, they'll try to engage their parents, they'll seek support and try to get everybody on the same team to help the student learn. They won't expect the kid to come to school, school ready, they'll go to kid and say, "hey, we're here to help you.

These findings on building relationships as the foundation for a successful experience are similar to those found in Martin's (2015) research. Based on his research he recommended:

- Get to know everyone—from teachers, students, and parents, to bus drivers—on a first-name basis and personally, if possible.
- Let teachers, parents and others know who you are. Don't hide behind your title or desk. Several respondents advised first-year principals to share with colleagues who they are, what they believe in, and what they consider their "non-negotiables."
- Get out of the office. Walk around the building often at different times of day. Visit classrooms and be present in the lunchroom, playground, and staff rooms. Get out into the community to discuss the school's priorities.
- Recognize the multiple relationships that exist in the school and realize that much gets accomplished through these networks. Communication and power do not operate vertically in schools; schools are, in essence, horizontal communities.
- Don't let a computer screen block communication with coworkers. Respondents seemed to mean this both figuratively and literally. E-mails should not substitute for face-to-face conversation, especially when the teachers are right down the hall.

Parent/extended Family Involvement

The interviews indicated that the goal of knowing the community, including key stakeholders, is to get parents and the students' extended families to work with the school and become more involved in their children's education. Yet, promoting familial involvement had been problematic in the past. Families did not trust the system to have their children's best interests at heart as they knew schools to be a tool to assimilate their children into Euro-American culture. Families can see themselves as not welcome in the schools. The interviewees shared that parents and indigenous leaders wanted administrative personnel and school board members to manage the curriculum in ways that promote not just state and federal education standards, but also tribal or First Nation and local community and parental priorities. One Navajo school administrator said:

> I think one of the issues as far as parent involvement is that many of our teachers...have a concern that we don't see enough parent involvement from Native American parents.… There has been this belief that education is the responsibility of the schools where education starts in the home and the parent is a key ingredient to a student's growth and education. So, I think we have to restore the belief and the value of parents and we have to get the parents to believe that. And that's the challenge, especially when Native American policies haven't shown that, historically. It's going to take a lot more than just what we're doing now. I think as soon as we gain an understanding of that as an institution: making things more parent-friendly, upholding their opinions, making them feel like they're part of the solution, part of the equation, I think we're going to continue to struggle with parent involvement.

Another Navajo administrator noted:

> I think in my experiences, first and foremost, I'm learning that, not only is it important to involve parents, but parents want to be involved. They want to be aware of, not only policies, but why decisions are made. I think that the message parents convey most strongly is they want to know about everything that is happening in the school. So, I think being at a reservation school and considering our location, and considering technology today, one of the challenges I'm finding is, as opposed to anywhere else, by email you could certainly send out with just a touch of a button notices. Or you could call cell phones and leave messages.
>
> Our district does have the One Call system, but that's been a challenge for us because I've learned that not every parent has access to email because they don't have internet at home. And not every parent has a cell phone, so you have to stop and rethink what is the best way to get hold of these parents. To send notices home with the intent of keeping parents abreast of what is happening in the school has been one of the

> most important aspects of creating positive relationships with parents. I've found the most effective way is going back to the good old way of just sending paper notices home to parents.

Pedagogy

The most common reason given by students dropping out of school is boredom (Bridgeland, DiIulio & Morison, 2006; Reyhner, 1992). The National Indian Education study reported that the dropout rate is exacerbated by inequitable educational opportunities and resources, access to highly qualified teachers and access to proper pedagogy and pedagogical resources (NIES, 2011). Teaching methods that actively engage students in their learning work better than having students sit passively reading textbooks or listening to a teacher's lecture (Cleary, 2008; Cummins, 2000; Reyhner & Jacobs, 2002). A Navajo educators noted how in her efforts to improve student performance her school has,

> gotten away from the lecture type approach that was here when I first came to the junior high, the lecture and notetaking, because we have varied learning styles. So, we're trying to cater more to the difference in those learning styles. We're trying to incorporate people who are more hands-on, or more visual – I tend to be a very visual learner. And so those tools would provide the teachers more strategies to use and we've incorporated this school-wide, under the leadership of our academic coaches that have been instrumental in rolling this out into our classrooms….
>
> The scientific method is very hands-on and that, in and of itself is a strategy in some of those tools that we use. I was just observing a lab in a seventh grade science class the other day and that was a tremendous opportunity for the students to get in there, work with the materials hands on. The way they were grouped, the teacher gave careful thought into who was grouped together so that the students could learn from students. It wasn't all teacher to the student, the information translated from student to student as well, so everybody had the opportunity to get involved in the learning process.

Another Navajo school administrator interviewed noted:

> Yes, I guess in the very beginning, the textbook way I learned it was very frustrating for me because, I hate to say it but, the non-Indian way, it was a list, like that, like the way you describe. So, when I came into a principal's position it was, "Well you've got to get this done, then this, then this." So what I've learned now…is that very idea, is that everything's working together, kind of like in a round-about way, and if you touch one thing and effect it or impact it, it's going to have a dramatic impact on everything else in there, like a ripple effect. But if you have just a list of things, if you're putting things vertical like this,

> and you touch this one here, it's not really going to…how's it going to impact this one down here on the list? So, building the idea in your head that everything effects everything, in life, you're taught that when you're Navajo. That's why you don't mistreat animals, or that's why you're supposed to keep water sacred…. All this stuff.

One of the other Navajo administrators interviewed observed,

> The models that our teachers, or even what I was dependent on: using a textbook, we rely too much on textbooks, because the sequence in there [and] will tell you what to do every single day, it was just rather robotic: 'okay, you go from here to there to there.

Both teachers and school administrators need ongoing professional development. However, it is critically important that professional development be more than just building a knowledge base concerning school improvement approaches; on the whole they are more effective if they're targeted on how to affect change particularly within curriculum and instructional practices (NIES, 2011). One of the Navajo administrators we interviewed spoke of how "the NIEA [National Indian Education Association] provided me a lot in terms of support in understanding Indian education, and the Indian child." Teachers and school administrators working near tribal colleges can draw on them for a lot of information about the local community.

Discussion

The participants of this study presented diverse perspectives on educating Indigenous students and reducing the gap between their test scores with national averages in the United States. While educational leadership only represent one perspective on this complex challenge, their wealth of experience and knowledge of Indigenous education is often missing in current educational literature and research. The majority of literature that does focus on Indigenous student achievement points to the importance of educators taking into account Indigenous ways of knowing and cultural values when teaching Indigenous students (see e.g., *Seeking Their Voices, 2014*). The outcomes of this study supports those findings, and presented some new insights worth exploration.

Participants stressed the importance of individualized approaches to teaching and learning; Indigenous students represent a very diverse socio-cultural demographic. Far too often Indigenous students are treated as a homogenous group in policy discussions and academic research. There are important religious, cultural, and socio-economic divisions that need to be known about and respected within the different communities for policies or interventions to be successful. In order for teachers or educational leaders to find success in teaching and inspiring Indigenous youth, they need to spend the time in the community to "get to know" the nuances that exist.

School principals who serve children living in high-poverty tribal and First Nation's communities have the unique responsibility of developing learning communities capable of meeting the specific needs that arise when a large number of the children attending school live in difficult situations brought on by poverty. You cannot increase student achievement in these areas until you address the barriers created by poverty by helping staff to go beyond traditional job expectations and by making sure they have the necessary skills to develop deep commitments to meeting the challenges of all students and making decisions in the students' best interests (Martin, 2015).

Both Navajo and Saskatchewan school administrators in this study stressed the importance of using culturally relevant pedagogy and curriculum to provide the foundation needed to improve test scores among Indigenous students. The material and way they learn—even if it is culturally relevant—must appropriately prepare those students who wish to continue on to post-secondary education. As one participant noted, there are "Navajo families who are not so traditional who expect a little bit different opportunities for their kids. For example, college bound kids. They're not going to want to hear about cultural philosophies of learning." Tradition and culture were presented as keys to unlock learning instead of a focus in themselves.

Schools serving tribal and First Nation's communities need high quality educational leaders who are properly certified, but they need also to be appropriately trained to lead a struggling school that requires leadership that can reverse the downward spiral of a low-performing school or turn a troubled school around. In our rapidly changing world, technical-rational approaches may be beguilingly attractive, yet in reality are unlikely to result in improved schooling for Indigenous students unless accompanied by an understanding of the difference between being an effective Indian school leader in a tribal or First Nation community and being a leader who is merely concerned with high-stakes tests, school performance report cards, accreditation standards, or sanctions for inadequate yearly progress. In addition to being results-driven, they must have a vision that is greater than simply improving test scores; they must also have a vision that is targeted for promoting tribal or First Nation sovereignty, self-determination, and nation-building. Increasingly principals and other school leaders working in schools serving Indigenous students need to serve not only as educational leaders but more broadly as community leaders and partners in tribal/First Nation community development efforts.

Conclusion

Getting to know the community, particularly the tribal or First Nation community dynamics, was viewed by the participants in this study as more than simply getting to know the family of students in the school and classroom. Extended families in particular were singled out as important factors in students' lives. Good leaders were seen to build relationships and dialogue with the community and school staff, explaining what the school is trying to do for its students, including the financial, legal, and policy constraints (e.g., the cross-jurisdictional

policy issues among state, federal and tribal or First Nation policies) the school must work under. Communities themselves are diverse and require a significant investment of time and energy to master the intricacies of relationships to help support the child as best the teacher or educational leader can.

When a teacher or educational leader commits the time necessary to build relationships with the community and the family of the child, they are better able to connect the lives of the child outside of school with what they are learning in school. Participants in this study argued that education needs to encompass the whole child, and not just his or her test scores. Education is a process of socialization that can enable or disable people; attention must be paid to the child's physical, emotional, spiritual, and mental health.

We find it interesting that the advice we got from practitioners in our interviews did not resemble the long lists of standards and performance objectives studied in principal preparation programs—standards on which many principals are formally evaluated. We also found differences between the United States and Canadian interviewees in regard to the role of standards based education. The United States intereviewees commented the impact of federal and state standards-based reforms on their students. They referenced how new content standards delineate more challenging curricula, while new performance standards outline how well students must learn the content, and new assessments measure their learning. Students, teachers, and school administrators were all being held accountable with students in jeopardy of being held back in grade to learn required material and teachers and administrators in danger of losing their jobs if students did not meet academic standards.

With respect to the United States context, several of the American Indian educators supported the notion that a standards-based approach holds promise for American Indian education. They thought they may help create a more common curriculum among schools within states and clearer learning expectations across states. In the United States, this could prove helpful to Indian educators in meeting the needs of the many students who transfer between schools. For example, Bureau of Indian Education schools chose to adopt the content standards of their individual states, thus providing a curriculum that has more in common with nearby public schools. Second, because the content standards drive the curriculum, educators, parents and students can refer to them to provide increased focus for teaching and learning. Third, new content standards can help improve the quality of instruction for Indian students. The constructivist approach promoted by national and most state content standards allows for a more holistic, real-life, active-learning sort of pedagogy, which is more consistent with traditional Indigenous ways of teaching and learning (Estrin & Nelson-Barber, 1995; Fox & LaFontaine, 1995).

In contrast to the United States emphasis on standards, the Canadian respondents discussed the role of relationship, of knowing the community, and the importance of cultural understanding. One interviewee commented:

> I think to me the bottom line is always back to how is this going to improve the child's education?... And every community's different, you know… like you can't take stuff that's being developed on a Navajo community and put it in a Cree community or you can't take a Cree and put it into a Dene. I mean sometimes you have difficulties taking what's done in a Cree community like Shoal Lake and moving it over to Red Earth, which is 40 miles away. And so a lot of it is so community dependent.... You really need to get the communities to buy in somehow….

Another Canadian respondent summed many of the comments by indicating, "I view this in a traditional sense, as moving with caution and humility." The Canadian spent time discussing ways to build student success based on First Nations cultural understanding and values. The concept of standards, as viewed from an United States context, was noticeably absent in their reflections. In addition, there were comments that we believe were offered in the context of their work having to implement a standards-based education that not every school is the same, concerns about basing student achievement solely on external tests, or emphasizing particular goals or objectives without critically considering their relevancy or purpose from a perspective of a tribal or First Nation education priorities

It goes without saying that principals and others desiring to work schools serving Indigenous students need to concentrate on the most substantive qualities of leadership, those that focus on relationships. Those of us who create myriad lists and rubrics must realize that many essential traits of being a good principal rest in the heart and mind and cannot be measured by separate, quantifiable behaviors. The necessity of building relationship networks that many of our respondents stressed stands in stark contrast to organizational charts that diagram a vertical flow of power from the principal down to subordinates. Perhaps successful principals realize that power, control and information do not flow from the top down, but move through more horizontal and complex connections that exist in any human community.

In closing, it was clear from the research that the nine experienced educators that we interviewed had a wealth of knowledge that is critical to helping erase the discrepancy between Indigenous student and national test score averages. Although not entirely relevant to the topic here, there was also a strong focus in the interviews on the need for a clearer concept of how Indigenous leadership models can help implement these necessary changes within K-12 school systems. It speaks to the need for graduate educational leadership programs that better prepare school administrators to work in Indigenous schools (see e.g., Aguilera-Black Bear & Tippeconnic, 2015). Changes to the way educational leaders are trained could instill some of this knowledge in them earlier in their careers. Further, there is limited research and literature relating to Indigenous styles of leadership. This study was only able to capture brief outlooks relating to leadership within Indigenous communities and schools, and it is clear more work needs to be done.

Note

[1]A version of this section appeared in 2017 in Volume 40, Issue No. 1 of the National Association for Bilingual Education's magazine *Perspectives* on pages 22-23.
[2]All the quotations in the remaining part of this chapter are from the nine interviews carried out in 2016 by Joseph Martin, Larry Steeves and Jon Reyhner.

References

Aguilera-Black Bear, D., & Tippeconic III, J. W. (Eds.). (2015). *Voices of resistance & renewal: Indigenous leadership in education.* Norman: University of Oklahoma Press.

Beaulieu, D., Sparks, L. (2005). *No Child Left Behind in Indian country; Preliminary report of findings of hearings.* Washington, DC: National Indian Education Association and the Center for Indian Education Arizona State University. Retrieved from http://www.narf.org/nill/resources/education/reports/29.23.NIEANCLBreport_final2.pdf

Bishop, R., & Berryman, M. (2010). Te Kotahitanga: Culturally responsive professional development for teachers. *Teacher Development, 14*(2), 173-187.

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

Bridgeland, J.M., DiIulio, Jr., J.J., & Morison, K.B. (2006). *The silent epidemic: Perspectives of high school dropouts*. Retrieved from https://docs.gatesfoundation.org/Documents/TheSilentEpidemic3-06Final.pdf

Child, B. J. (2014). The boarding school as metaphor. In B. J. Child, W. J. Bauer, Jr., B. Klopotek, J. Borrows, M. Castellanos, M. Bianet. & M. E. García (Eds.), *Indian subjects: Hemispheric perspectives on the history of Indigenous education* (pp. 267-284). Santa Fe, NM: SAR Press.

Cleary, L. M. (2008). The imperative of literacy motivation when Native children are being left behind. *Journal of American Indian Education, 47*(1), 96-117.

Cleary, L. M., & Peacock, T. D. (1998). C*ollected wisdom: American Indian education.* Boston, MA: Allyn & Bacon.

Colmant, S., Schultz, L., Robbins, R., Ciali, P., Dorton, J., & Riveva-Colmant, Y.. (2004). Constructing meaning to the Indian boarding school experience. *Journal of American Indian Education, 43*(3), 22-40.

Cummins, J. (2000). *Language, power & pedagogy: Bilingual children in the crossfire.* Clevedon, UK: Multilingual Matters.

Estrin, E. T., & Nelson-Barber, S. (1995). Bringing Native American perspectives to mathematics and science teaching. T*heory Into Practice, 34*(3), 174-185.

Fox, S., & LaFontaine, V. (1995). A whole language approach to the communication skills. In H. Gilliland (Ed.), T*eaching the Native American* (3rd ed.) (pp. 189-200). Dubuque, IA: Kendall/Hunt.

Freire, P. (1990). *Pedagogy of the oppressed*. New York: Continuum.

Goulet, L. M., & Goulet, K. N. (2014). *Teaching each other: Nehinuw concepts & Indigenous pedagogies.* Vancouver: UBC Press.

Huffman, T. (2008). *American Indian higher educational experiences: Cultural visions and personal journeys*. New York: Peter Lang.

Huffman, T. (2013). *American Indian educators in reservation schools*. Reno: University of Nevada Press.

Martin, J. (2015). Getting the right leadership: Ten things we learned about being a first year principal. In D. Aguilera-Black Bear & J.W. Tippeconic III (Eds.), *Voices of resistance & renewal: Indigenous leadership in education* (pp. 142-160). Norman: University of Oklahoma Press.

Milloy, J. S. (1999). *"A national crime" The Canadian government and the residential school system 1879 to 1986.* Winnipeg: University of Manitoba Press.

National Center for Education Statistics (2011). *National Indian education study 2011*. Washington, DC: U.S. Office of Indian Education, U.S. Department of Education.

Native Americans: A statistical profile. (2013, Dec. 4). *Education Week, 33*(13), 35.

Peshkin, A. (1997). *Places of memory: Whiteman's schools and Native American communities.* Hillsdale, NJ: Lawrence Erlbaum.

Reyhner, J. (1992). American Indians out of school: A review of school-based causes and solutions. *Journal of American Indian Education, 31*(3), 37-56.

Reyhner, J. (Ed.). (2015). *Teaching Indigenous students: Honoring place, community and culture.* Norman, OK: University of Oklahoma.

Reyhner, J., & Eder, J. (In Press). *American Indian education: A history* (2nd Ed.). Norman: University of Oklahoma Press.

Reyhner, J., & Jacobs, D. (2002). Preparing Teachers of American Indian and Alaska Native students. *Action in Teacher Education, 24*(2), 85-93.

Seeking their voices. (2014). Saskatchewan Instructional Development and Research Unit, University of Regina. Retrieved from http://aerc.usask.ca/research-projects-planning-activities/Seeking%20Their%20Voices_Nov%202014.pdf

Will, M. (2016, August 22). Help wanted: Teacher-shortage hot spots. *Education Week*. Retrieved from http://www.edweek.org/ew/articles/2016/08/24/help-wanted-teacher-shortage-hot-spots.html

Improving Indigenous Student Learning Outcomes: A Conceptual Framework

Larry Steeves and Sheila Carr-Stewart

In the twenty-first century, there is an on-going commitment to foster Indigenous students' right to be in a school that recognizes their language, culture, and values. The research reviewed in this chapter documents the relationship between these goals and improved student learning outcomes. It is international in scope, with particular emphasis in New Zealand, America, and Canada. A conceptual framework is used to organize this research and the key policy issues related to addressing opportunities for utilizing Indigenous language and culture to improve Indigenous student learning. This framework includes language and cultural, programming, parent and community engagement, student engagement and retention, classrooms and culturally relevant pedagogy, effective schools, the role of assessment, and retention/support to teachers and school administrators.

Dr. Marie Battiste (2013) referenced language and culture in relation to fundamental human rights and the inherent right of a child to their "cultural identity, language and values" as essential for Indigenous students (pp. 29-30). Similarly, the *Report of the National Panel on First Nations Elementary and Secondary Education for Students on Reserve* (2012) argued reform "must be based on a child's right to their culture, language and identity, and to a quality education that is appropriate to their needs" (Executive Summary, p. vii). William G. Demmert (2001, p. 8) argued that "available research on the influences of Native language and cultural programs on academic performance is growing in both volume and importance" (2001, p. 8, see also Demmert, 2011). Hermes (2007, p. 54) reflected seven years of ethnographic research at Ojibwe schools in Minnesota and Wisconsin and suggested a shift from culture based curriculum to teaching culture through the Ojibwe language. Walton, Favaro, and Goddard (2009), reported on feedback from Prince Edward Island Mi'kmaq parents that found that "The inclusion of Mi'kmaq culture and language was the most frequent suggestion made by parents" (p. 55). The increase and importance of research on language, culture and values for Aboriginal students is, in part, a result of the issues that have faced Indigenous peoples: residential schools, poorly funded schools, legal prohibition of their language and cultural practices, and the failure to provide quality education with their own culture, language, and being.

Now, in the twenty-first century, there is an on-going commitment to foster Indigenous students' right to be in a school that recognizes their language, cultural, and values. Research is increasingly documenting the relationship between these goals and improved student learning outcomes. This paper and the research contained within it support this claim. The literature review that in

this chapter is international in scope, with particular emphasis in New Zealand, America, and Canada. Demmert (2001) in *Improving Academic Performance among Native American Students: A Review of the Research Literature* brought these claims to the forefront. In Saskatchewan, Canada, Merasty, Bouvier, and Hoium (2013) prepared *The Joint Task Force on Improving Education and Employment Outcomes* in Saskatchewan following their involvement in meetings and presentations around the province. Their conclusions also reinforced the importance of attention to language and cultural issues if students are to experience school success. Other researchers such as Perso (2012), Silburn, Nutton, McKenzie, and Landrigan (2011), and Raham (2010; 2009) provided an enhanced sense of the literature related to Indigenous education and improving student learning outcomes. Research in these and other works demonstrated findings that consistently identify effective practices and policy directions for improved Indigenous student learning outcomes.

A Conceptual Framework

Conceptual frameworks provide a sense from which to construct a reality. The framework outlined below represents the authors' perceptions regarding key policy issues related to addressing opportunities for improving language and culture for Indigenous student learning:

- Language and Cultural Programming
- Parent and Community Engagement
- Student Engagement and Retention
- Classrooms and Culturally Relevant Pedagogy
- Effective Schools
- Role of Assessment
- Retention/Support to Teachers/Administrators

The research findings and best practice along with the conceptual framework give focus to language and culture, youth, parent and community engagement.

Language and Cultural Programming

Goulet (2001) in a study of two teachers in northern Saskatchewan Indigenous communities commented that they "incorporated culture and language and Aboriginal and community norms and values into their teaching. They did so in a way that developed more equitable power relationships and dealt with the impact of colonization" (p. 79). Reflecting on Goulet's findings, Steeves (2009) commented that her "research makes explicit the relationship between ethnocentric curriculum, assimilation and colonization, and the need for a greater focus on Aboriginal language and culture" (p. 46). Other research focused directly on improved student learning outcomes. Guevremont and Kohen (2012), using data from the 2001 *Canadian Aboriginal Peoples Survey* indicated that "One of the intriguing findings of the current study was that even after controlling for child and family factors, speaking an Aboriginal language was associated with positive

school outcomes for young children" (p. 15). Similarly, in a presentation at the Improving the Educational outcomes of Aboriginal People Living Off-Reserve, held in Saskatoon, Bernard (2010), Executive Director, Mi'kmaw School Division, reported that early findings suggested that students in its language immersion program performed "at par or above when compared to students who were not speakers of the Mi'kmaw language" (p. 45).

Not all research findings support claims of improved learning outcomes. Brade, Duncan and Sokal (2003), working with a sample of 636 individuals, ages 30 to 49, drawn from the 1991 Aboriginal People's Survey, concluded that cultural involvement and Aboriginal teachers as role models were not related to improved educational achievement. They found that "with the exception of liking what was taught about Aboriginal people in school, number or schools attended, and facility with an Aboriginal language, the factors hypothesized related to level of education were not supported" (p. 246). Takayama (2008) found similar results when exploring non-traditional school types such as charter schools and Hawaiian language and culture based schools. This "preliminary research shows that, in general, there are no academic losses in Hawaiian-focused charters and Hawaiian language immersion schools for students of Hawaiian and non-Hawaiian ethnicities" (p. 271). Nevertheless, part of the issue surrounding the complexity and inconsistency of the literature relates to the differing objectives that characterize this body of literature. Demmert (2001) provided some clarity regarding this diversity in a major review of literature related to Indigenous student achievement. He identified key factors affecting student learning and suggested that research focus on two interrelated issues:

> (1) the struggles of a growing number of Native American communities to maintain or strengthen their traditional languages and cultural heritages and (2) the relationship between strengthening traditional Native identities and improving educational outcomes for Native children. (pp. 8-9)

Demmert (2001) first identified the destructive impact of forced assimilations and colonization upon Indigenous peoples and the compelling need for North American Indigenous communities to engage in an enhanced focus on language and culture. Secondly, a greater consideration of his second priority, the relationship between traditional Native identities and the improvement of student learning outcomes, shows that these factors are clearly interrelated. There is no question that a keen interest in improved student achievement issue exists in most Canadian jurisdictions, whether within First Nations or provincial systems of education.

There is, however, additional research that supports language and culture as a means of supporting Indigenous student learning outcomes. Dr. Willard Sakiestewa Gilbert, then President of the National Indian Education Association, spoke to the importance of cultural education when addressing a 2008 hearing of the United States Congress House of Representatives, Committee on Education

and Labor, Congressional Subcommittee on Early Childhood, Elementary and Secondary Education, "Current research demonstrates that cultural education can be successfully integrated in the classroom in a manner that would provide Native students with instruction in the core subject areas based on cultural values and beliefs" (p. 13). Gilbert also referenced research conducted at Northern Arizona University regarding increased integration of native language, culture and traditions in Bureau of Indian Affairs (BIA) elementary schools. This research "revealed increased student mastery of science and math concepts, deeper levels of student engagement in science and math and increased student achievement in math and science" (p. 13; see also Gilbert, 2011).

In a study in Canada, Gunn, Pomahac, Good Striker, and Tailfeathers (2010), reviewed 16 selected projects from the Alberta Initiative for School Improvement (AISI). They concluded that "nearly half of the projects placed an emphasis on cultural awareness. By educating teachers, staff, and non-Aboriginal students about FNMI (First Nations, Métis, Inuit) cultures, history, and language, it was reported that FNMI students received better instruction as well as experienced an enhanced sense of belonging" (p. 335).

Rosier and Holm (1980) conducted a study with Navajo students in a fulltime Navajo language school. The study explored the effect of bilingual instruction with Rock Point Community School students who learned to read in Navajo and who were then introduced to English in grade two. Their results on standardized achievement tests were compared to other students from Rock Point and other Navajo schools who learned to read using English as a Foreign Language (EFL).

> Navajo students who had been initially taught to read in Navajo seem, by the third grade, to read better in English than Navajo students who had been taught to read in English only.... Navajo students who had been initially taught arithmetic in Navajo seem, by the fourth grade, to [be] better in arithmetic…despite the slower pace of arithmetic instruction in the bilingual program. (p. 28, see also Reyhner, 1990)

Stiles (1997) found similar results in a comparison of four Indigenous language programs including the Cree Way in Quebec, the Hualapai in Arizona, Te Kohanga (Māori) in New Zealand, and the Pūnana Leo (Hawaiian) in Hawaii. She identified a number of positive outcomes including decreased drop-out rates, increased sense of culture and identity, and improved assessment. The value of early years' programming, as well as the importance of home and community support, was also demonstrated. Similar results regarding the role of Indigenous culture outside the school setting were found in other studies. A study of 196 fifth grade American Indian children located in the Midwest, conducted by Whitbeck, Hoyt, Stubben, and LaFromboise (2001) showed that traditional culture in the home positively influenced student achievement. Similarly, Coggins, Williams and Radin (1996), in research with 19 northern Michigan Ojibwa families, found that mothers' American Indian values had a positive effect on their children's

school academic and social performance.

Louis and Taylor (2001) studied an Inuit village in northern Quebec whose students were Inuktitut speakers. Their "findings point to the importance of baseline Inuktitut proficiency as a foundation for the critical transition to second-language education" (p. 133). Another study by Wright, Taylor, and Macarthur (2000) found similar results; children, who initially entered English or French instruction, rather than Inuktitut, suffered a slower rate of second-language acquisition. Wright and Taylor (1995) also identified a relationship between early Indigenous language instruction and personal and collective self-esteem.

An important dimension of any discussion of language and cultural programming relates to the development and use of cultural competencies. Alaska has invested significant resources in the development and implementation of standards for culturally relevant schools intended for use by state educational jurisdictions (Ray Barnhardt, personal communication, June, 2013). Similarly, the Department of Diné Education, Navajo Nation, recently adopted a set of Diné Cultural Standards that are intended for use within schools within their territory (Andrew Tah, personal communication, January, 2014). The Saskatoon Public School Division (2008) started a major initiative to develop a culturally responsive school division. The school division's *Final Report* provided an overview of the research and implementation work conducted by this school system. In summary, it is clear that language and culture play an important role in supporting improved educational success of Indigenous students. As Demmert (2001) indicated "congruency between the school environment and the language and culture of the community is critical to the success of formal learning" (p. 9).

Parent and Community Engagement

Based on our review of the research and our experience as teachers and administrators, maintaining effective parental and community engagement is always challenging. For example, a First Nations school administrator shared a story regarding the establishment of their band controlled school, indicating that when the school was first operating in a series of smaller buildings located within the community, excellent parent and community involvement existed. However, following the establishment of a new attractive school building located on the edge of the community this strong sense of support dissipated. The First Nations School administrator speculated the potential reasons for the change but had no clear answer. What was clear was that a barrier between the school and the parents and community had emerged.

One reason might be the previous experiences of Indigenous peoples with schooling. Steeves, Furata, Carr-Stewart and Ingleton (2015) stated that:

> As regards educational services, Canada followed a policy of assimilation, using children's education as a vital component of this strategy. Children were removed from their homes and put in residential schools to destroy a culture, language and way of life that was considered inferior. In an age of Empire, and the accompanying racism that char-

> acterized this era, First Nations people were to become like Europeans, leaving their previous way of life behind. Children would be key to ensuring this better future; therefore it was necessary to break the link between parents, community and children. Despite attempts by First Nations communities to resist, the Canadian government had set a clear direction of assimilation and control. (p. 5)

First Nations negotiated treaties with the British Crown in order to secure benefits from the Crown for the use of their land. Skills for adult training (post secondary) and elementary/secondary education were included in the treaty negotiations. Steeves, Carr-Stewart and Pinay (2013) suggested "The Chiefs and Headmen in agreeing to treat with the Crown sought to share their lands with the newcomers in exchange for services which would enable them to maintain their own ways and learn the skills of the newcomers" (p. 5).

Some suggested that schools continue to be instruments of assimilation and control. Freidel (1999), reporting on parent frustration with administrative/parent relations in an elementary school in Edmonton, Alberta, commented, "Perhaps low levels of parental involvement are a response to the cultural occupation that exists in public schools today" (p. 153). In research related to Inuit parental engagement in one Nunavut community, Berger (2009) identified frustrations from both parents and schools regarding the level and type of parental engagement. He concluded that if "people feel that the schools are lacking something, and especially if the lack results in a devaluing, ignoring, and assaulting of Inuit identity and culture, it should be expected that community support will not be optimal" (p. 89). Deyhle's (2009) work with Navajo parents and students in southeastern Utah certainly reinforce these findings. She found that the schools attended by Navajo students were dominated by a perspective that she termed 'manifest manners', a metaphor for dominance by the dominant white, Mormon community. One example relates to the importance of family. Notwithstanding its importance in Navajo culture, "choosing to be with one's families over careers was described as a tragic flaw and laziness" (p. xii).

Research also identified schools that managed to surmount these concerns. In case study research related to successful Aboriginal schools in Canada, entitled *Sharing Our Success: Ten Case Studies in Aboriginal Schooling*, Bell et al. (2004) indicated that strong educational partnerships with parents were important for reinforcing a sense of community ownership and pride in the school and the encouragement of solid learning expectations." Similarly, Leveque (1994), in a study of Native American students in Barstow, California, found that parent involvement was an important element influencing improved student learning. Melnechnko and Horsman (1998) also found similar outcomes: "Several times students talked about the support and encouragement their immediate and extended families gave them that helped influence their success at school" (pp. 9-10).

Kushman and Barnhardt's (2001) research in relation to community and parental influences involved a cross-case analysis of seven rural Alaska Native

communities. The abstract of their research findings serves as an excellent summary of how effective parent/community/school relations are constructed:

> First, reform efforts in small communities require an inside-out approach in which educators must first develop trusting relationships with community members, and then work with the community to design educational programs around the local place, language, and culture. Second, parents and teachers need to expand their conceptions of parent roles beyond the notion of parents supporting the school to include roles in which parents are active participants in school life and decisions. Third, school and district leaders must move from top-down to shared leadership so that the ownership for school reform is embedded in the community rather than with school personnel who constantly come and go. Finally, educators and educational reformers must recognize that education in rural Alaska has a larger purpose than teaching academic skills and knowledge. (Kushman & Barnhardt, 2001, p. 1)

Student Engagement and Retention

Raham (2010) argued the need to improve Indigenous secondary school graduation rates in Canada, indicating that the "high school graduation rate for the aboriginal lags 28% below the national average" (p. 4). Bishop, Berryman, Cavanagh and Teddy (2009) referenced the New Zealand experience and stated "the overall academic achievement level of Maori students is low; their rate of suspension from school is three times higher; they are over-represented in special education programmes for behavioural issues" (p. 734) as examples of some of the issues faced within New Zealand.

Indigenous educators have referenced their personal schooling experience and the need to 'park themselves at the door' when they entered the school. They experienced schooling as a negative, assimilative process that, whether deliberate or not, rejected their traditional values and culture. Battiste (2013) shared her experience, commenting, "I tried to stay under the radar of the teacher, not to be noticed or labeled dumb. Little is there I care to remember" (p. 17, see also Weenie, 2000). Deyhle (2009) reported on Navajo youth who "adopted strategies of resistance against school officials who demanded Indian youth judge themselves against their white peers; to act differently, look different, or have different life goals were signs of failure, of being a 'blanket' Indian" (p. xii). Deyhle indicated that one strategy for resistance was simply dropping out of school; in some cases, Navajo students actively resisted the pressure to conform and found themselves identified as problem students. Kirkness (2013), a Western Canadian Indigenous educator, commented on this tendency when discussing the implications on being a non-status Indian, which included being unable to attend a residential school; "I know that I would have been one of the push-outs who dared to speak her mind, which was not tolerated in those schools" (p. 17).

However, research supports the importance of language and culture in supporting student engagement. Deyhle (1995), based on decades of research with

Navajo youth, concluded that students who were grounded in their traditional tribal culture were also more academically successful. Similarly, Okagaki, Helling and Bingham (2009) questioned 67 American Indian undergraduate students concerning educational and ethnic beliefs as well as familial support for education. They found that "Belief in one's bicultural efficacy was positively correlated with American Indian students' ratings of academic identity and belief in the instrumental importance of school" (p. 157).

Some research has explored the conflicting pressures that parents and community placed on students. Deyhle (2009) for example, documented the importance placed on successful school completion, both at the secondary and post-secondary. However, she also observed that the desire of community to see students achieve success in the white, western world while simultaneously expecting adherence to traditional tribal values placed conflicting expectations on students. Similarly, Jackson and Smith (2001), while examining post-secondary transition experiences of 22 Navajo students, found that family connections, both positive and negative, had an important influence on their post-secondary transition experiences. Jackson, Smith, and Hill (2003) commented that despite support from family and community, "Native Americans raised on a reservation often face the difficulty of leaving a place of spiritual and cultural significance. Making a commitment to pursue a college degree can be seen as selling out to a different culture and way of life (p. 560). Raham (2009) also referenced this issue, commenting that "The evidence is conflicted on the degree to which family expectations and culture influence Aboriginal children's perseverance and success in school" (p. 29). Steeves (2009) indicated that "These influences ranged from positive support and encouragement to family pressure to stay close to home. Clear messages of home support were considered helpful; mixed messages were not" (p. 52).

Raham (2009) indicated that social and economic factors, poverty and health related issues, high mobility in urban areas, and long distances and seasonal activities in rural areas are contributing factors to poor graduation rates. Grissmer and Flanagan (2006) documented the role that poverty has on student learning outcomes. Similarly, the research findings of Lemstra and Neudorf (2008) conducted for the Saskatoon Health Region, reinforce the role of poverty. Steeves (2009) concluded that "There can be little doubt that the debilitating effects of poverty weigh hugely on Indigenous student achievement" (p. 53). He referenced Demmert's (2001) research indicating that it "outlines the important role played by language and culture, as well as poverty, resiliency, identity, sense of self and self-esteem, goal-setting and student motivation, communication styles, and language and cognitive skills as important characteristics that affect Native American student achievement" (p. 53). Raham (2009) identified a number of within school factors that impact on student retention: lack of supportive relationships; increasing skills gap; poor instructional and support services; perceived irrelevance of school; truancy, conflict and poor behaviour; and uninvolved parents.

Given these findings, what strategies exist to help address this unfortunate state of affairs? Raham (2009) began her discussion of student engagement and

retention with a reference to Royal and Rossi (1997) emphasizing the importance of relationship and community to student academic success and retention. Bishop, Berryman, Cavanagh and Teddy (2009) commenced research regarding the challenges faced by Māori secondary school students "by talking with them (and other participants in their education: families, principals and teachers) of what is involved in limiting and/or improving Māori students' educational achievement" (p. 735). They found that "the most common discursive positions taken by Māori students, their families and their school principals was that which placed classroom caring and learning relationships at the centre of educational achievement" (pp. 735-736).

Gwen Keith, founding Executive Director of the Mother Teresa Middle School, Regina, Saskatchewan, also prioritized the importance of caring relationships. She shared an anecdote of a parent at the recent Grade 8 graduation thanking the teachers for the amount of personal time that teachers and mentors spent with her child. Keith also identified a faith based school culture, high academic expectations, small class sizes, mentorship, close family relationships, extended learning time, teacher support, and evidence based decision making involving both students and staff as other important factors in supporting student success at Mother Teresa. (personal communication, June 2014). Keith further indicated that in-school supports, such as monitoring attendance, introducing native language and culture, personalized learning, homework and tutoring clubs, buddy systems, the presence of aboriginal staff, elder programs, and home outreach all had positive effects on student outcomes (personal communication, June 2014).

In summary, it appears that a number of strategies exist that can actively support improved student engagement and retention. But, from an educator's perspective, it is not surprising that the importance of relationship, caring and connection was dominant in the literature. As a colleague recently commented, good teaching has always meant meeting the needs of kids, including a caring relationship and whatever else students require to experience success.

Classrooms and Culturally Relevant Pedagogy

During presentations to the Canadian Senate Committee on Aboriginal Peoples in 2010 and 2014, Steeves reinforced the critical role of teachers working in classrooms with students. Reflecting on his comments during the 2010 presentation, Steeves (Parliament of Canada, 2014) stated:

> Fundamentally, what can we do to provide stability for that action to occur successfully? Nothing has changed from my point of view. We're currently doing this in Saskatchewan with New Zealanders who have identified Te Kotahitanga, probably the only large scale reform we have been able to find that actually produces student learning gains. It is all about that issue. Culture and language are very important, but in the end it is about the teacher working with students in classrooms, and teachers understanding and appreciating culture and language is part of that; it is critical to success. (p. 2)

These comments capture the essence of the most important aspect of improving Indigenous student learning – the nature of the relationship between teachers and students within the classroom. Chell, Steeves and Sackney (2009, pp. 17-23) discussed the important role that effective schools had on student achievement, further suggesting that "researchers have shown that teachers can have a powerful impact on students even if the school doesn't" (p. 23). They delineated research supporting this comment (Brophy & Good, 1986; Leithwood, Day, Sammons, Harris & Hopkins, 2006; Marzano, 2001, 2007; Mitchell & Sackney, 2009; Nye, Konstantopoulos & Hedges, 2004; Wright, Horn & Sanders, 1997), outlining some of the key factors related to classroom instruction that improved student achievement. Most readers will be very aware of the research surrounding effective instruction suffice it to say that these issues are vital if improved student learning is to occur. However, the body of research related to effective instruction is insufficient. If Indigenous students are to be effectively served, the research needs to expand to include a focus on culturally relevant pedagogy. For example, Perso (2012) commented that while "classroom teachers cannot be expected to attend to every strategy that works" (p. 84), nevertheless, "educators must become more bi-cultural, that is, we must better understand the belief systems and values of the primary culture of each of our students" (p. 84).

Demmert and Towner indicated that culturally based programs have six critical elements:

- Recognition and use of Native languages;
- Pedagogy that stresses traditional cultural characteristics and adult-child interactions;
- Teaching strategies that are congruent with traditional culture and contemporary ways of knowing and learning (opportunities to observe, practice and demonstrate skills);
- Curriculum based on traditional culture that recognizes the importance of Native spirituality and uses visual arts, legends, oral histories of the community;
- Strong Native community participation, including parents, elders and others in the planning and operation of the school; and,
- Knowledge and use of the social and political mores of the community. (2003, pp. 9-10)

Reinforcing these conclusions, Raham (2009) suggested that a synthesis of the literature identified the following common elements: appropriate curriculum and resources; First Nation language programs and teaching resources; a positive school culture, emphasizing respect and relationships; Elder programs, traditional celebrations, and cultural enrichment provided through affiliations with Aboriginal cultural centers and organizations; employment of Aboriginal staff; professional development for teachers related to cultural proficiency; effective strategies for communication with parents and dealing with attendance/lateness;

formal and informal structures for Aboriginal involvement in decision making; and varied assessment practices.

Notwithstanding these comments regarding successful practices related to culturally based pedagogy, Raham (2009) also referenced research by August, Goldenburg and Ruela (2006) "who conclude[d] the majority of CBE studies, while furnishing plausible claims for success, lack the ability to prove direct causality for achievement" (p. 27). One typical example is Kanu (2007). While reporting optimistic findings regarding the integration of Indigenous perspectives and improved Indigenous student achievement in a western Canadian high school, she stated that "microlevel classroom variables such as culturally responsive curriculum and pedagogy alone cannot provide a functional and effective agenda in reversing achievement trends among Aboriginal students" (p. 38). Ahe goes on to reference issues such as improving attendance, emphasizing the need to "explore the relationships between micro- and macro-level variables affecting schooling and the realization that meaningful and lasting intervention requires a systematic, holistic, and comprehensive approach" (p. 38).

As is apparent from earlier references in this paper, one factor that consistently appeared related to relationship. For example, Freed and Samson (2004), studying rural schools in western Alaska, reported on the importance of effective school/student and school/community relationships. Lipka et al. (2005), conducting ethnographic research with Yup'ik communities in Alaska, stated that they "identified several possible factors common to successful teachers and students. First and foremost was the long-term positive relationship between teachers and students that contributed to a classroom environment in which trust and mutuality were constructed over time" (p. 382). Lewthwaite and McMillan (2010) investigating learning success among Nunavut Inuit middle years students, referenced cultural contributors, and also that students "placed importance on teachers who cared not only for them as people, but also for their performance as learners" (p. 140).

MacIver (2012), reporting on data collected from 10 at risk youth in a Canadian urban centre, indicated that "9 out of 10 study participants identified various aspects of building relationships with their teachers as a significant influence in remaining engaged in school" (p. 159). She stated that "One participant spoke of 'bonding with her teacher' " while another "perceived that building a relationship between a teacher and student was important as it governed their ongoing working relationship and consequently the student's success" (p. 159). Perhaps the best example of the successful utilization of a culturally based pedagogy relates to a New Zealand secondary program, Te Kōtahitanga, which is based on a culturally relevant pedagogy of relationship (Bishop, Berryman, Wearmouth, Peter, & Clapham, 2012). Bishop and Berryman (2010) further indicated:

> Te Kōtahitanga is a research and professional development project that aims to support teachers to raise the achievement of New Zealand's indigenous Māori students in public/mainstream classrooms. An *Effective Teaching Profile*, developed from the voices of Māori students, their

> families, principals and some of their teachers, provides direction and focus for both the classroom pedagogy and the professional development. (p. 173)

Bishop, Berryman, Wearmouth, Peter and Clapham (2012), reporting on the findings from focus group interviews conducted with engaged and non-engaged Maori secondary students, parents, teachers and school administrators, stated:

> The students unanimously identified that it was the quality of in-class relationships and interactions they had with their teachers that were the main determinants of their educational achievement. In their narratives, students went on to suggest ways that teachers could create a context for learning in which Māori students' educational achievement could improve by changing the ways teachers relate to and interacted with Māori students in their classrooms. In other words, according to Māori students, what was needed to improve Māori students' achievement was for teachers to develop and adopt a relationship-based pedagogy in their classrooms. It was apparent to them that teachers must relate to and interact with Māori students in a manner different from the common practice if a change in Māori students' achievement was to occur. (p. 696)

They further reported that while teachers had positive intentions, most "identified what they saw as Māori students' deficiencies as being the main reason for their low achievement" (pp. 695-696). This was in contrast to the views of students, parents, school administrators and a minority of teachers. The findings of the focus group and interview research led the development of the Te Kōtahitanga program, which emphasized a culturally based pedagogy of relationship. Te Kōtahitanga reinforced the importance of what were termed agentic positioning by teachers and the need to reject deficit theorizing, in effect the belief by teachers and other that, due to social and economic pressures, Māori students were unable to experience academic success. In effect, teachers and others effectively concluded that there was no point in trying to engage Māori students – their efforts would be in vain. Based on research by Steeves, Furuta, Carr-Stewart and Ingleton (in press), it would appear that these assumptions, whether by teachers or others, are incorrect. Deficit theorizing only provides a rationale for failure to support students in their learning; it does not build towards success. Te Kōtahitanga appeared to be the only large scale reform effort with Indigenous students that actually demonstrated improved student learning outcomes (Bishop et al., 2009; Bishop et al., 2012).

In summarizing the impact of Te Kōtahitanga, a statement by Ray Barnhardt (personal communication, June, 2013), an Alaska academic, seemed to capture the reasons for Te Kōtahitanga's success: "You know it has taken 40 years but it is all these pieces. The cultural standard, the models, the school curriculum that is different, the process for assessing teacher performance; those things all go

together." Te Kotahitanga shows evidence of accomplishing this herculean task. It provides a 'road map' to others who are seeking ways to address the challenge of improving Indigenous student learning outcomes.

Effective Schools

Over the past year, the authors were fortunate to spend time interviewing school administrators in a number of exemplar schools located on or near the Navajo Nation. Three were secondary schools and two were elementary; additionally, one was a charter school, two were Bureau of Indian Education (BIE) grant schools, and two were public schools (public school divisions operate on Navajo territory). Despite the nature of the schools, a consistent pattern emerged of an effective school with high academic expectations, close working relationships with students, a focus on strong teaching staff, attention to cultural and language programming and an emphasis on evidence based decision. One individual, Donna Manuelito, a principal of a large secondary school in a major community, was also interviewed for this study. While she is committed to the issues referred to above, her initial comment was:

> I really think that it comes to understanding the kids. Where they are coming from? I grew up here. I am from this community. I have background—when I got my first Masters it was in cultural bilingual education. My second Masters was in educational leadership. Our current enrollment – we have 99 percent Native Americans, so we have to look at that background. (personal communication, February 2014)

These conclusions were reinforced in other studies of effective schools. Munns, O'Rourke and Bodkin-Andrews (2013) investigated the conditions for success of Aboriginal students of four schools, using a mixed methods approach. Their research identified the following themes as critical for success: strong community relationship; Aboriginal cultural spaces; Aboriginal people involved in the work of schools; Aboriginal perspectives and values prioritized and embedded in school and classroom curriculum; focus on quality teaching from an Aboriginal perspective; a shift from a wellbeing community mindset to one focused on a learning community mindset; targeted support for Aboriginal students; and relationships between teachers and students work. Munns, O'Rourke and Bodkin-Andrews acknowledged that "conditions of school success for Aboriginal learners are complex equations", further stating that "schools can make a difference for Aboriginal students and the article offers future directions for school communities to consider as they work on their own approaches to enhance social and academic outcomes" (p. 10).

A local example of an exemplar school is St Mary High School, Prince Albert Separate Catholic School Division. Stelmach (2010) in her research identified two major themes: "We recognize in every child the face of Christ" and "It's a kick in policy, not a kick out policy" (p. 33). With respect to the first major theme, three key reasons for Indigenous student success in St. Mary were identified:

an affirming school culture; a supportive and responsive school environment; and the on-going establishment of meaningful relationships with students and parents. The 'kick in' policy was also manifested in three ways: expecting high achievement for all students; balanced structure and flexibility; and managing barriers through academic and non-academic support.

Raham's (2009) research supported these results, including the identification of a secure and welcoming school climate, curriculum and programs grounded in Aboriginal culture, involvement of parents and community, multiple programs and supports for students and families, high expectations for students and staff , and the linking of assessment to instructional and planning decisions as key to school success. A number of other studies spoke to the challenges involved in creating successful school environments. Raham also commented on the critical role of the principal, suggesting that "The role of the principal is highly complex, requiring a blend of leadership and management skills, a deep knowledge of curriculum and instruction, and a commitment to educational success for all students" (p. 44). Hohepa and Robson (2008) also referenced the principal's role, particularly from the perspective of Māori leadership, suggesting that "Māori principals...have additional duties and accountabilities linked to educational achievement and well-being of their Māori students enjoying success as Māori" (p. 36).

Others explored the complexities involved in ensuring successful school programs. McNaughton and Mei Kuin Lai (2009) referenced a three stage model of school change, while Fenimore-Smith (2009), reported on the development of a reserve based charter school, indicating that the research findings " foregrounds the complexity of factors affecting both the development of a culturally grounded charter school and the achievement of students attending the school" (p. 1). She further commented that, given the situation of the school within the reserve, "it would seem that development of a culturally relevant academic program would be relatively easy. This proved not to be the case. That is not to say there were no successes; however, a number of factors conspired to confound the process" (p. 5).

Similar experiences are reported by Baydala et al. (2009) who found minimal gains in student outcomes in a newly founded Alberta charter school. Goddard and Foster (2002) discussed the experiences of two First Nations schools in northern Alberta that chose to join the provincial system. In both cases, "there was a tendency in both schools to support the status quo.... We found a striking dissonance between this experience and that which might be considered useful and appropriate in a northern community" (p. 16). In short, some schools have experienced success in supporting Indigenous students' learning outcomes. But this is a highly complex endeavour, with no guarantee of success; dedication, leadership and a whole range of critical interventions are necessary for success.

The Role of Assessment

In a recent meeting, Dr. Shauneen Pete, Executive Lead, Indigenization, University of Regina was questioned regarding her opinion of the role for assessment

within schools. Her answer encapsulated the current research; while she indicated concern regarding the inappropriate use of standardized and culturally inappropriate assessment measures, she was equally clear that an important role existed for the appropriate use of assessment information (personal communication, May, 2014). Dr. Pete is not alone in her comments. Over the years, the writers have heard numerous educators address the issue of assessment in similar ways. In one case, an Indigenous Director of Education for a Saskatchewan tribal council stated that assessment information was vital if the system was to be able to respond effectively to the need to improve student learning outcomes (Don Pinay, personal communication, 2006). In another, Bishop, Berryman, Wearmouth, Peter and Clapham (2012) made clear the commitment to an evidence based approach in their description of the Te Kotahitanga program. Recently, Gwen Keith reinforced the importance of using data and evidence based decision making to guide their work within the school (personal communication, June 2014). From a similar perspective, Richards, Hove, and Afolabi (2008), while discussing the Kelowna Accord, commented that "'Governments pursue goals that are measured' is an old maxim of public policy" (p. 2). To quote another public sector maxim, 'what gets measured gets done.' Raham (2009) captured this sentiment when she stated that "improving schools and systems gather performance information and use it to assist in gap analysis, improvement planning, and resource allocation" (p. 9). Other Canadian research supports these conclusions. In case study research involving 20 exemplar Indigenous schools across Canada, Bell et al. (2004) and Fulford, Daigle, Stevenson, Tolley and Wade (2007) both found assessment practices were used for a variety of purposes. Bell et al. (2004) also found that "some schools utilized the data collected to set annual improvement goals, to set budgets, allocate resources, and determine staffing requirements…assessment data was utilized as the basis for strategic planning, designed to improve long-term success" (p. 310). They commented that "The availability of standardized data is an invaluable tool for schools in communicating their specific needs to educational authorities, governing bodies, parents and the public" (p. 310).

Both Bell et al. (2004) and Fulford et al. (2007) supported the appropriate use of assessment practices. However, recognizing the need for culturally appropriate measures, They also recommended the development of "holistic measures appropriate to Aboriginal programs; and that this data similarly be publicly available and incorporated into annual growth plans" (p. 324). Bell's (Bell et al., 2004) final comments regarding 'holistic measures appropriate to aboriginal Programs' speaks to the second issue raised by both Dr. Pete and the research literature – concerns about the inappropriate use of standardized and culturally inappropriate assessment measures. For example, the Canadian Council of Learning (CCL) (2007) suggested the need for a more holistic approach to Indigenous assessment, commenting that, "there is no broadly accepted framework for measuring how First Nations, Inuit and Métis learners are doing across the full spectrum of lifelong learning" (p. 29). In 2009, the CCL published research addressing this concern, with the Holistic Lifelong Learning Measurement Framework based on the "underlying structure of the First Nations, Inuit and Métis Holistic Lifelong

Learning Models that were first published in 2007 by the Canadian Council of Learning (CCL)" (p. 4).

Issues related to inappropriate use of standardized and culturally inappropriate measures received widespread attention within the published research literature. McCarty (2009) commented that:

> Evidence from Native American contexts shows little or no post-NCLB gap reduction and/or illusory gains. These studies also suggest that high-stakes testing can lead to score manipulation, test administration improprieties, teaching to the test, the de-skilling of students and teachers through prescriptive reading routines, and the elimination of low-stakes subject matter, including Native language and culture instruction. (p. 20)

Nelson-Barber and Trumbull (2007), referencing recent federal American government initiatives such as NCLB, indicated "there is little evidence that these promises of higher standards of effectiveness in the classroom and greater teacher accountability are translating into more equitable opportunities for Indigenous children" (p. 132, see also Nelson-Barber this volume). They further suggested that a likely outcome of NCLB may be a move by educators "further away from culturally congruent curriculum, instruction, and assessment rather than increasing their use – despite all the evidence of their value" (p. 134).

Another issue reported in the literature relates to culturally inappropriate assessment measures. Nelson-Barber and Trumbull (2007) indicated that "it is clear that research on new approaches to assessment design and use that consider the role of culture in learning and assessment are needed" (p. 142). From an Australian perspective, Klenowiski (2009), while acknowledging that differences in performance may be not be due to test bias alone but also "because of Indigenous students' differing access to learning, different social, cultural contexts or real differences in their attainment" (p. 85), goes on to state that the "intention of culture-fair assessment is to design assessments so that no one particular culture has an advantage over another" (p. 85).

In closing, it seems appropriate to reference Dr. Pete's initial comments regarding assessment. While an important role exists for the assessment information, it must be balanced by concern regarding the inappropriate use of standardized and culturally inappropriate assessment measures. Clearly, more work remains to be done.

Retention/Support to Teachers/Administrators

A principal from the Northern Lights School Division (NLSD) captured the essence of the need for teacher retention and engagement:

> I think, when you have teachers, particularly in the North, who have built relationships with their students, with their parents, with their communities, I think you have a much better learning environment for students.

> There is an element of trust. Students probably, may not get involved in behaviors that will challenge the authority of those teachers and of course if you have teachers who are in a continual process of improvement, then over a course of several numbers of years they are going to continually improve their instruction and as such improve achievement in their classrooms. (personal communication, August, 2012)

This comment, drawn from a focus group/interview study of teacher retention and support conducted for the NLSD by Steeves, Carr-Stewart, and Furuta (2013), was reinforced by another statement from a young teacher.

> You leave and then the next year another person is there that doesn't really fully know what they are doing and then the next year someone else is there. I think that it reflects on their behavior, their level of trust and their defiance as well. It is really important to kind of have reasons or ways to make us want to stay for longer. (personal communication, November, 2012)

Leithwood, Day, Sammons, Harris, and Hopkins (2006) stated that "classroom factors explain more than one-third of the variation in pupil achievement" (p. 4). Wright, Horn and Sanders (1997) indicated that "The most important factor affecting student learning is the teacher.... Effective teachers appear to be effective with students of all achievement levels, regardless of the level of heterogeneity in their classrooms" (p. 63).

An Alaskan study (Adams, 2010), that investigated the benefits of mentoring programs for new teachers working in isolated Alaskan Indigenous communities, made clear the importance of both support to new teachers and the relationship between student achievement and teacher experience. Adams (2010) indicated that:

> Results show that although mentoring new teachers did not bring the students' standardized scores of new teachers up to the same level as students in veteran classes, they are much closer than expected based on past research...Thus, mentoring shows promising results to start closing the achievement gap typically seen between the students of new and veteran teachers. (p. 1)

This claim is supported by NLSD school administrators. For example, one principal commented that "It takes you about 3 years after they graduate to get a teacher that is proficient—that is classroom proficient… Oft times when they get proficient they want to move" (personal communication, August, 2012). Another administrator summed up the issue with the statement "That is part of recruitment too I think. Keeping the people there. There is more growth in our literacy and numeracy goals when we retain them" (personal communication, August, 2012). Steeves, Carr-Stewart and Furuta (2013) stated that "These com-

ments reinforce research findings regarding the relationship between length of teacher tenure and student achievement. It will be difficult, if not impossible, to meaningfully improve student achievement in the absence of well trained, experienced teachers" (p. 8).

Raham (2009) reinforced the importance of initial teacher preparation, teacher induction and mentoring, professional development and supports and resources. Teachers and administrators from the NLSD (Steeves, Carr-Stewart & Furuta, 2013) also referenced these issues, suggesting the need for recruitment from culturally similar institutions; from local programs and universities; and for improved orientation, mentoring and support programs for new teachers. For example, one individual stated that:

> I think they need to know a lot about community. They need some strong orientation in terms of—just basic understandings about Aboriginal people for instance. The social, historical, economic things. They don't have that proper history. They are coming in with a different world view, a different set of expectations.... They need to have some sense of the languages to be able to communicate with elders and community people for example. If they are just sticking around in their teacherages doing nothing after school you are not really actively interested in the community in which you are working.

Another teacher who emphasized the need for culturally appropriate instructional strategies stated that:

> Something that struck me I think what would have been nice if there had been some mandatory PD [Professional Development] in terms of how to teach in different context. Teaching First Nations students, A; and B just the different life up here and how that works. I think it would make us more successful in the classroom and make learning more successful for the students. (Steeves, Carr-Stewart, & Futura, 2013, pp. 20-21)

When interviewed for this study, Dr. Joe Martin also emphasized these factors, commenting that "I tried to keep my salary scale the same or better than any other school district. I tried to provide some other kinds of incentives like free cable TV, free internet access, a very nice carport, a nice backyard with grass as a way to attract quality teachers" (personal communication, November, 2013).

Bases upon the literature and focus group/interview results, Steeves, Carr-Stewart and Furuta (2013) provided a number of recommendations. Some of the most critical are outlined below:

- Consider issues related to recruitment and retention within the context of improved student achievement.
- Explore a variety of 'hygiene' issues related to teacher recruitment and retention.

- Lobby provincial government agencies to increase the number of NORTEP [Northern Teacher Education Program] – and more generally TEP [Teacher Education Program] seats – and provide funding for the training of high school teachers.
- Consider a variety of strategies to improve the recruitment of teachers.
- Consider strategies to improve induction/orientation programs.
- Consider the development of more substantial teacher induction programs that provide university credit. (pp. 21-25)

Given the critical contribution that teachers make to student learning, the incremental investment required to encourage an optimal learning environment for Aboriginal students is a wise investment. If teachers are to demonstrate the technical skills, cultural knowledge and student relationships required for the successful improvement of Indigenous student learning outcomes, then consideration of improved teacher retention and engagement strategies is necessary.

Conclusion

Attempting to ensure a positive future for youth has long been an important goal for Indigenous communities. Documents relating to the negotiations of the Numbered Treaties (1871-1921) indicated that much time was spent on discussing education. In reference to education it was clear from both the Crown representatives and the First Nations Chiefs and Headmen that western education was not intended to supplant traditional Indigenous educational practices. Education of First Nations students would ensure they received the knowledge of their parents and communities, as well as western education to enable them to grow and prosper (Morris, 1990/1881). In 1972, the National Indian Brotherhood demanded that First Nations children be able to survive and have:

> Pride [which] encourages us to recognize and use our talents, as well as to master the skills needed to make a living. Understanding to our fellowmen will enable us to meet other Canadians on an equal footing, respecting cultural differences while pooling resources for the common good. Living in harmony with nature will insure preservation of the balance between man and his environment which is necessary for the future of our planet, as well as for fostering the climate in which Indian Wisdom has always flourished. (NIB, 1972, p. 1)

For the National Indian Brotherhood this would ensure that First Nations students had the "preparation for total living" and "as a means of enabling us to participate fully in our own social, economic, political and educational advancement" (p. 3). Research supports these aspirations: if Indigenous students, and their communities, are to build towards a positive future, attention must be paid to traditional culture, language and values. As the factors identified within this conceptual framework suggest, attention to best practices within both western

and traditional models of education are required if Indigenous students are to experience success. And like every child, this success is not only deserved but vitally important for the future of the broader society. A failure to consider the clear direction provided by this research will not only impair the future of young Indigenous students but will also diminish the broader society in which these young people reside. A moral and practical commitment to ensuring these young people are treated equitably will enhance both their futures and that of the wider society. Fairness and practicality demands no less.

References

Adams, B. L. (2010, May). *Connecting mentoring to student achievement in Alaska: Results and policy implications*. Paper presented at the Annual Meeting of the American Educational Research Association, University of Florida, Gainesville.

August, D., Goldenburg, C. & Rueda, R. (2006). Native American children and youth: Culture, language and literacy. *Journal of American Indian Education, 45*(3), 24-37.

Battiste, M. (2013). *Decolonizing education: Nourishing the learning spirit.* Saskatoon, Canada: Purich.

Baydala, L., Rasmussen, C., Bisanz, J., Kennedy, M., Weigum, N., Worrell, S., & Charchun, J. (2009). Evaluating success: Mother Earth's Children's charter school longitudinal study. *Canadian Journal of Native Education, 32*(2), 78-92.

Bell, D., Anderson, K., Fortin, T., Ottoman, J., Rose, S., Simard, L., et al. (2004). *Sharing our success: Ten case studies in Aboriginal schooling*. Kelowna, BC: Society for the Advancement of Excellence in Education.

Berger, P. (2009). Inuit language, culture, and parental engagement in schooling in one Nunavut community. *Canadian Journal of Native Education, 32*(1), 73-89.

Bernard, E. (2010). *Mi'Kaw self governance in education*. Paper presented to the Colloquium on Improving Educational Outcomes of Aboriginal People Living Off-Reserve. Saskatoon, SK.

Bishop, R. & Berryman, M. (2010). Te Kotahitanga: culturally responsive professional development for teachers. *Teacher Development, 14*(2), 173-187.

Bishop, R., Berryman, M., Cavanagh, T., & Teddy, L. (2009). Te Kotahitanga: Addressing educational disparities facing Maori students. *Teaching and Teacher Education, 25*, 734-742.

Bishop, R., Berryman, M., Wearmouth, J., Peter, M., & Clapham, S. (2012). Professional development, changes in teacher practice and improvements in Indigenous students' educational performance: A case study from New Zealand. *Teaching and Teacher Education, 30*, 1-12.

Brade, C. R., Duncan, K. A., & Sokal, L. (2003). The path to education in a Canadian Aboriginal context. *Canadian Journal of Native Education, 27*(2), 235-248.

Brophy, J., & Good, T. (1986). Teacher behaviour and student achievement. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 328-375). New York: Macmillan.

Canadian Council on Learning. (2007). *State of learning in Canada: No time for complacency.* Ottawa, ON: Author. Retrieved from: http:// www.ccl-cca.ca

Canadian Council on Learning. (2009). *The state of Aboriginal learning in Canada: A holistic approach to measuring success*. Ottawa, ON: Author. Retrieved from http://www.ccl-cca.ca/pdfs/StateAboriginalLearning/SAL-FINALReport_EN.PDF

Chell, J., Steeves, L., & Sackney, L. (2009). Community and within-school influences that interrelate with student achievement: A review of the literature. In R. Dolmage & Wanda Lyons (Eds.), *Improving student achievement: A literature review* (pp. 5-38). (A Report for the Saskatchewan Ministry of Education). Regina, SK: Saskatchewan Instructional Development & Research Unit (SIDRU).

Coggins, K., Williams, E., & Radin, N. (1996). *The traditional tribal values of Ojibwa parents and the school performance of their children: An exploratory study*. Ann Arbor, MI: University of Michigan. (ERIC Document Reproduction Service No. ED400116).

Demmert, W. G. (2001). *Improving academic performance among Native American Students: A review of the research literature*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED463917)

Demmert, W. G. (2011). What is culture-based education? Understanding pedagogy and curriculum. In J. Reyhner, W. S. Gilbert & L. Lockard (Eds.), *Honoring our heritage: Culturally appropriate approaches for teaching indigenous students* (pp. 1- 9). Flagstaff, AZ: Northern Arizona University. Retrieved from http://jan.ucc.nau.edu/~jar/HOH/HOH-1.pdf

Demmert, W. G., & Towner, J. C. (2003). *A review of the research literature on the influences of culturally based education on the academic performance of Native American students.* Portland, OR: Northwest Regional Educational Laboratory. Retrieved from http://educationnorthwest.org/sites/default/files/cbe.pdf

Deyhle, D. (1995). Navajo youth and Anglo racism: Cultural integrity and resistance. *Harvard Educational Review, 65*(3), 403-444.

Deyhle, D. (2009). *Reflections in place: Connected lives of Navajo women*. Tucson, AZ: University of Arizona Press.

Fenimore-Smith, J. K. (2009). The power of place: Creating an Indigenous charter school. *Journal of American Indian Education, 48*(2), 1-15.

Freed, C. D., & Samson, M. (2004). Native Alaskan dropouts in Western Alaska: Systemic failure in Native Alaskan schools. *Journal of American Indian Education, 43*(2), 33-44.

Friedel, T. L. (1999). The role of Aboriginal parents in public education: Barriers to change in an urban setting. *Canadian Journal of Native Education, 23*(2), 139-157.

Fulford, G., Daigle, J. M., Stevenson, B., Tolley, C., & Wade, T. (2007). *Sharing our success: More case studies in Aboriginal schooling*. Kelowna, BC: Society for the Advancement in Excellence.

Gilbert, W.W. (2008). On challenges facing Bureau of Indian Education schools in improving student achievement. Testimony before the U.S. Congress House of Representatives, Committee on Education and Labor Congressional Subcommittee on Early Childhood Elementary and Secondary Education. Rayburn Office Building, Washington, DC. Sept. 9, 2008. p. 4.

Gilbert, W. S. (2011). Developing culturally based science curriculum for Native American classrooms. In J. Reyhner, W. Sakiestewa Gilbert, & L. Lockard (Eds.), *Honoring our heritage: Culturally appropriate approaches for teaching Indigenous students* (pp. 43-56). Flagstaff, AZ: Northern Arizona University.

Goddard, J. T., & Foster, R. Y. (2002). Adapting to diversity: Where cultures collide—educational issues in Northern Alberta. *Canadian Journal of Education, 27*(2), 1-20.

Goulet, L. (2001). Two teachers of aboriginal students: Effective practice in socio-historical realities. *Canadian Journal of Native Education, 25*(1), 68-89.

Grissmer, D., & Flanagan, A. (2006). *Improving the achievement of Tennessee students. Analysis of the National Assessment of Education Progress.* Santa Monica, CA: Rand.

Guevremont, A., & Kohen, D. E. (2012). Knowledge of an Aboriginal language and school outcomes for children and adults. International *Journal of Bilingual Education and Bilingualism, 15*(1), 1-27.Gunn, T. M., Pomahac, G., Good Striker, E., & Tailfeathers, J. (2010). First Nations, Métis and Inuit education: The Alberta initiative for school improvement approach to improve Indigenous education in Alberta. *Journal of Educational Change, 12,* 323-345.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York: Routledge.

Hermes, M. (2007). Moving toward the language: Reflections on teaching in an Indigenous-immersion school. *Journal of American Indian Education, 46*(3), 54-68.

Hohepa, M. K., & Robson, V. (2008). Maori and educational leadership: Tu Rangatira. *ALTERnative, 2*, 20-36.

Jackson, A. P., & Smith, S. A. (2001). Postsecondary transitions among Navajo Indians. *Journal of American Indian Education, 40*(2), 28-47.

Kanu, Y. (2007). Increasing school success among Aboriginal students: Culturally responsive curriculum or macrostructural variables affecting schooling? *Diaspora, Indigenous, and Minority Education, 1*(1), 21-41.

Kirkness, V. J. (2013). *Creating space: My life and work in Indigenous education.* Manitoba, MB: University of Manitoba Press.

Klenowski, V. (2009). Australian Indigenous students: Addressing equity issues in assessment. *Teaching Education, 20*(1), 77-93.

Kushman, J. W., & Barnhardt, R. (2001). Reforming education from the inside-

out: A study of community engagement and educational reform in rural Alaska. *Journal of Research in Rural Education, 17*(1), 12-26.

Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Seven strong claims about successful school leadership.* Nottingham, UK: National College for School Leadership.

Lemstra, M., & Neudorf, C. (2008). *Health disparity in Saskatoon: Analysis to intervention.* Saskatoon, SK: Saskatoon Health Region.

Leveque, D. M. (1994). *Cultural and parental influences on achievement among Native American students in Barstow Unified School District.* Paper presented at the National Meeting of the Comparative and International Educational Society, San Diego, CA. (ERIC Document Reproduction Service No. ED382416)

Lewthwaite, B., & McMillan, B. (2010). "She can bother me, and that's because she cares": What Inuit students say about teaching and learning. *Canadian Journal of Education, 33*(1), 140-175.

Lipka, J., Hogan, M. P., Webster, J. P., Yanez, E., Adams, B., Clark, S., & Lacy, D. (2005). Math in a cultural context: Two case studies of a successful culturally based math project. *Anthropology and Education Quarterly, 36*(4), 367-385.

Louis, W., & Taylor, D. M. (2001). When the survival of a language is at stake: The Future of Inuttitut in Arctic Quebec. *Journal of Language and Social Psychology, 20*(1 & 2), 111-142.

MacIver, M. (2012). Aboriginal students' perspectives on the factors influencing high school completion. *Multicultural Perspectives, 14*(3), 156-162.

Marzano, R. J. (2001). *Classroom instruction that works: Research strategies for increasing student achievement.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J. (2007). *The art and science of teaching.* Alexandria, VA: Association for Supervision and Curriculum Development.

McCarty, T. L. (2009). The impact of high-stakes accountability policies on Native American learners: Evidence from research. *Teaching Education, 20*(1), 7-29.

McNaughton, S., & Kuin Lai, M. (2009). A model of school change for culturally and linguistically diverse students in New Zealand: A summary and evidence from systematic replication. *Teaching Education, 20*(1), 55-75.

Melnechenko, L., & Horsman, H. (1998). *Factors that contribute to Aboriginal students' success in school in grades six to nine.* Paper prepared for Saskatchewan Education, Regina, SK.

Merasty, G., Bouvier, R., & Hoium, D. (2013). *The Joint Task Force on Improving Education and Employment Outcomes in Saskatchewan.* Saskatoon, SK: Saskatchewan Educational Leadership Unit.

Morris, A. (1991/1880). *The treaties of Canada and the Indians of Manitoba and the North West Territories, including the negotiations on which they were based, and other information relating thereto.* Calgary, AB: Fifth House Ltd.

Munns, G., O'Rourke, V., & Bodkin-Andrews, G. (2013). Seeding success: Schools that work for Aboriginal students. *The Australian Journal of Indigenous Education, 42*, 1-11.

National Indian Brotherhood. (1972). *Indian control of Indian education*. Ottawa, ON: Author.

National Panel on First Nation Elementary and Secondary Education. (2012). *Nurturing the learning spirit of First Nation students: The report of the National Panel on First Nation Elementary and Secondary Education for Students on Reserve.* Ottawa, ON: National Panel on First Nation Elementary and Secondary Education. Retrieved from: http://www.afn.ca/uploads/files/education2/national-panel.pdf

Nelson-Barber, S., & Trumbull, E. (2007). Making assessment practices valid for Indigenous American students. *Journal of American Indian Education, 46*(3), 132-143.

Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? *Educational Evaluation and Policy Analyses, 26*(3), 237-257.

Okagaki, L., Helling, M. K., & Bingham, G. E. (2009). American Indian college students' ethnic identity and beliefs. *Journal of College Student Development, 50*(2), 157-176

Parliament of Canada (2014). *The Senate standing committee on Aboriginal peoples: Evidence.* Retrieved from http://www.parl.gc.ca/content/sen/committee/412%5CAPPA/51327-E.HTM

Perso, T. F. (2012). *Cultural responsiveness and school education: With particular focus on Australia's first peoples: A review and synthesis of the literature.* Darwin, Northern Territory, Australia: Menzies School of Health Research.

Raham, H. (2009). *Best practices in Aboriginal education: A literature review and analysis for policy directions.* Prepared for the Office of the Federal Interlocutor, Indian and Northern Affairs.

Raham, H. (2010). *Policy levers for improving outcomes for off-reserve students.* Paper presented to the Colloquium on Improving Educational Outcomes of Aboriginal People Living Off-Reserve. Saskatoon, SK.

Reyhner, J.A. (1990). A description of the Rock Point Community School bilingual program. In J. Reyhner (Ed.), Effective language education practices & Native language survival (pp. 95-106). Choctaw, OK: Native American Language Issues.

Richards, J., Hove, J., & Afolabi, K. (2008). *Explaining the Aboriginal-non-Aboriginal gap in student performance in B.C. schools.* Paper presented to the Annual Meeting of the Canadian Economics Association. University of British Columbia, Vancouver, BC.

Rosier, P., & Holm, W. (1980). *The Rock Point experience: A longitudinal study of a Navajo school program (Saad Naaki Bee Na'nitin)*. Bilingual education series 8, papers in applied linguistics. Washington DC: Center for Applied Linguistics. (ERIC Document Reproduction Service No. ED195363).

Royal, M., & Rossi, R. (1997). *Schools as communities*, ERIC Digest. http://

eric.uoregon.edu/publications/digests/digest111.html)

Saskatoon Public School Division (2008). *Developing a culturally responsive school division final report*. Retrieved from http://www.education.gov.sk.ca/culturally-responsive-

Silburn, S. R., Nutton, G. D., McKenzie J. W., & Landrigan, M. (2011). *Early years English language acquisition and instructional approaches for Aboriginal students with home languages other than English: A systematic review of the Australian and international literature.* Darwin, NorthernTerritory, Australia: Menzies School of Health Research.

Steeves, L. (2009). First Nations, Métis, and Inuit children and student achievement: A review of the literature. In R. Dolmage & Wanda Lyons (Eds.), *Improving student achievement: A literature review* (pp. 38-61). (A Report for the Saskatchewan Ministry of Education). Regina, SK: Saskatchewan Instructional Development & Research Unit (SIDRU).

Steeves, L., Carr-Stewart, S., & Furuta, S. (2013). *Challenges and opportunities: Teacher recruitment and retention in Northern Saskatchewan.* Unpublished manuscript.

Steeves, L., Carr-Stewart, S., & Pinay, D. (2013). The Kokum connection: Reclaiming First Nation education (pp. 65-76). In J. Reyhner, J. Martin, L. Lockard, & W. S. Gilbert (Eds.), *Honoring our children: Culturally appropriate approaches for teaching Indigenous students* (pp. 53-64). Flagstaff, AZ: Northern Arizona University.

Steeves, L., Furuta, S., Carr-Stewart, S., & Ingleton, T. (2015). The case for culture and language. In J. Reyhner, J. Martin, L. Lockard & W.S. Gilbert (Eds.), *Honoring our elders* (pp. 1-24). Flagstaff, AZ: Northern Arizona University.

Stelmach, B. (with Bullin, C., Hardie, R., Pearce, J., & Rohr, B.). (2010). *Prince Albert Roman Catholic Separate School Division #6 Aboriginal student achievement project: Final report.* Saskatoon, SK: Saskatchewan Educational Leadership Unit (SELU).

Stiles, D. B. (1997). Four successful Indigenous language programs. In J. Reyhner (Ed.), *Teaching Indigenous languages* (pp. 248-262). Flagstaff, AZ: Northern Arizona University. (ERIC Document Reproduction Service No. ED415079).

Takayama, B. (2008). Academic achievement across school types in Hawaii: Outcomes for Hawaiian and non-Hawaiian students in conventional public schools, Western-focused charters, and Hawaiian language and culture-based schools. *Hulili, 5.* Honolulu, HI: Kamehameha Schools, Research and Evaluation Division.

Walton, F., Favaro, B., & Goddard, T. (2009). *Promoting educational success for Mi'kmaq learners on Prince Edward Island.* Retrieved from http://www.mcpei.ca/files/Promoting_Educational_Success_Final_Report.pdf

Weenie, A. (2000). Post-colonial recovering and healing. In J. Reyhner, J. Martin, L. Lockard, & W.S. Gilbert (Eds.), *Learn in beauty: Indigenous education for a new century* (pp.65-70). Flagstaff, AZ: Northern Arizona University.

Retrieved from http://jan.ucc.nau.edu/~jar/LIB/LIB6.html

Whitbeck, L. B., Hoyt, D. R., Stubben, J. D., & LaFromboise, T. (2001). Traditional culture and academic success among American Indian children in the upper Midwest. *Journal of American Indian Education, 40*(2), 48-60.

Wright, S. P., Horn, S. P., & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education, 11*, 57-67.

Wright, S., & Taylor, D. (1995). Identity and the language of the classroom: Investigating the impact of heritage versus second language instruction on personal and collective self-esteem. *Journal of Educational Psychology, 87*(2), 241-52.

Wright, S., Taylor, D. & Macarthur, J. (2000). Subtractive bilingualism and the survival of the Inuit language: Heritage versus second-language education. *Journal of Educational Psychology, 92*(1), 63-84.

Métis and Ontario Education Policy: Educators Supporting Métis Holistic Lifelong Learning[1]

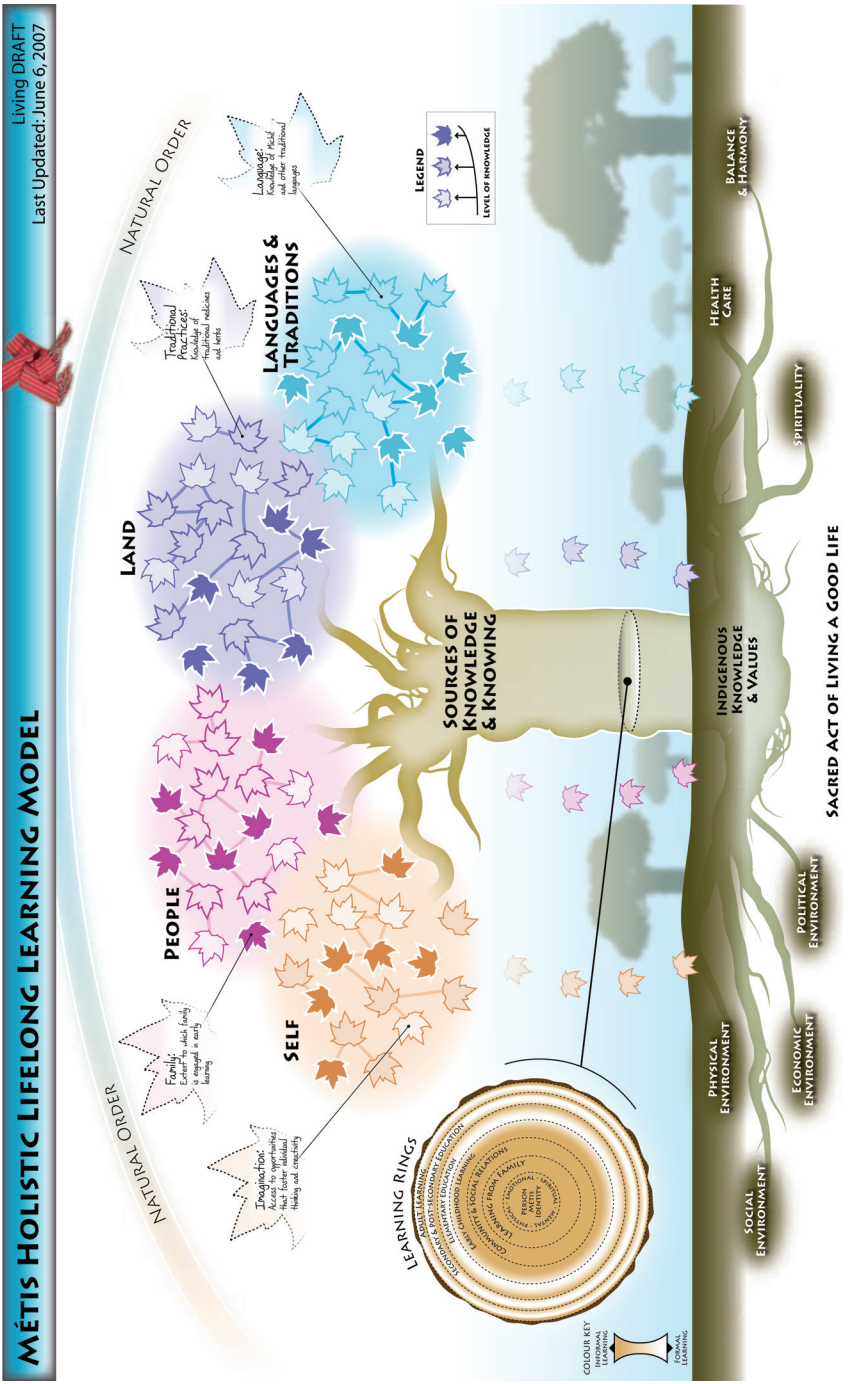
Jonathan Anuik and Laura-Lee Kearns

In 2007, Ontario's Ministry of Education published the *First Nation, Métis and Inuit Education Policy Framework*, with Métis cooperating in its development. The *Framework* appeared the same year as Métis published the Métis Holistic Lifelong Learning Model. We argue that those who are engaged in the *Framework*'s implementation understand it as a foundational teaching model. We see some teachers and educational administrators using the teachings of the model to live out the policy in their practices. Integral to living the policy is nourishing the learning spirit of the Métis as set forth in their own holistic model of learning. Three parts of the model that educators, who we profile from our survey and interviews, use in practice are: Self and People; Indigenous Knowledge and Values; and Sources of Knowledge and Knowing. Self and People represents a recognition that educators work in concert with Métis. Indigenous Knowledge and Values are teachings and ways of being in classrooms and schools. Sources of Knowledge and Knowing are roots educators, their students, and the forest of Métis learners carry when they teach and learn. The educators whose stories we share show us how educators responsible for Indigenous education policy mandates need to consider Métis at the school community level. These educators also see themselves as nurturers whose impact is felt by everyone when one reflects on Indigenous spirituality, history, teachings, and language and their affects on students. Finally, educators ask us to recognize identity and self-identification as fluid.

In 2007, Ontario's Ministry of Education launched its *First Nation, Métis, and Inuit Education Policy Framework*, the same year as the publication of the Métis Holistic Lifelong Learning Model, a stylized graphic of a tree (see Figure 1) that represents the learner in relation to a forest of Métis that share teachings about learning. Although they were two separate initiatives, the *Framework* and the Model ask us to recognize the presence of Métis learners in schools. The two items show Métis students, families, and communities have learning systems. To be effective as a yardstick to improve Métis learning in Ontario's schools, educators must understand the teachings in the model as a guide to work with Metis children, youth, families and communities.

The Métis in Canada are one of three distinct Aboriginal groups recognized as having constitutional rights, and the Canadian government recognizes First Nations, Métis, and Inuit as Indigenous people. The Métis Nation of Ontario (MNO) defines a registered citizen as "a person who self-identifies as Métis, is distinct from other Aboriginal peoples, is of historic Métis Nation ancestry, and

Figure One. Métis holistic lifelong learning model. (2007). Ottawa, Canada: Canadian Council on Learning.



About the Métis Holistic Lifelong Learning Model

The *Métis Holistic Lifelong Learning Model* represents the link between Métis lifelong learning and community well-being, and can be used as a framework for measuring success in lifelong learning.

The Métis understand learning in the context of the "Sacred Act of Living a Good Life," a perspective that incorporates learning experienced in the physical world and acquired by "doing," and a distinct form of knowledge—sacred laws governing relationships within the community and the world at large—that comes from the Creator. To symbolize these forms of knowledge and their dynamic processes, the Métis Holistic Lifelong Learning Model uses a stylistic graphic of a living tree.

The *Métis Holistic Lifelong Learning Model* is a result of ongoing discussions among First Nations learning professionals, community practitioners, researchers and analysts. For a complete list of individuals and organizations that have contributed to the development of this learning model, visit www.ccl-cca.ca.

Describing the Model

The Métis learner, like the tree, is a complex, living entity that needs certain conditions for optimum growth. As conditions change throughout the natural cycle, so will the regenerative capacity of the tree. The health of the tree, or the Métis learner, impacts the future health of the root system and the "forest" of learners.

Métis people view lifelong learning as part of a regenerative, living system—the "Natural Order" that governs the passage of seasons and encompasses a community (or forest) of learners. Within this organic system, relationships are interconnected, and balance and harmony are maintained.

The tree's roots represent the individual's health and well-being (social, physical, economic, spiritual, etc.) and provide the conditions that nurture lifelong learning. The root base of the tree represents the indigenous knowledge and values that provide stability for the Métis learner.

A cross-sectional view of the trunk's "Learning Rings" depicts how learning occurs holistically across the individual's life cycle. At the trunk's core are the spiritual, emotional, physical and mental dimensions of the Métis self and identity. Intergenerational knowledge and values are transmitted through the processes that first influence the individual's development—learning from family, and learning from community and social relations (represented by the two rings surrounding the core). The four outer rings illustrate the stages of lifelong learning, from early childhood through to adulthood; they depict the dynamic interplay of informal and formal learning that occurs at different rates and stages, as represented by the extent of growth across each ring.

Extending from the trunk are the branches—"Sources of Knowledge and Knowing" such as self, people, land and language and traditions. The clusters of leaves on each branch represent the domains of knowledge. The intensity of their colour indicates the extent of individual understanding in any knowledge domain. The leaves of knowledge eventually fall to the ground, signifying how knowledge transmission enriches the foundations of learning and produces more knowledge (more vibrant leaves).

is accepted by the Métis Nation" (MNOa, n.d., para. 1). National definitions encompass persons who originate from a "Historic Métis Nation Homeland," which includes territories in central and western regions of North America, "used and occupied as the traditional territory of the Métis or Half-breeds as they were then known" (MNOb, n.d., para. 3). Métis were known as half-breeds in some circles, meaning literally the descendants of First Nations and Europeans with mixed ancestry.

For the Métis, learning is a lifelong endeavour. Métis use the holistic lifelong model that incorporates the tree to inform educators that they must nurture learning, cooperate with parents and other community members in education, and understand that to effectively educate Métis students, they must value their Indigenous backgrounds. Métis communities see knowledge generation as a collaborative endeavour, and the image on the model of "leaves of knowledge eventually falling to the ground" signifies "how knowledge transmission enriches the foundations of learning and produces more knowledge" (Métis Holistic Lifelong Learning Model, 2007, para. 8). Teachers have an impact on the Métis learner and the forest of Métis trees that represent learners who are part of the school community. Education in this model contributes to the Métis community's wellbeing.

Métis expect teachers to nourish the sources and domains of knowledge their children and youth carry, and the Ministry of Education wanted to achieve this objective as it affirms the importance of Métis people and knowledge in the policy framework. The Framework was the outcome of consultation between the Ministry and the Education and Training Branch of the Métis Nation of Ontario. Part of being a good educator is supporting the inclusion of Indigenous practices and knowledge in one's pedagogy and curriculum, and the *Framework* directs schools to include Métis families and communities and support student self-identification, achievement, enhancement of Indigenous curriculum, and support for Métis holistic lifelong learning (Anuik & Kearns, 2014; Kearns & Anuik, 2015).

Legislation, Métis, and Education

Legislation from the British colonial era like the 1857 Gradual Civilization Act and its successor the Canadian Parliament's Indian Act (1876) shifted control over self-identification and membership in nations and communities from Indigenous peoples to the British government and later, the Canadian government. The outcome was the development of two categories: The Indian and the Non-Indian. The outcome for Indigenous peoples was there was only one way to identify, as "Native" or "non-Native" (Anuik & Kearns, 2012, 2014). "Indian" is a colonial construct; there are numerous Indigenous peoples, cultures, and languages across Canada, one of whom is the Métis.

The Indian Act's (1876) creation of a "Native" and "non-Native" binary in the minds of Canadians had an impact unique to Métis. Popular historians focus on Métis leader Louis Riel, his family, and the Red River and Northwest Resistances and argue Métis could not withstand the intrusion of settlers west

and succumbed to the expansion of the Dominion of Canada in 1885. Historians suggest Louis Riel's mental state led him to think of himself as a prophet, a position that impaired his ability to negotiate peace between Métis and the Dominion government in 1885 (Stanley, 1992). The perspective on the writing of history—a grand narrative of growth as a Canadian nation (Stanley, 2006)—and focus—on Riel's leadership ability—resulted in a collection of books that Barkwell, Dorion, and Préfontaine (1999) title a great man of history collection. The outcome: A lack of recognition of Métis as a people because the consensus is Métis dispersed and assimilated into newcomer society (Anuik, 2009; Barkwell, Dorion, & Préfontaine, 1999; Kearns & Anuik, 2015; Miller, 2004). The coverage of Métis in schools is on Riel and his actions in 1885. Since the Canadian government used the term "Indian" to define an Indigenous person, Métis registered as Status Indians became "Indian" or "Native." Newcomers and their descendants believed the rest of the Métis and their descendants chose to assimilate into Canadian society (Kearns & Anuik, 2015).

There is a requirement to inform educators who the Métis are because teachers don't know or only know the consensus in popular history (Absolon & Willett, 2005; Anuik, 2009; Barkwell, Dorion, & Préfontaine, 1999; Kearns & Anuik, 2015). They don't relate to Métis as contemporary Indigenous people because they think Métis as a people ceased to be in Canada after Riel's hanging (Kearns & Anuik, 2015; Miller, 2004). After one corrects this misinterpretation, replacing it with knowledge of a Métis presence as an Indigenous people, one must show how Métis conceive of their learning journeys past, present, and future (Anuik, 2009, In Press) as the touchstone to the practice of Métis holistic lifelong learning in educational policy.

Methods

Our discussion of the implementation of Ontario's Indigenous focussed education policy is part of a larger study we completed for the Métis Nation of Ontario. We investigated how Ontario school boards began to engage with the Ontario *First Nation, Métis and Inuit Education Policy Framework*'s (2007) initiatives, such as self-identification data collection and changes to curriculum and school and Indigenous community relations, as well as steps to ensure better academic achievement for Indigenous students (Anuik & Kearns, 2012, 2014; Kearns & Anuik, 2015). To collect data on self-identification numbers, curriculum, and other initiatives, we surveyed teachers and educational administrators in Ontario's 76 school boards. The Aboriginal Education Office in the Ministry of Education supported our project and sent a letter to each school board that encouraged their staff to answer our survey. Thirty-three school boards responded to our survey for a 43% response rate. We visited two school boards to see initiatives at the local level and completed five interviews with eight leaders responsible for Métis education initiatives at the school board level. We profile six of them in this chapter and identify them as follows: LM, CC, DS, BT, AM, and VM. In addition to the returned surveys and interview transcripts, we also

refer to reports, promotional material, and any other documents school boards shared with us or that we found online.

We used a mixed methods approach to data collection. The online surveys had open and closed questions, which allowed us to gather statistics and narratives around the work being done. Our questions concerned themes, activities, programs, relationships, barriers, and promising practices relevant to Métis learning in schools and communities. We asked how many students identified as Métis and the availability of Native Studies classes in schools. For our informal conversations on site visits and formal interviews we used semi-structured qualitative research methodology in the format of conversations shaped around a set of questions with an appreciative inquiry style (Pinto & Curran, 1998). We did not want to evaluate with a yardstick to measure progress to a preconceived outcome, and dole out praise and condemnation (Harrison & Greenfield, 2011).

Since we see implementation of the *Framework* for Métis as an opportunity for educators to engage in lifelong learning, we don't see an end to this story (i.e., a day when the *Framework*'s implementation is complete). Our paper is part of an ongoing story of being good educators who nourish themselves with deeper understandings and in turn nourish Métis communities. We want educators to share with us, in a qualitative sense (see e.g., Kvale & Brinkmann, 2009; Merriam, 2002; Olson, 2011), how the practice of the *Framework*'s mandate is exercised at a board and school level. We sought to know how educators can build knowledge of the teachings of Métis learning in the Métis Holistic Lifelong Learning Model in educational practice.

Findings

We use the Métis Holistic Lifelong Learning Model as a matrix to identify the parts of the Ontario *First Nation, Métis and Inuit Education Policy Framework* relevant to Métis. Participants' insights relate to the trunk and branches of the learner, in the stylized graphic of a tree. We see education policy in the following parts of the model: Self and People, Indigenous Knowledge and Values, and Sources of Knowledge and Knowing. Self and People represents a recognition that educators work in concert with Métis, who are parents, grandparents, aunts and uncles, friends, Elders, and respected knowledge holders of the students who attend the schools. Indigenous Knowledge and Values are teachings educators need to use in class. Sources of Knowledge and Knowing are roots they, their students, and the forest of Métis learners carry when they teach and learn. We analyze data with the understanding that an educator is a guide who sees educating as an act of nurturing the learner and the learner's community (First Nations Holistic Lifelong Learning Model, 2007). This relationship is more cyclical than hierarchical. One can be a nurturing guide and be nurtured if one understands learning as a generative endeavour that goes "all ways" and "always" (Ball & Pence, 2006). The educators whose stories we share show us cases they select that demonstrate what they think educators responsible for Indigenous education policy mandates need to consider at the school community level and what educational practices those working in schools have begun.

Self and People

Since a lack of knowledge about Métis exists in schools (Kearns & Anuik, 2015), educators need to work on implementation of the Ontario *First Nation, Métis and Inuit Education Policy Framework* (2007) with Métis in the school community. The Métis Holistic Lifelong Learning Model (2007) necessitates the teacher self be in relation with the Métis people, and progress to setting such a context "is generally best measured in hindsight," according to one manager. "In the three years our board has been involved in this initiative, if we stop and look at where we started and where we are now—we've accomplished a lot, and there's excitement about where we are going" (LM). Educators emphasize that as a result of their work with Métis, there is a concerted effort to build on accomplishments, raising awareness, critiquing the colonial anchors of the school system, and helping teachers to imagine an Indigenous presence at school. As one Elder said during consultation on the *Framework* implementation, "This is too important not to get right" (LM). Educators observe much of the material in schools is about First Nations, if there is any material at all (Anuik & Kearns, 2012), there is "only a little information on Métis…and therefore, we need to develop those sections further…[with] the support of the Métis…communities" (CC). As teachers work to educate, they have to counteract what they observe as misinformation given to staff about who Aboriginal students are and fill gaps about the knowledge of Indigenous peoples in their school boards (LM, DS, CC, BT, AM, and VM). Misinformation affects all educators, including those who are Métis, because "for the most part we received the same basic information or misinformation that mainstream schools received" (LM). Yet, despite the dominant colonial narratives, many educators show a willingness to learn stories they never knew or had the opportunity to learn.

Indigenous Knowledge and Values

Educators see that to be able to implement the *Ontario First Nation, Métis and Inuit Education Policy Framework* (2007), they have to seek out and draw on the Indigenous knowledge and values, the trunk on the Métis Holistic Lifelong Learning Model. The model is an artefact of Indigenous Knowledge and Values. The Métis learner is a graphic of a tree, and the student's family and community is the forest in the backdrop. The student's family and community are not in the background—they feel the teacher's impact as much as the student does. The challenge for educators is to locate themselves in the model, to feel a part of a Métis community. To figure out how to locate oneself in the *Framework*'s implementation is, thus, "a community effort" (LM), and educators continually look for nurturing guides in the forest of Métis learners.

When she started work, a coordinator in northwest Ontario recognized she needed kindred spirits who knew the Indigenous knowledge and values as they pertained to the social, political, economic, and physical environments of her school board and the Métis learners who attended the schools. She needed to connect with people—the branches who could share their roots. To nurture Métis

and to help them share, she needed "the support of the community, the Elders gave me encouragement…. Having support was critical, and I had the support of the community, which allowed me to last this long here." She credits Indigenous knowledge and values that she learned and continued to learn, because of her continuous work with those branches that gave her entry to learning about and with Indigenous knowledge and people. Her connections enabled her to move into "a good spot…. [I] love working for the school board." When one works with Indigenous community members, one can help transform "an entire organization and culture, the way people do business, their mindsets and ways of thinking" (CC). Educators at the board level saw it as important to learn more about Métis Indigenous knowledge and values, passing them to the other "selves" in the schools, the teachers, who can pass lessons to students.

For the administrator, teachers must be involved—they are nurturing guides and lifelong learners, branches on the model who endeavour to educate students. Thus, educators are responsible for imparting and nourishing other educators with Indigenous knowledge and values. If teachers are to nourish learning of Métis, administrators and other nurturing guides must help and "get…out of their comfort zone and…think and evaluate what needs to happen with their students" (CC).

To make the *Framework* live, one must seek those branches rooted in Indigenous knowledge and values. Educators need to be connected to Indigenous community members and seek to learn. "Teachers who all really cared and wanted to make a difference, those allies internally who planted the seed and watched it grow" (CC) helped bring forth educational changes. The teachers became branches learning Métis Indigenous knowledge and values to guide their students' learning.

Sources of Knowledge and Knowing

We understand knowledge that can correct the mistaken impression that there are no Métis in Canada exists in the roots of the tree on the Métis Holistic Lifelong Learning Model. Those responsible for implementation of policy need a root that shapes their knowledge and way of knowing. Critical to one's ability to nourish roots in good ways is an awareness of history. Educators recognize when they connect with Indigenous people, the branches on the model, "you have to break down a lot of years of non-positive schooling for a lot of Aboriginal people" (BT).

The superintendent describes the root knowledge in the Indigenous history of education as follows: "a lot of the parents and the grandparents of our students right now…went through negative experiences in the public system, not only residential schools, but the public system in general, and I think there are still barriers there" (BT). The history he mentions includes racism (Absolon & Willett, 2005; Anuik, 2009, In Press; Anuik & Kearns, 2014; Pauls, 1996; St. Denis & Hampton, 2002) and lack of valuing Indigenous peoples and ways of knowing (Battiste, 2013). Métis tend not to see educators as nurturers of their communities.

Métis learners are individuals who are part of a greater collective community(ies). Métis people wish to transmit their own sources of knowledge and knowing to learners and have the larger Indigenous community(ies) valued. They don't want school to interfere or reproduce falsities within those learning relationships, which occur when teachers either ignore or perpetuate misunderstandings about Métis in class (Kearns & Anuik, 2015). Even though "[t]here's a clear understanding that education is important…students don't want to have to compromise who they are in order to get an education" (LM).

Schools did not recognize Métis or value learners and their identities and histories. Schools did interfere with transmission of Métis knowledge. Success in school for Métis learners did become a severing of one's roots and disconnection from one's community (Kearns, 2013a; Anuik, 2009, In Press). Owing to ongoing misunderstandings and lack of presence of Métis, some students struggle, sometimes they feel pressure "to compromise who they are in order to get an education," which is something Métis don't want from school (LM). Nurturing guides within the education system acknowledge this complex history and in their acknowledgement, begin the work to make schools otherwise for Indigenous youth.

Not only did people have negative experiences in school and receive inaccurate and incomplete lessons in Métis history (Kearns & Anuik, 2015), students know in their historical root that "people did not want to identify as Métis" (BT, AM; Absolon & Willett, 2005; Anuik, 2009, In Press; Kearns 2013a). Parents cut off their Métis Indigenous knowledge roots because they believed the knowledge put them in a deficit position, and over time some Métis were made to feel that what they thought and how they saw the world was not knowledge valued by the greater society. Students must be given the chance to figure out why people felt this way—they "need to know there is a history there" (BT). There are stories that help children and youth as "they struggle to navigate life and all that it brings" (LM). Métis students can be given space to tap their historical root to reflect on how history affects them and their understandings of what it means to be Métis at school. The complexity of Métis history and identity and identification needs to be given time to flourish in safe and nurturing spaces.

Owing to silence of Métis, caused by a lack of curricular sources, an absence of recognition of Métis as an Indigenous people, gaps in knowledge of history, and failure in outreach to Métis community members, teachers don't always have access to the roots of Métis knowledge and Métis sources for knowing. Teachers need help to explore with knowledgeable Métis questions like "if you get your [First Nations] status back, do you cease to be Métis?" (BT), and encouragement to investigate "literature…looking at things with a critical eye" (DS) as they try to answer questions relevant for Métis. When they face questions, it "is important for students and teachers to know because I don't think that our teachers have that knowledge, some better than others, but not a full knowledge" (BT).

An area of history that requires further attention is Indigenous spirituality. In the Catholic school system, in particular, one superintendent noted there was a need to understand the relationship between Catholic teachings and strands of

the Métis root of spirituality. Educators and students can find the relationship confusing. There can be conflicts with the braids of Christianity and Indigenous spirituality that pull Métis students. Métis would be nourished if "adults of both faiths…work cooperatively to support them…Young people get that there are strengths from both cultures and want to draw on those strengths to become more resilient and grounded" (LM).

Unless Indigenous knowledge and values shape teachers' sources of knowledge and knowing, which is what the model expects, they are unlikely to connect with the Métis community and make a good impression on the children's education. Since schools need to build from the roots, "we need to continue to utilize the knowledge…and include that" (BT). We need "Aboriginal local histories and local ideas and get more of that into the curriculum, into the school" (BT). Teachers, students, Indigenous community members, and allies can "learn side by side…and [be] good for…students" (LM). Teachers must advocate for local knowledge—they can get at sources of knowledge and knowing, "our leadership" wants to see this happen. The superintendent says school boards must give opportunities for knowledgeable Métis teachers to work in schools. He "would like to see our language teachers continue to evolve.... [A]n increase of at least 15-20% of the teaching staff in this board" as Indigenous "because as our enrolment is declining, our Aboriginal population is increasing, so pretty soon the majority will be Aboriginal, the minority non-Aboriginal" (BT). We need Indigenous educators who have strong cultural identities, and (hopefully) language as a source of knowledge, to help educate all youth in schools, thereby contributing to all learners' funds of knowledge.

Educators look forward to getting the roots "into teachable packages so that you can get this information into the classroom, and that is probably the most difficult part of it" (BT). Teachers struggle with finding and becoming comfortable with Métis sources of knowing and knowledge. They wait for Métis to start, contrary to wishes of educational administrators who don't want to leave one or two Métis expected to be the experts "in all things Métis." Teachers need to be "able to deliver that information and have some sort of a knowledge base" (BT). Teachers need to know where they can find people with Métis roots because Métis see teachers as responsible for nurturing a Métis identity at school. The teacher needs to make children and youth comfortable to draw on their sources of knowledge and knowing. Therefore, the teacher needs to understand how knowing among Métis happens.

Teachers and educational administrators agree. Métis sources of knowledge and knowing help one comprehend Métis educational history, religiosity and spirituality, and their relationship to language when one taps the roots, one can understand how they affect education in a community. To teach history from an Indigenous perspective and include Indigenous knowledge and ways of knowing in the formal and informal school curriculum helps youth "walk with the pride of this 'who I am'" (AM). When their teachers seek Métis sources of knowledge and knowing to teach, children will "respect it.... [T]hat is something that we have to teach our children.... [T]hese teachings.... [A]re a part of who we are" (AM).

Discussion

The Métis Holistic Lifelong Learning Model teaches us that any policy that supports Métis must be implemented with the objectives of honoring Métis in the school community by addressing historical wrongs, enhancing the curriculum, and nourishing the learning of Indigenous youth. The teachers and educational administrators we surveyed and interviewed understood these objectives and used the model to guide their implementation of the Ontario *First Nation, Métis and Inuit Education Policy Framework*. When they saw it, they asked, in one way or another, "how do we bring it all together and walk in society" (AM). "To bring it all together" involves, in part, understanding how Métis see the role of educators. A teacher is a learner—a "self"—who seeks relationships with Métis who hold sources of knowledge and knowing. The teacher "self" works with people in the community to correct a deficient narrative of Métis perpetuated in popular history and too often taken as truth in class. Métis, themselves, can act as guides and help educators find possibilities for engagement with nuanced interpretations of Métis history, people, identity and self-identification, spirituality, religion, and language. Educators recognize they have roots in themselves, knowledge of teaching. The sources and domains of knowledge they have are to help them develop their relationships with Métis students, families, and communities. As educators' roots grow and expand in their capacity to honor and value Indigenous people and students, so do their relationships with Métis, and their roots of the tree are strengthened. The participants in our study share points of entry to stories of relationships our educators have with learned Métis, and they spoke highly of opportunities to learn from educators in the traditional ways that can help teachers as they as they expand their understanding and appreciation. When they look at the *Framework*, they see it as a directive to change schools to recognize diverse learning and knowledge systems in communities and society.

Overall, we looked at how educators in the school system can be seen to be engaged with three aspects of the model, which are as follows: Self and People; Indigenous Knowledge and Values; and Sources of Knowledge and Knowing. We learned educators saw the student "self" and the people in the community as interdependent. The teacher did not only instruct the self—the student—but did have an impact on the entire community, the forest of Métis learners. Each teacher is represented as a "self" who has worked to connect with people. To implement the *Framework*, one must reflect on how one relates to Métis. The learning and teachings are ongoing.

Our participants work to set an Indigenous context in their schools. The objective builds on recognition of the self and people as interrelated. Teachers' acceptance of their connection with everyone in the community enables them to reach out to Elders and knowledgeable teachers who live in accordance with these teachings. Knowledgeable Métis help teachers tap Métis sources of knowledge and knowing in history, religion and spirituality, and language, all in the local school community setting.

Teachers need to nurture students' desire to inquire from Métis perspectives, understandings, and knowledge. Learners see the significance of relatedness; they

are selves in relationship with people in the community. Teachers are nurturing guides who work alongside community members to help learners find their gifts. Relationality remains a foundational principle.

An important lesson is holistic lifelong learning is integral to living a good life in a Métis framework, so teachers and educational administrators' practices have a direct impact on the role they play in contributing to Métis education. In this paper, we suggest there are three philosophies above that guide implementation of the *Framework* in a Métis way. However, the three processes are related in that educators must continually practice them. For example, to find Métis knowledge and get at the sources of knowledge and knowing, they must recognize they are in relation as selves with people in the broader Métis community. They must respect the Métis Indigenous knowledge as curriculum necessary for their students to learn. To get at the sources of knowledge and knowing means they must continuously adopt processes of relationality and respect for knowledge in anticipation of posing new questions for their students to answer.

Conclusion

This chapter is part of a project that involves development of Métis knowledge of holistic lifelong learning (cf. Canadian Council on Learning, 2007; Cappon, 2008) and counters misinformation on Métis within the dominant Canadian historical narrative. Métis students and their families and communities have an inherent capacity to learn (Aboriginal Learning Knowledge Centre, n.d.) at school. Educated Métis have the possibility of living a good life when their roots are nourished, and they grow strong.

The Ontario *First Nation, Métis and Inuit Education Policy Framework* is an opportunity to implement Indigenous educational policy by practicing teachings in the Métis Holistic Lifelong Learning Model. Policy needs to live in the self and the community of Métis. The policy needs to tap Indigenous knowledge—it must find the roots of the knowledge.

In recognizing how educators in our study see themselves in relation with Métis learners, their families, and the school community, the forest on the model, we hope to inspire and honour those who begin the journey to include Indigenous knowledge in schools. As has been documented, the historical relationship between schools and Indigenous people cannot be deemed as part of living a good life in educational terms as there was ignorance and misinformation about Métis. As a result, Métis did not always want to acknowledge their Indigenous backgrounds (Absolon & Willet, 2005; Anuik, 2009, In Press, Kearns, 2013b) because the dominant narratives in schools did not reflect Métis families' understandings and perspectives of their communities, where they lived, or their history, which was rarely told from a Métis perspective (Kearns & Anuik, 2015). We now know educators must consider the experiences of Métis, which are in the roots of learners and their families, when they seek to improve their teaching and include Métis. Every interaction a teacher has with a student is an interaction with the Métis community. Educators must change the way they relate to one another and learn. Educators responsible for the *Framework*'s implementation

have shared lessons from their learning of the practices about connecting to and with Métis community members. We conclude with key recommendations educators can consider and practice as they support the learning of Métis and all Indigenous students, families, and communities. Teachers and educational administrators and leaders can do the following:

- Dedicate staff to form relationships with Métis
- Let Métis share their critiques of popular historical depictions
- Support Métis to develop a presence at school
- Welcome Métis Senators[2], Elders, knowledge holders, and community members into classrooms and schools to help educate staff and learners on topics relevant to Métis knowledge and heritage
- Encourage Métis family members, especially parents, to visit schools regularly, acting as helpers, resource people, role models, and consultants to help improve Métis student attendance, achievement, pride, and academic success (cf. Caracciolo, 2008; Cherubini, 2011)
- Work with community members to build a critical mass of Métis resource people to come to schools
- Create spaces for Métis in schools to share histories, perspectives, and knowledges; all learners must be able to share and learn (cf. Caracciolo, 2008)
- Understand teachers nurture their students and the entire forest of Métis learners (Métis Holistic Lifelong Learning Model, 2007)
- Hold dialogues regularly, where educators can share their work (i.e., unit plans) in stories
- Evaluate and recognize inaccurate and stereotypical information in curriculum (cf. Caracciolo, 2008; Cherubini & Hodson, 2008)
- Search for accurate resources (cf. Caracciolo, 2008)
- Pay critical attention to evolving definitions of Métis (cultural/legal/local/national) (cf. Caracciolo, 2008)
- Celebrate and include contemporary Métis artists in their lessons, such as David Bouchard, Joseph Boyden, and Christi Belcourt

When people live the mandate in the *Framework*, they nourish and grow Métis students. This paper gathers seeds of hope, and we hope for more possibilities.

Notes

[1]This chapter began as a study commissioned by the Métis Nation of Ontario's (MNO) Education and Training Branch on the Ontario *First Nation, Métis and Inuit Education Policy Framework*'s (2007) capacity to facilitate achievement and self-identification in Métis students. We thank the MNO for its financial support of our work. We are also grateful to the Aboriginal Education Office of the Ontario Ministry of Education for its encouragement of teachers and educational administrators to respond to our survey and interview requests. We also

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[2]Senators are elected representatives of the Métis Nation of Ontario.

References

Aboriginal Education Office, Ministry of Education. (2007). *Ontario First Nation, Métis and Inuit education policy framework*. Toronto, Canada: Author. Retrieved from http://www.edu.gov.on.ca/eng/aboriginal/fnmiFramework.pdf

Aboriginal Learning Knowledge Centre. (n.d.). Animation theme bundle 2: Comprehending and nourishing the learning spirit.

Absolon, K., & Willett, C. (2005). Putting ourselves forward: Location in Aboriginal research. In L. Brown & S. Strega (Eds.), *Research as resistance: Critical, Indigenous, and anti-oppressive approaches* (pp. 97-126). Toronto, Canada: Canadian Scholars' Press.

The Act to Encourage the Gradual Civilization of Indian Tribes in this Province, and to Amend the Laws Relating to Indians (1857).

Anuik, J. (In Press). Language, place, and kinship ties: Past and present necessities for Métis education. In P. W. Lackenbauer, M. Rutherdale, & K. Abel (Eds.), *Roots of entanglement: Essays in Native-newcomer relations in honour of J. R. Miller* (pp. 260-288). Toronto, Canada: University of Toronto Press.

Anuik, J. (2009). *Métis families and schools: The decline and reclamation of Métis identities in Saskatchewan, 1885-1980* (Unpublished PhD Dissertation). University of Saskatchewan, Saskatoon, Saskatchewan, Canada.

Anuik, J., & Kearns, L.-L. (2014, March 6). Métis student self-identification in Ontario's K-12 schools: Education policy and parents, families, and communities. *Canadian Journal of Educational Administration and Policy, 153*. Retrieved from http://www.umanitoba.ca/publications/cjeap/pdf_files/anuik_kearns.pdf

Anuik, J., & Kearns, L.-L. (2012). *Report on Métis education in Ontario's K-12 schools*. Report for the Education and Training Branch, Métis Nation of Ontario. Ottawa, Canada: Education and Training Branch, Métis Nation of Ontario.

Ball, J., & Pence, A. (2006). *Supporting Indigenous children's development*. Vancouver, Canada: University of British Columbia Press.

Barkwell, L. J., Dorion, L., & Préfontaine, D. (1999). *Resources for Métis researchers*. Winnipeg, Canada: The Louis Riel Institute; Saskatoon, Canada: The Gabriel Dumont Institute of Native Studies and Applied Research.

Battiste, M. (2013). *Decolonizing education: Nourishing the learning spirit*. Saskatoon, SK: Purich Press.

Canadian Constitution (1982).

Canadian Council on Learning. (2007). *Redefining how success is measured in First Nations, Inuit and Métis learning*. Ottawa: Author. Retrieved from http://www.afn.ca/uploads/files/education/5._2007_redefining_how_success_is_measured_en.pdf

Cappon, P. (2008, May). Measuring success in First Nations, Inuit, and Métis learning. *Policy Options*, 60-66. Retrieved from http://irpp.org/wp-content/uploads/assets/po/whither-the-liberals/cappon.pdf

Caracciolo, D. (2008). Addressing Anti-Indianism in the mainstream curriculum: A partnership model. *Multicultural Perspectives, 10*(4), 224-228.

Cherubini, L. (2011). Using multiculturalism as a "new way of seeing the world": Ontario Aboriginal educational policy according to Foucault. *International Journal of Multicultural Education, 13*(2), 1-15.

Cherubini, L., & Hodson, J. (2008). Ontario Ministry of Education policy and Aboriginal learners' epistemologies: A fundamental disconnect. *Canadian Journal of Educational Administration and Policy, 79,* 1-33. Retrieved from https://www.umanitoba.ca/publications/cjeap/pdf_files/Cherubini_and_Hodson.pdf

First Nations holistic lifelong learning model. (2007). Ottawa, Canada: Canadian Council on Learning. Retrieved from http://ineducation.ca/ineducation/article/view/196/698

Harrison, N., & Greenfield, M. (2011). Relationship to place: Positioning Aboriginal knowledge and perspectives in classroom pedagogies. *Critical Studies in Education, 52*(1), 65–76.

Indian Act (1876).

Kearns, L. (2013a). (Re)claiming Métis women identities: Three stories and the storyteller. In C. Adams, G. Dahl, & I. Peach (Eds.), *Métis in Canada: History, identity, law and politics* (pp. 59-91). Edmonton, Canada: University of Alberta Press.

Kearns, L. (2013b). "Ontario *First Nation, Métis and Inuit Education Policy Framework*": A case study on its impact. *in education, 19*(2), 86-106. Retrieved from http://ineducation.ca/ineducation/article/view/145

Kearns, L, & Anuik, J. (2015). Métis curricular challenges and possibilities: A discussion initiated by First Nations, Métis, and Inuit education policy in Ontario. *Journal of the Canadian Association for Curriculum Studies, 12*(2), 6-36. Retrieved from http://jcacs.journals.yorku.ca/index.php/jcacs/article/view/37691/36030

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd Ed.). Los Angeles, CA: Sage Publications.

Métis holistic lifelong learning model. (2007). Ottawa, Canada: Canadian Council on Learning. Retrieved from http://www.afn.ca/uploads/files/education/5._2007_redefining_how_success_is_measured_en.pdf

MNOa - Métis Nation of Ontario. (n.d.). *Métis Nation of Ontario: Definition of Métis citizenship*. Ottawa, Canada: Author. Retrieved from http://www.metisnation.org/registry/citizenship/

Métis Nation of Ontario. (MNOb, n.d.). *National definition of Métis.* Ottawa, Canada: Author. Retrieved from http://www.metisnation.org/registry/

Merriam, S. R. (2002). *Qualitative research in practice.* San Francisco, CA: Jossey-Bass.

Miller, J. R. (2004). *Reflections on Native-newcomer relations: Selected essays*. Toronto, Canada: University of Toronto Press.

Miller, J. R. (1996). *Shingwauk's vision: A history of Native residential schools*. Toronto: University of Toronto Press.

Milloy, J. S. (1999). *A national crime: The Canadian government and the residential school system, 1879-1986*. Winnipeg: University of Manitoba Press.

Olson, K. (2011). *Essentials of qualitative interviewing.* Walnut Creek, CA: Left Coast Press.

Pauls, S. (1996). Racism and native schooling: A historical perspective. In M. I. Alladin (Ed.), *Racism in Canadian schools* (pp. 157-172). Toronto, Canada: Harcourt Brace.

Pinto, M., & Curran, M. (1998). *Lessons from the field: Applying appreciative inquiry.* Plano, TX: Royal Practical Press, Inc.

St. Denis, V., & Hampton, E. (2002). *Literature review on racism and the effects on Aboriginal education.* Prepared for the Minister's National Working Group on Education, Indian and Northern Affairs Canada, Ottawa, Ontario. Ottawa, Canada: Author.

Stanley, G. F. G. (1992). *The birth of western Canada: A history of the Riel rebellions* (Introduction by T. Flanagan). Toronto: University of Toronto Press.

Stanley, T. (2006). Whose public? Whose memory? Racisms, grand narratives, and Canadian history. In R. Sandwell (Ed.), *To the past: History education, public memory, and citizenship in Canada* (pp. 32-49). Toronto, Canada: University of Toronto Press.

Ke Kula Mauli Ola Hawai‘i ‘o Nāwahīokalani‘ōpu‘u
Living Hawaiian Life-Force School[1]

Keiki Kawai‘ae‘a, Angayuqaq Oscar Kawagley[2] & Kaiolohia Masaoka

‘O Nāwahī ‘oe o Kalani‘ōpu‘u
‘O ka wahī i wahī ‘ia ai
I milo ‘ia ai a pa‘a pono
I hāli‘i ‘ia ai a nani
I ka ‘ahu pōpōhīnano o Puna
Uhia aku i ka ahu‘ula
Kau ‘ia ka wahī i laila
Ua pa‘a, ua malu,
Ua malu ka wahī o Kalani‘ōpu‘u
‘O ka wahī ia i wahī ‘ia ai
I lawalawa ‘ia ai
I ‘ope‘ope ‘ia ai a pa‘a
I kōkō ‘ia ai a kau i luna
A lei i ka umauma
I ka ‘ā‘ī o nā maka‘āinana ē
‘O ka wahī kona
‘O ka inoa wahī kou i ‘ane‘i ‘ae. (Sheldon, 1996)

This chapter presents the case study of a first year Hawaiian language medium-immersion teacher at Ke Kula ‘o Nāwahīokalani‘ōpu‘u school. Insights on the lessons learned are also described from group discussions with peer teachers on Native language immersion education, teacher development and Native, immersion and community dynamics. A closing reflection piece of the case study teacher’s journey some ten years later provides inspiration for others wishing to revitalize their endangered languages and cultures as an enduring gift from generations past to current and generations yet unborn.

PART I: The Setting

Located in the district of Puna on the east side of the island of Hawai‘i stands Ke Kula ‘o Nāwahīokalani‘ōpu‘u, a total Hawaiian language immersion kindergarten through twelfth grade. It is one of 21 Hawaiian immersion schools that are contributing to the revitalization of the Hawaiian language through a Hawaiian medium-immersion education model. Each morning the school day at Ke Kula ‘o Nāwahīokalani‘ōpu‘u begins with an opening protocol that calls to order a gathering of the total school community at the piko, the umbilicus of the school. The morning protocol begins with the blowing of the conch shell by two male students standing at the end of the entrance walkway, which signals the

beginning of the day. Older students and teachers help the younger ones move efficiently to the piko. This is where the school day begins males to the right, females to the left in a particular genealogical-historical order that pays attention to detail that honors traditional understandings, and a way of being in the Hawaiian world.

The day officially begins with three resounding blows of the conch shell as the entire school chants in unison and calls forth the elements from the east through a spiritual process that will energize the minds, bodies and emotions of the collective whole. Selected chants that honor those both past and present, request acknowledgements for entrance into the learning space and for the task at hand called ʻimi naʻauao (knowledge seeking). Two mindful messages, one by a male teacher then another followed by one of the female teachers sets the tone for healthy attitudes and behaviors that will demonstrate care for one another and support the learning that will take place within the honua or learning space. This daily ritual opens the pathway for learning to take place in ways that are purposeful, meaningful and productive.

High standards and expectations for appropriate behaviors of culture and language are upheld at the piko. No one is excluded, and all present on campus participate from the garden staff, to students and even their families present on campus. In this environment, Hawaiian is the language of communication and instruction, and the culture provides the lens and foundation from which students connect to the curriculum and build understandings of the world that surrounds them both locally and globally.

Nāwahīokalaniʻōpuʻu is a vision of hope and inspiration for native language recovery. It is a mauli ola (living Hawaiian life-force) educational model that seeks to revitalize the native language of Hawaiʻi that in 1985 had approximately only 35 speaking children remaining under the age of eighteen (ʻAha Pūnana Leo, 1999).

History of Hawaiian Medium-Immersion Education

The Hawaiian language is the Native language of Hawaiʻi. Although there are some dialectal differences between islands and even within islands for the most part with exception of the island of Niʻihau, the dialects are relatively similar and mutually comprehendible. In 1831, Lahainaluna was the first school established west of the Rocky Mountains as the Kingdom's College and teacher preparation school (Kawaiʻaeʻa mā, 2016). In 1841, Kamehameha III established public education. As part of his platform, "He Aupuni Palapala" (Mine is a nation of writing) set the stage for the development of a comprehensive public education system with Hawaiian as the language of instruction. A wealth of Hawaiian medium materials supported the schools in all subject areas and grade levels across the curriculum. This included beginning readers through advanced level math and science, including subjects such as anatomy. Hawaiʻi claimed high literacy rates between 84% to 91.2% (Silva, Kaʻawa, Kawaiʻaeʻa & Housman, 2005; Hawaiʻi General Superintendent of the Census, 1897).

In 1896, shortly after the overthrow of the Hawaiian monarchy, the Hawaiian medium school system was abolished and the English language became the

medium of instruction. The consequence of this political action to gain American control over Hawaiian nationhood was a decline of educational achievement and literacy rates and a decrease in native identity as well as culture and language loss and economic and social distress among Native Hawaiians. After much effort, the State of Hawai‘i’s 1978 Constitution made Hawaiian a co-official language with English and mandated the study of Hawaiian culture, history and language in public education. In 1984, the first pilot Pūnana Leo (Language Nest) pre-school opened on the island of Kaua‘i followed by Honolulu on O‘ahu and Hilo on Hawai‘i in 1985. The Pūnana Leo organization has branched out in many directions leading native language revitalization efforts from its thirteen infant-toddler and pre-school sites through its graduate program activities with its consortium partner Ka Haka ‘Ula O Ke‘elikōlani at the University of Hawai‘i.

In 1987, the Department of Education (State of Hawai‘i Department of Education, 1994, 2000, 2004) approved the opening of two elementary Hawaiian immersion sites in Keaukaha, Hawai‘i and Waiau, O‘ahu. There are 21 Kula Kaia‘ōlelo–Kaiapuni Hawai‘i (Hawaiian Language Medium-Immersion) K-12 sites (Kana‘iaupuni, Malone & Ishibashi, 2005) established throughout the state. The majority of these elementary, intermediate or high schools sites shared facilities with regular English medium schools. Currently, there are six sites statewide that maintain a full K-12 Hawaiian medium-immersion program as public or charter school sites (Hale Kuamo‘o, 2015).

Finally, in 1997 Ka Haka ‘Ula O Ke‘elikōlani at the University of Hawai‘i at Hilo became the first Hawaiian Language College. The college along with its consortium partner the ‘Aha Pūnana Leo and four K-12 full immersion sites Ke Kula ‘o Nāwahīokalani‘ōpu‘u, Ke Kula ‘o Samuel M. Kamakau, Kawaikini and Ke Kula Ni‘ihau o Kekaha are developing a seamless education model for Hawaiian medium education called Mauli Ola Education.

PART II: Participant Profile Overview: Kaiolohia Masaoka

Kaiolohia Masaoka[3] was selected for this case study. Part of Native teacher education is leadership development, therefore, Kaiolohia was also asked to be a co-writer of the study. The Kaiolohia was very open to the idea of sharing her personal experiences and transformation as a native Hawaiian immersion educator. She began teaching as a 24 year old single female of Hawaiian, Chinese and Caucasian descent. She was raised in a relatively suburban area of the island of O‘ahu called Wahiawā and is a graduate of the Kamehameha Schools, a private Native Hawaiian K-12 school, and Ka Haka ‘Ula O Ke‘elikōlani College of Hawaiian Language at the University of Hawai‘i at Hilo where she received a bachelors degree in Hawaiian Studies. She remembers relatively good school experiences and role models of teaching excellence in both public and private schools. She had no prior teaching or para-teaching experiences upon entrance in her teacher education program outside of the program entrance requirements.

There were many candidates who were willing to participate in the study. Kaiolohia was selected because her story contributes insights to the transforma-

tion of a new kind of indigenous educator, a mauli ola Hawai‘i (Hawaiian identity) professional. Her story is a common experience like many other “local island” families where the language of the home is predominantly English and Hawai‘i Creole English (Pidgin English), and the culture a intertwined with Hawaiian, Asian and American traditions. Hawaiian music and family stories about her Native heritage are a part of her early recollections. She was raised to respect her cultural Hawaiian heritage and was inspired from the family stories she heard about her Hawaiian speaking great-grandmother. Although both parents and grandparents are not Native speakers of Hawaiian, Kaiolohia has acquired a near native level fluency in Hawaiian. For Kaiolohia, part of becoming a mauli ola educator has also been a cultural journey of discovery about herself and her Hawaiian heritage.

Kahuawaiola Indigenous Teacher Education Program

Kaiolohia graduated from the Kahuawaiola (Kahuawaiola, 2006) Indigenous Teacher Education Program, a three-semester graduate program offered at the University of Hawai‘i at Hilo by the Ka Haka ‘Ula O Ke‘elikōlani College of Hawaiian Language. It is a Native Hawaiian culture-based program that prepares mauli ola Hawai‘i (Hawaiian identity) educators for Hawaiian immersion, culture-based charter schools, Hawaiian language and culture programs in English medium schools, and schools serving students from Hawaiian cultural communities.

Kahuawaiola conducts its courses through the Hawaiian language. It is also a multi-licensure accredited program where students may work towards both Hawaiian and basic teaching licenses. The program began in June with six weeks of foundation courses in an intensive live-in situation at the Nāwahīokalani‘ōpu‘u campus. Participants are totally immersed in the language while receiving first hand experiences within a total cultural school setting and have daily opportunities to interact with teachers and students on campus as they developed their expertise.

Upon completion of the summer intensive experience, students have option to return to their home communities statewide for two additional full-time practicum semesters with coursework provided through interactive television, workshops and site visits. Teacher candidates experience classroom-learning situations from kindergarten to twelfth grade. The Kahuawaiola program provides multiple learning environments in a holistic indigenous approach that integrates a balance of theory with practical applied learning situations. As a Hawaiian culture-based teacher education program, Kahuawaiola utilizes Hawaiian concepts and traditional practices built upon the Kumu Honua Mauli Ola philosophy (‘Aha Pūnana Leo & Ka Haka ‘Ula O Ke‘elikōlani, 2009) and the Nā Honua Mauli Ola Hawai‘i Guidelines for Culturally Healthy and Responsive Learning Environments (Native Hawaiian Education Council & Ka Haka ‘Ula O Ke‘elikōlani, 2002) and cultural pathways (Kawai‘ae‘a mā, 2016) as the foundation for articulating indigenous epistemology, pedagogy and praxis. The programs prepares qualified teachers for licensure that can 1) teach fully through the Hawaiian language, 2) build meaningful connections through the culture, 3) foster joy and inquiry in learning 4) deliver curriculum that develops critical thinking, academic proficiency, responsible behavior and generosity of heart 5)

foster collective relationships between school, family and community and 6) are culturally responsive educators.

Background of Nāwahīoialani‘ōpu‘u School

The Ke Kula ‘o Nāwahīokalani‘ōpu‘u is a K-12 kaia‘ōlelo Hawai‘i or Hawaiian medium school. Nāwahī Iki Public Charter elementary and Nāwahī Nui a public intermediate and high school combine to make up the school campus. The school grounds also house the Pūnana Leo o Hilo pre-school. Hawaiian is the language of school instruction and the culture of the total environment. All subjects are taught through Hawaiian including English language arts and other world languages.

Nāwahī was a grassroots attempt to provide an on-going Hawaiian medium education through grade twelve. The original school site was located in Hilo on the third floor of the old unemployment building. Determined and motivated to establish a fully functioning immersion facility the the ‘Aha Pūnana Leo (‘APL) along with families, teachers, students and community members worked towards finding a permanent location for the school site and in 1994, ‘APL purchased through a grant given by the Office of Hawaiian Affairs the former church school known as Henry ‘Ōpūkaha‘ia School.

The school consisted of dilapidated buildings on a ten-acre site with classrooms, a gym and outdoor football field. The school site took many hours of time and aloha donated from families, the community and other volunteers to clean, repair and upgrade the facility as a suitable environment for learning. The campus houses a Pūnana Leo pre-school and a K-12 school site with indoor and outdoor learning spaces including aquaculture, hydroponics, an animal section, canoe house and other farming and natural flora zones.

Administratively, Nāwahī is an example of creative partnership in action and currently operates as a collaborative effort with the ‘Aha Pūnana Leo, Ka Haka ‘Ula O Ke‘elikōlani College of Hawaiian Language at UH-Hilo, the State Department of Education, and a public charter school. As a laboratory school for the University of Hawai‘i at Hilo, the facility also functions as a demonstration site for Hawaiian medium-immersion education, language and educational research including teacher and curriculum development. It is also an extended learning facility for University students studying Hawaiian language and culture, science and agriculture.

A Living Hawaiian Life-Force School

A kula mauli ola Hawai‘i is a place where learning is cultivated and nurtured in culturally and linguistically Hawaiian holistic ways and the environment supports applied learning opportunities for academic and socio-cultural maturity. The kula mauli ola Hawai‘i (living Hawaiian life-force school) of Ke Kula ‘O Nāwahīokalani‘ōpu‘u is “designed for families, teachers and staff who have chosen to speak Hawaiian as the first and main language of the home, and also those who are in the process of establishing Hawaiian as the dominant language of the home” (http://www.nawahi.org/).

The Kumu Honua Mauli Ola philosophy serves as the guiding foundation for school development through three (3) traditional underpinnings—the mauli (cultural life-force), piko (connections) and honua (environments). The mauli is the cultural center comprised of four (4) cultural components—spirituality, actions-behaviors, traditional knowledge and language. The piko make connections to the past, present and future and to one's spiritual, genealogical and creative elements. Lastly, the honua provides the environments—the ʻiewe (placenta), kīpuka (protected environment) and finally the ao holoʻokoʻa (broader world). Through the components of the Kumu Honua Mauli Ola philosophy the Hawaiian life-force of the school reflects a holistic Hawaiian language and cultural environment from which learning is nurtured and cultivated.

The Hawaiian language is the living language of the school as it best expresses the thought world of the ancestors and engages learning and interaction through a Hawaiian worldview. The language provides the cultural sustenance and the lens from which the dynamics of the school community and curriculum has evolved. The families work together as part of the total learning community and become an integral part of the learning environment as a family-based program, enrolling families rather than the individual student. The Hawaiian language shapes and nurtures the school learning community as a complete and whole entity.

The school provides multiple "contexts supporting physical fitness and self-sufficiency through stewardship projects and other activities" as an integral part of the school experience. The school accommodates learning through a variety of applied learning setting, e. g. planting areas, plant zones, animal husbandry, recycling, hydroponics, aquaculture, hālau waʻa for canoe making, imu (underground oven) for traditional food preparation, traditional medicinal plants and a gym for physical fitness, sports, hula and other school and family gatherings.

Nāwahīokalaniʻōpuʻu has established an educational model that is grounded through its native language and culture as a living Hawaiian life-force environment. It works with families who have committed to a model of education where Hawaiian is the living language of home of school and the preparation of its youth impels them to "bring honor to the ancestors, seek and attain knowledge to sustain family, contribute to the well-being and flourishing of the Hawaiian language and culture; and contribute to quality of life in Hawaiʻi." In its mission statement, "Ke Kula ʻO Nāwahīokalaniʻōpuʻu is committed to securing a school community built upon culturally rooted principles that reflect love of spirituality, love of family, love of language, love of knowledge, love of land, love of fellow man, and love of all people."

Kaiolohia Masaoka's Interview Responses

Prior to entering Kahuawaiola, Kaiolohia had a one time volunteering classroom experience at a summer school program. The experience was not rich enough to experience the depth of the whole teaching experience. However, it helped her to confirm her desires to become a teacher. In her formal pre-service experience, Kaiolohia completed two full semesters of student teaching experience at Ka ʻUmeke Kāʻeo Public Charter School. Upon graduation she was offered

a position at Nāwahīokalani'ōpu'u School and was in her first year of teaching in a multi-age setting, grades K-1. She had 17 students, 9 kindergarteners and 8 first graders with an almost equal ratio of male and female students. She enjoyed working in a small school environment. The schools K-12 enrollment was 119.

Kindergarten is challenging for a new teacher since it is the first year the students enter the formal school setting and for some students their first experience learning through Hawaiian. Kaiolohia has a quiet and calm personality and is even-tempered and soft-spoken in demeanor. She values the mana (personal spiritual power) of her students and is respectful and caring in the way she handles challenging situations. She doesn't get unraveled easily and is steady yet firm with her students. Her classroom has a nice energy, positive, happy with an air of calmness.

Interviewed, Kaiolohia offered insights about her values, thoughts and concerns as a teacher, her challenges, personal history, aspirations, and issues as a first year teacher. These indicators summarized through her personal responses to the questions help us see a glimpse of her personal perspective through real life experiences as a growing professional. Asked why she wanted to become a teacher she answered,

> I wanted to go into a teacher Education program mainly because I wanted to become a teacher since I was in elementary school, about 2nd or 3rd grade. I remember I had a kumu (teacher) who…was really respectful of all the students and really listened to everyone and I wanted to be like her.... I used to always love reading books and that was always my favorite thing to do, just always reading. I hardly ever played outside. I was always in the house. But, that's mainly why I wanted to be a teacher and why I choose to be in the teacher Ed program.... I didn't realize that I was going to do all this in 'ōlelo Hawai'i (Hawaiian) until I was in high school. I was in the ninth grade I think when I took a Hawaiian language class. And then I realized that… my counselor told me…that UH-Hilo offers Hawaiian Studies and they're the best. And, I came here [to Hilo], and then after I came here, when I heard about Kahuawaiola, and that was that.

When Kaiolohia was asked "Now that you are a teacher, what is the nature of your experiences?" she answered, I "did not expect being a teacher to be so much work." Her greatest challenges were:

- Dealing with parents who don't support their children's learning at home
- Working with diverse needs (slow and fast learners) and how can I help both at the same time
- Learn[ing] how to better manage time and curriculum so fast students don't get bored and slow students are able to comprehend and keep up with the general learning pace of the class
- Not enough one-on-one time with students
- How to meet the diversity of mathematics needs in a multi-age setting

- Increasing the voice and leadership of the slow students, and
- Decreasing school preparation time

Her greatest rewards were "parents commenting on their child's progress in reading and learning" and "parents surprised at the progress of their child."

She found that "focusing on children and having expectations for them is more important than just looking at the daily workload." As the year progressed she "was able to recognize the strengths and weaknesses of students and was able to adjust and manage the class schedule to make more time for students who need the extra help." She had difficulty encouraging parents to support her efforts at home and spent as much time as possible reading with slower student. Having a multi-age K-1 setting she used "the first graders as role models, class leaders, demonstrators and facilitators for the kindergarten students."

She told how she liked to do art with children and finding how non-readers and writers seem to enjoyed art, and she in creased integration of art and drawing activities with reading. She also used the outside garden environment for encouraging art and language development. (e.g., composing class books using experiences from the outside environment. The class composed a non-fiction story about one of the chicks the class raised and then the class wrote a fiction story about it. When she was not in school she thought constantly about school and how to make it better. She researched on the internet for new ideas and challenges for her students.

She chose Nāwahī Iki School because of the nature of the school and program, the philosophy driving the school and the community involvement that included parents volunteering in the classroom. Hawaiian speaking parents read and worked directly with students. Non-speakers help prepare materials and other things while in class. The parents also helped with community events. She worked hard to get to know the parents and develop a relationship with them. It helps to provide more insight about their children. She stated that "at the end of the school year I want to see my first graders reading and reading readiness for kindergarten. I want students to know basic mechanics of reading and enjoy it." She emphasized "reading and writing" and could see how her students progressed, with many students going beyond her expectations. There were a lot of books but the children read them fast. Children had to wait sometime for her to translate more materials into the Hawaiian language.

She recommended schools having orientation programs for new teachers and concluded it was important to "be strict about the use of Hawaiian from the beginning of the school year" and to "only speak Hawaiian." Teachers need to "stay in at recess to provide more one-on-one time if needed" and to "talk a lot with students. Spend quality talking time with them."

Curriculum Resources and Alignment

Kaiolohia wrote in the journal she kept for this case study about gathering and developing a resource bank of materials for instruction, enrichment and use in centers activities for independent learning:

> I collected many ideas from these books to create my own collection. I found it very helpful to look in these resource books because I was able to collect main ideas for lessons that I wanted to create. Since I use a lot of workstations in the classroom, I found it useful to search for activities that my students would be able to do independently after modeling it first. Although I do not follow the resource lessons exactly, I do often look through them to see ways in which I can improve my own lesson plans. It is a relief to have this resource book with me in the classroom since it contains many activities and games that my students are capable of doing. I consider this book to be the padding of my lesson plans. If something falls through, I will have this notebook to break the fall. I would like to continue to expand on this notebook for future references.

This project also helped Kaiolohia develop her first solo curriculum mapping. It was not easy since she still had lots to learn about the curriculum, content and skills she would be teaching in her new teaching assignment. This was a challenging project for her but a necessary skill that she will need to master in order to plan responsibly for her class. The statements below illustrate her reflections about this project.

> This has to be the hardest thing that I did during this case study project. I had a very difficult time starting my scope and sequence because I had no idea where to start! It wasn't until Keiki advised me to "begin with the end in mind." As I sat down to plan out my scope and sequence for the year, I became frustrated not knowing how I was going to start the year and what I wanted to teach in January. After taking Keiki's advice and starting with the end product in mind, everything else fell into place. I first had to ask myself what I expected of my students at the end of the year. After that, I just had to think of the path to get there. It took me a couple of months before my scope and sequence was finished, and it is still a work in progress. I feel comforted knowing that I can use this scope and sequence (with some minor adjustments from year to year) for many years to come. The anxiety that I initially felt when we first worked on this project has faded, and is replaced with hope. Hope that I will have created a scope and sequence that will meet state and cultural guidelines, and hope that I will also have created a clear path for my students to reach the goals that I have set for them at the start of the year.

Growing the Native Educator through an Indigenous Perspective

Central to every educator is a core set of values that frame the thinking and guide the direction, choices and actions of the teacher. An Indigenous immersion educator has a special charge as a keeper of the language, the culture and native well-being. As an educator they serve as an advocate for cultural renewal through

education. The cultural educator must find a space to work between the tensions of the mainstream mindset, personal life experiences and native educational goals. They must be able to rise above those tensions and find a personal clarity that ground, enable and energize their sense of purpose and mission. As a new native educator Kaiolohia has all the basic tools she needs to craft her art as a professional. Practice over time will determine the shape and quality of her artistry and expertise as a native educator.

To this end, the final project was to work on her philosophy statement of education with a reflection statement about her growth over the last year from teacher training to first year induction, containing her core beliefs and thoughts about education and her role as a cultural educator. It is a leadership tool from which she can grow and develop the clarity of her craft. Philosophy statements are not static and will change and mature as she becomes more knowledgeable about the way children learn and the role of language and culture within that experience. A philosophy statement is her declaration to herself about her vision as an educator, and her role and place within those goals. It is her personal marching order as a cultural keeper and educator. It is important to revisit, reflect and refine this statement as an on-going activity so that she will be able to see the depth of her ideas and her progress over time. Kaiolohia was asked to write her philosophy statement in Hawaiian, her second language. Only the language can speak to her with the embedded cultural understandings she needs to frame and grow her thinking. Kaiolohia's English translation of her reflections and philosophy statement below:

He Wahi Nanalu no ka Lilo ʻana i Kumu Hoʻonaʻauao Mauli Ola Hawaiʻi
Reflections on Becoming a Mauli Ola Educator
Kaiolohia Masaoka

I ka ʻōlelo nō ke ola, i ka ʻōlelo nō ka make. Aia ka mana o ka lāhui i ka ʻōlelo: ʻaʻohe ʻōlelo, ʻaʻohe lāhui. No ia manaʻo au i noʻonoʻo ai he koʻikoʻi kaʻu e hana nei.

I koʻu wā aʻoākumu, ua noʻonoʻo mau au i ke kumu o koʻu lilo ʻana i kumu, keu hoʻi he kumu kula kaiapuni Hawaiʻi, ʻoiai he hana paʻakikī loa nō ia. ʻO kaʻu pane maʻamau iaʻu iho, inā ʻaʻole naʻu, na wai? A ʻo ia nō ka manaʻo i holomua aku ai au a hiki i kēia pae.

Ua paʻakikī nō ia wā, ʻoiai ʻaʻole au i komo mua i loko o ka lumi papa a ʻaʻole nō au i ʻike i

In language there is life, in language there is death. The power of a culture lies solely in its language. And for this reason, I believe that what I am doing in the classroom is very important.

As a student teacher, I would always ask myself the same question. Why would I choose to become a teacher? Especially a Hawaiian Immersion teacher (which means double the work!)? And the answer that I would come up with was always the same. If not me, then who? This is what pushed me to constantly improve and progress to this stage of my teaching career.

My year of student teaching was a time of change and adjustment. Although I had not been in the classroom before, I also was not fully aware of the great

ka ʻoiaʻiʻo o ka hana kumu kaiapuni Hawaiʻi. Eia naʻe, ua paʻa nō koʻu manaʻo e lilo i kumu no ka pono o nā keiki Hawaiʻi, a no ke ola o ka lāhui Hawaiʻi.

Ua kākoʻo nui ʻia au e ke kahu aʻoākumu a ua ʻike i ka mea nui o ke kākoʻo a me ke kōkua ma ka honua kula. Ma ka nānā ʻana i nā kumu ʻē aʻe, ua hiki iaʻu ke lawe i nā mea aʻu i manaʻo ai he maikaʻi a e kāpae hoʻi i nā mea i makemake ʻole ʻia.

Ma ia makahiki nō, ua aʻo au i nā haʻawina he nui i hiki ʻole ke hoʻomākaukau ʻia ma nā papa Kahuawaiola o ke kauwela, e like nō hoʻi me ka hoʻokele lawena lumi papa. Ma nā papa o ke kauwela, ʻo ke aʻo ʻana i nā haʻawina kula ke kālele, a ua maikaʻi au ma ia hana; akā ʻo ka mea nui ma nā papa pae haʻahaʻa o ke kula ka hoʻokele lawena, a ma laila nō koʻu pilikia ma ia wā. Ua lilo ia kumuhana ʻo ka hoʻokele lawena i pāhana nui naʻu ma ke aʻoākumu ʻana a ua aʻo nō au pehea e ʻoʻoleʻa ai ma luna o nā keiki me ka ʻoluʻolu pū. E paʻa mua ka ʻōnaehana hoʻokele lawena, a i ka paʻa ʻana, ʻo ka hoʻomaka nō ia o ka holo maikaʻi o nā mea ʻē aʻe.

I ka makahiki mua o koʻu aʻo kū hoʻokahi ʻana, ua lilo ka makahiki holoʻokoʻa i ke kūkulu ʻana i ke kahua e pono ai au. Ua nānā nui au i nā kumu ʻē aʻe o ka honua kula i ʻike au i ke ʻano o ke kula, ka lawena hoʻi o ka honua. He kōkua ma ka hoʻoulu ʻana i ka mauli i loko oʻu a he kōkua nō ma koʻu hoʻoili ʻana i ka ʻike i nā keiki o ke kula. I loko nō o koʻu ʻike i ke Kumu Honua Mauli Ola, ua ʻike pū au i responsibilities involved in being a Hawaiian immersion teacher. However, I held fast to the idea of being a native educator in my native home for the sake of our children and for the life of our culture and our race.

As I started on my educator journey, I was strongly supported by my cooperating teacher. She was the one who guided me through the rough waters of student teaching, the many that I encountered along the journey. I have seen first hand the importance of guidance and support in the school environment for all teachers in order for success to be achieved by all. By observing my fellow teachers, I collected many ideas and was able to use those ideas that I believed to be useful in my teachings.

In that same year, I learned many valuable lessons that could only be seen firsthand in a real classroom situation and not be taught in our Kahuawaiola summer courses. One of which was classroom management. In the summer courses, the focus was on how to teach content area to different students at different grade levels. While I did well in that area, I soon learned on the job that classroom management is the key to successfully teaching elementary students. I entered the classroom with little knowledge of how to manage a classroom full of kindergarteners. However, I learned quickly as I was forced to either sink or swim. I chose to swim, and classroom management became one of my big projects since it was an area that I needed to strengthen the most. By following the lead of my cooperating teacher, I learned how to be firm with the students while also using a gentle touch. In order to accomplish this, I first had to have my classroom management system in tact and as soon as I did, everything else fell into place.

My first year of "solo teaching" was dedicated to building the teaching foundation that I would need in my career.

ka pono o nā haʻawina kula Hawaiʻi, e hoʻopili ʻia ke Kumu Honua Mauli Ola me nā maʻiʻo maʻamau o ke kula. Noiʻi mau au ma ka pūnaewele i nā haʻawina kūpono no ka pae mālaaʻo o nā ʻano mākau like ʻole a hakuloli au ma ke kuanaʻike Hawaiʻi. ʻOiai, he kūpono ia mau haʻawina no nā keiki o ka papa mālaaʻo, e makaʻala pū ana au a e hōʻoia ana i ka loaʻa o ke ʻano Hawaiʻi ma ia mau haʻawina. Ke ʻike ke keiki i kona pili a me ka pili o kāna hana i ka haʻawina, ʻoi loa aku kona hoihoi.

Hoʻāʻo au e noho ma nā au ʻelua, ʻo ke au Hawaiʻi a ʻo ke au ʻAmelika, a kūkulu i uapo i waena o nā mea ʻelua i hiki i nā keiki ke hoʻokō i nā ana hoʻohālike me ka ʻike pū i ia mau haʻawina ma ke kuanaʻike Hawaiʻi.

Ma ka luʻu ʻana i ke aʻo, ua ulu nui au ma ke ʻano he kumu a ma ke ʻano he kanaka. Ua koi ʻia e huli a noiʻi ma nā ʻano wahi like ʻole i nā hāʻina e pono ai. ʻAʻole e loaʻa wale ka hāʻina ma ka wehe ʻana aʻe i ka puke, a ma laila ka hāʻina e kali mai ana iaʻu! ʻAʻole loa! No ke kumu kaiapuni Hawaiʻi, pākolu ka hana! Ma waho aku o ke aʻo ʻana i nā maʻiʻo, e nānā pū ʻia ke ʻano Hawaiʻi o ia mau haʻawina, ka pili i ke keiki, a me ka waiwai o ia haʻawina no kākou, ka lāhui Hawaiʻi. He kōkua nui ka noʻonoʻo mau i ke Kumu Honua Mauli Ola ʻoiai ʻo nā ʻaoʻao ʻehā o ka mauli (ka pili ʻuhane, ka lawena, ka ʻike kuʻuna, a me ka ʻōlelo) ke kālele nui o kā kākou e hana nei. Ke ʻike ke keiki i kona pili i ke Kumu Honua Mauli Ola a hoʻāʻo hoʻi e hoʻoikaika i ia I observed many of my co-workers and the relationships that they formed with their students. I used this knowledge as a means to develop a sense of the school and the practices that made it unique. This also enabled me to strengthen my own mauli, my cultural identity, so that I would be able to teach it to my students. With my knowledge of the *Kumu Honua Mauli Ola*, I saw the need to have lesson plans and activities focus on the behavior, language, traditional knowledge and spirituality of our Hawaiian culture. I try to create connections between these things and the content area that I teach so that our children can see the relationship that they have to every lesson and activity. I often search on the internet for activities in all subject areas that are suitable for kindergarten and then I create new activities by looking at them through "cultural lenses". Even though these are activities that are created with kindergarteners in mind, I always have to be aware that there is a Hawaiian sense to it. When the children see the connection between the activity of the day and their own lives, it becomes realistic to them and soon it becomes a part of them.

I try to stand in two worlds, the Hawaiian world and the American world, and build a bridge between the two so that our children are fully capable of meeting the content performance standards in testing while also seeing the importance of their knowledge to their own culture and people.

As I dove head first into the career of teaching, I grew a lot as a teacher and as a person. I was required to search in many different places for the answers that I needed. I was not able to open a textbook and have the answer available to me at a moments notice. In the Hawaiian language immersion program, the work of a teacher is triple that of any other. Besides teaching our children content area, we also have the great responsibility of teaching cultural values that may soon be lost or forgotten.

mau ʻaoʻao ʻehā, ua lanakila kākou.

ʻOiai ʻo kēia koʻu makahiki ʻelua o ke aʻo kū hoʻokahi, mau nō koʻu ulu ʻana. I nā lā a pau, aʻo au i nā mea hou a ʻike au pehea e hoʻoikaika ai i kaʻu e hana nei. Ma ka hana ʻana me nā keiki, ʻike au i ke kūpono a kūpono ʻole paha o kekahi haʻawina a manaʻo au ua hiki aku au i kekahi pae ʻokoʻa o ka hana kumu. Hiki ke wānana ʻia ka mākaukau o ke keiki ma ka hana mau ʻana me ia, a me ia ʻike, hiki nō iaʻu ke hoʻohaʻahaʻa a hoʻokiʻekiʻe paha i ka haʻawina ke pono.

ʻO kekahi pāhana aʻu ka hoʻomākaukau ʻana i puke kumu waiwai. Ua hele au i ka Hale Kuamoʻo no ka noiʻi a he kōkua nui ia mau kumu waiwai, ʻoiai he mau manaʻo maikaʻi ko laila. ʻAʻole au hahai kikoʻī i ia mau kumu waiwai; noʻonoʻo au i ka manaʻo nui o ia haʻawina a hakuloli au i ka mea e pono ai.

Ua komo pū i ka papa hoʻonuiʻike mākau ʻōlelo ma ke kauwela nei a ua ʻike i kekahi mau manaʻo maikaʻi e kākoʻo mai ana i kaʻu hana mākau ʻōlelo. ʻO ka mākau ʻōlelo kaʻu kālele nui ma ka lumi papa, ʻoiai komo ia mea i loko o nā maʻiʻo a pau.ʻO kaʻu pahuhopu nui ka ʻike o nā keiki i ko lākou waiwai a mea nui ma ka hoʻōla mau ʻana i ka ʻōlelo Hawaiʻi a me ka lāhui Hawaiʻi ma o kā lākou hana.

Ma ke ʻano he kumu ʻōiwi, ʻo au nō ka hoʻokele o ka waʻa. ʻIke au i ke ʻano o ka huakaʻi a i kahi e holo ai. Hiki nō iaʻu ke hōʻike pehea e hiki aku ai i laila, akā na ke keiki e hoewaʻa. Ke aʻo hoʻi au i nā keiki, e hilinaʻi au i ko lākou mākaukau i hiki ke

It is always helpful to keep the Kumu Honua Mauli Ola in mind since the four areas of the KHMO (spirituality, behavior, language, traditional knowledge) are the foundation and the focus of everything that we teach and do. When our children know their responsibility to the KHMO, we have moved yet another step to reach our goal.

In my second year of teaching, I am still learning and growing. I learn something new everyday and I always see ways to improve myself. While working closely with the students for two years, I have become very familiar with their capabilities and I feel that I have reached another level of professional maturity.

One of my recent projects was to create a resource book that consisted of many different activities for all content areas. I went to the Hale Kuamoʻo to research what was available as the resources they have there are a great help. I don't follow exactly what are in those resources; instead I use the resource book as a starting point for lessons that I adapt for my students.

I also enrolled in an language arts enrichment class during the summer and got some good ideas that will support what I do in language arts. Language arts is the subject I choose to emphasize in my classroom since it is integrated into every subject. My goal is for the children to see their value and importance in revitalizing the Hawaiian language and its people through their work.

As a native educator, I am the steersman on the canoe. I know the kind of journey that we are on and where our destination is. I am able to show the students how to reach our destination, however, it is the students who are paddling. To me, that is the best part about teaching. We are all paddling to reach the same destination, however, the paths that we take and the ways that we reach our destination are different. When I teach my students I have to trust their abilities so that we all arrive at the same point.

hōʻea aku i kahi i manaʻo ʻia.

Ma kā kākou ʻōlelo, he ʻelua ʻaoʻao o ka huaʻōlelo ʻo "aʻo." ʻO ia hoʻi ʻo ke aʻo aku a me ke aʻo mai. He kuleana koʻu ma ka hoʻoili ʻana i ka ʻike i nā keiki a he kuleana ko nā keiki ma ka ʻimi ʻana i ia ʻike. ʻO ke aʻo aku kaʻu hana nui, eia naʻe, aʻo mai au mai nā keiki mai i nā lā a pau. He kumu ʻōiwi au a he manaʻo nui koʻu e hoʻokele ana i kaʻu mau hana me lākou. ʻO ka mea nui, ʻike au i ia manaʻo: ʻo ka hoʻokele ʻana i nā keiki i ke ala kūpono no kākou a pau.

In our language there are two meanings to the same word "aʻo". One meaning is to teach, and one is to learn. As a teacher, passing on my knowledge to my students is my main job, but I also learn a lot from my students as well. I have a responsibility to transfer my knowledge to the students, and the students, in turn, have a responsibility to seek out the knowledge from me. I am a native educator and there is an intention for what I do. The important thing is that I know what the intention of my job is and that is to lead the students on the right path for all our people.

PART III: School Interviews and Insights

Ke Kipa Kula—The School Visit

One feels comfortable in entering the school. Everyone is friendly but actively engaged in work. We were invited to observe classrooms at our leisure. The students and teachers were productively working on projects and assignments. The classrooms had a comfortable feeling, and the Hawaiian language could be heard moving from classroom to classroom. In one of the classrooms students were working cooperatively on a mixture of projects. One project was developing a story mural from one of the storybooks. There were finished products of students work hung inside and outside the classroom for everyone to see and enjoy. The engagement level of the students showed their interest in their work and the discipline of the class. Self-discipline was an obvious goal of the schools as it was observed from classroom to classroom. Several interviews were conducted at the school to gather information about the attitudes of language, culture and education from different perspectives of the school community. The following is a summary of the interviews conducted by the project team. They provide a cohesive and collective vision of the school mission and the intricacies involved in addressing the educational mission of the school.

Ke Poʻokumu—Principal Interview

The school was fortunate to have had a well-educated, articulate and team oriented principal who serves as an administrator, counselor, teacher, friend, advisor, and sometimes a mother to some of the students (a difficult task). She appeared approachable, friendly and a straight-thinker. She was a fluent speaker of her Hawaiian language and knows her Hawaiian culture and dedicated to make the school a safe and learning-conducive environment.

When hiring teachers she looked for dedication, knowledge of language and culture, and a desire to revitalize Hawaiian language and culture. But sometimes these seeming alignments could be tricky. If teachers had problems in adjusting to school and students or had troubles in teaching language and culture, they were not expected to give up and quit. The struggling teachers were assisted and supported by the principal, teachers, staff and students to learn and teach in the Hawaiian ways of teaching and knowing. The qualities of persistence and willingness to learn are required for one to become a successful teacher in a different way of educating. Teamwork is of essence in this process. This also requires that the beginning teacher take stock of her inner assets and proclivities, and advice the principal where one will fit in best in the teaching process. The idea is that one should work in the level/place where one enjoys being. Research funding was needed to give administration, teachers and staff time to reflect on successes and weaknesses and to plan remedies, seek appropriate technology and develop needed materials and curricula. Assessment is another critical area as existing tests based on outside standards do not consider Hawaiian language and cultural intelligence. Teacher preparation programs need to embrace and teach this philosophy so that teachers can to into an immersion program and take on the tasks of teaching without questions of what they are about.

Ka Papa Alakaʻi—School Board Member Interview

This case study focused on the instructional section of Nāwahīokalaniʻōpuʻu School. The elementary section of Nāwahī is a public charter school catering to grades K-6. A local school board provided the governance for the school, and its chair was a parent of two immersion students at Nāwahī Iki. He was involved in all activities of the school. He endorses sharing the school with those not having facilities for teaching. Some teachers with skills not readily available and, thus, in short supply, were shared with others using the school for their youngsters. He felt that the Hawaiian language and culture are needed by youngsters to gain knowledge of who they are, where they are (from), and to gain confidence of being and being successful. "Spirituality of the Hawaiian ancestors must be the foundation of education." The school board meetings were open to the public, and the school had an open door policy to everyone. The farmers often come by to see and examine the traditional process of making soil. They learn the process of what is used, cared for and how used. This is a process of mutual learning: the children teaching the older generation from an ancestral technique of soil making. In working with teachers, staff and elders, the children learn that it is okay to learn a specialty in the modern world, but in living within an ecovillage a specialty as canoe making, basket weaving are desirable but that one needs to gain an immeasurable knowledge of place, a matter of survival.

The process of hiring teachers is a difficult task under any circumstance, and here it may be even more difficult because underlying spiritual and ecopsychological characteristics are being sought. To try to minimize unsound judgment and reduce possible heartache in the future, prospective teachers are interviewed in the Hawaiian language. This is done to ascertain the teacherʻs proficiency in

the language. The teacher must be familiar with the Hawaiian story before, this is heritage, and after the coming of the newcomers, this is history. The teacher must be able to share with students the constant barrage, stress and often harsh conflict the newcomers inflicted upon the Hawaiian people to become other than themselves. In learning of the hardships still being experienced and the resolve of their people to remain Hawaiian, the children will gain confidence and strive to aspire and hone innate abilities and skills to become anything they want to become be it a traditional means of livelihood or modern vocational, technical or professional career.

The policy of the school and board is to not only recruit the student but the whole family. This way the family supports the child in learning the Hawaiian language and culture. In essence the family who schools together learns and advances together. This is a philosophy whereby embracing the family assures that no family member is left behind in the learning process. Establishing this tradition inspires all that it is a privilege to be in this school and be educated!

Ka Makua—Parent Interview

The parent interviewed for the case study asserted that part of the success of the school was that the teachers, staff and teachers show much "aloha." Aloha is a Hawaiian word that is profound and complex, but above all it is wholeness of mind, body and soul and connectedness to the universe. In the school, aloha was shown by hugs by teachers, staff and students, opinion is sought and valued from all, and the realization that the school's success is dependent on family, the unit working together. The children learned to respect one another, respect the space of others, and to work quietly and diligently on class activities. Teachers and staff are role models through silent leadership and responsible actions. The power was not wielded by anyone in particular; rather it flows amongst all as it did in ancestral times. By seeing this and putting into practice, the children learn to honor and respect themselves, others, and all other things around them. Being thoughtful in school transfers to the home, making it safe and comfortable. For kindergartners, the first graders become the role models as they have gone through the experiences that the younger ones are going through. This is the beauty of a multiage, multidisciplinary classroom. The older helping the younger, this is peer teaching and learning as often the younger ones have something to give. Art is another way of seeing and expressing experiences, and it works best for the youngsters. Often the parents volunteer to help in the classroom on a regular basis. This may entail grading papers, reading, teaching in their area of expertise, and whatever else that the teacher requires. The classroom becomes a family, a spirit family. It becomes identity and value creating. The values and cultural context become clearer for the students. The students acquired a sense of voice with increasing ability to speak the Hawaiian language and understanding how and why things are done in their place.

The parent interviewed lived 50 miles away from the school. She was a Hawaiian language teacher, curriculum developer and had added responsibility as a university researcher. The passion and commitment to prepare children for

meaningful work is the driving force. This process of unlocking possibilities and getting Hawaiian people out of the negative, hopeless, and depressed morass to a positive plane is of prime importance. Teaching the Hawaiian language and culture is a way of empowering students through knowing Hawaiian values through language and culture. She saw the school as the center of positive change that entails high Hawaiian standards and community involvement. The school used place for teaching which reflects the traditional community use as a laboratory with hydroponics projects, learning the water cycle, growing vegetables and marketing the produce, thus learning economics of place. By working with plants and animals, the students acquired endosomatic sensing and a sense of interdependence. This teaches about "love, interdependency through life, expectation as a way of life" exalted through the living Hawaiian language and culture. Students learned to trust as the school nurtures security, teaches them to accept all others and learn to feel for those that fail or drop out. It was this accepting environment that binds the students together and is good for all. These were lacking in public school's as there is no identity feeling. The charter school strived to develop responsible citizens, open-mindedness, and dare to learn with others.

Ka Hālāwai Kumu—Group Teacher Discussion

The school is an evolutionary process requiring new and innovative ways of teaching and learning. It required teachers to think of ways they were traditionally taught as youngsters, to seek involvement of the students, think of what and how we teach, and how students respond to them. Language and thought have a close relationship and should provide a means to develop a vision, an expression of it that is tangible. A number of barriers were expressed, among the limited number of elders, time, and money resources. This puts the teachers on a level whereby teamwork is absolutely necessary for the success of the school. There is often not enough time for dialogue with each other and collaboration. Health of the community is the issue as it was in ancestral times. Traditional health measures could be made more effective by incorporating contemporary health practices. Sustainability is limited as it involves imagination and creativity to make it work permanently. There are "ghosts" of people walking around, these are people with homeless, rootless minds. The Hawaiian worldview with its language is needed because it is the language of place.

Nā Haʻawina Nui—Insights and Lessons Learned

Hawaiian language immersion education has had a major impact in increasing the numbers of Hawaiian language speakers from 35 children under the age of 18 in 1985 to about 2,000 students enrolled in P-12 grades across the state. The Hawaiian language revitalization movement began as a grass roots effort for families seeking an alternative to education that aims at reestablishing the Hawaiian language as a viable living and sustainable language. It reawakens the values and knowledge of the ancestors and brings it forth within the learning contexts of the school. Culturally relevant strategies taught through a native lens are important in the delivery of curriculum and in the preparation of teachers for immersion.

For the immersion educator of an endangered language there are also many issues that require diligent attention to language proficiency and cultural knowledge beyond the mainstream teacher education program. Many times the immersion educator is viewed as a cultural leader of the community. Therefore, teacher leadership should be part of the overall teacher preparation and professional development experience.

For the first year professional, solo teaching is a "reality check" of ones abilities to make connections to learning that is culturally relevant and academically rigorous and responsive to the many demands and concerns. It is a year of challenge that pulls at the heartstrings of the conscientious educator who is still very much an apprentice within the profession. Humility, personal expectations of excellence and one's ability to honestly focus on the needs of the children play an important part in the ability of the teacher to progress to the next stage as a professional educator.

There are a many wonderful lessons and insights that this case study revealed about the power of language and culture, the healing of native identity, the empowerment of communities, the strengthening of educators and families, and the drive for excellence and success through an immersion model of education. From the interviews and mentoring activities we have gleamed 15 pieces of wisdom that are important insights learned from this case study. They have implications for supporting language and culture in the schools. They also have implications for teacher education programs and professional development activities for the native setting and immersion education.

Insights on Native Language Immersion Education

1. Revitalize native language and culture for modern times based on what our kūpuna (elders) have left for us.
2. Cultural values should be embedded throughout the learning environment and across the curriculum in a way that fosters positive cultural identity and school success.
3. Immersion has to be a commitment. Help teachers move from wanting to teach their native language to teaching through their language.
4. Immersion education brings language, culture and education together in a way that honors the importance of a culture and a people, addresses state expectations for graduation, and cultivates the potential of the school community.
5. Believing in the vision, understanding your role within the mission, and contributing your strengths, talents and abilities with purpose and commitment contribute to the quality of the whole effort and make the goal attainable.

Insights on Teacher Development

1. You must be humbler than the children and be true and sincere. In that way you rise above the children.

2. The more you focus on the children, their learning and acquiring their own mana (personal spiritual power) to learn and be, the happier you are as a teacher.
3. Ideas of learning through multiple content areas as segregated courses are not natural and teachers need to understand that in the way they convey learning to children.
4. The approach should incorporate experiences with a global focus that make learning real and connected.
5. Sometimes teachers struggle through without seeing the real joy of being a teacher and that is, to enjoy children learning.
6. Teachers that struggle through the challenge of teaching in a language that is not their first language sacrifice their time to prepare with limited resources. They demonstrate patience and tolerance and walk with grounded values and are able to place the children before their own personal needs, work with parents, meet the various expectations of tests and student needs and work with others as a team are able to become dynamic teachers with the ability to inspire others.
7. Aloha (love, compassion, kindness) is central to Hawaiian pedagogy. It drives a way of teaching that is inclusive; it places the child as the primary focal point; and it helps to foster our connections to other essential cultural values including, love of family, love of land, love of knowledge, love of language and culture, humility and respect.

Insights on Native, Immersion and Community Dynamics

1. Partnering is a part of our culture. We live on an island, we depend on each other, we all have special talents. We need rely on each other. This is the way of our kūpuna (elders).
2. Struggling and working together to find new ways of learning and teaching with parents, teachers, and students make a difference.
3. Encourage people to "step-up," to keep trying and not to give up.
4. Keeping focus on the children makes leadership simple.

Epilogue

Two thousand sixteen marks the fourteenth year since the case study began. In those fourteen years Ke Kula ʻo Nāwahiokalaniʻōpuʻu School has grown and broadened even stronger roots upon its vision of leadership as a kula kaiaʻōlelo mauli ola Hawaiʻi, a total Hawaiian medium life-force school. Student enrollment has grown with over 500 students at its home site in Keaʻau, Puna on Hawaiʻi island and includes two satellite schools Alo Kēhau o ka ʻĀina Mauna in Kamuela on Hawaiʻi island and Māʻilikūkahi in Waiʻanae on the island of Oʻahu.

The statewide enrollment for Hawaiian medium-immersion schools from preschool to grade twelve has also increased. Currently, there are 13 Pūnana Leo preschool sites and 22 K-12 Hawaiian medium-immersion schools, both Department of Education (DOE) and charter schools with about 3,000 total student enrollments statewide. Like Nāwahīokalaniʻōpuʻu, other schools have

experienced an increase demand for classroom space which has doubled the enrollment at the kindergarten entry level or created waiting lists at schools with limited facilities.

Teacher preparation for Hawaiian medium-immersion schools have distinct needs and challenges in recruiting students who have high Hawaiian language and cultural proficiency and a range of content discipline background, creating a dilemma for the revitalization of endangered languages. Current teacher preparation programs like Kahuawaiola continue to be challenged to address the new teacher demand across all grade levels, especially secondary levels. Creative solutions that build teacher readiness and engagement in extended options for widening the teacher preparation pathway are also in discussion to address the growing statewide teacher shortage.

In 2015, the Hawai‘i Teachers Standards Board (HTSB) revised its Hawaiian Immersion licensing standards. The new set of teacher preparation licensing standards called Kaia‘ōlelo-Kaiapuni Hawai‘i are well aligned to the needs of Hawaiian medium-immersion schools (http://www.htsb.org/wp-content/uploads/2015/09/Hawaiian-Kaiaolele-Kaiapuni-Field.pdf). In addition, the DOE approved a new policy for its Papahana Kaiapuni Hawai‘i schools that include dual qualification requirements for its teachers (http://boe.hawaii.gov/policies/Board Policies/Ka Papahana Kaiapuni.pdf).

Kaiolohia continues as a teacher at Ke Kula ‘o Nāwahīokalani‘ōpu‘u and has three (3) children who are also enrolled in the school. As a closing piece to the case study, Kaiolohia was asked to provide her reflections on being a Hawaiian medium-immersion teacher in a kula kaia‘ōlelo mauli ola Hawai‘i, a Hawaiian life-force school:

> This year marks my fourteenth year teaching at Ke Kula ‘O Nāwahīokalani‘ōpu‘u Iki. While I feel more comfortable and confident in my teaching now, there are still the daily struggles. Reflecting back on the ten years that have passed since this article was written, the insights and lessons learned after my first year of teaching still ring true to this day. Keeping the language relevant to modern times in social settings and not just the classroom/school setting is crucial to its longevity through our children. My main takeaway after all these years of teaching is that a kumu mauli ola has to have a true passion for the calling. Passion to do what is needed to see the language be a living and thriving language in the generations to come, as well as an empathic nature to foster our children’s growth in an environment much like an ‘ohana, where cultural knowledge is seen in a real-world setting and is passed down from one generation to the next. Realizing that the students in your classroom are not just students, but your own children and the children of your friends and family, it makes being a kumu mauli ola that much more significant. We are not only preparing them for the next grade level or to pass the next standardized assessment, we are preparing them to do all that and much more on a solid foundation of their native language

and culture. A kumu mauli ola has to be fearless when realizing that that is the ultimate goal.

Notes

[1]This chapter is based on a 2006 case study that was part of Native Educators Research Project at Arizona State University, which was supported by an American Indian/Alaska Native Research Grant from the Office of Educational Research and Improvement (now the Institute for Educational Science) and the Office of Indian Education.

[2]Angayuqaq Oscar Kawagley passed away in 2011 and was not able to review the final contents of this chapter before publication.

[3]Kaiolohia Masaoka went under the name of Brandi Kaiolohia Say at the time this study was done.

Papa Kūmole—References

ʻAha Pūnana Leo. (1999). *A timeline of Hawaiian language revitalization* [Electronic Version]. Retrieved April 7, 2007 from http://www.ahapunanaleo.org/about/about_timeline.html

Chiras, D., & Christian, D. L. (2003, June-July). It takes an ecovillage. *Mother Earth News: The Original Guide to Living Wisely,* 56-64.

Hawaiʻi General Superintendent of the Census. (1897). *Report of the genera superintendent of the census*, 1896.

Hale Kuamoʻo. (2015). *Nā Kula Kaiapuni 2015-2016 Enrollment*. Hilo, HI: Ka Haka ʻUlaO Keʻelikōlani.

Ka Haka ʻUla O Keʻelikōlani, & ʻAha Pūnana Leo. (2009). *Ke Kumu Honua Mauli Ola*, a philosophical doctrine written in 1998. Hilo, HI: Ka Haka ʻUlaO Keʻelikōlani and the ʻAha Pūnana Leo.

Kahuawaiola Indigenous Teacher Education Program. (2006). *Kahuawaiola Brochure. Ka Haka ʻUla O Keʻelikōlani.* Hilo, HI: University of Hawaiʻi at Hilo.

Kanaʻiaupuni, S. M., Malone, N., & Ishibashi, K. (2005). *Ka huakaʻi: 2005 Native Hawaiian educational assessment.* Honolulu, HI: Kamehameha Schools, Pauahi Publications.

Kawaiʻaeʻa mā, K. (2016). Nā honua mauli ola: Hawaiian cultural pathways for healthy and responsive learning environments. In L. Kinoshita (Ed.), *Nā Honua Mauli Ola.* Retrieved from http://www.olelo.hawaii.edu/olelo/nhmo.php

Native Hawaiian Education Council, & Ka Haka ʻUla O Keʻelikōlani. (2002). *Nā Honua Mauli Ola: Hawaiʻi guidelines for culturally healthy and responsive learning environments*. Retrieved March 11, 2014 from http://www.olelo.hawaii.edu/olelo/nhmo.php

Ke Kula ʻO Nāwahīokalaniʻōpuʻu. (2016, April 15). Puke Alakaʻi. Retrieved August 12, 2016, from http://www.nawahi.org/

Sheldon, John G. (1996). *Ka puke moʻolelo o Hon. Josepa K. Nāwahī.* Hong Kong: Hale Kuamoʻo Hawaiian Language Center.

Silva, K., Kaʻawa, M., Kawaiʻaeʻa, K., & Housman, A. (2005, November 27¬December 1, 2005). *Teaching founded upon the Kumu Honua Mauli Ola.* Paper presented at the Te Toi Roa: Indigenous Excellence, World Indigenous Peoples Conference on Education (WIPCE), Hamilton, Aotearoa NZ.

State of Hawaiʻi. (2007). *Constitution of the State of Hawaiʻi*. Retrieved July 26, 2013 from http://www.hawaii.gov/lrb/con/conart15.html.

State of Hawaiʻi Department of Education. (1994, May). *Long range plan for the Hawaiian language immersion program papahana kaiapuni Hawaiʻi.* Retrieved March 11, 2014 from http://www.k12.hi.us/~kaiapuni/HLIP/appendices%20extracted/Appendix_a.pdf

State of Hawaiʻi Department of Education. (2000, October 11). *New long-range-plan for Hawaiian language immerison program*. Honolulu, HI: Office of Accountability and School Instructional Support/School Renewl Group.

State of Hawaiʻi Department of Education. (2004, Aug). *Program guide for the Papahana Kaiapuni Hawaiʻi Hawaiian language immersion program.* Retrieved March 11, 2014, from http://www.k12.hi.us/~kaiapuni/HLIP/HLIPGuide.pdf

Decolonization, Complete Bilingualism, Academic Achievement, and National Identity: Arguments for Literacy in Indigenous Languages

George Ann Gregory and Freddie Bowles

This paper presents benefits of literacy in Native American languages for four primary reasons: decolonization, complete bilingualism, increasing academic achievement, and national identity. The loss of American Indian languages is the direct result of colonization. As American Indian nations work on re-establishing their own languages, there is a pressing need to include literacy in those American Indian languages. Carmen Silva-Corvalán's (2014) study confirms the need for schooling in the heritage language to give a child complete bilingualism by adulthood. Moreover, this study supports Jim Cummins' (2003a; 2003b) work with bilingual populations in Canada, in which literacy in a child's mother tongue was the gel that set up further success in both languages. Additionally, research confirms the benefits of bilingualism in academic achievement particularly in reading and writing. The cognitive benefits of bilingualism have been strongly chronicled. Finally, literacy in a language can strengthen national identity as confirmed by Ellen Cushman's (2013) study of the effects of the Cherokee syllabary on Cherokee identity. Each of these research areas reinforce the urgency for groups who have decided not to write their languages to find methods and strategies to expand their language revitalization efforts to include more complex linguistic structures to create truly bilingual speakers.

There are several reasons why literacy in Indigenous languages must be considered for complete revitalization. Literacy in the language of the conquerors represents colonization in many countries, such as the United States, Canada, New Zealand, and Mexico as examples. In a modern world, literacy occurs in school and is associated with academic achievement. Increased academic achievement is created by the acquisition of complex linguistic structures, the very structures that are associated with texts and academic writing, and it is the acquisition of these complex linguistic structures that allows for complete bilingualism. One final reason for advancing literacy in an Indigenous language is to promote a sense of nationhood, thereby completing decolonization.

Identity Crisis

Educational colonization of American Indians did not occur in a vacuum, but within the context of educational policies and practices of the United States. In reality, from the beginning the United States is one of the few countries that required instruction at the college/university level in writing the common language.

Instruction has focused on developing "correct" language and appealing only to reason. These programs have been used as gatekeeping courses to "maintain" standards and keep Native Americans from achieving university degrees. Essentially these policies have served the same colonial function today and perpetuate the acculturation policy of English only instruction in schools.

American Indians were left somewhat out of the equation because they had their own separate nations. However, the policy of Manifest Destiny dictated the demise of domestic nations. While in the early years of the United States the question of language was debated, there was agreement that some form of English should be used as the standard (Battistella, 2013). Noah Webster, for one, promoted the idea of a national language in his statement that "Customs, habit, and language, as well as government, should be national" (quoted in Battistella, 2013, p. 218) whereas Jefferson favored allowing the citizenry to decide the language. Ultimately, speaking an American version of English became associated with enhancing the status of the emerging United States. In this context, language differences were viewed as social problems. While the language of the U.S. was being debated, most of those involved were multilingual and multiliterate. In fact, Benjamin Franklin was multi-lingual and multi-literate in French, Spanish, Latin, and Italian. Thomas Jefferson read Greek, Latin, French, Italian, Spanish, some Anglo-Saxon, and a little German, and Noah Webster, who is associated with American English, learned 26 languages in order to complete his dictionary (Merriam Webster, 2014)

English, however, was not the only language spoken in the former English colonies. According to Parrillo (2009), "Colonial America was a rich mixture of racial and ethnic heterogeneity right up to the Revolutionary War" (p. 43), creating a "patchwork quilt of ethnic settlements" (p. 44). Philadelphia in 1700 is a good example of this ethnic heterogeneity. While primarily a village of English and Welsh (who had their own language), there were also "Danes, Dutch, Finns, French, Germans, Irish, Scots, and Swedes" (p. 44). And among these groups there was additional diversity: "The 300 or so Germans, for example, were a mixture of Lutherans, Mennonites, and Quakers, each group remaining separate from the others" (p. 44). To accommodate the multilingualism of the early United States, "in 1777 the Articles of Confederation were printed in French, and the Continental Congress printed some proceedings in German. According to the 1790 census, about 20% of the new nation's population spoke a language other than English as their first language" (Pearson, 2014).

Schooling during this time focused primarily on the classics: grammar, rhetoric, and history. Some children were able to attend Dame schools that consisted of learning how to read and write simple words. Most girls never went beyond this while the boys may have attended a Latin grammar school, where in the middle colonies "they might also study classical languages, history and literature, mathematics, and natural science" (Education World, 2000). At the same time, some of the ethnic communities had their own schools in their heritage languages. For example, the Dutch had a keen interest in education, and this interest continued in the Dutch Colony of New Netherland (Manhattan). The

curriculum was similar to the Latin school for English speaking children, except that instruction was in Dutch. "Grammar at this time, when all learning was in Latin, included those elementary studies of the school which were designed to give a mastery of that language for the sake of subsequent study (Kilpatrick, 2010, p. 96). "Schools essentially served private purposes and educational attainment reflected the religious, racial, class, and gender differences in society" (Wagoner & Haarlow, n.d.). In fact, the later common schools furthered these same interests, particularly the ideals of Protestantism, and maintained existing classes and racial and gender differences (Soltow & Stevens, 1991).

From the time of the Revolutionary War until the late 1800's, American Indians in the Northeastern and Southeastern parts of the U.S. enjoyed the status of domestic nations. The Cherokee and Choctaw were some of the first American Indian nations to have schools and to achieve high rates of literacy in their own languages. The Cherokee achieved literacy in the Sequoian syllabary outside of a school situation (Cushman, 2011). Like the Vai of Liberia (Scribner & Cole, 1981), literacy was primarily among adults and was learned from someone else who used the syllabary. The Choctaw, however, achieved their literacy from Sunday schools although this literacy too was primarily among adults (Morrison, 1978).

As the implementation of public education lagged, literacy became a primary function of Sunday schools in the early 1800's. These efforts were principally for the purpose of reading the Bible and other religious tracts. This amount of literacy was seen as reforming, but not upsetting the social order by having laborers attaining the same level of education as gentlemen (Soltow & Stevens, 1981). In order to proselytize effectively among the Choctaw, these literacy efforts were done in the Choctaw language. Missionaries among the Cherokee also used the syllabary for this same purpose.

Seeing the potential of schooling for the survival of their respective peoples, the Cherokee and Choctaw nations invested in schools for their children with the hope that by taking on the trappings of European American civilization their nation status would be respected by their non-Indian neighbors. These schools were English only schools, generally taught by non-citizens of these respective nations and still run by missionaries. The primary purpose of the missionaries was to "civilize" the students. For men this meant becoming farmers, and for women this meant giving up their traditional role as farmers and learning the domestic activities of spinning, weaving, and sewing (Morrison, 1978; Perdue, 1998). Full bloods who still spoke their native languages usually did poorly in these schools, often returning to their homes.

After the Civil War, U.S. school curriculums focused primarily on literacy and literacy related activities. "Until age eight the typical curriculum consisted of only spelling, reading, and writing…. Provided a child began school at age 5 and attended regularly, he would be reading McGuffey's 4th or 5th reader by age 11 or 12, which is well above the 8th grade level. Then, began formal study of grammar" (Soltow & Stevens, 1981, p. 113). Writing literacy lagged a little behind reading literacy. At this point, a child was considered literate and graduated

to a grammar school. The grammar school curriculum "consisted of disciplined memorization and recitation and the curriculum was again comprised of Latin and the classics—reading texts from Classical Greece and Rome, becoming more precisely defined over the next several decades by the entrance requirements to Harvard College" (Dorn, 2008). Students spent all day in just Latin.

Schooling in other countries—Mexico, Canada, and New Zealand—served similar colonizing purposes. " During colonization, education was used by Spain as an instrument of domination to nurture political dependency among Natives (Andrade de Herrera, 1996, p. 26). In 1867 under Benito Juarez, three principles of education that continue to today were established: Schools are non-religious, free, and obligatory. Normal schools were established in 1910, and schools began to expand into rural areas, often dominated by Indian populations. Schooling was via the Spanish language. Like early education in Mexico, the Catholic Church was the primary provider of any schools in New France (Canada). After the British Conquest, schooling became a vehicle to the Anglicization of French speakers. As in the U.S., schooling was seen as a way to make better citizens of laborers and later immigrant populations. Schooling was used to assimilate First Nations people (Canadian Encyclopedia, n.d.).

The Māori, like the Cherokee and Choctaw, were keenly interested in literacy. "While missionaries saw literacy as the key to the scriptures, Māori were more interested in understanding the European world with its tall sailing ships, firearms and iron tools" (Caimen, 2013, p. 2). Also, like the Choctaw and Cherokee, the Māori soon started their own schools although, in this case, the teachers were Māori. These early schools taught in the Māori language while instruction in English lagged. These Māori run schools were replaced with schools in English and vocational training, and, by the late 19th and early 20th Century, children were strapped for speaking the Māori language.

Bilingualism in the U.S.

Multilingualism was the norm during the colonial period of the U.S: "There were eighteen languages spoken on Manhattan Island as well as Indian languages" (FacultyStaff, n.d.). Education was bilingual. The Germans in particular established schools via the German language and a federally funded German College in 1776. While schools for the masses pushed education through English only, educated men were still multilingual. Education in the United States began with studying Latin and grammar and reading the classics. Within this system, students—boys—spent all day in the Latin language. As a result of this, educated men could talk extensively in Latin. "It was common for learned works written in the vernacular to be quickly translated into Latin in order to reach an international public" (Herlander, 2010, p. 7). German schools followed a similar pattern of schooling with boys being educated in German and Latin.

In addition to continued education in Latin, various states authorized education via multiple languages: In 1839, Ohio authorized education in English, German, or both; in 1847, Louisiana authorized education in English, French, or both; in 1850 several states, including Pennsylvania, Colorado, Illinois, Iowa,

Kentucky, Missouri, Nebraska, Territory of Arizona-New Mexico, and Oregon authorized education in languages other than English. Greenwood Leflore, a principal chief of the Choctaw Nation at the time of removal, spoke English, Choctaw, Spanish, French, and Chickasaw. As a member of the Mississippi state legislature, it is rumored that he filibustered at least once in Choctaw in protest of the use of Latin by his fellow legislators. "German-language schooling prevailed until the early 20th century, notwithstanding external pressures to phase it out in favor of English instruction" (Genzuk, 1988). One of the Cherokee elders in New Mexico recalls that the only school in a small, eastern New Mexico town was a German school, so she learned to read and write first in German (Fran Hill, personal communication, April 13, 2013). Instruction via German and German speaking communities continued into the 1970's in Texas (Estelle Szegedin, personal communication, March 6, 1972).

Through the mid-nineteenth century, individual bilingualism was fairly common. Charles Curtis, born in 1860, was Kaw, Osage, and Potawatomi. From his mother and material grandparents, he learned Kaw and French, and, from his paternal grandparents, he learned English. In 1929, he was inaugurated as vice-president of the U.S. In addition to being the only American Indian vice-president, Curtis' ability to speak multiple languages was fast becoming a thing of the past. There are several factors helped to boost the push to have instruction in English only. First was increased immigration. From 1887-1960, public and private bilingual schools decreased "while this era saw the largest influx of non-English speaking immigrants. Between 1887-1920, more than twenty distinguishable European languages, other than English, were spoken by U.S. citizens. Also during this period numerous Asian languages were brought into the United States" (Gunzuk, 1988).

During this same period, there was a heavy push to complete the assimilation of Native Americans. Boarding schools in the eastern part of the United States were one solution for doing this. Children as young as six were taken from their families and placed in dormitories where their names were changed and they were punished for speaking their native languages: "If they were caught "speaking Indian" they were severely beaten with a leather belt" (Native American Public Telecommunications, 2006, p. 2). The Māori in New Zealand experienced similar punishments for using their language in school, thereby creating a language loss for an entire generation in both populations. These assimilationist practices disrupted the transmission of the languages and cultures: "All told, more than 100,000 Native Americans were forced by the U.S. government to attend Christian schools where tribal languages and cultures were replaced by English and Christianity" (Native American Public Telecommunications, 2006, p. 2). Battistella (2013) described this policy as a foreshadowing of "Orwell's theme of language as a mechanism of conformity and social control" (p. 219), quoting Atkins, Commissioner of Indian Affairs in his 1887 annual report.

Finally, two world wars with Germany created a strong anti-German sentiment in the U.S. and, along with the Spanish American War and the Korean Conflict, strengthened the position of English only instruction. Restrictions

included revoking certification for teachers caught breaking these laws and suspension and ridicule for students using other languages in school. The twentieth century was a time for the U.S. to consolidate its position as a world power and consummate the Americanization of all its citizens. This Americanization even extended to the territories of Puerto Rico and the Philippines and to instruction in foreign languages in 15 states (Gunzuk, 1988). During this period, the use of English became equated with good citizenship. "Non-English speakers were viewed with suspicion, so they tended to stop speaking their native language and to discourage their children from learning it" (Gunzuk, 1988, p. 5). Many Native Americans followed suit, sometimes even denying their Indian identity and claiming to be Mexican so that they could find work (Gregory, 2002)

Despite the push for a common language, by the 1970's there were still more than 25 European languages, various Asian languages, and the majority of American Indian languages spoken in the U.S. Because of the consciousness-raising of the 1960's, many groups became interested in preserving or reviving their heritage languages. The Black Panthers recruited youth, gave them literacy and job skills, and taught them an African language, Swahili (Bloom & Martin, 2013). Mississippi Choctaw and Navajo children still came to school speaking only their Indigenous languages.

The Role of Literacy and Schools in Bilingualism

Some of the former British colonies, such as Canada and New Zealand, have recently become officially more tolerant of multilingualism than the U.S. As a result, much of what is known about bilingual schooling comes from Canada. One of the strongest proponents of literacy in a child's heritage language has been Jim Cummins (2003). Like Battistella (2013), Cummins (2003) notes that "assimilationist policies in education discourage students from maintaining their mother tongues." Not providing education in a child's language violates the rights of a quality education to a child and forces the discontinuation of a heritage language by "undermining communication between children and parents" (Cummins, 2013). Education in a child's heritage language is essential for educational development, noting that over 35 years of research shows that when a child develops literacy in two or more languages a person is better able to compare how reality is organized in each language. This ability is sorely needed in the current globalization. Cummins (2013) further notes that a child's development in his/her heritage language is the best predictor of development in the second language.

It is generally accepted that schooling and literacy aid in a child's language development in English. The more complex verb tense-mood-aspect of English, such as perfect aspect and passive mood, tend to be found in forms associated with written uses of language, hence schooling (Biber, 1988) because literacy primarily occurs in school. Additionally, the acquisition of relative clauses seems to reflect the language of the adults who the child hears. As a consequence, some forms of the relative clause, such as genitive and adjunct are not acquired before going to school (Diessel, 2007). Additionally, understanding of many adverbial clauses is

not acquired until after a child enters school (Diessel, 2007). It is this data that has also fueled Cummin's support of literacy in a child's heritage language.

Carmen Silva-Corvalán's (2014) study supplies specific information about what a person loses in a heritage language when schooling is not continued. Silva-Corvalán (2014) studied the acquisition of Spanish and English of her two grandchildren and calls this acquisition Bilingual First Language Acquisition, or BFLA (p. 7). While the study focuses on preschool acquisition, its findings have implications for why literacy in a language completes its acquisition. "The overall goal of this book is to find out the effect that different degrees of exposure to and use of English and Spanish has on some aspects of the emerging grammars of two developing bilingual siblings" (p. 164).

To address concerns about acquisition of the dominant language, one aspect of the two languages that was compared was the use of subject pronouns. Spanish unlike English does not require an overt subject pronoun. The study revealed that the lower amount of exposure to Spanish resulted in deviations in the acquisition of overt subjects in Spanish while English, the stronger language, showed no negative effects from exposure to Spanish. "On the contrary, the siblings start using subject pronouns and MLUW [mean length of utterances/words] compared to monolingual English speaking children, and reach adult use at about age 2;0" (p. 164). This conclusion addresses a concern that BFLA might negatively affect a child's acquisition of the dominant language.

Another concern might be interference from language on the other. A further difference between Spanish and English is position of the subject. Spanish allows for post-verbal positions of verbs in declarative sentences whereas modern English does not. There have been few studies on the acquisition of subject position in children. "It is in no way surprising, then, that even in a fixed SV-order language like English, toddlers produce VS utterances when the subject conveys newer information…. It appears, however, that these non-adult orders are rare" (p. 185). As a consequence, it appears that children learn grammatical word order of their language early. According to Silvan-Corvalán (2014), the question motivated by the simultaneous acquisition of English, a fixed order language, and Spanish, a flexible word-order language, is whether there is crosslinguistic interaction: Does Spanish influence English such that children are delayed in reaching complete mastery of the invariant preverbal subject position of English? Or, rather, do children tend to copy the fixed preverbal subject position of English, thus evidencing a higher proportion of preverbal subjects in Spanish compared to the adult input, and to monolinguals" (p. 215).

By age 2:6, both siblings had acquired SV order of English, free of any influence from Spanish. Additionally, the differing amounts of exposure to Spanish did not appear to create an adverse effect on the acquisition of the flexible subject position in Spanish.

Perhaps the most significant finding that indicates a need for continued schooling and literacy in a language is the acquisition of verb morphology: tense, aspect, and mood. Verb inflection in English has been lost in its modern version while Spanish retains a rich inflectional system. First, errors made by the BFLA

siblings were consistent with those made by monolinguals. However, having less exposure to Spanish created effects on the acquisition of TMA (tense-mood-aspect) in Spanish. One effect is that the more complex verb forms in Spanish were not acquired by age six. In a comparison of Spanish tense-mood-aspect compared across bilinguals, (near) monolingual children (5:0-5:11), and two bilingual adults, "all the bilinguals evidence instability in the use of the imperfect" (p. 346). Further evidence "shows that the siblings and another English-dominant bilingual child with reduced exposure to Spanish at home display the same feature characteristic of adult bilinguals in Los Angles, namely the extension of imperfective marking to stative verbs used in perfective discourse contexts" (p. 346). It is this incomplete acquisition that strongly suggests the enhancement of exposure to the weaker language through schooling and literacy.

Wayne Holmes (personal communication, April 26, 2011) voiced a similar concern about acquiring TMA in Navajo during a presentation celebrating the 40th anniversary of the Navajo Language Program at the University of New Mexico. At that time, he was discussing differences between the Māori and Navajo languages and the kinds of language programs that the Navajo language might need in order for Navajo students to acquire a complete verb system. In addition to the verb system, Navajo has a complex pronoun system that is used rhetorically. McCreedy (1989) analyzed three Navajo genres: prayers, coyote stories, and personal narratives. One of the differences she found was difference in pronominal reference. "Tracking a referent is largely accomplished through the matching of pronominal categories with referents, both of which tend to remain constant across clauses in texts" (p. 139). Despite the use of elaboration by elder Navajos, many children may not have acquired all Navajo linguistic complexities by age six, before they enter school. Neundorf (1983) stated that Navajo parents prefer elaboration in spoken Navajo, noting that there is no such thing as "baby talk." "They [Navajo adults] tend to use the same elaborate form of the language with the youngsters. For the adult Navajo, the more picturesque and elaborate speech, the better. Metaphor, simile, and personification are used as a matter of course" (p. xiii). Navajo linguistic complexities, like Spanish and English linguistic complexities, would benefit from continued acquisition in a school setting.

Other Indigenous languages have their own complex grammars that will not be acquired by bilingual children prior to attending school. Additionally, some Indigenous children may not encounter their heritage languages except in a school setting or primarily in a school setting. This is the case for Choctaw children in Oklahoma. Some aspects of the Choctaw language that need to be taught include kinship terms, which unlike English, do not exist in the abstract, but "only exist in relationship to a particular possessor," such as *amafo*—my grandfather (Broadwell, 2006, p. 57). Like Navajo, Choctaw has a complex verb system with some verb tenses that only exist in texts from the 19th Century. In another case, the Osage language has no native speakers, but has several fluent second language speakers of Osage. One aspect of the Osage language that will have to be taught is differences in men and women's language (Cameron Pratt,

personal communication, April 15, 2010). The Māori have probably come the furthest in promoting literacy in their language as some universities now offer a Ph.D. in the Māori language, thereby requiring writing a Ph.D. thesis in that language. Because of these efforts, there are now academic discussions regarding the rhetoric necessary to write well in the Māori language (Houia-Roberts, 2004).

Bilingualism and Academic Achievement

There was a time when a child's speaking another language was considered detrimental to academic achievement. This was particularly true if the child came from a poverty background. Despite years of research, indicating that not only does being bilingual not create poor academic achievement but also, in many cases, actually enhances academic achievement, many legislators and even educators still believe being bilingual is detrimental to learning. Brown, Roediger, and McDaniel (2014) make the argument that much of what is practiced in education in U.S. schools is actually folklore without any foundation in empirical research. To a certain extent, Scribner and Cole's (1981) study of three types of literacy indicate just how much reading instruction is based upon cultural beliefs and practices.

Cummins (2003b) summarizes the importance of literacy to academic achievement with his two concepts of BICS/Basic Interpersonal Communicative Skills and CALP/Cognitive Academic Language Proficiency. His primary concern is that educators are not giving bilingual students sufficient language instruction for them to achieve academically in the dominant language. For Cummins, literacy is critical for this academic achievement: "Cummins also pointed out that the construct of academic language proficiency does not in any way depend on test scores as support for either its construct validity or relevance to education…" (2003).

As students progress through the grades, they are increasingly required to manipulate language in cognitively-demanding and context-reduced situations that differ significantly from everyday conversational interactions. In writing, for example, they must learn to continue to produce language without the prompting that comes from a conversational partner and they must plan large units of discourse, and organize them coherently, rather than planning only what will be said next (Cummins, 2003b).

Han's (2009) study provides evidence to support Cummins' proposition. Han (2009) measured bilingual academic achievement in literacy and mathematics with a group of Latin American and Asian students who entered kindergarten in the 1998/1999 school year and were followed through 5th grade. Reading and math scores increased for both groups. In fact, bilingual children learned at a faster pace than monolingual English speaking children. "Overall, the results showed that despite starting with lower math scores in kindergarten, Fluent Bilingual children fully closed the math gap with their English Monolingual peers by fifth grade" (Han, 2009, p. 37).

In another study, Marian, Shook, and Schroeder (2013) reported the results of a bilingual two-way immersion program: "Results revealed that bilingual Two-Way Immersion (TWI) programs benefited both minority-language and majority-language students. Minority-language students in TWI programs outperformed their peers in Transitional Programs of Instruction, while majority-language students in Two-Way Immersion outperformed their peers in Mainstream monolingual classrooms" (p. 167). They begin with a statement that there is increasing evidence that providing some instruction in a child's heritage language benefits academic performance (p. 167). The two languages in this study were English and Spanish and, like the Han study, included data from kindergarten to fifth grade. Also, like the Han (2009) study, children in the two-way immersion programs showed increasing test scores while those in transitional programs did not.

One study with Native Americans that showed increased academic achievement through dual language or bilingual instructions was done with Alamo Navajo students in Magdalena, New Mexico (Smallwood, Haynes & Keri, 2009). Half the population of the Magdalena public school are Navajo students from the Alamo Navajo community. Seventy-five percent of the students from Alamo are dominant Navajo language speakers. Because most Navajo students enter school speaking Navajo, the Navajo language program at Alamo itself consists of learning to read and write in Navajo (Tyanne Benally, personal communication, May 9, 2008). In the four year demonstration program at Magdalena, students received English as a Second Language instruction and instruction in Navajo language and culture: "The program offered Navajo language arts classes for Grades K−5 and Navajo language and culture classes for Grades 6−12" (Smallwood, Haynes & Keri, 2009, p. 2). As in other studies of bilingual students and academic achievement, "students exhibited increased involvement and pride in their school and improved reading, math, and science scores on standardized tests. Their parents also became more involved in school" (p. 1).

One possible reason why there have not been more success stories from bilingual education is that for a long time bilingual education programs were transitional programs from a child's native language to English. Despite this emphasis, successful bilingual programs have produced proficient speakers and academic achievement. Two examples of these are Rough Rock Demonstration School and Peach Springs School. Rough Rock was an outgrowth of the federal War on Poverty programs. A contract was established in 1966 "among the local Navajo board, a tribal board of trustees, the BIA, and the Office of Economic Opportunity. The school was named Tse' Chi'izhi Diné Bi' Ólta—Rough Rock (Lomawaima & McCarty, 2006). It was 1966. The purpose of the school was two fold: to have greater control by the community so that traditional knowledge could be passed down and to improve the academic achievement of community children. Learning in classrooms was built to be socially, linguistically, and cognitively compatible with the community, and instruction was in both Navajo and English. Navajo staff and teachers developed the Navajo curriculum. After 4 years in the program, the mean scores by the participating students on locally developed measures of English listening comprehension rose from 58% to 91%.

Scores also rose in reading and math. "Bilingual students who had cumulative, sustained initial literacy instruction in Navajo over 3 to 5 years made the greatest gains on local and national measure of achievement (Lomawaima & McCarty, 2006, p. 125).

The bilingual program at Peach Springs in the Hualapai Nation on the edge of the Grand Canyon began in 1975 primarily through the efforts of Lucille and Philbert Watahomogie. At that time, 90% of the fifth grade students were referred to Special Education because their primary language was Hualapai, a Yuman language. In defiance of the principal's forbiddance of teaching in the Hualapai language, Lucille Watahomogie began using Hualapai in the classroom. Because Hualapai was not a written language, an orthography needed to be created. This was done with the help of linguists, beginning with the Summer Institute of Linguistics. The Watahomogies decided that they would become their own linguists. As a result of their work, they and the curriculum committee developed "a series of teaching units on Hualapai cultural-environmental studies, literacy, mathematics, and science, as well as dozens of attractively illustrated Hualapai-language children's books" (Lomawaima & McCarty, 2006, p. 128). Despite initial opposition from non-Hualapai teachers and some community member who had been educated in an English only school environment, "children's positive responses to the Hualapai materials and their improved academic achievement gradually defused these objections (project evaluations showed consistent improvements in children's English-language achievement as well as high school graduation rates of 100%)" (Lomawaima & McCarty, 2006, p. 128). Lomawaima and McCarty (2006) concluded that in all of these programs, including the Hawaiian programs, children acquire Native language "without cost to their English-language learning or academic achievement, performing as well as or not better than comparable peers in nonbilingual programs after a period of 4 or 5 years" (p. 132).

National Identity and Decolonization

There is one final argument for literacy in Indigenous languages, national identity. As the Cherokee and Choctaw nations were creating their republics in the 19th century, literacy played an important role in creating and maintaining a national identity. In fact, it was this literacy that played a key role in creating the republics and sustaining citizens of both nations. Cushman (2011) does not refer to this use of literacy as national identity per se, but calls this identity "peoplehood." Both nations produced a body of literature in the language, including the Bible, religious tracts, hymnals, newspapers, school texts, almanacs, legal documents, personal letters, and poetry (Cushman, 2011; Gregory, 2009). Cushman (2011) made the argument that it was literacy in Cherokee that allowed the Cherokee to reorganize themselves after removal and to rebuild after the Civil War. Even after statehood, literacy in both languages continued to be used within churches in the writing of the minutes of meetings of various church organizations. Cushman (2011) summarized the role of literacy for the Cherokee this way: Literacy was "fostered by nationalistic movements that simultaneously serve a tribal core

and present a 'civilized' face to outsiders" (p. 217).

Before Cushman, Greymorning (2004) summed up the importance of Indigenous languages to nationhood status this way.

> Prior to the birth of the United Nations, language did more than symbolize who a people were. It also played a significant role in defining nations. This is most easily made evident by looking at the names of numerous people, languages, and nations. For example, the Chinese speak Chinese and comprise the nation of China; the French speak French and comprise the nation of France.… But language goes far beyond this symbolic reference to a people and their nation. Language also plays a role in shaping how a people make sense of and give meaning to the world in which they live (pp. 11-12).

Not only do nations have languages, but they also have laws and literature and other literate uses of language. Essentially, having a national language is part of what makes a nation a nation, and literacy in that language is an integral part of its sovereignty.

Decolonization and the Academy

Despite an intense focus on creating literacy in the early years of the U.S., there was a perception that there was a literacy crisis during the period of 1875-1885. In 1870, Harvard University became aware that students coming from Latin grammar schools and academies—academies were conducted in English, but still studied Latin—"were having problems with its demanding classical courses. In response, Harvard instituted its first written examinations in written English in 1874" (Connors, 1996, p. 48). This began a movement from teaching the classics and using literacy to gain knowledge to focusing on literacy as an end in itself. "Previously, writing was seen as a means to producing better oral presentations. Suddenly, reading and writing became a focus of teaching: Indeed, by the twentieth century it was to become the primary focus of education. The on-going need for Freshman Composition was fueled by on-going perceived literacy crises in the U.S. Part of what was creating the perception of a literacy crisis was that institutions of higher education were having to serve populations, such as veterans returning from the Korean Conflict going to school on the GI Bill, who previously had never attended a university. Holladay (1991) described these students: "Most of our students are non-traditional and at risk and are locked in chaotic, crisis ridden lives" (p. 30). The attitude in this statement harkens back to the attitude missionaries of the 19th century with their Sunday School efforts.

It is this perception of students that continues to ensure the existence of college composition programs, which are "known as the gatekeeper in higher education. It performs the sorting operation that is called tracking in public schools" (Chaplain, 1996, p. 169) and have become an extension of public school education policies: "So completely is mass education caught up in the rise of the

nation-state that many fair-minded observers have described the principle function of public schooling as the inculcation of normative values and behaviors rather than the dispersal of knowledge per se" (Spellmeyer, 1991, p. 40). This inculcation is manifested in good essay writing that Bartholomae (1996) described as "techniques of vertical integration…. organized to minimize human variability and uncertainty in the production process" (p. 13). Veeder (1995) describes this writing as lacking spirit: "There is something about Western rhetoric as we have come to know it that separates the spirit from discourse" (p. 2).

Furthermore, there is little empirical evidence that these courses further the writing literacy skills of students. The first controlled study of the effectiveness of college composition in the late 1920's found that "no measurable improvement in composition was apparent after three months of practice" (Connors, 1996, p. 52). This ubiquitous college composition requirement appears to be unique. It is not a universal requirement at Canadian universities and universities in New Zealand do not have this requirement. Courses are called papers and students work with tutors, usually graduate students, to help them write the papers.

Veeder (1995) refers to writers whose voices have been excluded from academia as the Fourth World: "The definition of the Fourth World has since been associated with sub-nations within nations, and the definition of Fourth World peoples has expanded, through the efforts of the United Nations, to include the interests of ethnic groups deterritorialized with a borders of a country and to women, not only in America but throughout the world" (p. 2). Heath (1996) echoed this call for more inclusion when she pointed out that literature in classrooms has silenced the voices of minorities and women or ignored them. She advocates programs that are spirit renewing. Veeder's (1995) Fourth World encompasses the Pueblo idea of the Fourth World, the complete world in which people emerged. Additionally, it is important to remember that Indigenous people have their own rhetorical traditions, and these traditions can serve as the basis for literate rhetorics in Indigenous languages. An earlier study by Gregory (1993) illustrates one way that Indigenous students bring their own rhetorical traditions to college composition. In this one-of-kind study, Navajo-English bilinguals illustrated their understanding of the rhetorical task of constructing arguments by using rhetorical strategies from Navajo rhetoric.

Perhaps, the Hawaiians and Māori have made the greatest progress in bringing an Indigenous rhetoric to the academy. The Māori particularly have the option of writing their papers and taking exams in the Māori language. Some dissertations have been written in the Hawaiian language. The Māori, like the Choctaw and Cherokee, have a history of literacy that includes many different genres: legal documents, personal letters, religious materials, newspapers, poetry, song, essays, and minutes of meetings. Other groups, such as the Navajo, still have a variety of oral genres from which written genres can spring. Lyons (2000) made the argument that since American Indian sovereignty was eroded through rhetoric the development of rhetorics in native languages would go a long way to restoring that sovereignty. Berlin (1996) believed that "students deserve an education that prepares them to be critical citizens of the nation that now stands

as one of the oldest democracies in history. In the United States, it has seldom been considered sufficient to educate students exclusively for work" (p. 223). This ideal for education is equally applicable for citizens of Indigenous nations.

Hill (2012), a Canadian writer, proposes that universities create spaces where sharing of knowledge can begin the decolonization process and to learn to respect and offer support for common goals. It may be necessary to go beyond this by challenging the dominant colonial discourse. To do this, Indigenous people must control the process. One idea supporting this control of indigenization is "the continued practice of one's language …[as] a facet of positive resistance" to colonization (Gross, 2007, p. 39). As a treaty right for the Indigenous people of Canada and the United States, Indigenous nations need to demand that the academy supports the survival needs of its citizens. Recently, the Māori have associated the protection of te reo, the language, with the protection of the taonga, or treasure, that is covered in the Treaty of Waitangi.

Conclusion

In addition to the arguments put forth here, the 21st century is a century of multi-media and print. Indigenous children interact with print and via print everyday. Indigenous youth expect language in print, and language revitalization is for the youth: It is for the future. The cost of not having a future is too high for Indigenous people. In a study done in Canada, not only was the inability to use one's language a reliable predictor of suicide, but youth suicide effectively fell to zero 'in those few communities in which at least half the band members reported a conversational knowledge of their own 'Native' language" (Hallet et al., 2007, p. 392). Having written languages records the past and paves the way for a future that allows Indigenous languages equal political and cognitive footing with dominant languages.

References

Andrade de Herrera, V. (1996). *Education in Mexico: Historical and contemporary educational system*s. Eric Document 393 634.

Bartholomae, D. (1996). What is composition and (if you know what that is) why do we teach it? In L.Z. Bloom, D. A. Daiker & E.M. White (Eds.) *Composition in the twenty-first century: Crisis and change* (pp. 11-28). Carbondale: Southern Illinois University.

Battistella, E. L. (2013). Bad language—Bad citizens. In S. D. Blum (Ed.) *Making sense of language: Readings in culture and communication* (pp. 217-228). New York: Oxford University Press.

Biber, D. (1988). *Variation across speech and writing*. Cambridge, UK: Cambridge University Press.

Bloom, J., & Martin, W. E. (2013). *Black against the empire: The history and politics of the Black Panther Party*. Berkeley: University of California Press.

Broadwell, G. A . (2006). *A Choctaw reference grammar*. Lincoln, NE: University of Nebraska Press.

Brown, P. C., Roediger, III, Henry L, & McDaniel, & Mark A. (2014). *Make it stick: The science of successful learning.* Cambridge: Belknap Press

Caiman, R. (12 July 2013). Māori education—mātauranga: Missionaries and the early colonial period. *Teara—The Encyclopedia of New Zealand*. Retrieved from http://www.TeAra.govt.nz/en/maori-education-matauranga/page-2

Canadian Encyclopedia. (n.d.). *History of education*. Retrieved from http://www.thecanadianencyclopedia.ca/en/article/history-of-ed

Casper, S. C. (2007) Introduction. In S. C. Casper, J. D. Groves, Stephen W. Nissenbaum, M. Winship & D. D. Hall (Eds.), *A history of the book in America: Vol. 3: The Industrial Book, 1840-1880* (pp. 1-39). Chapel Hill: The University of North Carolina.

Chaplain, M. T. (1996). National standards and college composition. In L. Z. Bloom, D.A. Daiker & E.M. White (Eds.), *Composition in the twenty-first century: Crisis and change* (pp. 166-176). Carbondale: Southern Illinois University Press.

Connors, R. J. (1996). The abolition debate in composition: A short history. In L. Z. Bloom, D.A. Daiker & E.M. White (Eds.), *Composition in the twenty-first century: Crisis and change* (pp. 47-63). Carbondale: Southern Illinois University Press.

Cummins, J. (2003a). *Bilingual children's bilingual tongue: Why is it important to education?*. Retrieved from http://iteachilearn.org/cummins/mother.htm

Cummins, J. (2003b). *Putting language proficiency in its place: Responding to critiques of the conversational/academic language distinction*. Retrieved from BICS_CALP_Putting_Language_Proficiency_in_Its_Place_Jim_Cummins.pdf

Cushman, E. (2013). *The Cherokee syllabary: Writing the people's perserverance.* Norman: University of Oklahoma.

Diessel, H. (March 17, 2007). *The emergence of relative clauses in early child language.* The 12th Biennial Rice University Symposium on Language.

Diessel, H. (2009). *The acquisition of complex sentences*. Cambridge: Cambridge University Press.

Dalton, A. (2010, Aug. 11). *Rediscovering the lost world of Neo-Latin*. Retrieved from http://www.spotlight.ucla.edu/programs/neo-latin/

Dorn, C. (2008). *Grammar school. Encyclopedia of children and childhood in history.* The Gale Group. Retrieved from http://www.faqs.org/childhood/Fa-Gr/Grammar-School.html

Education World. (2000). *Education in the colonies*. Retrieved from http://www.educationworld.com/a_lesson/TM/EducationInTheColonies.shtml

FacultyStaff, (n.d.). *Bilingualism in the United States: A historical perspective.* California State Univeristy, Stanislaus. Retrieved from http://archive.csustan.edu/TeacherEd/FacultyStaff/betts/Handouts/PDFs/Biling.%20in%20U.S.-A%20Hist.pdf

Getner, D., & Boroditsky, L. (n.d.). *Early acquisition of nouns and verbs: Evidence from Navajo.* Retrieved from http://lera.ucsd.edu/papers/navajo.pdf

Gregory, G.A. (1993). Standard/Standards: How Diné student writers get it right. *Journal of Navajo Education*, *11*(1), 33-40.

Gregory, G.A (2002). *Holocaust of Native America*. Albuquerque: Ho Anumpoli.

Gregory, G.A, (2009). Creating our future: Creating a computer corpus of Written Choctaw. In A. M. Goodfellow (Ed.), *Speaking of endangered languages: Issues in revitalization* (pp. 166-183). Newcastle upon Tyne: Cambridge Scholars Publishing.

Greymorning, S. (2004). Culture and language: Political realities to keep trickster at bay. In S. B Greymorning (Ed.), *A will to survive* (pp. 3-17). Boston: McGraw Hill.

Gross, J. (2007). Resistance to monolingualism. In J. Gross (Ed.), *Teaching Oregon Native languages* (pp. 35-67). Corvallis: Oregon State University Press.

Gunzuk, M. (1988). *Bilingual education: An historical perspective*. Los Angles: Los Angeles Unified School District, Office of Bilingual-ESL Instruction.

Hallet, D., Chandler, M. J., & Lalonde, C. E. (2007). Aboriginal language knowledge and youth suicide. *Cognitive Development, 22*, 392-399.

Han, W. (2009). *Bilingualism and academic and social development: A final research paper to the Foundation for Child Development (FCD) PK-3 initiative.* Foundation for Child Development. Retrieved from http://fcd-us.org/sites/default/files/Han_Bilingualism_and_Academic_and_Social_Development.pdf)

Heath, S. B. (1996). Work, class, and categories: Dilemmas of identity. In L. Z. Bloom, D.A. Daiker & E.M. White (Eds.), *Composition in the twenty-first century: Crisis and change* (pp. 226-242). Carbondale: Southern Illinois University Press.

Herlander, H. (2010). Neo-Latin studies, Significance and prospects. *Symbolae Osloenses* 76, 5-102.

Hill, E. (2012). A critique to the call to "Always Indigenize!" *Peninsula: A Journal of Relational Politics, 2*, 1-7.

Houia-Roberts, N. (2004). An analysis of the rhetorical organization of selected authentic Māori texts belonging to the text-types argument and information report. *Journal of Māori and Pacific Development, 5*, 1-34.

Holladay, S. A. (1996). Order out of chaos: Voices from the community college. In L.Z. Bloom, D. A. Daiker, & E.M. White (Eds.), *Composition in the twenty-first century: Crisis and change* (pp. 29-38). Carbondale: Southern Illinois University Press.

Kilpatrick, W. H. (1912). The Dutch schools of New Netherlands and colonial New York. *United States Bureau of Education, 12*, 43.

Lomawaima, T., & McCarty, T. L. (2006). *To remain an Indian: Lessons in democracy from a century of Native American education*. New York: Teachers College Press.

Lyons, S. R. (2000). Rhetorical sovereignty: What do American Indians want from writing? *College Composition and Communication, 51*, 3, 447-468.

Marian, V., Shook, A., & Shroeder, S. R. (2013). Bilingual two-way immersion programs benefit academic achievement. *Bilingual Research Journal, 36,* 167-186.

McCreedy, L. A. (1983). *Aspects of reference, cohesion, and style in three genres of Navajo texts.* (Unpublished doctoral dissertation, Georgetown University).

Merriam Webster. (2014). *Noah Webster and America's first dictionary*. Retrieved from http://www.merriam-webster.com/info/noah.htm

Morrison, J. D. (1978). Schools for the Choctaw. Durant, OK: Southeastern Oklahoma State University, Choctaw Bilingual Education Program.

Native American Public Telecommunications. (2006). Indian boarding schools. *Indian Country Diaries*. Retrieved from http://www.pbs.org/indiancountry/history/boarding2.html).

Neundorf, A. *A Navajo/English bilingual dictionary*. Albuquerque: University of New Mexico Press.

Parrillo, V. N. (2009). *Diversity in America.* Thousand Oaks, CA: Sage Publications.

Pearson, H. H. (2014). *The standardization of American English*. Roy Rosenzweig Center for History and New Media, George Mason University. Retrieved from http://teachinghistory.org/history-content/ask-a-historian/25489

Perdue, T. (1998). *Cherokee women*. Lincoln: University of Nebraska Press.

Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge, MA: Harvard University Press.

Silva-Corvalán, C. (2014). *Bilingual language acquisition: Spanish and English in the first six years.* Cambridge: Cambridge University Press.

Smallwood, B. A., Haynes, Flynn, E., & James, K. (2009). *English language acquisition and Navajo achievement: Promising outcomes in heritage language education.* Center for Applied Linguistics. Retrieved from http://www.cal.org/projects/magdalena_report.pdf

Spellmeyer, K. (1996). Inventing the university student. In L.Z. Bloom, D. A. Daiker, & E.M. White (Eds.), *Composition in the twenty-first century: Crisis and change* (pp. 39-46). Carbondale: Southern Illinois University Press.

Soltow, L. & Stevens, E. (1981). *The rise of literacy and the common school in the United States: A socioeconomic analysis to 1870*. Chicago: University of Chicago Press.

Veeder, R. (1995). *Notes toward a definition of rhetoric for emerging nations: Spirit, rhetoric, and the Fourth World*. Eric Document 400 555. Retrieved from http://eric.ed.gov/?id=ED400555

Wagoner, J. L. & Haarlow, W. N. (n.d.). *Common school movement - Colonial and Republican schooling, changes in the Antebellum Era, the rise of the Common School*. Retrieved from http://education.stateuniversity.com/pages/1871/Common-School-Movement.html

Exploring a Pathway to Reshape School-wide Literacy Practices for Indigenous Students

Margaret Vaughn, Kelly Hillman, Traci McKarcher & Cindy Latella

In this chapter, three teachers reflect on classroom action research projects they conducted as they sought to reshape literacy instruction to support Indigenous ways of knowing. The chapter highlights teachers' voices and visions of what can be done to structure action research projects that can shift and disrupt schoolwide literacy practices in spaces that serve Indigenous students and educators.

Since the passing of No Child Left Behind Act of 2001, opportunities for Indigenous students to participate in literacy instruction that is culturally responsive has been limited. For example, as part of a state mandated literacy program in a school serving mainly Indigenous students (Vaughn et al., 2015), required texts included resources that marginalized students (e.g., *Voyage of the Half Moon*, a required reading text with questions positioning Indigenous students as "these people" and "devils" (West, 1995, pp. 2-3). Unfortunately accounts of this curricular mismatch or an exclusion of Indigenous knowledge and voices in the promoted curriculum has been far too common. Moreover, contexts where teachers are pressured to "teach to fidelity," (e.g., teaching without deviation to the prescriptive curriculum) continues to dominate classroom discourse in many schools serving Indigenous students. Given this, critical scholars emphasize the need to rethink instruction and schooling that is grounded in heritage, language, and culture indigenous to a particular tribe (Castagno & Brayboy, 2008).

Addressing the well-documented research that examines ways to support Indigenous students in today's educational context (Reyhner, 2015), this chapter builds upon this work and examines how three teachers used action research as a tool to reshape school-wide literacy practices. Action research is a powerful tool that can support students' cultures, languages, and voices (Campano, 2007) while empowering teachers in their efforts to cultivate new understandings about their craft (Cochran-Smith & Lytle, 2009; Bradshaw & Vaughn, 2016; Rose, Vaughn, & Taylor, 2015). In this chapter, we describe reflections of action research projects conducted by Kelly, Traci, and Cindy as they sought to reshape literacy instruction to support their school's 88% Native student population. We want to highlight these teachers' voices and describe how action research can serve as a navigational tool to shift and disrupt schoolwide literacy practices in spaces that serve Indigenous students and educators.

Who We Are

Kelly is a Native American female and classroom teacher of 15 years who was raised on the nearby reservation and attended the school in which she now teaches. Traci, is a Native American female and classroom teacher of nine years.

Cindy is a European American female and classroom teacher of eighteen years who also sought to teach at Lapwai Elementary. Margaret, is a European American, female and literacy faculty professor at the nearby land grant university who worked alongside Kelly, Traci and Cindy as they conducted action research projects as part of their culminating project for the graduate degree program of which Margaret was the director. In the following, we briefly describe their action research projects and discuss their visions of shifting literacy culture in their school through these projects.

Kelly

The focus of Kelly's action research centered on exploring her students' stories and their perceptions about writing in school. She shared, "My vision for teaching literacy to my students is to allow them the opportunity to hear and share their own voice." Her action research project aligned tightly with her vision as it was titled, "Telling Our Stories." In her research, Kelly explored her story as a Native American elementary teacher and her reactions and experiences during her schooling. She developed a curriculum that focused on her students' language and Native culture and documented her students' understandings and perceptions of writing during culturally responsive writing units. Kelly shared the following about her rationale for her research:

> My action research helped support my students' culture by providing them an opportunity to share their knowledge, stories, strengths, fears, and history through writing workshops. The curriculum that we adopted at the time did not have a lot of relevant examples of Native culture. This action research allowed me to explore culturally appropriate ways to teach literacy with relatable examples. My students also participated with a summer writing workshop that published books using their own language (Nimiipuutimpt) with the expertise and help from tribal elders to ensure the writings were culturally accurate.

Kelly's research documented the ways in which her students participated in the writing process and their reactions to a curriculum that foregrounded their language and culture. When asked about what was the most important thing about her action research, she shared:

> I was able to impact the learning of my students in a better way than if I hadn't embarked on this journey of conducting research of my practice. My students who were in my class during this project are now freshman in high school. I can see how important it was for them to have an opportunity to share their stories. When I see them now they give me hugs and I know they feel valued by me and that I truly care about them and their culture. They can relate to me in a positive way and some of them still may not like writing or speaking up in class but deep down inside they know that I believe in them and that I gave them

> an opportunity to shout from the mountain tops that their learning needs were important and needed to be met. I continue to strive to meet the needs and challenges my students face and provide hands on learning and use oral history whenever possible.

Traci

Traci was particularly concerned about her students' access to genres highlighted in the Common Core State Standards (CCSS, 2010). Traci's vision centered on creating opportunities in her class where her students could be successful in school and beyond. Her action research titled, "Explicit Strategies and Informational Text: An Action Research Project with Third Graders," focused on examining how to provide access to informational text so that her students could successfully navigate the complexities and language of this genre. Traci shared the following about her research and the impact of it on her students:

> My action research project was instrumental in accommodating my students' love and need for informational texts. Our population of students value and have a deep understanding of the land and places that have meaning to them as Native Americans. They relate well and connect to the world around them. Informational text was a way to get them to read about topics like this (land, water, places, etc.). My research demonstrated that students are motivated by, and can read successfully, informational texts. This was important to me because many of my students benefited by having rich books to share that connected to the land and places around them. They relate well and connect to the world around them, which gives them common ground while reading about different cultures around the world or other topics such as where water comes from.

Traci also recognized that the school lacked many culturally responsive texts at the time of her research. She reasoned that by exposing her students to informational texts that she could help them to reconnect with relevant and interesting topics aligned with their interests and Native culture. She also shared that because she mainly chose narrative texts to share in her class with her students, the action research helped her to examine her practice and to highlight informational text as a genre to connect with Native culture.

Cindy

In Cindy's action research titled, "An Examination of a Writer's Workshop in a First Grade Classroom on a Native American Reservation," she examined how incorporating culturally relevant texts, and resources, (e.g., graphic organizers, language) could help to create a culturally responsive unit of writing. Cindy shared that her vision for teaching her students focused on building a solid literacy foundation for her students and a classroom where her students felt confident

about their roles as readers and writers. She shared that her action research helped her students to, "share their voice" but also that it deeply affected her work to become a culturally responsive educator. She shared the following:

> I learned how to create a culture in my first grade classroom of writers that take pride in their work and see themselves as writers. I want to highlight my students' culture as Native Americans. This learning has impacted my teaching and continues to influence the books I select as anchor texts and the activities I plan for my kindergarten students even today.

Cindy shared that the knowledge gained by conducting her action research continues today as she creates culturally responsive writing units anchored in her students' language and culture.

Conclusion

Together, Kelly, Traci and Cindy's action research projects reflected critical literacy tenets by disrupting understandings of common practices; examining multiple viewpoints, taking action, and promoting social justice (Lewison, Seeley Fint, & Van Sluys, 2002). When we think about ways to support Indigenous students, one pathway is to consider how to engage Indigenous educators and teachers who work with Indigenous students in the process of action research. In each of these projects, Tribal Elders were an integral component of their literacy instruction. Elders could be found sharing their stories, listening to students, answering questions about the Tribe and supporting the way literacy was viewed and taught in the school. Moreover, Kelly, Traci, and Cindy articulated visions focused on supporting their Native students in literacy. Duffy (1998) shares that because teaching is much like balancing round stones, effective teachers must possess a vision for teaching literacy. Other scholars have documented the need for visioning as a tool (see Figure 1) to navigate the complexities of teaching in today's highly standardized educational context (Hammerness, 2006; Vaughn & Faircloth, 2013). We extend this work to think strategically about ways to explore teachers' visions as a catalyst in the action research process. Taken together visioning alongside action research can provide teachers with the space to reflect, problematize their own knowledge and practice.

The importance of listening to Indigenous educators and educators who work with Indigenous students as they engage in action research to critically examine and disrupt practices distant from supporting Indigenous students is needed. Through action research, practitioners can engage in applying knowledge of their practice, students, and reflect on their practice to meet the individual needs of their students. Because action research anchors the research on teachers' understandings of their practice, Cochran-Smith and Lytle (2009) state it is the "construction of knowledge and teachers' ways of knowing" (p.143). As a result, through this process of inquiry, teachers are able to weave their vision for teaching and influence local and schoolwide practices thereby creating a cultural shift in schools.

Figure 1. Visioning as a Tool

Kelly, Traci, and Cindy developed these action research projects to support their students and to provide access to resources that the school did not have. As such, action research can be used to shed light in schools that those who inhabit them can see. These teachers held a vision of what could be and acted on their agency to guide them in contexts where they believed their students' cultures, languages, and strengths were not heard given literacy mandates. These spaces are not without risk. In some schools, a teacher is reprimanded for not complying with curricular materials and resources outlined in the mandated program. In another school, a teacher is written up for not complying with the outlined pacing guide because her students needed additional time on the subject at hand. Indeed Kelly, Traci and Cindy were risk-takers as they critically examined their practice and made changes to meet their students' cultural and linguistic strengths. We issue a call to Indigenous educators and those educators working alongside Indigenous educators to examine their vision much like Kelly, Traci, and Cindy and engage in action research. The words of bell hooks are particularly relevant in thinking about this call, "The classroom, with all its limitations, remains a location of possibility" (hooks, 2014, p. 207).

The classroom is indeed a location of possibility and by documenting Indigenous educators and those who work with Indigenous students voices' and their action research, successes about shifts toward culturally responsive practices can be cultivated.

References

Bradshaw, S., & Vaughn, M. (2016). Students and teachers reading and reflecting: Revisiting Retrospective Miscue Analysis during classroom instruction. *Journal of Research in Education, 26*(1), 54-75.

Campano, G. (2007). *Immigrant students and literacy: Reading, writing, and remembering.* New York, NY: Teachers College Press.

Castagna, A. E., & McKinley Jones Brayboy, B. (2008). Culturally responsive schooling for Indigenous youth: A review of the literature. *Review of Educational Research, 78*(4), 941–993.

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation.* New York, NY: Teachers College Press.

Common Core State Standards Initiative. (2010). English language arts standards. Retrieved from http://www.corestandards.org/ELA-Literacy/

Duffy, G.G. (1998). Teaching and the Balancing of Round Stones. *Phi Delta Kappan, 79*(10), 777-80.

Hammerness, K. (2006). *Seeing through teachers' eyes: Professional ideals and classroom practices.* New York, NY: Teachers College Press.

hooks, bell. (2014) Teaching to transgress. New York, NY: Routledge.

Lewison, M., Flint, A. S., & Van Sluys, K. (2002). Taking on critical literacy: The journey of newcomers and novices. *Language Arts, 79*(5), 382-392.

No Child Left Behind Act of 2001. (2002). (PL 107-110). Accessed 11/12/09 from http://www.ed.gov/policy/elsec/leg/esea02/index.html.

Reyhner, J. (Ed.). (2015). *Teaching Indigenous students: Honoring place, community, and culture.* Norman, OK: University of Oklahoma Press.

Rose, L., Vaughn. M., & Taylor L. (2015). Reshaping literacy instruction in a high poverty early childhood classroom. *Journal of Research in Education, 25*(1), 72-87.

Vaughn, M., & Faircloth, B. (2013). Teaching with a purpose in mind: Cultivating a vision for teaching. *The Professional Educator, 37*(2), 1-12.

Vaughn, M., Penney-Pinkham, D., Hillman, K., McKarcher, T.,Terry, B. S., Latella, C., Whipple. T., & Finnell, B. (2015). Locating Coyote: Reorienting the literacy curriculum to empower Indigenous students and educators. In J. Richards, & K.Zenkov (Eds.), *Empowering diverse learners and their teachers: Closing the instructional gap through social justice teaching* (pp. 57-72). Charlotte, NC: Information Age Publishing.

West, T. (1995). *Voyage of the half moon*. NY: Silver Moon Press.

Legacies of Colonialism: The Education of Maya in Belize

George Ann Gregory

Prologue

We sat together in the dark, returning from a street art fair in Belize City. She began her narrative about her life and her educational journey.

"When I was fourteen, I was told that I was married. I didn't know anything about it. I was just told that I was married."

Her husband, age twenty-one, was a drinker who rarely worked, so life was difficult. He was abusive, but she tolerated the abuse until he began to abuse his daughters. She took her three daughters and left him. Her parents and her village counseled her to return and work things out with her husband.

"I tried to work things out, but it wasn't working."

She returned to finish high school in Punta Gorda in the Toledo District. She was twenty-eight with three children. "When I applied to go to school, the minister asked, 'Do you still know your numbers, your letters?'"

I answered, "Yes, do you want me to recite them?"

Most of the teachers at the high school were Garifuna. There were no Maya teachers in her school.

"I was called names and told to quit. They said, "You are Maya. You should be washing clothes, making baskets. You shouldn't be in school. You don't belong here."

Yeah, I noticed that the teachers gave preferential treatment to other students. They were allowed to turn assignments in late, but not me. The other Maya students all quit. They didn't finish. But I didn't quit, and I graduated valedictorian." (Mopan Mayan woman)

Introduction

Belize has one of the lowest educational achievements in the region. The educational system, inherited from the British (Classbase.com, 2012), has as a "key feature" a "partnership between different religious organizations and the government in the delivery of primary and secondary education through grant-aided schools" (UNESCO, 2007, p. 1). Compulsory education is required for ages 5 to 14, the eight years of primary school. Only two-fifths of primary children, however, complete the course of study within the prescribed time. No more than 45% of students, compared to the regional statistics of 80%, go on to secondary school, and most of these come from the wealthiest families. "Fewer than half (44 percent) of standard six (eighth grade) students who took the national primary examination (PSE) in 2011 obtained an overall grade of satisfactory or above. The results were even worse for students living in rural areas, where only 37 percent scored satisfactory compared to urban students who scored 52 percent" (Näslund-Hadley, Alonzo & Martin, 2013, p. 11).

The Maya, who live primarily in rural areas, have the lowest achievement of any group in Belize with 88% attending primary school and 40% attending

secondary school. In Toledo District, which includes reserve lands (Toledo Maya, 1997), only 10% scored satisfactory (Näslund-Hadley, Alonzo & Martin, 2013, p. 12). While education is compulsory, it is not free: "…many children do drop out because their parents are unable to pay the costs of uniforms, books, and annual school fees, or need child labor to assist them at home" (Classbase.com, n.d.). In Toledo District, which has a large concentration of Maya, indigence in rural areas is 60% and 42% of the children have stunted growth due to malnutrition (Teachers for a Better Belize, 2015). Consequently, Maya generally are represented by the low statistics in Belize associated with poverty and rural populations.

The roots of the current educational problems lie in the unique history of the nation, the perpetuation of policies against the Maya enacted by the British, the subsequent and on-going colonization efforts via schools, and the lack of education via the Maya languages. The history of Belize begins with disinterest by the British in developing this area as a colony and its lack of acknowledgement of the Maya as Indigenous people. The disinterest allowed the colonization via Christian controlled schools that have disenfranchised women and the Maya, disenfranchisement of women is a possible factor in the on-going poverty of the Maya. The antagonistic British policies include built-in economic disadvantages for the Maya: Under the British, the Maya were forced to become landless laborers. Finally, Maya children have few opportunities to receive education via their own mother tongues. The input of Maya women is critical to increasing educational opportunities of Maya children.

Unique History and Development of Belize

The history of Belize is unique in the Caribbean region and Central America from the standpoint of the tenuous involvement of the British from its inception to the British denial of the Indigenous identity of the Maya, a denial that began with the first British citizens to settle in that region. In her dissertation, Relehan (2008) mentioned "the five stories central to Belizean identity" beginning with the 'discovery' of uninhabited land" (p. 105)—terra nullius (nobody's land)—even though present-day Belize is in the center of the once vast Maya Empire and the earliest known Maya settlement is located close to present day Orange Walk (Relehan, 2008). The British, however, contended that the Maya had completely deserted this area before European arrival. It should be noted that Christian groups have recently condemned this policy (General Synod, 2001; Concacan, Inc., 2015).

Bolland (2003) and Shoman (2011) exposed the fallacy of the myth of terra nullius by citing evidence from the reports of Spanish entradas into that area, indicating a large Maya population in what is now Belize. In his popular history of Belize, Shoman (2011) identified three distinct "Maya areas of control: the Chetumal province, the Dzuluinicob province and an area in the south from the Monkey to the Sarstoon Rivers, occupied by the Manche Chol Maya" (p. 4). Present day Chetumal lies in the state of Quintana Roo along the coast of the Caribbean Ocean and on the border with Belize. This area of Maya control may have extended as far south as present day Orange Walk. The Dzuluinicob area,

controlled by Yucatec Maya speakers, began outside of Orange Walk and ran south of San Ignacio. After the collapse of the Classic Maya period in the 9th and 10th Centuries A.D., the Maya continued to live in organized groups, practiced their traditional beliefs based upon their own cosmology and engaged in trade with other communities (Shoman, 2011). Relehan (2008) provided an additional rationale for denying the existence of the Maya in Belize: It allowed the British to become the "original" inhabitants. Upon independence, the Belizean government adopted the British policy, which continues to be an impediment to the advancement of the Maya people in Belize.

While the Spanish claimed the area, the first settlers were British pirates of the 1600's. The coastline of Belize with its river mouths and lagoons made it a perfect base for them. The first recorded British settlement was in 1638, but it was not until European countries agreed to outlaw piracy in 1667 that the former marauders realized the value of trade in logwood (used for dyes) that grew in abundance along the coast of Belize. Since these early settlements were close to the coast, there was little interaction with the Indigenous Maya. These early settlements represented the first colonization of the area although there was no official support by any governments. As a result of the Godolphin Treaty of 1670, the Spanish ceded its territories in the West Indies to the British. Consequently, the Belizean settlements became part of the West Indies by virtue of the settlers being British.

However, the British government remained indecisive about claiming this region as a colony, and the Spanish reasserted control over the area from time-to-time, forcing the British settlers to retreat to Trinidad. In the early part of the 1700's, logwood trade was discontinued, but the trade in mahogany began to gain ground. Logging for mahogany took the British entrepreneurs further away from the coast and into the central and northwest areas and in the proximity of Maya settlements, resulting in armed raids by the Maya. These skirmishes finally made the previously "invisible" Maya very evident. In fact, the literature of the time refers to them as "vast hordes" (Bolland, 2003, p. 103). Bolland (2003) identified four phases in the contact between the British and the Maya. The first phase during the early eighteenth century included encroachment by loggers on Mayan settlements. Phase two from 1817 to 1847 was characterized by a series of small yet persistent raids upon logging camps, followed by three decades of the Maya retreating into the forests. "The reemergence of the Maya of western Belize in 1847 occurred simultaneously with the resurgence of the Maya of Yucatan" (Bolland, 2003, p. 111). Phase three was marked by violent military activity in the northern and western parts of Belize that resulted in defeats of the San Pedro and Icaiché Maya, coinciding with the establishment of the crown colony of British Honduras. After that, the Maya were incorporated in the "colonial social structure" (Bolland, 2003, p. 111).

In 1717, Britain made its first official acknowledgement of the logging settlements at the Council of Trade. The shift to mahogany required the introduction of slavery, with most of the slaves purchased from Jamaica. Within a short amount of time, slaves became the largest population in the settlements.

The early British settlers of Belize were all male. "The fact that there were few European women, especially in the early years, encouraged the European men to view Indigenous women as objects to be used not only for their own gratification but also as vital objects for carrying out their project of domination" (Shoman, 2011, p. 7). Shoman's (2011) accounts of the treatment of African slave women further illustrate this patriarchal domination of women. Slave women were treated much worse than male slaves: Slave women were staked naked to the ground and flogged, chained and flogged, and starved (pp. 32-34) without impunity or legal recourse given that all the courts consisted of white males. It is Relehan's (2008) contention that the patriarchy of the British colonial system is the primary source of racism and marginalization of Maya in Belize. The behaviors learned under colonialism, particularly as it applies to women and Maya, have been resistant to change.

Ambiguous Status

The primary purpose of the British, like the Spanish, in the Americas was the exploitation of resources. Originally, the Maya did not figure into this exploitation as the logwood was along the coast while the Maya lived inland. As interactions between Maya and British settlers and finally the colonial government grew, the policies that were enacted reflected the lack of financial resources exercised by the Britain in its administration of this poorly defined colony. From the original denial of their existence, British policy changed as the colonial economy changed.

The first British settlers provided no records of encounters with Maya, but, as Bolland (2003, p. 102) pointed out, they were illiterate. Their primary enemy was the Spanish who constantly attacked them and tried to remove them. The Spanish records provided evidence of a Maya presence in the region even along the coasts, noting that "the Indians who live near the English are so inconsiderable that it is unnecessary to take any notice of them" (Bolland, 2003, p. 102). The Maya soon went from non-existence into an enemy for the British, however. Encounters increased as soon as the British moved inland to harvest mahogany, and the Maya fought back.

The Maya used a American Indian approach to warfare, using surprise and short-lived skirmishes, generally disrupting the logging activities and then fading into the forests. In 1788 and 1802, requests were sent for troops and guns and ammunition because of "attacks of Wild Indians" (Bolland, 2003, p. 103). "Though they ultimately failed to check the expansion of the British, these Maya were certainly seen by the British as a serious threat to their settlement…there can be no doubt that the number of Maya encountered by the British was no longer 'inconsiderable' as it had been in 1779. Neither can it be doubted that the relations between the Maya and British, far from being as cordial as had been suggested, were extremely hostile and antagonistic" (Bolland, 2002, p. 103). The size of the attacks indicates the decentralization of the Maya of the time.

Despite these early attacks and the resurgence of the Maya from 1847 to 1872, representing an uprising of Maya from the Yucatan Peninsula to the west of Belize, the British finally defeated the Maya and "incorporated them into the

social structure of the colony as a dominated and dispossessed people" (Bolland, 2003, p. 104). Because of the Maya practice of swidden agriculture, they were perceived as a threat to the logging industry. To best meet the needs of the colony, they had to be incorporated as cheap labor. To this end, Maya were forbidden to own land. As a result, whole villages had to pay rent on the land they already inhabited. In the north, the Maya and mestizos began to produce sugar cane on their rented lands in sufficient amounts to generate trade in sugar. "Between 1862 and 1868 the export of sugar from Belize was more than quadrupled" (Bolland, 2003, p. 115).

This success spawned the birth of plantations, which gradually took over the little ranchos and milpas, forcing Maya to become part of the debt peonage system that forced laborers to purchase supplies in advance of their wages. Generally, they found themselves owing more at the end of their contract than they had earned. Additionally, the Maya were paid less than other workers. Unlike Creole workers, the Maya were more likely to stay to pay their debts. As the Maya in the interior were developing Belize agriculturally, the British were courting Confederates so that the colony would have more white immigrants than those of color (Bolland, 2003).

In 1872, the Crown Lands Ordinance provided that Maya could not own land and were to be confined to reserves although this ordinance was never actually carried out fully. Two settlements in the west, Benque Viejo and Sukkotz, were identified as Maya villages. These were lands where the British were not to settle. Some land in the south in what is now Toledo District was designated reserve land. As far as the Maya were concerned, all the land was theirs as they had occupied it for hundreds of years. As a consequence, most Maya villages do not fall in the reserve lands (Toledo Maya, 1997). The British borrowed the Spanish alcalde system to administer these Maya villages. The original alcaldes were probably traditional leaders. Later they were elected and at one point they were appointed. The Belizean government originally took the stance of the British in denying the Indigenous rights of the Maya, but the preamble of the new constitution of 2001 includes a specific reference to Belize's Indigenous people, "requiring that policies of state protect them" (Shoman, 2011, p.314). Despite this clause, protection of Maya lands has to be re-negotiated with each newly elected government (M. Garcia, personal communication, Dec. 6, 2014). A recent incident illustrates this when thirteen Maya were arrested for protecting their land (Culturalsurvival.org, 2015).

Built in Exploitation

The British and later the Belizean government consider the Maya primarily in economic terms. Originally, they were seen as an impediment to the logging industry and later as a source of cheap labor for logging camps and plantations. The Belizean government continues to pressure Maya to cut down their forests and open up more land for development, land that is intended be sold to white settlers primarily from Canada and the United States. In fact, in everyday life, such as shopping, deference is always given to white patrons over Belizean. This

is another legacy of colonialism as is the custom of addressing everyone with a title. Another form of exploitation of Maya comes through tourism, an important source of income for Belize. "Maya exploitation of the past and the present is in many ways only marginally different. Both exist under the overarching theme of economic gains at the expense of Maya people" (Burns, 2016, p. 3). Belize is home to a large number of Mayan ruins, and visiting these ruins has become part of the ecotourism of Belize, a multi-million dollar industry. However, Mayan groups rarely oversee visitations to these sites. In fact, there may be no Maya present at all as is the case in Atun Ha in the north.

On-going Colonization

Allowing various Christian mission groups to provide schools was a natural outcome of the general disinterest of Britain in responsibility for its colony in Central America. Like the policies toward the Maya, the Belizean government has continued the educational policies of its predecessor. Under British rule, Christianity was a primary colonizing force as it taught correct behaviors as defined by the mores of Great Britain. Moreover, "Christian morals were used to justify British/white rule while simultaneously presenting the Indigenous people and African slaves as incapable of ruling themselves" (Relehan, 2008, p. 1). Relehan (2008) called these values the hidden curriculum of Belizean schools. Imperialistic curriculums have doomed many Indigenous people to fail in school as witnessed in more economically advanced countries, such as the United States, Canada, and New Zealand.

According to Relehan (2008), another important aspect of the hidden curriculum of these Christian schools is the reinforcement of traditional gender roles and keeping women only in "feminine" jobs, such as secretaries, nurses, and teachers. She noted that part of the function of the hidden curriculum is to control women's sexuality. This control is carried out in the uniforms that girls in high school are required to wear: The uniforms are designed to de-emphasize any sexuality and some schools require teenage girls to wear shapeless white dresses. Additionally, any high school girl who might become pregnant is forced to drop out of school; no comparable pejorative action is taken against expectant fathers. Female instructors are not allowed to wear trousers. These policies follow the overall patriarchal role of British colonialism. One of the outcomes of these policies lies in one interesting statistic—while more girls than boys go to high school, women are not excelling in the work force (UNICEF, 2011).

This hidden curriculum has worked against the achievement of the Maya, particularly Maya women. In the creation story recorded in the *Popol Vuh*, a retelling of traditional Mayan texts that were destroyed by Spanish priests, creation occurs through the efforts of a female and male—Xpiyacoc and Xmucane, sometimes translated as "She who has borne children" and "He who has begotten sons" respectviely (*Popol Vuh*, 2003, pp. 50-51). There is also archaeological evidence of female leaders (Emery, 2011). In Mesoamerican cosmology, men and women represent the duality of life in all its aspects: Christianity upset this balance in the daily lives of Maya (M. Garcia, personal communication, 23 May

2016). Current school curriculums, although revised during the past 15 years, do little to affirm this traditional viewpoint. Part of the problem lies in the persistent shortage of well-educated teachers (UNESCO, 2007), itself a possible result of a colonizing curriculum.

Curriculums that substitute a mythology for an actual history do considerable damage. In this case, part of the curriculum was that the Maya were not the original inhabitants of Belize. Maya, now adults, who came through Belizean schools using this curriculum are still hesitant to claim an Indigenous identity, pushing them further toward a Mestizo identity. This is particularly true in the western parts like Succotz and Benque Viejo, both villages once identified as Maya villages (Bolland, 2003). The story in the prologue of domestic abuse is all too typical for Maya women in Belize (McCluskey, 2001). As noted in the prologue and introduction, most Maya women fail to complete high school or escape the violence. Patterns of drinking and domestic abuse date back to the wage peonage era (Bolland, 2003; Shoman, 2011; Cal, 2013).

It is difficult not to think of this domestic violence as a microcosm of the violence that the Maya have historically endured in Belize. Much of the violence against Maya has been over land rights. As noted earlier, Maya were often forced to pay rent on land they were already occupying. Primarily because of the overarching patriarchy of the British system, Maya women rarely inherit property (M. Garcia, May 23, 2016). Muriel (2012) argued that the Maya could strengthen their land rights by having more women own land. In fact, this has already started happening. The Garcias, Yucatec Maya and well-known Maya healers, are landowners: Their father, a well-known and respected spokesperson for San Antonio village, Cayo, made sure that his five daughters as well as his sons inherited land. He further provided for the care of his wife for the rest of her life. In a recent confrontation over the desecration of sacred Maya ruins, the main spokesperson was Christina Coc from the village of Santa Cruz and the Maya Leaders Alliance (Culturalsurvival.org, 2015).

Lack of Education in the Maya Languages

Despite the overwhelming data supporting education via mother tongue (Ball, 2011), education in Belize is in English even though only 6% of the population speaks English as a first language. English as the language of instruction is another legacy of colonialism. In reality, most of the teachers are English as a second language speakers. Mr. Richard Peck, a grade school teacher from San Jose confirmed this in an interview when he "mentioned that when he was in high school, there was a certain discrimination against Indigenous students. Because of that, students were afraid of speaking their first language and wanted to fit in to Creole society by speaking Creole. Teachers also encouraged them to speak 'English', by which they actually meant Creole" (Tanaka, 2012, p. 10). As might be expected, there are few schools in Belize that provide education via any of the three Mayan languages in Belize: Yucatec Maya, Mopan Maya, and K'ekchi Maya.

Sponsored by UNICEF, Aguacate Roman Catholic Primary School was founded in 2007. Its primary aim is to have more Maya children complete school by following the UN mandates on educating children in their native tongues. In this school, all teachers speak K'ekchi. One of the learning goals is for students to learn how to navigate two worlds successfully, the traditional Maya world and the contemporary world. One of the first actions at the school was to have the children wear their traditional dress: "The boys would wear embroidered sleeves, collar and button-band and the girls wore po'ot (a traditional Q'eqchi' blouse) and uk' (traditional skirt)" (UNICEF, 2011, p. 15). Teachers also wore culturally relevant clothing. In addition to training in traditional arts and music, children are taught to read and write K'ekchi. Parents and community were involved from its inception. Increasing test scores validate the success of this school. There is also a second such school at San Jose.

Tumul K'in is a non-governmental secondary residential school founded in 2002. It sits on 500 acres in Blue Creek, Toledo District. Tumul K'in is a Mopan Maya word, meaning "new day" (Tumul K'in, 2016). This coed school has equal numbers of boys and girls and offers Forms 1-4 (equivalent to grades 9 to 12). Students attend school for a cycle of ten days and go home for four days. They grow all their own food, which is prepared onsite in a traditional kitchen. The curriculum consists of academic subjects and Maya arts, music, and philosophy. Students attend classes from 10 AM to about 6 PM. Before a student can graduate, s/he takes a course in entrepreneurship. While some students do start their own businesses, just as many go on to tertiary education (V. Cal, personal communication, April 22, 2016). Since the school operates on a small grant from the Ministry of Education, it suffers from a chronic shortage of funds, making it difficult to recruit and keep teachers. Like the school at Aquacate, students wear traditional clothes as a uniform as do the teachers. The school serves both Mopan and K'ekchi students. Given the travel distance and the cost of traveling (the Yucatec Maya live in the north and west of Belize), few Yucatec Maya have attended the school.

Lack of education in Mayan languages threatens the survival of the Maya in Belize and the survival of the Mayan languages themselves. Mopan and Yucatec Maya speak related languages, but K'ekchi is part of the Q'uiche Maya language family. In Toledo District, Tanaka (2011) found that many Maya language teachers were a mixture of Mopan and K'ekchi and grew up hearing both. Most language materials for all three languages are published either in Guatemala or Mexico with explanations in Spanish, making these materials inaccessible to Maya speakers in Belize although Tumul K'in has published a book on Mopan Maya. Teacher training in Mopan Maya has been delivered via la Academia de Lenguas Mayas de Guatemala in San Luis, Guatemala. In speaking with a Mayan basketmaker, she verified that Creole is the primary language at school and Maya is only used at home (T. Choc, personal communication, April 16, 2016). Most of the interviews in the Tanaka (2011) study professed that they did not feel they were fluent in Mopan.

What Needs to be Done

The future of the Maya in Belize resides in an improved educational system that reinforces Mayan languages and cultures. Unlike the systems in Canada and the United States for identifying Indigenous people, there are no rolls or record keeping by any government entities of who is Maya. There is only a self-identification, and the one aspect that determines that identity seems to be the ability to speak a Mayan language. For that reason, there needs to be more schools that teach Maya language and culture. In order for this to happen, more Maya speakers need to become trained as teachers. Additionally, materials in the three Mayan languages need to be developed. Today education for Maya reflects the on-going British colonial policies that are being perpetuated by the Belizean government.

The international community needs to provide continuing oversight to ensure that Maya rights are respected. Indeed, Belize only exists because of international sanctions as both Mexico and Guatemala still have territorial claims to parts of Belize (Shoman, 2011). Without the protection of Maya rights, Maya education will continue to suffer. The disenfranchisement of the Maya leaves them in poverty as well as without a political voice. The United Nations supports education in a child's mother tongue and cited the educational system of Belize for not supplying this opportunity (UNESCO, 2007). Existing Mayan language schools need additional financial support so that they can continue to be models for other schools.

In order to keep schools grounded in Mayan culture, the traditional role of Mayan women as propagators of culture needs to be acknowledged and reinstated, thereby decolonizing the curriculums. Studies have shown a positive correlation between a woman's educational level and the educational achievement of her children (Sewell & Shah, 1968; Chavallier, Harmon, O'Sullivan & Walker, 2013). This data strengthens the argument for providing a curriculum that affirms the Maya traditions. Currently, there is only one high school in Belize that does this, the Tumul K'in Learning Center, a co-ed boarding school where the role and importance of Maya women is stressed. This particular school currently operates without any additional funding except for the grant from the Ministry of Education. The dedicated staff is often overworked and underpaid. There are only two Maya bilingual/bicultural schools, and they are located in the southern part of the country. The remainder of the Maya children attend schools with teachers who lack sufficient, if any, linguistic training to meet the language needs of Maya students, and additionally have no cross-cultural teaching training. This training needs to be implemented immediately for all existing and future teachers if Maya children are to have a chance to succeed.

In the interim, Maya women are leading the way for change. The Garcia Sisters—five Yucatec Maya women who revitalized slate carving and Maya healing arts—are leading the way by holding public office in their respective villages and advocating for education in Mayan language and culture. When they were teenagers, Maya women did not go alone to Belize City, but their father allowed two of the five sisters to display their art. At that time, there really was

no road from their village to Belize City. Since then, one sister has served on the council in her village and established a museum of Maya art and another is building a school to teach traditional Maya healing. In the south, Christina Coc, educated in biology and chemistry at University of Minnesota-Duluth, is a well-known spokesperson for the Mayan Leader Alliance. In addition to these women, there are many other less known women making changes: a basket-maker from Armenia who is working to expand her business with the support of her husband, the women's pottery co-op from San Antonio, Cayo District, and I am also reminded of the two women from the village of Santa Cruz who were selling baskets and textiles one Sunday morning in Punta Gorda to raise money for school tuition for their children. Maya women are already changing the educational futures of their children.

References

Ball, Jessica. (2011). *Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years*. Paris: United Nations Educational, Scientific, and Cultural Organization.

Bolland, O. Nigel. (2003). *Colonialism and resistance in Belize: Essays in historical sociology.* Benque Viejo del Carmen, BZ: Cubola Books.

Burn, Lauren Elizabeth. (2016). *Exploitation of Maya cultural heritage in Belize for commercial gain.* Unpublished Master's thesis, The University of the West Indies.

Cal, Angel. (2013, May 15). *Mercantile capitalism and rural folk in nineteenth-century Belize: Peasants, rancheros and rural entrepreneurs in commercial agriculture.* San Ignacio, Belize: Association of Caribbean Historians.

Centaur Communications Corporation, Ltd. (2016). *Congress of Mayan Teachers weighs on Maya issues*. Retrieved from http://www.ctv3belizenews.com/index.php?option=com_content&view=article&id=6365%3Acongress-of-mayan-teachers-weighs-on-maya-issues&Itemid=108.

Chavellier, Arnold, Harmon, Colm, O'Sullivan, Vincent, & Walker, Ian. (2013). The impact of parental income and education on the schooling of their children. *IZA Journal of Labor Economics, 2*, 8. Retrieved from http://www.izajole.com/content/2/1/8.

Classbase.com. (2012). *Education system in Belize*. Retrieved from http://www.classbase.com/countries/Belize/Education-System.

Concacan, Inc. (2016). *The "Doctrine of Discovery" and Terra Nullius: A Catholic response.* Retrieved from http://www.cccb.ca/site/images/stories/pdf/catholic%20response%20to%20doctrine%20of%20discovery%20and%20tn.pdf.

Emery, Kathryn Meyers. (2011). *Bones don't lie: Female Mayan rulers*. Retrieved from https://bonesdontlie.wordpress.com/2011/09/27/female-mayan-rulers.

General Synod of the Anglican Church. (2001). *Doctrine of Discovery and Terra Nulius, General Synod 2001*. Retrieved from http://archive.anglican.ca/gs2001/rr/presentations/terranullius.html.

McCluskey, Laura. (2001). *"Here our culture is hard": Stories of domestic violence from a Mayan community in Belize*. Austin: University of Texas.

Murray, Mariel. (2012). As ye sow, so shall ye reap: Granting Maya women land rights to gain Maya land rights. *William & Mary Journal of Women and the Law, 18*(3), 650-87.

Näslund-Hadley, Emma, Alonzo, Haydée & Martin, Dougal. (2013). *Challenges and opportunities in the Belize education sector.* Washington, DC: Inter-American Development Bank.

Popol Vuh: Sacred Book of the Quiche Maya People. (2007). Trans. Allen J. Christenson. Mesoweb. Retrieved from www.mesoweb.com/publications/Christenson/PopolVuh.PDF.

Relehan, Heather Emily. (2008). *Ad/ministering Education: Gender, colonialism, and Christianity in Belize and Anglophone Caribbean.* Unpublished Doctoral Dissertation, University of Maryland.

Sewell, William H. & Shah, Vimal P. (1968). Parent's education and children's educational aspirations and achievements. *American Sociological Review, 33*(2), 191-209.

Shoman, Assad. (2011). *A history of Belize in 13 chapters*. Belize City, BZ: Angelus Press, Ltd.

Tanaka, Yuki. (2012). E*xploring a heritage language: Linguistic ideologies, identity, and revitalization of Belizean Mopan*. Symposium on Teaching and Learning Languages 2011, The University of Notre Dame.

Teachers for a Better Belize. (2015). *Background on Belize and the Toledo region.* Retrieved from http://www.tfabb.org/overreg.html.

Toledo Maya Cultural Council & Toledo Alcalde Association. (1997). *Maya atlas: The struggle to preserve Maya land in southern Belize*. Berkeley, CA: North Atlantic Books.

Tumul K'in Learning Center. (2009). *Kamb'al Ich T'an Mopan Maya: Learning to reading and write in Mopan Maya*. Blue Creek, BZ: Tumul K'in Learning Center.

Tumul K'in Learning Center. (2010). Retrieved from http://www.tumulkinbelize.org.

UNESCO, International Bureau of Education. (2007, Dec). *Belize*. Kingston, Jamaica: Caribbean Symposium on 'Inclusive Education. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/Inclusive_Education/Reports/kingston_07/belize_inclusion_07.pdf

UNICEF Belize. (n.d.). *Aquacate: Intercultual bilingual education.* Retrieved from http://www.unicef.org/belize/reallives_22122.htm.

UNICEF Belize. (2011). *The situational analysis of children and women in Belize 2011: An ecological review.* Belize City, BZ: Fer De Lance Productions. Retrieved from http://www.unicef.org/sitan/files/SitAn_Belize_July_2011.pdf.

A History of American Indian and Alaska Native Education 1964-1970

Thomas (Tom) R. Hopkins

This chapter describes the experiences of the author working for the Bureau of Indian Affairs (BIA) Education Program from 1964 to 1970. He describes it as a time of excitement and ready money for the Bureau's Education Program. The excitement was professional with new linguistic knowledge emerging, which was accompanied by new methods of teaching English as a second language (ESL). The ESL innovations, including the creation of the professional organization Teacher of English to Speakers of Other Languages (TESOL), was accompanied by teacher training which had an impact at the classroom level. Bilingual education was again implemented in the BIA's Education program in schools where there were large numbers of ESL children. There was also a great deal of evaluation, mostly standardized testing, of students attending BIA schools.

I came to the national level of the Bureau of Indian Affairs (BIA) Education in 1964 after eight years in Alaska starting at Arctic day schools and then five years at the Mt. Edgecumbe High School, a BIA boarding school. At Mt. Edgecumbe I was head of the Academic Department. I left Mt. Edgecumbe in 1964 to take the position of "Education Specialist, Secondary," at the Field Technical Unit located in Brigham City, Utah, on the campus of Intermountain Indian School which then enrolled mostly Navajo students. At that time I was the only Secondary Education Specialist in the BIA.

Soon after arrival at the BIA Education Branch's Field Technical Unit on January 1, 1964, I was sent to Washington, DC, to get acquainted with Hildegarde. Thompson, then Director of BIA Education. One of Mrs. Thompson's policies was to look for direction within the BIA Education Program and seldom look outside of it. I later learned that this was a main problem she had with Interior Department officials. She was brilliant in her understanding of teaching English as a second languge, which was based on her experience in the Philippines and with the Navajos. She was not inclined to consult academics for advice. She was not especially anti-intellectual but she did somewhat demand that Education employees pay attention to her knowledge and experience, which she wrote about prolifically. Considering that starting with her appointment in 1952 with the inauguration of the Area Director system, she was only a "Technical Advisor" to school operations. As such, she was amazingly effective in having her policies and directives followed. She was a brilliant person, which is not to say that I necessarily agreed with all her policies and direction of the BIA Education Program.

From 1934 to 1965 there were three Education leaders of the BIA Education Program. After Thompson left and until I retired in 1979, there were a succession of acting and formal appointments numbering about a dozen with only one having had experience educating Indians/Natives. For all practical purposes, starting in 1966, the BIA Education Program as a viable Education system and was unique in U.S. education. In my view, federal government's approach to Indian Self-Determination in 2016 is analogous to Termination back in the 1950's. Indians now have control of their Education and, even with NCLB making Education a Trust Responsibility, besides funding, the federal government no longer has Indian/Native education responsibility.

Unbeknownst to me, when I first met Thompson, she was under political pressure from Secretary of Interior Stewart Udall who obviously thought she was behind the times educationally and professionally. While there I was taken aside and handed a stack of BIA literature, which included curriculum guides and a book, *Language Teaching: A Scientific Approach*, by Robert Lado (1964). I was assigned to do analysis comparing the BIA's approach to language teaching to Lado's 17 Principles reflecting a scientific approach. Coming from a boarding high school in Alaska, I was unawares of the politics of Indian education. This unawareness did not last long.

This was an interesting assignment as I was officially an "Education Specialist, Secondary." In fact, I was the only specific high school specialist in the whole BIA Education system. Yet, I was asked to do this analysis, which largely concerned primary and elementary education. As soon as I finished a draft of the analysis I was invited to have a conversation with Mrs. Thompson. I had rated the BIA curriculum literature and guides as a one on the seven point scale (0-6) on Principle 15, "Impart an attitude of sympathy or identification with the target culture." As I pointed out in the Overview, BIA curriculum guides had over the decades been written by almost exclusively non-Indian teachers and administrators. I didn't find much concern for the Indian/Native cultures and languages in the guides. Thompson rightly saw this as a rather serious weakness in her many efforts at second language teaching of Indian children. She had a discussion with me and then zeroed in on principle 15 and said I was wrong in my analysis. I thought it over and raised it to 2, which satisfied her. Since the six point scale and related assessment was "Professional" but unscientific, raising the score to 2 seemed the best thing to do at that time. Even so, raising the Principle 15 score to a 2 was not anything to brag about, but it did satisfy Thompson.

In my overview I used the BIA literature of which there was a bountiful supply to discern how language teaching evolved over time. Actually it did not move far in approach from the emphasis on the immediate environment as the beginning of second language instruction. Even though made available in the 1930's and 1940's it did not include linguistic knowledge and modern second language pedagogy for use in BIA schools. This analysis coincidentally took place just as modern language pedagogy was beginning to influence the BIA Education program. Interestingly enough, this assessment was the first and only one of Bureau curricula guides against a set of external criteria.

Rock Point and Dennehotso

Soon after I finished the Lado analysis, I was assigned as a member of a team to evaluate the English as a Second Language (ESL) programs at Navajo schools at Rock Point and Dennehotso. Both were elementary Beginners to eighth grade boarding schools. A team of evaluators was assembled which was comprised of one person from the Area Office, myself and my supervisor, Ms Dorothy Hanlon. We were told that Rock Point was using the "new" ESL scientific method, which included linguistic knowledge, and Dennehotso was using the BIA method.

We were further told that the Assistant Area Director for Navajo Area Education was dissatisfied with the Dennenotso principal's performance and thought that competition between the two schools would shape her up. Having just finished with the Lado assignment, I was acutely aware of the new thinking on ESL. We visited Rock Point first and got acquainted with the principal, Wayne Holm, his Navajo wife, Agnes, and Dr. Willink, a language specialist. Wayne and Agnes became life-long professional acquaintances and friends as did Dr. Willink. The leadership at Rock Point was informed of the latest developments in ESL and linguistics. They were also suspicious of anyone from Washington looking over their program. They were afraid that something called the "BIA Method" would be imposed on them. I had learned from the Lado experience that there really was not an organized "BIA ESL Method." Rather, there were disparate writings which taken together could become a BIA ESL Method, but this had not occurred. The BIA curriculum guide, *Minimum Essential Goals,* did have several good instructions on ESL, but in the end fell short of a comprehensive ESL Method. I had included many quotes from the *Minimum Essential Goals* in my Lado-BIA paper. Further, the Lado scientific method was backed by experience and linguistic knowledge. Rock Point, generally, reflected Lado's method. It was encouraging and stimulating, even exciting, to visit Rock Point and to learn that a BIA school was reflecting the latest knowledge and method regarding English language instruction.

We next visited Dennehotso. We entered the school by walking up the steps to the school which were completely sand filled, making a sandy inclined plane on the order of modern day street approaches for the handicapped. The doors of the building were wide open and sand was blowing down the central hallway. A head teacher welcomed us and said the principal was busy meeting with parents. There were several parents sitting outside the principal's office waiting to see her. We then discussed our purpose of the visit with the head teacher and visited the classrooms. The teachers were going about their usual instructional program. Some reflected the *Minimum Essential Goals* and some did not. No one was aware of a BIA ESL Method. Eventually, we met with the principal who was an expert in Navajo community relations and was fluent enough in Navajo so that no interpreter was needed when she met with parents and other community members. She said she was not aware specifically of a BIA ESL method other than that contained in the *Minimum Essential Goals*. We informed her that the Area Office wanted to do a comparative evaluation study between Rock Point and Dennehotso. She said that was fine with her, but she had a parent waiting and

needed to get on with it. The Dennehotso teachers were carrying the instructional program albeit without any knowledge of a comparative evaluation between it and Rock Point. They did not seem to think it important since they had received no instructions on a specific BIA ESL method.

After the visits at Rock Point and Dennehotso I told my supervisor that there was no point in the evaluation. If the Navajo Area Education Director wanted the Dennehotso principal to improve as an education leader, she should call the principal in and lay it on the line. There was no educational benefit to be gained from a competition between Rock Point and Dennehotso, especially without a structured quasi-research design. Also, the Dennhotso principal had unique strengths in community relations which should not be inhibited through misdirected administrative action. The same for Rock Point and their innovative ESL program. The evaluation was abandoned.

Teacher Orientation Workshops for Navajo Schools

Soon after returning to the Field Technical Unit I was assigned to evaluate the Navajo New Teacher Orientation Workshop to be held at the new boarding school at Crownpoint, New Mexico. The workshop was to be held August 3 – 14, 1964. Subsequently, I was assigned to evaluate the 1965 Workshop held at Leupp Boarding school and in 1966 at the new Fort Wingate High School. I received very limited instruction regarding how to conduct a workshop evaluation. I remembered how it was done at two Intermountain Indian School workshops I had attended in recent years. The evaluation procedure was simple: assemble a committee of attendees and have them make a presentation to the participants at the end of the workshop. Invariably, the committee reports were laudatory, but in my view they were not evaluations.

BIA education workshops initiated by Willard Beatty in 1935 would often have academics, especially anthropologists, linguists and sociologists address the participants. On the other hand, Hildegard Thompson after 1951 continued the workshop practice but invited no academics, linguists or sociologists. She depended entirely on experienced BIA education employees to provide leadership at workshops.

I need to digress for a bit to explain how new teachers in the 1960's were recruited for the BIA operated school system. The BIA had created a "Teacher Recruitment Section" staffed with former experienced BIA teachers who spent the entire year visiting colleges and universities and other institutions to recruit new teachers.

Most BIA schools would be classified as "Rural," which historically, have experienced shortages of teachers. Teachers like to live in towns and cities where they generally received higher pay and more community services. Table 1 below provides the number of participants for each workshop. Though I did not have the ethnicity of the teachers provided to me, on observation, they were all non-Indian. Ethnically, they were mostly White with some Black teachers. The term "New" meant they were new to the BIA and Indian Education and "Experienced" meant they had taught the previous year in Navajo BIA schools.

A 1966 report from the Teacher Recruiting unit showed a total of 562 new BIA teachers appointed and 78 resigning, with the Navajo Area Office having 367 teachers appointed and 61 resigning.

Table 1: Teacher Workshop Participants

Year and Location	New Teachers	Experienced Teachers	Total
1964 Crownpoint	137	63	200
1965 Leupp	117	48	165
1966 Ft. Wingate	100	0	100
Totals	**354**	**111**	**316**

I went to Crownpoint without having clear in my mind just how I was going to evaluate the workshop. But, I knew for sure I was not going to take the "Committee Approach." I arrived at Crownpoint a week before the workshop was to start. During this week I reviewed carefully the workshop goals and curriculum. Then, I was reading from the *Sociology of Education* journal and noticed an article "Teaching and Students, the Views of Negro and White Teachers" (Gottlieb, 1964). In this article stereotype perceptions of the two groups of teachers were determined using an adjective check list. Upon further reflection, I decided on a two part evaluation. One part consisted of visiting each class and approach it as I was taught when supervising teachers at the Mt. Edgecumbe High School in Alaska. I would take notes during the observations and for the report, summarize my observations in narrative form. The second part would be a questionnaire which contained the adjectives from the Gotlieb research article.

The quasi-research approach that I developed for the workshop evaluations was new to the BIA Education program, which had been sponsoring workshops for 30 years but never used an evaluation even remotely approaching something close to research. The Navajo Area education specialists who had responsibility for developing the workshops liked the reports and used them to assist in developing the 1965 and 1966 workshops.

I administered the questionnaires at the end of each workshop and took them back to the Field Technical Unit for analysis and reporting. It should be kept in mind that in those days there were no personal computers or mainframe computer available to me. Hence, the frequency counts were obtained by the old method, using a hand operated calculator. The workshop responders were a captive audience as they were employees of the BIA, and it was an official duty to complete the questionnaires. In those days and continuing to the present if something like the questionnaire was for "Administrative Purposes" there was not a privacy issue. A follow-up questionnaire was mailed out in January so that after teaching for a few months it could be determined if there were any changes in the perceptions of Navajos by the teachers.

Follow-up responses for 1964 were 77 (56%) for new teachers and 32 (50%) for experienced teachers and for the 1965 workshop 72 (55%) for new teachers and 15 (47%) for experienced teachers. For practical statistical purposes the over 50% response rate was strong enough to make qualified, logical, non-statistical

observations. In February of 1966 I submitted a report to the Navajo Area Education Office that included an analysis of the check lists for 1964 and 1965. In summary, the 1965-66 new teachers indicated significant changes in their concept of the Navajo child between the August workshop and February of the school year. Most of them modified their ideas about the behavioral characteristics of the Navajo child. As a group, they indicated in February that they thought the Navajo child to be more talkative, lazy and moody than in August. They also thought in February the Navajo children were less calm, cautious, cooperative, humble, proud, quiet and reserved than in August. Nonetheless, they generally considered the children to be athletic, calm, cautious, easy going, happy, fun loving, quiet, reserved, and shy.

The teachers apparently started the year with a romantic, unrealistic concept of the Navajo child and after being in the classroom for a while learned that Navajo children were as human and individualistic as any other. It was indeed interesting to see a consistent pattern from year to year. Knowing the romantic pre-workshop conceptions, it might be possible to help teachers be more realistic before going into the classroom. Being more realistic is tantamount to sound understanding of the child, hence an improvement in effective teaching becomes a possibility from the start.

It should be noted that such characteristics as lazy and moody gained an inordinate amount from August to February. It hardly seems possible that the Navajo child could be considered lazy. In August, only 7% said they were lazy but in February 32% checked lazy. This possibly could be treated in the workshops and in inservice education sessions at schools. If the 32% is projected as a characteristic of the teachers throughout the reservation, then over 300, possibly more teachers would consider the Navajo child to be lazy. Lazy would certainly be considered a poor characteristic by the teachers and would influence their general attitude toward the children. So far, the figures have been those that rated a high percentage or changed considerably from. August to February. It is interesting to look at those characteristics the teachers think to be unrepresentative of the Navaho student: ambitious (11%), arrogant (11%), dominant (4%), forceful (3%), hard driving (3%), high strung (4%), idealistic (5%), impetuous (4%), intellectual (13%), outgoing (5%), and sophisticated (1%).

Some of these characteristics could be considered important to success in middle-class America, especially in middle-class American schools. Successful students could be considered sophisticated, intellectual hard driving, ambitious and sometimes dominant. If the teachers could not see these characteristics in their students, then what does this mean for the Navajo education program?

Gardner's Research on Teachers Perceptions of Indian Students

In December of 1966 the BIA contracted with the Center for Applied Linguistics (CAL) "to carry out a study of the problems of teaching English to American Indians in the care of the Bureau" (CAL, 1967), which became known as the Gardner study. An activity of the study was a survey of the attitudes of teachers of Indian students. It provided an important and probably benchmark

on attitudes, perceptions and stereotypes research on teachers of American Indian children. Though unrelated, it followed the workshops and referenced the adjective checklist findings. The study was based on 300 "Educators" of Indian children who completed and returned a nine-page survey instrument.

The Gardner (1967) study followed comprehensive research methodology including several statistical procedures. It provided clear definitions of what was being tested. An important measure included what was titled an "Orientation Index," which was described thusly:

> Each S[ubject] was asked to rank in order of importance three reasons for Indians learning English. These reasons were selected to describe an integrative orientation (to be truly part of both cultures), an instrumental orientation (to gain good employment) and an assimilative orientation (to become more like non-Indian Americans). Ss were classified in terms of one of these orientations on the basis of a reason he ranked most important. (1967, p. 4)

The workshop data was defined as "integrative" meaning that workshop attendees thought the purpose of Navajo education was to help the students live in both cultures. Providing this interpretative observation of the workshop data added a dimension of importance to it – and clarification. The summary of the stereotype data was:

> The educators sampled in this study tend to have a generally favorable stereotype concerning Indian students. The degree of consensus among those tested is high, and it seems probable that such a reaction is common to most educators of Indian students. Moreover, the stereotype is well circumscribed. Individuals accepting one aspect of it tend to accept it all. This is true, even though the educators tested work with different Indian tribes. There is good evidence to suggest that the educators have an organized image of the Indian student. Their expectation is that he is intelligent and friendly. Despite the favorable image described, the Indian student is nonetheless perceived as being marginal. He is seen as having lost, to some extent, many traits identified with his adult community, but as not having yet acquired many traits presumed to characterize non-Indian students. The implications for teaching seem clear. The educators generally have a healthy respect for their charges. One would imagine that they experience reward with their task. Moreover, they appear to believe that their students are becoming more like non-Indian Americans, even though they see considerable differences still evident. (Gardner, 1967, p. 2)

The summary of the study included:

> The Indian student might be characterized as a marginal individual, a person in a period of transition, from the traditional Indian culture to the modern American one. But from the point of view of the educators, he hasn't yet made it.
>
> Educators' attitudes seem to form three broad clusters. One, attitudes concerning characteristics of the students which influence language acquisition, seems to emphasize mostly motivational factors. Educators who perceive Indian students as highly motivated tend to deemphasize the negative effects of the peer group or the culture. They tend to feel that the students have the requisite abilities to learn English, but this component does not seem to be that important. A second cluster, aims of English language instruction, suggests that educators who support one aim tend to support them all. Nonetheless, there is a clear indication that the educators feel that the greatest benefit in teaching Indian students English is that it will allow them to deal effectively in both cultures.... The third cluster deals with educators' attitudes concerning their training and materials. Teachers satisfied with their training tend to be satisfied with the educational materials they have to use....
>
> The problems involved with teaching Indian children would seem to be multiple caused. Educators working with different tribes stress different problems, teachers of the older students experience difficulties not apparent for teachers of the younger students, and even the type of school that the educator works in influences his perception of the problems involved. Assuming that the educators views are valid, one would argue against, for example, initiating one language programme. Different problems demand different solutions. Many of the educators emphasize motivational difficulties. The students themselves weren't investigated, but the results of this survey suggest that they should be.... This study demonstrated that more experienced teachers were less critical than beginning teachers. (Gardner, 1967, pp. 29-31)

Research on Navajo and Non-Navajo Teacher Characteristics

In the spring of 1970 I started research on Navajo and non-Navajo teachers, which was my dissertation research at The George Washington University. Having already used the adjective check list at the Navajo Orientation Workshops I thought to refine its use within a research design. As referenced in the Gardner (1967) research, the workshop data was already being used. Part of my dissertation abstract follows:

> The recommendation has often been made that Indian teachers should be developed and employed in American Indian education. Yet there has been no systematic research to probe what is meant by such a recommendation. The basic purpose of this study was to describe the characteristics of Navajo and non-Navajo teachers and to determine their similarities and differences….

> Sixty-five Navajo teachers of Navajo children and a sample of 100 non-Navajo teachers from the Bureau of Indian Affairs personnel including Negro, White, Oriental, and other American Indian tribes were mailed a questionnaire in the spring of 1970. 42 Navajo and 83 non-Navajo teachers responded….
>
> The background data of the two groups were significantly different except in areas pertaining to formal education and preparation for teaching. The study indicated that Navajo teachers started life as typical Navajos and were transformed, through education, to atypical individuals. There were no significant differences between the two groups regarding their major perceptions of the Navajo child as measured by the adjective check-list, nor in their selected educational objectives for the child. There were significant differences regarding the Navajo child, concerning likeability, scholastic potential, and teacher sensitivity to the child. Navajo teachers found the child to be more likable, to have more scholastic potential, and were more sensitive to the child. Neither group found the child to be especially unlikable....
>
> The study concluded that while there were significant differences between the two groups of teachers, there were enough similarities to form a basis for teamwork on behalf of Navajo children. Navajo teachers have some decided advantages regarding understanding the child, but may also have some disadvantages, for the same reasons. Non-Navajo teachers may not understand the child as readily as the Navajo, but they possess strengths in understanding the importance and operation ‘of formal education. Recommendations concerning operational procedures in Navajo schools and future research were made with the intent of achieving a blending of the two strengths.

Concluding Observations on Attitudes and Stereotypes

It has been frequently reported in research that short term workshops are relatively ineffective. The Navajo Teacher Orientation workshops were of longer duration and lasted two weeks. The content was innovative for the 1960’s in that cross-cultural as well as Teachers of English to Speakers of Other Languages (TESOL) content were offered. The 1964 and 1965 workshops had one very effective class that was taught by a Navajo entirely in Navajo. The teachers (students) did not know any Navajo and were asked to learn something. It was interesting to observe the class because one could see teachers behaving individually much the same as Navajo children behaved when they were taught entirely in English without benefit of ESL instruction. Though I cannot prove it, I think this class had an influence on their selection of adjectives to reflect attitude and perceptions of Navajo children.

The 1966 workshop was very different from the two previous years because the Navajo Area had contracted with the new professional organization, TESOL. This workshop had experienced, professional ESL professors as instructors, a dramatic change in BIA sponsored workshops that had for several years depended

on experienced teachers and administrators as workshop instructors. Dr. Buck Benham, then Assistant Area Director for Education, was willing to break with BIA workshop tradition in contracting to the TESOL organization. At the time, I was in contact with Dr. Jim Alatas of Georgetown University who was the first Executive Director of TESOL. Jim told me that the workshop was key to funding the struggling new organization and placed it on a good financial footing while awaiting dues from the new membership.

The previously mentioned Gardner (1967) study dealt specifically, among other things, with teacher stereotypical perceptions. My research dealt with teacher perceptions especially regarding intellectual capabilities of Navajo children. It was clear that Navajo educators perceived more learning characteristics than did non-Navajo educators. The Gardner research indicated experienced teachers were more positive in perceptions of Indian students than were new and inexperienced teachers, which brings us back to the 1964 and 1965 Orientation Workshops comprised mostly of new, inexperienced teachers. Those with experience had been teaching Navajo children for a year or less so for the most part, all teachers could be classified as "new and inexperienced." I tried in my reports and analyses to urge the Navajo Area to work on the positive side of Navajo children and their basic humanness.

As mentioned above, BIA Education presented workshops for employees for various purposes. The Navajo Orientation workshops and the one conducted by TESOL were probably the most important for the 1964–1970 era. Teacher perceptions were not measured in the 1966 TESOL workshop as they were working with CAL and were aware of the Gardner project. On the other hand, were teacher perceptions of Indian students mentioned in historical BIA education literature? The brief articles printed biweekly in the *Indian Education* newsletter and collected in three volumes by Beatty (1944, 1953) and Thompson (1964) are the source for these perceptions. These three volumes cover the period from 1936 to part of 1964, just under 30 years. The direction of the content differed primarily according to the formal education and experiences of the Education Director. Beatty employed anthropologists and linguistics and asked academics to write for *Indian Education*. Thompson wrote most of the articles in the later issues until she retired in 1965, and they reflected her brilliance but also her limited academic background. She simply shunned academics and depended on her own mid-western background tempered with a genteel flavor. She could write pages and describe basic cultural differences, i.e. time and work, but seldom if ever present it from the perspective of the Indians. Thompson never did specifically or by implication, perceive teacher attitudes and stereotypes as appropriate knowledge related teacher training purposes. I believe that she perceived them as such, but did not believe that directly writing about them appropriate for BIA Education personnel.

On the other hand, Beatty had anthropologists, academics and medical doctors write articles for inclusion in *Indian Education*. For example, Gordon Macgregor, an anthropologist and BIA education employee wrote in a 1941 *Indian Education* article titled, "Stage Indians":

> Anyone acquainted with Indians and reservations must have been fully enraged or have left the theatre in a fit of laughter at a recent "Western" that took place on a reservation. The Indian trader appeared to be a college graduate decked out in Western regalia, the assistant superintendent was in league with rustlers, and both he and the superintendent always traveled with rifles and six-shooters. The reservation Indians paraded through an ethnological nightmare in which, dressed in full war regalia they galloped across the western plains into a canyon filled with obvious California oaks where they jumped miraculously into birchbark canoes, which have never been known to any but Woodland Indians, to paddle downstream. They were fired upon by the rustlers, among whom were more Indians—whom one might term cultural hybrids with their pueblo hair bobs and head bands, velveteen Navaho shirts, and fringed buckskin leggings. (p. 4)

At that time this was written, Hollywood was great on educating the U.S. public about Indians and some of this perception no doubt was evidence in the BIA personnel, else, why would he have written it? An *Indian Education* article written in 1944 by Dr. Ruth Underhill, the BIA's supervisor of Indian education and a student of Columbia University professor Dr. Franz Boas who is considered the father of American anthropology, was titled Indian-White Equality. She wrote:

> CAN an Indian do anything a white man can do? Yes, say the scientists. There is no proof that any group of people —Indians, Solomon Islanders, Negroes or whites has, less mental capacity than any other group. Within any group there may be bright and dull individuals or even family lines that stand out. There is no such thing as inferiority of a whole people.
>
> The average man raises his eyebrows and some visitors to Indian reservations have raised them very high. If an Indian can do everything, they object, why doesn't he do it? Where are the Indian doctors, lawyers and businessmen? Why are so few young people interested in high school, much less college? The worker in Indian education grows accustomed to being told by the old timers: These people are like children. They can't learn much after they are twelve years old.
>
> Our answer to this objection has been too brief. It is not enough to say that the speaker is wrong, because some of his facts, are right. The full blood doctors and lawyers are few, the businessmen almost nonexistent. True, many Indians do not care for that kind of success and that is another subject. But what of the ones who do care? They have had the some opportunity as a white boy to take a job and put themselves through college. In fact, they have had more help than most white boys can expect. Yet the facts are plain and the average onlooker wants to know: What is the matter with the Indian?

In answering him we need to make it plain that an Indian's inborn capacities, like those of any other human being, are potential only. They can become actual under favorable conditions, just as seeds grow with rain and sun, or children learn to talk if they hear human speech. Without such incitement, the best seed and the brightest child will fail to develop. The incitement, for what our world calls success, comes from a drive that is generated in white children almost from birth, a drive compounded of desire, belief in oneself, a sense of public approval and a conviction that success is possible.

These are not an Indian's birthright. Once he believed in himself because of a vision or a series of ceremonies which could make success certain. With that conviction gone, he must generate his belief almost without help. His people will not approve, for they fear and distrust the kind of success he plans. The few white teachers who encourage him will seem a pitiable support in a world which thinks Indians are children. How can he have conviction of success? The scores of achievement stories which have built up the hopes of his white neighbors have never applied to Indians. Often he has recognized this fact by high school age, and it is no wonder his enthusiasm drops.

"Give a dog a bad name and hang him," is an ancient proverb based on true psychology. Social scientists of today would word it: "Give a whole group an inferior position and, it is very hard for any individual to overcome it."

For instance, take the position of women in the 1880's. Then, it was believed by men and women alike that no female brain could understand politics or business. Women would faint at any excitement and they "would make monkeys of themselves" if they tried to "ape" men. Therefore very few of them did try. Most succeeded in being exactly as helpless as the world thought them, and the case was proved.

Yet women's work today proves that the whole idea was pure bunkum. The fluttery female of the 1880's could have been an air pilot or a Rosie the Welder if she and the world had wished it so. The change has not been in the female brain, for evolution cannot work such miracles in less than a hundred years. It has been in the woman's own attitude and in that of the world around her.

The same thing has happened with another "inferior" group, the southern Negro. Observers have averred sincerely that he was "childish," unable to go beyond grade school, and fit only for manual labor. Statistics show that when these very same Negroes have moved to the north, in an encouraging environment, away from the drag of membership in an inferior class, their very I. Q.'s have jumped. They are moving into one professional position after another and the obstacle to their going further is not their own ability, but the attitude of the white group.

Equality, then, depends on social factors as well as on innate ability. The arguments against many a minority group would crumble

> if it were recognized that its capacities cannot show themselves until given opportunity. Okies, hillbillies, and foreign born immigrants, can all look like undesirable elements while subject to ill health, poverty and social ostracism. Indians also can find themselves in a dead-end road if they are emotionally unprepared for life in the white world; if whites discourage them and if they feel themselves beaten before they have begun. It is this lack of incitement which constitutes one of the real problems of the Indian Service today. We have not found the way to prepare an Indian emotionally for our version of success. We have not given him confidence. Nor has the country as a whole consented to release him from his position in a "child-like" minority, regarded with pity and patronage. Such a situation is not changed over night. It will take, years of effort by both whites and Indians, but at least we see in what direction the effort should trend. We see that criticism of an Indian's "incapacity" is really a criticism of the white group which gives his capacity no chance to grow. (Underhill, 1944, pp. 1-2)

Non-Indigenous Teachers of Indigenous children need to approach them as humans with cultural behaviors that differ from their own. They should seek to understand the children as humans, not as stereotypes.

Top-down Innovation: Fort Wingate and SIPI

During 1964 and 1965 I was assigned to two curriculum development projects. The first was to develop the English language curriculum at the new Navajo Ft. Wingate High School just east of Gallup, New Mexico. The second was to work with others on developing the program for the new Southwestern Indian Polytechnic Institute (SIPI). Both new schools were built and still operate today. The ideas for the two projects emanated from higher up administrators with the idea that developing an up-to-date curriculum should accompany a new school. At the time, the idea of developing a new up-to-date curriculum before the new school opened seems a good idea. One should remember that this was before Indian self-determination and in both situations, Indian people who would send their members to the schools were not involved in the planning.

At Fort Wingate, education specialists at the area and central office levels met periodically to develop a modern high school curriculum for the school. My particular assignment was to develop the English curriculum. Mr. Alvin Warren, then attached to the Navajo Area, headed the curriculum development activity. I learned that Mr. Warren was a brilliant and dedicated educator and also an Indian. The location of the school as well as the pre-construction curriculum development activity emanated from Hildegard Thompson.

Ft. Wingate High School's location was on land that in the nineteenth century was a cavalry fort for soldiers assigned to monitor Navajo activities. The work started at the old Ft. Wingate Elementary School. Visiting this school for the first time was very interesting. The old cavalry barracks were still in use as a dormitory, and off to one side in the principal's office was an old Army strong

box, an artifact from the nineteenth century cavalry days. The new high school was to be built about half a mile north of the elementary school campus.

I don't remember how long the committee met, but I do remember the general English courses I outlined for the curriculum. For English I suggested ESL instruction, especially at the ninth grade level. Absent any language census data on the students, it was a safe assumption that they almost all spoke English as a second language. It was also a safe assumption that they had received no modern ESL instruction. So, ESL was developed for the ninth grade. Regarding English literature, I selected complete books to read, some aloud in class. No anthologies were to be purchased. Paperback editions of the selected books would be purchased and given to the students to keep and start their own home library. Writing was also to be an important part of the curriculum, but only after English speech was learned.

What happened is instructive. A new principal was hired and he selected the key department heads for the school. He hired an Sioux for English. I met with the man and tried to discuss with him the needs of the students and the curriculum the committee had developed. He smiled, and told me that he was an experienced English teacher and had been successful in teaching Indian students for several years. He said that he would adopt the South Dakota state curriculum. I was stunned. But, then I remembered that BIA Indian schools in South Dakota, by law, were required to teach the curriculum of the State of South Dakota.

No Navajo meeting of parents or tribal officials was held regarding the adoption of the South Dakota curriculum for the new Ft. Wingate Navajo boarding high school. This also taught me that involvement of the Washington Office education specialists was meaningless in the face of Area Office control. The new principal supported his newly hired English Department Head. The Navajo Area Office didn't resist the establishment of the curriculum committee, they simply quietly ignored it. Needless to say, I made no more visits to Ft. Wingate High School to monitor the implementation of the South Dakota curriculum.

The story behind SIPI is also interesting. Around 1964, Senator Clinton Anderson of New Mexico, a powerful senator, was getting ready to retire. He said, "I want to give something to the Indians of New Mexico. This new vocational school will be my parting gift to New Mexico Indians." The BIA told Senator Anderson they didn't want the new school. To which he and his staff replied, "The Indians of New Mexico are going to get a new vocational school so BIA get ready for it." The Area Director of the Albuquerque did just that. He convened a program (curriculum) development committee, and I was assigned to work as a member of it.

Initially, SIPI was to be a joint education activity of the Albuquerque Public Schools (APS) and the Bureau of Indian Affairs. Our first meeting was with Mr. Lewis Savedra of APS. He was developing what was to become the Albuquerque Vocational Technical School and now Central New Mexico College (CNM). APS assigned Savedra an old unused high school building in which we first met. The idea was that, perhaps, the Federal Government, through BIA, would provide some of the funding for this new joint education venture. This joint venture

died almost as soon as it was mentioned and did so because of Federal statutes which did not allow Indian appropriations to be used for non-Indian education purposes.

I researched the Southwest job situation in anticipation of a curriculum to respond to these needs. As is still the case, many jobs in New Mexico were government jobs. This included all levels of government municipal, county, state and Federal. There were only a limited number of industries in New Mexico and many required high level technology and related education. Nonetheless, there were vocational education needs within this economic landscape. Certainly, clerical, bookkeeping, accounting and auto mechanics were needed. The committee was instructed not to replicate the curriculum at Haskell Institute in Kansas, at that time the flagship BIA Indian boarding school, but to develop one based on Southwest Indian needs and was also concerned about societal and economic changes. They wanted to make the facility a flexible one in which partitions could be easily moved to accommodate new program needs. We even designed study carrels, some of which would support a computer.

Well, the Albuquerque Area Office hired a former Haskell Superintendent as the first SIPI Superintendent. He didn't bother to look at the work of the committee but forthrightly stated: "I know what is needed in the program because I was superintendent of Haskell for several years. SIPI will follow the Haskell curriculum."

There are several people and institutions that should be involved in changing a school program. I would recommend that the process start with the people, including students, who will or do attend the school. These local people should be provided information (demographic, research, evaluation curriculum content, etc.) supporting the innovation. If, in spite of the information provided, the local people decide against the change, this should be the end of the innovation effort. Professional educators should take the lead in the innovation.

The above two experiences reflect authoritarian educational activity. By this I mean decisions were made within the civil service structure of the Federal Government. There was no involvement of the Indian people who would send children and youth to the schools. Regardless, both schools were constructed and are still in operation 40 years later.

Testing, Testing, Testing

After Hildegard Thompson retired there were a succession of Directors (Assistant Commissioners) of the Education Program none of whom had experience in the education of Indian/Natives. Usually, they wanted to immediately conduct an evaluation of the total 48,000 students. The irony of this situation was that Madison Coombs was on their staff, and they had only to ask him about the results of the three system-wide evaluations that had been conducted since 1944 (Peterson, 1948; Anderson, et.al., 1953; Coombs, et.al, 1958). Coombs could have told them anything they wanted to know, and then some. However, they apparently wanted to do their own testing. While they did pay for system-wide testing, there was no follow-up whatsoever of the test results.

My experiences with testing started in January of 1964 when I joined the Field Technical Unit staff at Brigham city, Utah. A fellow education specialist was Farlie S. Spell who was taking the lead technical task of assisting the Navajo Education office with a large scale testing of Navajo children. I well remember Spell's meticulous, competent and intelligent managing of data, even though it was all in those days done manually, i.e., pencil, paper, 5 X 8 cards, desktop calculator, etc. She was well into a longitudinal evaluation that was finally completed in 1970 (Spell, 1968). There are few documents that describe in detail the complexities of using standardized tests with Indian children. Some excerpts from the preface of her report follow:

> A test is only a sample of a pupil's performance. Results should be used with caution, but they should be used for what they are worth. It should be kept in mind that at best - even for the child for whom the test was constructed - grade placements are merely relative. They give only some indication of a level of achievement. Then there is always the possibility of a margin of probable error.
>
> It should be emphasized that a norm is only an average – again based on the Group selected for the development of the norm. So far as standardized tests are concerned - few, if any, Indian children would have been included in that group - thus the importance of establishing Navajo Area norms.
>
> It is hoped the following report on the status of the Navajo Area Testing Program will be helpful to field personnel in appraising achievement of individual pupils as it relates to their accomplishments on a particular test. However, it is assumed that in no case will any child's achievement be assessed only by achievement test scores.

Spell and the Committee went forward with their testing project. One interesting feature of their work was to consult the publisher of the Stanford Achievement Test, Harcourt, Brace and World. The company's lead testing expert, Dr. Roger T. Lennon, Director, Test Department suggested "that the Navajo Area Testing Committee disregard the company's grade level designation of batteries. He stated that Stanford Achievement Tests were power tests and that the timing element was adequate for pupils to record their knowledge of each sub-test." In 2017 this would be classified as an "Accommodation," which in 1966 or thereabouts was a "Recommendation" from the testing company. In any event the BIA Navajo Area was trying to be fair to Navajo children and at the same time use a standardized test which when administered under normal circumstances would provide inaccurate scores.

The Navajo Area Testing Committee struggled from 1963 to 1970 to develop strategies that provided fairness in the use of commercial, standardized evaluation instruments (tests). They also struggled to maintain the integrity of their Area testing program while the Central Office mandated its own testing activities. Thus:

> In the fall of 1966, the Central Office, Bureau of Indian Affairs, contracted with Twinco-Enki Corporation for a service-wide evaluation of Bureau schools using the California Achievement Tests. Since the Navajo Area was in the fourth year of a five-year study using Stanford Achievement Tests and because it was possible to compare the data gathered from California and Stanford Achievement Tests, Navajo Area requested that pupils in Bureau schools within the jurisdiction of the Navajo Area not be included in the California Achievement Testing program. At this time, the Area agreed to supply Twinco-Enki Corporation with Stanford Achievement Test statistical data by which an evaluation of the schools' instructional program could be made.

Here, as was constantly a preoccupation of the new leaders of the BIA Education Program, the Area Director organization of the BIA which was implemented in 1952 under President Eisenhower, was in place and provided a basic conflict between the Central Office and the Navajo Area Office. The lesson to be taken from this conflict is that the Navajo Area was operating schools for the Navajo speaking children while the Central Office was viewing the education program in an inexperienced and mostly baffling way when it came to evaluation of the education program.

The report quotes Dr. Lennon's lecture on "Testing and the Culturally Disadvantaged Child":

> Those who see in these differences, evidence of the unfairness of these tests are quick to point to the type of material in the tests as loaded against the underprivileged child. If one examines the typical intelligence test, he will see that it consists of a set of questions largely verbal in character, having a decided academic flavor, and ordinarily including, in addition to the verbal material, numerical material that looks as if it depends somewhat on success in arithmetic learnings despite the test-maker's goal that it depend very little on school instruction. Children from culturally deprived[1] homes, by this line of reasoning, simply have not had an opportunity to learn the sorts of things that are covered in these intelligence tests. Therefore, one must expect that they are not going to do so well as the children from more fortunate homes, where there are plenty of books, where there is an intense interest on the part of the parents in academic and verbal sorts of things. Yet, on the basis of performance on these tests, we proceed to label, or mislabel, the culturally deprived child as dull, or slow-learning, and pattern our instruction of him accordingly. All too often we use the result as a basis for curtailing the educational opportunities to be afforded this culturally disadvantaged youth, on the ground that he is lacking in the capacity to profit from them. This seems to me the essence of the charge of unfairness leveled at these tests for children from culturally deprived backgrounds.

How is it that with a major test publisher in the 1960's was expressing this understanding of the culturally different, and that leading education researchers in the 21st century approach standardized testing of this group as tabula rasa, a blank slate? A first task of any doctoral student entering into a dissertation research is to "Review the Literature" and when highly skilled researchers ignore this fundamental procedure, what can be expected. Keep in mind this comment is taken from the publishers leading expert on testing, not an in-house BIA Education employee.

The struggles of the Navajo Area Testing Committee continued especially during 1966 and 1967 when the directorship of the BIA Education Program changed from an inexperienced person to a non-education, inexperienced person. Intelligence (I.Q.) tests entered the fray. Again, in the Fall of 1967, the Central Office contracted for an evaluation of Bureau education programs. Economic Systems Corporation (ESC) received the contract for this evaluation. In 1966, the Navajo Area requested that schools within its jurisdiction be excluded from an achievement testing program. Instead, it would prefer that several ability assessment tests, other than the California Test of Mental Maturity, be field tested with a Navajo population to identify one which would best indicate likelihood of pupil success in mastering the work of the school. The Central Office agreed that the project had merit and amended the contract with ESC. Dr. Judith Blanton, representing the corporation, met with the Testing Committee on January 22, 1968, to discuss a proposal for field testing various native ability assessment tests. The proposal provided for testing approximately 1000 children in grades 2 through 8 using Kuhlmann-Anderson Intelligence Tests, Goodenough-Harris Draw A Man Test, and the Chicago Non-Verbal. Examination. The Committee discussed with Dr. Blanton the merits of each of the tests. The Goodenough-Harris test could be group administered but required hand scoring, which tended to be somewhat more subjective than desirable. The other tests were machine scorable and therefore, more objective.

Dr. Blanton suggested that the Goodenough-Harris might provide useful data for children in the Beginner and first grades. The Committee felt that this was true and agreed that the tests would be given to approximately 200 Beginner and first grade pupils whose teachers were native speakers of Navajo. The Committee then set about the task of identifying the variables that might influence the test scores. It was agreed that possible exposure to experiences that were non-Navajo in nature were more likely to come to those children living near reservation boundaries. It was hypothesized that each Agency should pair schools, if feasible, that would test this hypothesis. Other variables such as language of the home, years in school and chronological age were to be reflected in an information sheet for each child and/or a description of the school location, facilities, and staff. Dr. Blanton assured the Committee that all such identified variables would be taken into account in determining Navajo norms for each of the tests. The Committee in effect, almost demanded a quasi-research approach to I.Q. testing, which the testing contractor did not, but agreed to the Area stipulations.

Dr. Blanton, responding to a request of the Committee, agreed to conduct a one-day inservice training session for teachers and supervisors involved in the testing program. The session was to be held in Window Rock, Arizona ,on March 11, 1968. She agreed that her corporation would provide a consultant who would attend the training session. The consultant was to work with BIA personnel in an effort to provide the most favorable testing conditions. Dr. Blanton was to instruct the teachers and supervisors in the proper administration of the tests.In February of 1967, the short form of the California Test of Mental Maturity was given to Navajo students in boarding and day schools on or near the Navajo Reservation. At least 10,000 students were represented in the test results which computed the language I.Q., non-language I.Q., total I.Q. and mental age.

This saga continued until Spell wrote a 1970 report. There was no follow-up report on the usefulness of all this work to provide a fair use of standardized tests. However, knowing Spell and her fellow education specialists at the Area Office, I am confident that they all worked constantly with the schools and that the norms and other work were used by teachers and administrators.

It is interesting to note that neither the Twinco-Enki Corporation or the ESC testing contracts produced a wide-spread report distributed throughout the 215 schools (77 boarding, 135 day schools, 1 trailer school and 2 hospital schools) enrolling 56,238 Indian/Natives which comprised Education operations. As an assistant division chief and division chief of the Central Office Education program I never observed or had discussed with me these two testing activities, Further, I was not provided a report of these two testing contracts though I am sure they existed. For all practical purposes, these testing activities were a waste of money and time.

BIA Education personnel, teachers and administrators have always been involved in any testing that has taken place. They have administered the test, scored them and some have even done the reporting. Coombs in the 1950's depended on BIA Area personnel to administer tests that were used for the data which he and his colleagues analyzed. It is unfortunate that all too often the test results were used to criticize the teachers who did the work of gathering data. This has not changed, especially with the No Child Left Behind Act of 2001.

Studies and Testing

Many educational studies were done in the 1960s. One was the Abt Associates system analysis, program development and cost-effectiveness modeling of Indian education study**.** This was an evaluation project that used the classic "Discrepancy Model." This model first clarified program goals and objectives. Second, using different strategies (but in this case not standardized tests) it investigated the program at all levels to determine the status of the program. Third, it compared the goals and objectives against the program status and highlighted the differences. In the end, Abt produced five volumes of verbiage none of which was taken seriously or ever implemented. Abt spent a great deal of effort and time determining what they thought were, or should be, the objectives of the education program. Their major finding was that the goals of high school students were different

from that of the teachers and administrators. Nothing new in this finding. With good reason the teachers and administrators placed a high priority in keeping the students in school through to graduation with academic quality being secondary to this goal. Abt would rather have placed a priority of academic education and the retention of students as secondary or even lower priority. I worked with at least six schools to implement the "New" curricula that was being produced in mathematics, science, English and social studies. Several schools had science and math teachers attending summer institutes to learn the new curricula and how to teach it. Apparently Abt did not discover these innovations about which I was a first-hand observer.

The Abt study produced a myriad of "Models" on every aspect of the Education program. But, with the Area Director organization prevailing, the Assistant Commissioners for Education had only a slight chance of implementing change let alone even one of the Abt models they might have adopted. In the end, the Abt study was interesting but little more.

In 1966 Madison Coombs was the BIA Education official responsible for research. He had the in-depth experience of monitoring as well as conducting total system evaluations since about 1956. Willard Bass (1971) was contacted by Coombs and a contract was awarded so that work could begin in 1966. The purpose of the evaluation was the same as in 1944, to measure the differences in quality, if any, between BIA Federal schools and public schools. The findings of Bass's study were not surprising. He found that when background characteristics are controlled on each student, there are no differences between school quality. This finding could have been used by legislators crafting the No child Left Behind Act of 2001.

In 1968 I was invited to the University of Michigan to present a paper in a conference on "Foreign Language Testing." It seemed that in 1968 there had been considerable language testing of American Indians, Alaska Natives and Canadian Indians and Eskimos.[2] The purpose of the paper was to review the research and studies that concerned language testing of North American Indians that involved at least 100 children or adolescents and used standardized testing procedures and followed some form of research design. It can be said that previous to 1930 there was very little testing of American Indian school children. A look at the curriculum of Indian schools of the early part of the century indicates that the English language required was very functional and closely related to agricultural tasks (U.S. Office of Indian Affairs, 1901). To my knowledge, there is no test available that reflects what was considered important in the English language instructional program in 1901. However, "promotional tests" were referred to as a part of the curriculum that was used prior to 1928 (USBIA, 1951, p. 5). These were tests given to the children at the end of each year to determine whether or not they would be promoted to the next grade. It is not known just what promotional tests were designed to evaluate, especially regarding English.

The New Deal of the 1930s ushered in the Indian Reorganization Acts and a new concept of Indian Affairs. A part of the new look of the thirties was the anthropological and sociological field work done on the Indian populations of

the various reservations. A later landmark study discussed the performance of Indian children on conventional tests and pointed out some obvious problems (Havighurst, 1957). A good part of the study concerned the problem of I.Q. testing of Indian peoples. The English language dimension of the Havighurst's study used the English section of a conventional standardized achievement test battery to measure verbal ability. The Indian children did poorly on the test.

There was a good bit of activity in testing Indian children with achievement tests starting in 1946 and continuing to through 1968, with the ten year period 1946-56 being the most active. The tests used were designed for native English speakers and the test scores of Indian children were compared to national norms. Peterson (1948) reported on testing that was designed to measure progress over a twelve year period, 1934 to 1946, when there was a definite philosophy and direction articulated for federally operated Indian schools. The tests used for this study included reading, vocabulary and language. According to the study, Indian children did not do as well as their non-Indian counterparts. The next study (Anderson, 1953) was designed to verify Peterson's findings and to measure any further progress. The results of these studies are generally known and are still valid today. Some significant conclusions were:

1. That the Indian children generally scored lower than non-Indians.
2. That achievement scores for Indian children were higher at the lower elementary levels than they were for the junior and senior high levels. As Indian children advance through the grades, they fall progressively further behind when compared to the norming group.
3. That full-blood Indian children make lower scores than those with mixed-blood. This was interpreted as a difference in cultural background rather than innate intellectual difference.

It is also significant that these studies commented on the fact that most Indian children in Federal schools spoke a language other than English before entering school. This prompted statements concerning the necessity of teaching oral English first before going to the content subjects. This general recognition of the importance of the non-English speaking problem is a significant factor regarding the testing efforts.

The earliest standardized testing done with the Alaskans was reported by Anderson and Ells (1935). The Stanford-Binet Mental Ability, Goodenourgh Mental Activity, Stanford Achievement, and a mechanical ability inventory were used. A discussion of the curriculum was included and comment was made about the role of English in the instructional program. One interesting technique described concerned changing the Stanford-Binet test so that it would have a closer correlation with the Alaskan native environment. The next comprehensive study of native Alaskan educational status was made by Ray (1958). This study was general in scope and had some interesting objective data concerning the achievement and retardation of Alaskan native children. Language was treated as a problem but test data were based on native English speaking instruments.

Testing Indian children and youth from 1960 to 1968 took place in different geographic locations and is more difficult to evaluate because of the widespread and often uncoordinated efforts. A very comprehensive study of minority groups completed under contract with the U. S. Office of Education (Coleman, 1966) had an "American Indian" category and does report verbal quantities. It is difficult to determine just what Indian population was included in Coleman's study and to what extent the more tradition-oriented individuals who inhabit the Indian reservations were tested. In general, Coleman's study reported similar findings to Peterson, Anderson and Coombs's studies.

A more specific study (Ohannessian, 1967) was done by the Center for Applied Linguistics (CAL) that was conducted by a team of linguists and a psychologist. They studied the attitude of teachers of Indian children and made several recommendations regarding the English instructional program for Indians in federally operated schools. Another study conducted by the BIA based on standardized achievement tests concerned the reading progress of secondary students in boarding schools (Spell, 1968). Most of the students reported in the test were ESL speakers and their reading scores at the high school level correlate with previous findings about the upper level achievement of Indian students.

Because my major preoccupation is with curriculum development, the language of the students is of great importance to me. In the case of the BIA and the students for whom it operates schools, there were few reliable psycho- or socio-linguistic studies which would help determine the language of our school population. Even if the language of the school population were known in any exact manner, we would still have difficulty reflecting progress in the instructional program since the available testing instruments do not measure some important language features.

Tests are needed to help us identify the level of second language proficiency in order to group students for purposes of learning. Once this need is overcome, then tests are needed to show progress and challenges. Although two types of test needs have been mentioned, the situation is further complicated by the fact that the students are of all ages, starting at five and continuing sometimes to 21 years old. As has been shown with the TOEFL test, some Indian students even at the high school level have serious problems with ESL.

The CAL report (Ohannessian, 1967) recommended research projects that would involve linguists in sociolinguistic studies, styles of learning among the various Indian communities and attitudes of Indians toward English. Information gleaned from research related to any or all of these topics would be very helpful to the instructional program for North American Indian children.

In addition to the CAL recommendations is the interest in bilingual education programs. The BIA started bilingual education in a modest form only to have it cut short by the advent of the Second World War. Since then it has been difficult to get it started again. Gaarder (1967) listed the usable tribal language orthographies and called for bilingual programs where there are at least 1,000 speakers of a tribal language. If bilingual programs develop for Indian children, there will be a need for tests unique to this language learning situation.

BIA helps establish TESOL

In 1964 I was assigned to attend the organizational meeting of Teachers of English to Speakers of Other Languages (TESOL) held in the old Ramada Inn in Tucson, Arizona. The BIA Education group consisted of Mrs. Thompson and others from Washington, DC, Dorothy Hanlon and myself from the Field Technical Office. This organizational meeting was sponsored by the Modern Language Association (MLA) and the National Council of Teachers of English (NCTE). It seems that the MLA and NCTE had for quite a while been discussing the need for such an organization as TESOL. Knowing the Indian language situation, BIA was invited to attend this organizational meeting. NCTE was at that time headed by Dr. Jim Squires with whom I became acquainted and attended evening discussions in his motel room. These discussions were philosophical and very stimulating to me. TESOL is now a well established and respected international professional organization.

A second TESOL organizational meeting was held in New York City during which Jim Squires recommended me for the Executive Committee. I served on this Committee for three years. One happening stands out. Sometime during 1967 when there was strife among minorities and professional organizations, Jim Alatis who was a Georgetown University professor and the first Executive Officer of TESOL called me to discuss what to do about aggressive minorities. At the time Blacks had taken over the headquarters of Association for Supervision and Curriculum Development (ASCD) and Jim was worried that the fledging TESOL might suffer a similar fate. I mentioned that the TESOL membership was deeply involved with minorities. I suggested that TESOL should give minorities a legitimate voice in the affairs of the organization. I suggested that he create the "Socio Political Affairs Committee" which he did and which exists to this day. During my time in TESOL, this committee was always given a serious voice before the annual conference attendees. It seemed only fair and legitimate that an organization primarily concerned with the language of minorities should provide the a real voice within the organization.

I should also stress that the BIA "helped" financially with the creation of TESOL. The main players were the Modern Languages Association (MLA) and (National Council of Teachers of English (NCTE). The BIA merely joined membership in numbers and participated in early TESOL activities. One of these activities concerned a 1,000 teacher workshop initiated by Dr. Benham of the BIA Navajo Area and contracted to TESOL. The workshop was held at the then new BIA Ft. Wingate High School. Dr. Alatis explained to me that this workshop provided the initial funding for the headquarters office before annual membership dues began to be felt.

NCTE Task Force on Teaching English to the Disadvantaged

As mentioned above, I was at the initial meeting in the spring of 1964 in Tucson where the National Council of Teachers of English (NCTE) and the Modern Language Association initiated the creation of the Teaching English to Speakers of Other Languages (TESOL). I was part of the group Mrs. Thompson

assigned to attend the meeting. As mentioned above, it was there that I met Jim Squire then Executive Secretary of NCTE. Later in early 1965 Squire requested from Mrs. Thompson that I be a member of the U.S. Office of Education funded project to the NCTE Task Force (1965) on Teaching English to the Disadvantaged. Mrs. Thompson granted permission for my participation. The Task Force was an activity related to President Johnson's War on Poverty.

Participation in the Task Force visiting schools in various parts of the U.S. was very educational and provided an important element in my own education. It was extremely stimulating to visit schools in Michigan, Milwaukee, New York City and Philadelphia. The NCTE (1965) developed a book on the work of the Task Force that to his day is noteworthy in its findings. The Preface of the book includes the following:

> When Congress and the President committed the nation less than two years ago to unprecedented war upon poverty, the basic importance of education in every sector was at once clear. Without the skills, the knowledge, the understandings that only training of the mind provides, there can be no durable solutions to the age-old human problems of vocational incompetence, slum housing, social disjuncture, and intellectual atrophy that are the fated products of poverty. Without literacy and without the experience of literature, the individual is denied the very dignity that makes him human and a contributing member of our free society.

NCTE, aware of its unique position of leadership in the nation's effort to rid itself of the curse of poverty, responded quickly to the call. Meeting in February 1965, the Executive Committee of the Council concluded that the great need of the moment was for information about the hundreds of independent and uncoordinated programs in language and reading for the disadvantaged that had sprung up in every part of the country. So compelling was this need that the Committee determined to establish a National Task Force which would survey and report upon individual programs throughout the nation. So urgent, indeed, did the Committee judge this need that rather than wait upon the delay and the uncertain possibility of government or foundation support, it decided to underwrite the not inconsiderable cost of the Task Force from the Council's own funds. From schools, universities, and related educational agencies, it enlisted a force of 22 experts and three consultants who met in Chicago in March for briefing. Within two months, visiting in teams, the Task Force had observed and reported in detail upon 190 programs for the disadvantaged, both rural and urban, in all sections of the United States. They visited 115 districts and agencies in 64 cities and towns. By the end of June, three months after the project began, the members of the Task Force with five consultants met at French Lick, Indiana, to review their findings and to plan this report.

That so massive a project was completed in so short a time can be attributed only to the willing cooperation and often personal sacrifice on the part of many

individuals. My own contributions to the Task Force were contained in the many pages of reports I submitted to the NCTE. One of my reports was quoted in the report in the chapter on high schools. One Task Force member saw Keats "The Eve of St. Agnes" taught successfully to a class of Negro students, which the following observation points out:

> The interesting aspect of this visit was that the students were actively participating. Upon leaving, I was more dubious than ever about the worth of "programs" as contrasted to the "gifted teacher." I had just observed a very artistic teacher work with Keats and do so with a high degree of success. Judging from my experience, it would appear that the teacher who has philosophical insight enough to extract the human elements from life and from literature is the most effective teacher of the culturally disadvantaged. Perhaps what I am trying to say is that the average teachers are superficial in their approach, and consequently what they personally and professionally perceive in life is commonplace and meaningless to the culturally disadvantaged student. (NCTE, 1965, p. 139)

My summary report to NCTE also reflected much of what my 50 years of experience:

> In every city visited there was a "regular" program around which most school people circulated and to which most educational efforts were directed. This "regular" program had an aura of a sanctity which placed it almost within the realm of a religious belief. One main aim of the English programs for the culturally disadvantaged was to give the students a creative compensatory program only to the extent that it would enable the student to enter and participate in the "regular" program. I couldn't help but believe that the "regular" program, judging from my brief glimpses of it through classroom doors left ajar, was comfortable to the teacher but perhaps represented for the student a Procrustean bed....
>
> A. The effective programs of English for the culturally disadvantaged had as a central element freedom for the teachers to use whatever curriculum materials they felt effective. This allowed teachers the freedom necessary to be very creative in the teaching efforts.... Great emphasis was placed on student interest in what was studied. Motivation to learn and the selection of materials that had high interest for the students was considered to be of paramount importance.... Effective teachers of English to the culturally disadvantaged are dedicated individuals and have the "missionary spirit". They feel that they are needed and are very concerned and compassionate toward the students.
>
> B. There appears to be scattered sources of printed material for the culturally disadvantaged which reflects what could be considered

> a paucity of materials, when if fact this not be the case. Teachers and administrators were always eager to know of published materials which might have application to their challenge. They generally reflected the impression that there wasn't much suitable material available on the commercial market....
>
> F. Most programs did not have a strong element of inservice education but where it did there was generally a broader application of special materials and techniques related to teaching English to the culturally disadvantaged. This led to the conclusion that a strong inservice education program for teachers and administrators is one method whereby general, system-wide effectiveness regarding English instruction can be enhanced.
>
> G. School personnel who understand the disadvantaged child think content based material, the social and personal problems of humanity are best suited as a foundation on which to structure the English curriculum. As an example, in *Gateway English* the unit approach was used and such themes as "Coping" and "Who Am I?" were unit titles. At Boys Training School in Michigan they studied newspapers and current events.

Both the programs visited dealt primarily with emotionally disturbed children. I question whether this is the type which the NCTE Task Force should visit. In both cases the programs were heavily financed and, thus, separated themselves from the education of the masses of culturally disadvantaged sets by providing services which would be almost impossible to copy on a very large scale. I found that the large group of culturally disadvantaged students, those which occupy the ambiguous classification of "regular program students", are assumed to be normal and without need of any special or unique educational provisions. Whether this is the case or not, the large masses of students who weren't emotionally disturbed were being subjected to the same old stuff in the same old way. Are there any programs which attempt to deal with the educationally disadvantaged on a large scale? The program visited worked respectively with 130 and 160 students. I question the applicability of educational programs for the emotionally disturbed to the education of the masses of culturally disadvantaged students.

Admittedly, the participation on the NCTE Task Force was not directly related to teaching Indian/Native but it did broaden my perspective beyond the BIA Education Program operations. In a sense, it seemed to clarify my understanding of education innovation and the relationship of such activities to the "Regular" program of a school. Education innovation is invariably an uphill, usually a steep hill, battle.

Bilingual Education

Adams (1946) in her history of Indian education mentions that the Collier Administration of the New Deal brought on board linguists and anthropologist to help direct the BIA's programs. And there was Robert (Bob) Young, a regu-

lar BIA employee who in time became the foremost Navajo linguist and who with Morgan produced the Navajo language dictionary and the "Government Orthography." Bob told me that he headed to Navajo from Northwestern about 1935 so he could complete his graduate work on an Athabascan language. He was assigned to work at the sheep dip station at Ft. Wingate where he met Willie Morgan, which started a life long collaboration. Bob was not accorded the formal title of a linguist, but he was nonetheless a distinguished linguist in his own right. The same can be said for Irene Reed of the University of Alaska, Fairbanks who became interested in the Eskimo Yuk dialect and on her own developed an orthography for it. Both the Young-Morgan and Reed orthographies were used in BIA funded bilingual programs. I might also note that Bob Young gathered field notes on Canadian Athabascan speakers. Bob's fluency in Navajo was classical and complete.

My interest in bilingual education was spawned while teaching at the one-teacher Arctic day school where in 1954-56 all the children spoke English as a second language and entered the school with very limited or no English capability. It occurred to me that speaking Eskimo would have been a huge advantage in teaching English. Then, when I was working in Washington, Frank Darnel (1972) of the University of Alaska, Fairbanks was able to sponsor the first Circumpolar Education conference held in Toronto. I attended along with Assistant Commissioner Zellars and two others and observed how other countries had developed bilingual texts for aboriginal children in the Arctic regions of the world. Why not the BIA doing the same thing for Eskimos – and other tribal speaking peoples?

One of the first things I learned about bilingual education is that it is fraught with emotionalism and politics. It is not possible to establish a bilingual education program without careful attention to these two factors. The technical, linguistic aspects are fundamental to pedagogy, but are secondary to politics and emotionalism. While pedagogically sound, bilingualism can be and was challenged even by tribal members who learned via an English-only approach in the authoritarian confines of a boarding school. And then there are the non-Indian teachers and administrators who feel threatened by anything as Indian as the language being included in the school program. After all, the purpose of schools was to educate Indians to behave as non-Indians.

The evaluator of the first bilingual program in Alaska compared an English only school to the one implementing instruction in Eskimo and English. The data favored the English only approach. He did not know that this was a normal outcome of a bilingual program at the primary level and that test scores began to favor the bilingual program, if the bilingual program was continued, at grades three and four when the bilingual students would out perform English only students.

History of BIA Bilingual Education

Evelyn Bauer, a BIA Central Office Education Specialists, was asked to develop a history of BIA bilingual education for Indians (Bauer, 1969; 1970). Her excellent research established a benchmark for the BIA's bilingual education program that evolved from 1968 throughout the 1970's. She reported:

A combination of depressing academic achievement-test results, and an interest in innovative and possibly successful programs around the country involving students that have much in common with our own, has led the Bureau of Indian Affairs to a serious examination of approaches to educating Indian students which may hold a greater promise of success than we have enjoyed in the past. The most promising of these approaches is that of bilingual education, i, e., the use of some combination of the student mother tongue and English to transmit academic content, and to foster the child's development in both languages.

Interest in bilingual education, or at least in the inclusion of mother tongue in the classroom, is not new in the Bureau. Reversing what had been a long-established policy in the treatment of American natives, i.e., their assimilation into the mainstream culture at the cost of their culture, their language, and their separate identity, the Bureau, under the direction of Willard W, Beatty, set out in the late thirties to promote native-tongue literacy among Indian adults and young people. At that time, almost 9 out of every 10 Navajos were non-English speaking and the need to convey information to adult Navajos had become acute. In addition, there was a growing awareness of the failure of Indian children to adapt to an English language curriculum at the beginning levels.

An alphabet limited to the keys found on a modern typewriter (thereby eliminating a number of symbols which had been used previously and greatly simplifying the diacritical markings) was developed by Oliver LaFarge, the novelist, and Dr. John P. Harrington, a linguist with the Smithsonian Institute. A pre-primer, primer, and first reader in English and Navajo titled *Little Man's Family*, with text by J. B. Enochs, a former Bureau teacher, was followed by the *Little Herder* stories and the *Prairie Dog Fairy Tale* by Ann Nolan Clark, another Bureau teacher. Preparation of the Navajo text was handled by Robert Young, Edward Kennard, Willetto Antonio, and Adolph Bitany. In the fall of 1940, Kennard, Young and Bitany began to introduce the reading and writing of Navajo into reservation schools. Materials prepared for adults included accounts of technical programs such as soil conservation, livestock management, water development, health, sanitation, and disease control. Native Navajo speakers were taught to read and write Navajo and were then employed to work as interpreters with doctors, scientists- teachers, and other technicians.

A monthly newspaper printed in Navajo proved valuable in communicating to the Navajo information on activities of the Tribal Council, as well as national and world news.

World War II, with its drain on personnel and funds seems to have been at least partially responsible for the end of the native literacy program, Many of the linguists and native teachers who had been involved were assigned to the Army Special Services Branch to teach Indians,

(It is interesting to note that the Navajo language was used as an Army code—one which was never deciphered by the Japanese)

A second example of a Bureau project which made use of native language is the Five-Year Program which began in the mid-forties. This was a period in which it was not possible to accommodate in the immediate area all the Navajo children who desired schooling and as a consequence, a large part of a generation was growing up illiterate. Space was available in Bureau boarding schools in other areas and this was made available to Navajo youths from 12-16 years of age with little or no previous schooling. Since most of these students had no English, it was necessary to make extensive use of Navajo. In the first three years of this program, a teaching team consisting of an English-speaking teacher and a native-speaking instructional aide, gave instruction in Navajo and English. Ideas were first introduced in Navajo by the aides, and followed up by an English presentation. As students progressed, the amount of English increased. However even after English became the chief medium of instruction, Navajo was still employed to determine how well students had understood the material presented to them in English.

Both Rough Rock and Rock Point, Bureau elementary schools located in Arizona, have been including in their programs, reading instruction in Navajo and Navajo culture. Rough Rock also has formal instruction in Navajo-as-a-second-language for non-Navajo speakers.

Navajo Beginners, first- and second-graders would be taught science, social studies, and health in Navajo with summaries in English. By the third and fourth grades, English would become the language of instruction, with Navajo being used when necessary, with the exception of fifth- and sixth-grade units on Navajo studies, which would continue to be taught in Navajo. Mr. Holm suggests that activities having to do with Navajo mythology, singing, dancing, and public speaking might be offered as voluntary after-school activities. Navajo-speaking aides or teachers would work closely with English-speaking teachers in the lower elementary grade;

Mr. Holm' s program is in effect at this time [1969] and we should have an evaluation of it by the end of this year. It seems very likely that if the program is measurably successful, it may well serve as a model for other programs of this nature on the Navajo reservation.

Although Navajo has been the chief area of concentration in the past, and will most likely continue to be so because of the size of its population, there has been much interest recently in Alaskan native groups. A project has been submitted which proposes to develop curriculum materials for the teaching of Inupiat (Northern Eskimo) and Kutchin and upper Tanana (Athabascan) Alaskan native dialects at the fourth-grade level. This program would, over a five-year period, prepare similar materials down through the first year.

> The Juneau Area of the BIA is preparing a bilingual proposal at this time and it is likely that others from this area will follow. Both the Rock Point and Rough Rock experiments will continue to develop, with increased emphasis being put on evaluation, especially in the areas of reading and ESL. (Bauer, 1969)

Bauer included references to her paper, which I have eliminated from the above excerpt.

Navajo Reading Study and the Navajo Orthography Conference, 1969

The Navajo Reading Study was a recommendation of CAL in one of its reports. The idea was to study the teaching of reading in the Navajo language to ESL first graders. Bernard Spolsky (1975) in a later article described how the study started in 1969. I was one of the BIA officials who met with Spolsky in 1969 and asked that he start the project. This was, without a doubt, one of the most productive and innovative "interventions" in Navajo education since the late 1930's. It was much more than the earlier 1930's activities because there were in 1969 enough school facilities on the Navajo Nation to support its school age population.

Wayne and Agnes Holm took leave from Rock Point School and were important staff members of the project. Wayne completed his doctoral dissertation at the University of New Mexico in 1972, which contributed to the study of Navajo orthography (Holm, 1972). The project produced many excellent academic papers all on some aspect of the Navajo language, either linguistics and/or education. It is important that Robert Young (1972) was also on the staff. He produced with William Morgan a comprehensive dictionary of the Navajo language (Young & Morgan, 1943).

Wayne and Agnes must have taken with them much of their learning in the Reading Study back to Rock Point where they implemented perhaps the most exemplary Navajo bilingual program to ever exist, the Rough Rock School notwithstanding.

I was able to obtain from Mr. Zellers financial support for a contract to the CAL to sponsor a Navajo Orthography Conference. Siraripi Ohannessian (1969) was the Principal Investigator for the contract and subsequent conference. At that time we were aware of the Young-Morgan work on writing the Navajo language. However, if a formal innovation of Navajo-English education, teaching in the two languages, was to be initiated by the BIA, it was necessary to adopt a writing system for the Navajo language. One of the Attachments to the report was brief paper prepared by Sarach C. Gudschinsky. Her introduction states a basic reason for having the conference:

> Unfortunately the problem of orthography is one of the most explosive in the world. Differences about alphabets have frequently caused shooting wars, riots, and serious political division. In some languages, competing groups using different othrographies have actually

> perpetrated large competing literatures. In the light of all this, it seems important that major revisions of an orthography be undertaken only if there are severe problems with its readability, or is social opposition to it makes it unusable.

I was somewhat surprised that Ohanessian had discovered seven Navajo orthographies that were presented at the conference. I had more or less thought that the "Government System" developed earlier by Young and Morgan was a lone one. Not so. Since there were other orthographies extant, the importance of the conference increased and ultimately served to clear the air when the Young-Morgan orthography was adopted.

Rough Rock Demonstration School and Indian Self-determination

There was no more important innovation in Indian/Native education in the last half of the 20th century than the establishment of Rough Rock Demonstration School. I by chance happened to be in Window Rock when Dr. Buck Benham and Wayne Holm were discussing options of what to do with the messy situation at Lukachukai school. The mess was a conflict between the Office of Economic Opportunity (OEO) community program and the BIA regular program at the school. The background to the establishment of Rough Rock is described in Broderich Johnson's (1968) book on the school. Dr. Benham told me that the Washington Office had instructed the Navajo Area Office to make Dr. Roessel's OEO program a success. It was not to fail.

Buck discussed the situation with Wayne and asked for his thoughts on the situation. Wayne, according to Buck, suggested that BIA give Dr. Roessel and his allies the new school at Rough Rock and let them run it as they saw fit. Then Buck called me in to his office and told me about the instructions from Washington and his discussion with Wayne and asked what I thought of Wayne's suggestion. I said that it sounded like a good idea to me and a good way to solve the problem. At this time no philosophical discussion on Indians taking over BIA programs (Indian Self-Determination in Education) was part of the discussions. Establishing Rough Rock was merely following an instruction from Washington and solving a difficult problem. The BIA has always had enormous authority to deal with Indian Affairs and giving the OEO program a complete new school was possible.

It should be noted that this decision did in no way involve the Navajo community at Rough Rock. Dr. Roessel with his expertise and experience with Navajo communities, after accepting the school, began immediately to involve the Navajo community in the school program. One of his first actions was to establish a Navajo board of education for the school. And, next, was to hire as many Navajos as possible as teachers and staff and to create a curriculum the foundation for which was Navajo culture and language. His one key teacher was Anita Pfeiffer, a fully Arizona certified teacher who had the responsibility for developing the Navajo curriculum, including for teaching to the Navajo language. It was my privilege to work with Anita on several activities in the 1980's and

1990's. In one discussion, she related to me how she developed her own Navajo writing system when she started at Rough Rock in 1966.

I had never met Bob Roessel and knew of him only through others, until I was called to the BIA Commissioner's Office. I don't remember the exact date, but it was probably in 1968 or thereabouts. On this day the Assistant Commissioner for Education was not available, and I received a phone call to "Represent Education in the Commissioner's Office." I had no idea about the meeting but went dutifully to the Commissioner's Office. I entered the office and found Dr. Roessel, the Commissioner and an aide to the Commissioner in a meeting. Dr. Roessel was in the midst of describing the Blessing Ceremony of a new building at Rough Rock School. He was animated in his speech and before I knew it he had reached for a ruler and was on the floor describing how the Navajo Prayer Stick (the ruler) seemed to take on powerful elements and began to vibrate, so he indicated. I was more or less dumbstruck by the demonstration and said nothing but only waited for the meeting to end. No questions were asked. Roessel (2002) wrote an autobiography entitled "*He Leadeth Me" An Account of how God/Jesus/ Holy People Have Led Me Throughout My Life* that reflects his spiritual beliefs.

Earlier in late 1966 the American Anthropological Association was meeting in Washington downtown at a hotel. The then head of BIA was Carl Marberger. He had agreed to serve on a panel but had other more important matters to attend to. So, I was assigned to be his replacement at the panel. The main topic of the panel was Rough Rock and the main message was, "At last, Indians are running their own school. More importantly, it is highly successful." Various members of the audience rose and spontaneously expressed their heartfelt support for Rough Rock. One must remember that at that time Indians were very critical of anthropologists for "Using Indians" to promote careers in the academic community. I thought that Rough Rock was providing a platform for them to relieve their guilt. Well, the Rough Rock part of the meeting went far into the noon hour and when at about ten minuses to one, the panel chair said, "We have a representative from BIA Education and would you like to say something." I responded to the effect that my comments would be irrelevant to the meeting and we all needed to go to lunch, which we did.

These experiences notwithstanding, in 1992 I had the opportunity to work with Bob Roessel on the Navajo Teacher Education Program, which he and Anita Pfeiffer were initiating. In my view, Bob Roessel was one of the most dynamic innovators in the history of Navajo education, and also one of the most prolific innovators in the history of Indian/Native education. One could not ask for a better environment to work within than Anita leading the Navajo Nation's Division of Education and Bob taking the lead in producing new certified Navajo elementary level teachers.

Johnson's (1968) history of Rough Rock expresses the situation as I remember it without any attempts to gloss over the facts as they happened. Indian Self Determination in Education became a reality to solve an administrative problem. After it became a reality with the leadership of Dr. Bob Roessel, it became a national policy and was established in statute with the passage of P.L.

93-638 in 1975. It is with considerable satisfaction that Indian Self Determination had its origin in an Education decision made by a Creek Indian, Dr. William J. Benham, and two dynamic innovators, Dr. Bob Roessel and Dr. Wayne Holm, years before the passage of P.L. 93-638. I was privileged to have witnessed the decision making process.

The Kindergarten Program

The implementation of the Kindergarten Program in the BIA Education Program was one of the most important experiences of my career. I would like to report about a detailed research effort on the part of the Education Program prior to the acceptance by the Congress and consequent funding, but this was not the case.

During a few months in early 1967, when the Assistant Commissioner for Education position was vacant, Madison Coombs was Acting Assistant Commissioner. As he described the Kindergarten initiation to some of us, we sat back and listened with wonder and black humor. It seems that one day an acquaintance of Madison's who worked at the Johnson White House call Madison. He said, "Madison, does BIA have Kindergartens?" to which Madison replied, "No." His friend said, "Get ready for them as this is a good year for Kindergartens." Albeit, without field participation in decision-making, we at the Central Office got ready for the Kindergarten Program.

At that time I was Assistant Chief of the Curriculum Development and Review Division. A long-time education specialist was the Chief of the Division. Mr. Zellers was newly hired as Assistant Commissioner and had given the Division new positions for various curriculum specialists. One of these was an education specialist in Early Childhood Education. There were several applicants. The Chief of the Division selected a woman newly graduated from Bank Street College's Early Childhood program. Bank Street had and has a strong Early Childhood Education Program. Her contacts in the early childhood education field were very helpful in developing the BIA *Kindergarten Curriculum Guide*.

The Kindergarten Program made a significant change in thinking for the BIA Education Program. For the past 30 years the entry age for Indian children was six years with a birthday on or before September 1. The child was then placed in the Beginner grade and for the second year of school, in the first grade. The assumption was that Indian/Native children entering school at age six would not speak English and needed the Beginner year to learn English. But, things were changing. Many Indian/Native children were entering school at age six speaking English and the Beginner year was no longer appropriate. In the kindergarten schools the Beginner classification was dropped but continued for such tribes as Navajo and Choctaw and Eskimos where entering six-year-olds spoke English as a second language.

Not all the schools operated by BIA offered the Kindergarten Program. For the 1969-70 school year the BIA's kindergarten enrollment totaled 1,681 students with the largest number (615) in the Navajo Area. It was a constant problem to keep boarding schools from boarding the kindergarten children. It was official

policy that kindergarten children not be boarding students. Since there were 23 boarding schools that received a kindergarten program, this meant there were 23 problems. In 1968 when the program was implemented many primary, well traveled roads had been paved on many reservations so that running busses to pick up children was possible. However, the Education Office's School Facilities Division had implemented a draconian rule that children could not be counted to justify a new facility if they lived within two miles of a bus stop. Anyone familiar with the Navajo and other reservation, on which 16 of the 23 boarding school kindergartens were implemented, knew that dirt roads which link to paved roads can be impassable for days, even weeks, at a time during winter months. This thinking supported boarding kindergarten children in boarding schools that received a new or remodeled kindergarten facility.

Assistant Commissioner for Education Charles Zellers did an excellent job of implementing the Kindergarten Program. The curriculum guide developed by the National Association for the Education of Young Children (NAEYC, 1968) is comprehensive and detailed enough so that isolated, rural schools enrolling Indian/Native children implementing the program would find it very useful. The training workshop was head at the Navajo Dilcon School in the summer of 1968.

Styles of Learning Conference, 1968

If there is such a thing as, "Indian/Native Education Thought," and I believe there is, the 1968 Styles of Learning Conference reflects a benchmark of Indian/Native thought. The famed Meriam Report (1928) is the beginning of serious Indian/Native education thought. From then on one may reference other important activities and related publications such as the "National Study of Indian Education" (Fuchs & Havighurst, 1972) and find a comprehensive set of research type activities and sub-projects and gain an overall picture of the 1972 general Indian/Native picture. Regarding histories there are the Adams (1946), Szasz (1974) and Reyhner and Eder (2017) that provide important general pictures of the past situations in Indian/Native education. Then there are Congressional studies, notably the Kennedy (1969) and the *American Indian Policy Review, Task Force Five* (1976) history. More recently there was the Review of Research by Deyhle and Swisher (1997) and its excellent coverage of research. On the other hand, in my view, none of these can equal the intellectual quality of the 1968 Styles of Learning Conference.

Unfortunately, I found that the various Directors of BIA Education after Willard Beatty left in 1952 had little or no interest in Indian/Native education thought, especially thought originating from Indian/Native cultures and languages. Even though I was a Division Chief in the BIA's Office of Indian Education Programs from 1968 to 1979, it was impossible to get a Director of Education interested in the importance of Indian/Native culturally based styles of learning. Even though the BIA had an official assigned responsibility of "Research" the focus remained from 1946 to 1972 on evaluation of education at the school level aimed at public vs BIA schools comparative qualities.

One cannot be too critical of the BIA Directors and Assistant Commissioners as they alone did not control Indian/Native policy. The Congress has historically controlled Indian/Native policy (Tyler ,1973) which for at least the years of my experience, was basically devoted to phasing out Federal education responsibility of Indian/Natives and transferring all BIA schools to the public schools. Indian self-determination has placed an obstacle in the path of this historic policy, but not all together. The administration of the No Child Left Behind (NCLB) Act of 2001, which also make Indian education a trust responsibility, was used to turn over the curriculum of all Federally funded schools to the states in which the school was located (Hopkins, 2009).

It is interesting that the concept of "Styles of Learning" pertaining to Indian/Native education remains alive. For example, Karen Swisher (1994) conducted research based on suggested Indian cultural values. Her references cite several learning styles articles and papers. However, she seemed to imply that over the years there was an academic shift from cultural values to psychological values, hence, the academic field of psychology has become involved with Styles of Learning. Recently there was an article in the *Albuquerque Journal* that referenced learning styles and their use in contemporary classrooms (Landsmann, 2010). The author of this article said: ". . . I visited a classroom a couple years ago and saw four students crowded near radiators. I asked why and was told, 'Their learning style is that they like to be warm.'"

Courtney Cazden and Vera John (1971), a Navajo, reviewed research on American Indian students and discuss tests of learning prior to school entrance, learning through looking, learning through language, and values which may interfere with school achievement. In their discussion of values they discuss the Indians' concepts of time, their disposition to conform to nature rather than dominate it and their passivity. However, they try not to over-generalize and give specific examples from studies of different tribes that any teacher of Indian students should read.

Concluding Observations

I worked my entire 25 year career in the BIA under the Area Organization and the Area Directors. The central office and area office education officials were advisors to the Area Directors who had line authority to the schools. It was frustrating to the central office directors when it became an issue that an area director was selecting a principal or education specialist the central office did not believe appropriate. This was a common happening. Area directors commonly approached their Education responsibilities by ignoring the technical advisors at the central office level and often their own area technical staff. Willard Beatty had his office in Chicago and had line authority to all schools and field staff. This changed with President Eisenhower and Hildegard Thompson and remained so until passage of P.L. 95-561 in 1978, which by statute placed the Education Program outside the control of the area directors.

In summary, from 1952 to 1978, a period of 26 years, no system-wide BIA Education innovation was possible. Any education innovation promoted from

the central office was merely a suggestion to area directors. There is another organizational point to be made. During the 1964 to 1970 years the BIA was organizationally under the Bureau of Land Management (BLM). When I had to defend a bilingual education add-on to the Interior-BIA budget requests to Congress, I had to talk to a BLM super grade agronomist who had the responsibility of presenting and defending the budget to the Office of Management and Budget and before Congress. He was very willing to listen and try to understand that most Indian/Native children in BIA schools spoke English as a second language. I explained that their languages were non Indo-European with unique phonology and syntactical structures. I said, "Indian/Native languages have different sounds from English and often we don't even know enough about the language to tell when a word begins and/or ends." Apparently anything this complex was not worthy of presenting to Congress. He was baffled by my presentation and needless to say, the add-on did not go forward. Just as importantly, I failed to communicate effectively to an important non-education professional.

U.S. Education and Indian/Native Education. Indian/Native education, historically, has been a function of U.S. education, public and/or private. As near as I can tell, all aspects of Indian/Native education emanated within U.S. public/private education. During 1964-1970 the TESOL innovations came from outside the Indian/Native education program. When Indian/Native schools were turned over to states, BIA responsibility ceased, as reported continuously in the Statistics Concerning Indian Education.

In 2002 when President Bush signed NCLB, which placed primary emphasis on accountability, this was in an authoritarian manner laid on all BIA funded schools. Nothing new here. When one reads the two history of Indian Education books (see e.g., Adams, 1946; Szasz, 1974) this becomes ever more apparent. But, with NCLB and the emphasis on testing, one would have hoped that the "Accommodations" apparently discovered as needed to test Spanish and other speaking immigrant children, the researchers would have immediately looked to the education of the country's only aboriginal population, Indian/Natives. Not so, Jamal Abedi (2004), the leading researcher of Accommodations had not one reference to the education of U.S. Indian/Natives. Faralie Spell's careful and quality work in the 1960s and Anderson and Eells (1935) research on Alaska Natives were not seriously recognized by leading U.S. education researchers. One can only hope that someday U.S. education will take the education of Indian/Native seriously enough to look at the many quality activities it reflects that could be helpful to states and the nation in general.

Notes

[1]Terms like "culturally deprived" were frequently used in the 1960s and are deemed unacceptable by many today because of the dominant culture ethnocentric bias in them that devalues Indigenous cultures.

[2]Eskimo was a term used in the 1960s and before by outsiders for the Inuit and Yupik people of Alaska and Canada.

References

Abedi, J. (2004). The No Child Left Behind Act and English language learners: Assessment and accountability issues. *Educational Researcher,33*(1), 4-14 (January/February 2004)

Adams, E. C. (1946). *American Indian education*. Morningside Heights, NY: King's Crown Press.

American Indian Policy Review Commission. (1976). *Task Force Five, Report on Indian education.* Washington, D.C.: U.S. Government Printing Office, Helen M. Scheirbeck, Chairwoman, Indian Education Task Force.

Anderson, D., Eells, W. (1935). *Alaska Natives, A survey of their sociological and educational status.* Palo Alto, CA: Stanford University Press.

Bass, W. P. (1971). *An analysis of academic achievement of Indian high school students in federal and public schools*. Albuquerque, NM: Southwestern Cooperative Educational Laboratory.

Bauer. E. (1969). *Bilingual education in BIA schools.* Paper delivered at the TESOL conference, March 1969. Retrieved from https://archive.org/stream/ERIC_ED030089/ERIC_ED030089_djvu.txt

Bauer, E. (1970). Bilingual education in BIA schools. *TESOL Quarterly, 4*(3), 223-229

Beatty, W. (1944). *Education for action*. Chilocco, OK: Chilocco Agricultural School. (*Indian Education* articles from 1936 – 1943)

Beatty, W. (1953. *Education for cultural change*. Chilocco, OK: Chilocco Agricultural School. (*Indian Education* articles from 1944 – 1951)

Cazden, C. B., & John, V. (1971). Learning in American Indian children. In M. L. Wax, S. Diamond & F. O. Gearing (Eds.), *Anthropological perspectives on education.* New York: Basic Books.

CAL - Center for Applied Linguistics. (1967). *The study of the problems of teaching English to American Indians.* Washington, DC: Center for Applied Linguistics.

Coleman, J. S. (1966). *Equality of educational opportunity*. Washington, DC: U.S. Department of Health, Education and Welfare, Office of Education, No. OE-38001.

Colliou, R. C. (1965). Second language instruction for Indian children. In *The education of Indian children in Canada* (pp. 75-79). Toronto: Ryerson.

Coombs, L. M., et al. (1958). *The Indian child goes to school: A study of interracial differences.* Washington, DC: U.S. Department of the Interior, Bureau of Indian Affairs.

Coombs, L. M., et al. (1962). *Doorway toward the light.* Lawrence, KS: Haskell Institute, U. S. Bureau of Indian Affairs.

Deyhle, D., & Swisher, K. (1997). Research in American Indian and Alaska Native education: From assimilation to self-determination. In *Review of Research in Education* (pp. 113-194). Washington, DC: American Educational Research Association

Fuchs, E., & Havighurst, R.J. (1972). *To live on this earth, American Indian education.* Garden City, New York: Doubleday & Co..

Gardner, R. C. (1967). A survey of the attitudes of educators of American Indian children. Department of Psychology, The University of Western Ontario, London, Canada, Research Bulletin No. 66.

Gottlieb, D. (1964), Teaching and students: The views of Negro and White teachers. *Sociology of Education, 37*(4), 345-353.

Havighurst, R. J. (1957). Education among American Indians: Individual and cultural aspects. *The Annals, 311*, 105-115.

Holm, W. (1972). *Some aspects of Navajo orthography*. Unpublished Ph.D. dissertation. Albuquerque: The University of New Mexico.

Hopkins, T. R. (1952, December). Is it a man's job? *Phi Delta Kappan, 3,* 105-106.

Hopkins, T. R. (1967). *Navajo high school student performance on TOEFL (Test of English as a Foreign Language): A report*. Washington, DC: U.S. Bureau of Indian Affairs. (Mimeo.)

Hopkins, T. R. (1977). *Assessing the transition of Indian school control from federal to tribal.* Albuquerque: University of New Mexico, College of Education.

Hopkins, T. R. (1978). Concho School, A program description of an elementary boarding school for Indian children. Albuquerque: University of New Mexico, College of Education.

Hopkins, T. R.(2009). *Evaluating American Indian and Alaska Native education.* Located on the Alaska Native Knowledge Native Network, University of Alaska, Fairbanks. http://www.ankn.uaf.edu/Curriculum/Articles/History/TomHopkins/Evalind.html

Johnson, B. H. (1968). *Navajo education at Rough Rock*. Rough Rock, AZ: Rough Rock Demonstration School.

Lado, R. (1964). *Language teaching: A scientific approach.* New York: McGraw-Hill.

Landsmann, L. (2010, Jan. 26). Learning isn't all about style. *Albuquerque Journal*, B1.

Macgregor, G. (1941, Dec. 15). Stage Indians. *Indian Education*, *5*(65), 4-5.

Meriam, L. (1928). *The problem of Indian administration*. Baltimore, MD: The Johns Hopkins Press.

McLachlan, J. (1970). *American boarding schools, A historical study*. New York: Charles Scribner's Sons.

NAEYC. (1968). *A kindergarten curriculum guide for Indian children, A bilingual-bicultural approach.* Washington, DC: National Association for the Education of Young Children and U.S. Bureau of Indian Affairs.

NCTE - National Counctil for the Teachers of English. (1965). *Language programs for the disadvantaged.* Champaign, IL: Author. Available at http://files.eric.ed.gov/fulltext/ED036506.pdf

Ohannessian, S. (1967). *The study of the problems of teaching English to American Indians.* Washington, DC: Center for Applied Linguistics.

Ohannessian, S. (1969). *Report of conference on Navajo orthography*, Washington, DC: Center for Applied Linguistics. Available on-line as an Eric

Clearinghouse document ED 044 668.
Peterson, S.. (1948). *How well are Indian children educated.* Washington, D.C: U.S. Department of Interior, Bureau of Indian Affairs.
Pfeiffer, A., Hopkins, T. R., Pfeiffer, C., & Pfeiffer, T. (2006). *Status of the Navajo language and culture for education assessment purposes.* Albuquerque, NM: College of Education, University of New Mexico. (Mimeo)
Pratt, R. H. (1964). *Battlefield and classroom, Four decades with the American Indian, 1867-1904*. New Haven: Yale University Press, with an Introduction by Robert M. Utley.
Ray, C. K. (1958). *A. program of education for Alaskan Natives*. Fairbanks, AK: University of Alaska.
Reyhner, J., & Eder, J. (2017). *American Indian education: A history* (2nd Ed.). Norman: University of Oklahoma Press.
Roessel, R. (2002). "*He Leadeth Me": An account of how God/Jesus/Holy People have led me throughout my life*. Round Rock, Arizona: Author.
Spell, F.(1968). *Achievement testing for research and administrative purposes*.A Report, U.S. Department of Interior, Bureau of Indian Affairs, Washington, D. C. 1968 (Mimeographed).
Spell, Faralie.(1968). *Achievement testing for research and administrative purposes.* Washington, DC: U.S. Department of Interior, Bureau of Indian Affairs. (Mimeographed).
Spolsky, B., & Holm, W. (1971). *Literacy in the vernacular: The case of Navajo. BIA Curriculum Bulletin, 3*.
Spolsky, B. (1975). Linguistics in practice: The Navajo Reading Study. *Theory Into Practice, 14*(5), 347-352
Spolsky, B. (1977). American Indian bilingual education. *International Journal of the Sociology of Language, 14*, 57-72.
Swisher, K. (1994). American Indian learning styles survey: an assessment of teachers knowledge. *Journal of educational Issues of Language Minority Students, 13,* 59-77.
Szasz, M. (1974). E*ducation and the American Indian: The road to self-determination, 1928-1973.* Albuquerque: University of New Mexico Press.
Thompson, H. (1964). *Education for cross-cultural enrichment.* Lawrence, Kansas: Haskell Institute Publication Service.
Tyler, S. L. (1973). *A history of Indian policy.* U.S. Department of the Interior, Bureau of Indian Affairs. Washington, DC: U.S. Government Printing Office.
Underhill, R. (1944, Nov. 1). Indian-White equality. *Indian Education*, *8*(108), 1-2.
USBIA, (1951, Sep. 15). Fifteen years of Indian education. *Indian Education*, 211.
USBIA. (1979). *Statistics concerning Indian education, FY 1979*. ERIC Clearing House ED 202 641. By 1979 the Haskell and Chilocco vocational printing shops had closed. The edition of the statistics was apparently contracted to the Coalition of Indian Controlled School Boards and was not generally

available within BIA. The FY 1979 Statistics was compiled by Evelyn Leading Fighter.

USCA 25 §292b. (1983). *Establishment of single system of education in Alaska; transfer a Indian schools to State of Alaska.* St. Paul, MN: West Publishing Co. Cumulative Annual Pocket Part, p. 50.Sahmaunt's

United States Senate. (1969). *Indian education: A national tragedy – A national challenge.* Washington, DC: U.S. Government Printing Office, 1969, Report No. 91-501.

U.S. Office of Indian Affairs. (1901). *Course of study for Indian schools.* Washington: U.S. Government Printing Office.

U.S. Office of Indian Affairs. (1944). Education for action. Washington, D. C..

U.S. Office of Indian Affairs. (1951, Sep. 15). Fifteen years of Indian education. *Indian Education, 211*.

U.S. Office of Indian Affairs. (1953). E*ducation for cultural change.* Washington, DC: Author.

U.S. Office of Indian Affairs. (1952-1964). *Indian Education.* Washington, DC: Author.

U.S. Office of Indian Affairs. (1953) *Minimum essential goals. For all levels beginners through twelve*. Washington, DC: Author

U.S. Office of Indian Affairs. (1977). *Statistics concerning Indian education.* Washington, DC: U.S. Department of Interior, Bureau of Indian Affairs, Office of Indian Education Programs.

Young, R. W., & Morgan, W. (1943). *The Navajo language.* Phoenix, AZ: Bureau of Indian Affairs.

Young, R. W. (1967). English as a Second Language for Navajos. U.S. Department of Interior, Bureau of Indian Affairs, Window Rock,, Arizona.

Young, R. W. (1972). *A brief history, Navajo reading study progress report.* Albuquerque, NM: Navajo Reading Project, University of New Mexico.

Zintz, M. V. (1963). *Education across cultures.* Dubuque, IA: W. C. Brown Co.

Culturally Responsive Education: The Need and Methods for Demonstrating Effectiveness for Evidenced-based Practices

Adam Thomas Murry

This chapter discusses culturally responsive education from a different perspective than many of my colleagues. Although I teach undergraduate and graduate courses and regularly deliver occupational trainings, I am a researcher more than I am a teacher. In fact, even my courses and trainings are on research methods. However, as an industrial-organizational psychologist, my expertise in research has provided me with a window to see what it takes (research-wise) to convince decision-makers that supporting an endeavor such as culturally responsive education is a good thing. As it currently stands, the smart and creative contributions of teachers throughout Indian Country are stuck in their local contexts, and, unless there is a mentorship plan in place, once a teacher retires whether their impactful practices will continue or not is a matter of chance. This chapter is about using research to establish culturally responsive education as the norm; about accumulating things that work and disregarding things that do not; and ultimately about determining best practices for our Native students so that they can get the most out of their education.

This chapter is broken into two major sections. The first is the history of culturally responsive education and its justification for Native people. The second is a review of the research followed by a set of different research designs teachers and researchers can use to help solidify culturally responsive education as a viable practice. For those who are familiar with its history and justifications, you might want to skip ahead to the research review and designs section. The ultimate goal of this chapter is to be useful for teachers, administrators, undergraduate and graduate students, and researchers who are in charge of program evaluations, grant applications, curriculum development, and other similar endeavors that are in the position to provide evidence that culturally responsive education works, including the if's, but's, and when's it works depending on something else.

Background

When one person teaches another, but both are from the same culture, the education process is culturally responsive automatically and unconsciously. It takes for granted the socialized pedagogies, protocols of interaction, educational priorities, verbal and non-verbal symbols, standards of success, and long-term agendas of their group. In other words, the teacher knows familiar strategies of how to communicate to a learner that she/he should both pay attention to and understand. On the individual level, the match between teacher and student

personalities would enhance the cultural effect, and even help to compensate for some cultural differences.

By and large, culturally responsive education is a cross-cultural event. The need for a label and method for culturally responsive education is born from the interaction between two cultures, when there is an incentive for individuals of one cultural group to teach individuals from another cultural group and the familiar strategies of learning and teaching are not the same. This need is most salient when the relationship between the two cultural groups has not been congenial. Educational anthropologist John Ogbu (1992) made the important point that adapting to an educational system in another culture (e.g., in the case of international students) can be an acceptable challenge for the student if it means increased social prestige and economic opportunity.

For minorities whose status in society has been defined by a history of subjugation, oppression, and discrimination (e.g., African Americans and Native Americans), Ogbu (1992) argued that success in formal education could be construed as a compromise to ones ethnic identity and actually affect one's ethnic group membership. In other words, if an individual from a marginalized group succeeds in a system of the oppressor, she/he could be perceived as a "sell out" and support that is normally given to a group member (e.g., encouragement) might be withheld. Disincentives for the aspiring individual are compounded if the reward for succeeding by dominant class standards does not even pay off to the same degree as it does for dominant class members (as has been shown to be the case for Blacks and Native Americans in income and employment when matched by education level with Whites; e.g., see DOL, 2012; Ross, et al., 2012). This is relevant to Native American teachers as well, who may share the culture of their students but still work in a system that is imposed by the dominant culture (see Balter & Grossman's (2009) study on Native teachers reflections on the No Child Left Behind Act).

Since Ogbu's critic of multicultural education, the concept of culturally responsive education has developed into something much more than cultural flare. It is about a change in the process of educating that enhances, rather than threatens, their cultural identity. The next step is demonstrating empirically what works and how to apply it.

History and Evolution of the Culturally Responsive Education

The concept of culturally responsive education was born in the sociopolitical upheavals of the 1960's Civil Rights Movement. Long-time researcher and proponent of culturally responsive education Geneva Gay (1983) explains that civil rights demands for inclusion and accurate representation led to critical research about the theories and content in education. She recalls, "Many educators and social scientists who had endorsed the deprivation theory that undergirded compensatory education in the 1950's began to rethink their premises" (p. 561). Deprivation, or Deficit, Theory states that minorities underperform Whites in school settings because students' home cultures are deprived of or deficient in sufficient stimulation and resources for proper cognitive develop-

ment (e.g., Jensen, 1969; Bloom, Davis, & Hess, 1965). After minorities gained entrance into higher education and research through the Civil Rights Act of 1964, explanations shifted from blaming students and instead questioned the role of the classroom environment (Gay, 1983); such as the effect of preferential teacher behavior on student performance (Rosenthal & Jacobson, 1968; see also a meta-analysis by Südkamp, Kaiser, & Möller, 2012) and content analyses of instructional materials (Roderick, 1970; see also Sleeter, 2011). The creation of ethnic studies courses and new or revised textbooks were significant outcomes of this movement (Banks, 2013).

Overlapping with social justice concerns was a national agenda to accommodate minority students following the 1970 and 1980 Census, that showed minority populations were increasing in their percentage of the total population (Hobbs & Stoops, 2002; Martin, 1997); a trend that continues today (Colby & Ortman, 2015). Research on how to teach a multicultural student population proliferated, but rather than explaining minority underperformance in terms of the students' cultural inferiority, the implicit racism of the teachers, or the systemic racism of the institutions and policies, researchers instead attempted to outline how historically Anglo school culture differed from the cultures of minority students in ways that might affect learning. Research named different culturally-based learning styles (Keefe, 1979; Swisher & Deyhle, 1987), interaction patterns (Greenbaum & Greenbaum, 1983; Phillips, 1976), and dominant brain hemispheres (Paredes & Hepburn, 1976; Ross, 1982) as the potential causes of misfit between educational practices in the United States and ethnic minority students. Yet, a method successful method of teaching that overcame these differences was not prescribed.

In the late 1980's-early 1990's, the research program of Gloria Ladson-Billings (1989; 1990; 1994) investigated the rationales and methods of teachers that were especially effective with African American youth (according to their grades and reports from their parents). Together they distilled the essential components of their approach and coined the term culturally relevant pedagogy (Young, 2010). Rather than define a particular style, she explained that culturally relevant pedagogy rests on three criteria: a) academic success of students, b) development/maintenance of cultural competence, and c) development of a critical consciousness (i.e., understanding how the past influences current conditions) for active citizenship (Ladson-Billings, 1995).

The concept has worked through many titles over the years with different formulations (e.g., multiethnic, multicultural, sociocultural, culturally congruent, culturally sensitive, culturally tailored and culturally relevant), different foci (e.g., curriculum, teaching, pedagogy, schooling, and education), and with different populations (Brown-Jeffery & Copper, 2011; Mohatt & Erickson, 1981; Ladson-Billings, 1995; Nieto, 1999; Villegas & Lucas, 2002). I will be using the prefix "culturally responsive" as I agree with other authors (Castgno & Brayboy, 2008; Gay, 2000) that it best captures the dynamic, or adapting, nature of the student-teacher relationship/instructional approach across cohorts and cultural groups

according to student need. I will also be referring to education as the foci, since that includes all components of the institutionalized learning process.

Multiple scholars have offered taxonomies to outline the necessary parts of culturally responsive education (e.g., Howard, 2003; Villegas & Lucas, 2002). The most popular are those of University of Washington professors James A. Banks (2007) and Geneva Gay (2000). While they differ on the order and labeling of the components, each advocates, 1) integrating content and designing curriculum that is relevant to minority groups' self-concept and community needs (e.g., accurate histories and current scholarship guided by community values and practical needs); 2) teaching students and teachers about the assumptions and historically embedded nature of knowledge, with comparisons across cultures; 3) utilizing communication, pedagogy, and learning styles from the students' home culture to facilitate learning in the classroom context; and 4) building a safe, non-discriminating learning environment for participation of diverse students and their families. Banks (2007) adds a fifth element regarding the empowerment of a school's overall culture and structure to support classroom activities of this nature. Native American scholars add the inclusion of family, community members, and Native languages for Native learners (Castagno & Brayboy, 2008; Demmert & Towner, 2003; Hermes, 2007).

Culturally Responsive Education for Native Americans

The arguments for culturally responsive education for Natives Americans generally fall into one of four interrelated categories: 1) tribal diversity, 2) self-determination, 3) remediation for past injustices, and 4) addressing the achievement gap. It should be noted that although my focus in this chapter is on Native Americans, similar arguments, research, and educational reform is taking place for Indigenous students in other nations, such as Canada's First Nations (e.g., Agbo, 2004; Maina, 1997), New Zealand's Māori (e.g., Averill et al., 2009; Savage et al., 2011), and Australia's Aborigines (e.g., Hickling-Hudson, 2005; Santoro, 2007).

Tribal diversity. According to the 2014 American Community Survey, between .82% - 1.7% of the 319 million citizens of the United States report being Native American (i.e., between 2.6 - 5.4 million depending on whether mixed or multi-racial Natives are included for the higher estimate; see table B02003 of the American Community Survey 2014 one year results). The label "Native American" refers to an ethnic category of people whose ancestors are indigenous to the United States. It is often used interchangeably with "American Indian" or "Indian" and placed alongside Alaskan Natives (e.g., AI/AN, see U.S. Census).

The singular demographic category for Native Americans as an ethnic group should not imply uniformity in ethnicity or culture. On the contrary, Native Americans differ by tribe(s) as well as the degree to which one identifies with their heritage. As of 2014, there are 566 federally recognized tribes (about 229 are Alaskan Native; BIA, 2014) with an estimated 169 Native languages still in use to some extent (Siebens & Julian, 2011). Federally recognized tribes are, "Any AI/AN, Band, Nation, Pueblo, or other organized group or community,

including any Alaska Native village… acknowledged by the federal government to constitute a tribe with a government-to-government relationship with the United States" (US Census, 2008, p.2). Culturally speaking, while tribes that share linguistic roots and geographic, or ecological, zones tend to have much in common, even among these there is significant between-group as well as within-group variation (Waldman, 2009). For instance, in Nagel's (1994) discussion of socially constructed identity, she mentions that Native American identity has multiple layers, including:

> Subtribal (clan, lineage, traditional), tribal (ethnographic or linguistic, reservation-based, official), regional (Oklahoma, California, Alaska, Plains), supra-tribal or pan-Indian (Native American, Indian, American Indian). Which of these identities a native individual employs in social interaction depends partly on where and with whom the interaction occurs. Thus, an American Indian might be a "mixed-blood" on a reservation, from "Pine Ridge" when speaking to someone from another reservation, a "Sioux" or "Lakota" when responding to the U.S. Census, and "Native American" when interacting with non-Indians. (p.155)

Moreover, individuals can vary on how much they identify with and embody their Native-ness (James, 2006). Very much due to the experience of colonization and policies directed at assimilating Native Americans into American society (described in the next sections), Native identity has been described in terms of a continuum between remaining fully traditional to being fully acculturated to American society. In an early study on the Menominee reservation about adaptation to culture change, Spindler and Spindler (1958) identified five different groups representing increasing levels of acculturation to American ("Western") values: Native-oriented (i.e., traditional), peyote cult (i.e., Western institutions subsumed into Native context), transitional, and acculturated (broken into lower status-acculturated and elite-acculturated). La Frombroise, Trimble, and Mohatt (1990), describing a model of Native cultural identity used for clinical purposes listed the aforementioned traditional-transitional-assimilated sequence, but also distinguished categories for bicultural (equal membership/functioning in both traditional and dominant cultural settings) and marginal (neither acceptance/functioning in either cultural setting) identities. Oetting (1990-1991) created the Orthogonal Cultural Identity scale to work with multicultural or mixed-blood individuals and demonstrated empirically that individuals can endorse more than one cultural orientation at the same time.

The diversity of Native identity on both group and individual levels signals the importance of culturally responsive education within as well as for Native communities. As it can be seen in the discussion above a one-size-fits-all method of instruction could be too broad even if that method were narrowed down exclusively for "Native Americans." The homogeneity ("sameness") and/or hetereogeneity ("differentness") of the audience could make more tailored or more general approaches more or less appropriate.

Self-determination: It is important to remember that Native tribes have been recognized as sovereign nations since the foundation of the United States (e.g., the Treaty of Fort Pitt, 1778). In fact, the land claims of the U.S. government only have legitimacy if we accept the nation-to-nation relationship with tribes who ceded their lands through treaty negotiations. Despite their sovereignty, policies made on behalf of Native Americans vacillate on whether to acknowledge their freedom or regulate their lives. For example, the Dawes Act of 1887 (also referred to as the General Allotment Act) divided up tribal territory into individual family plots. The goal was to ween Natives away from communal living and teach them the value of individual property ownership. Native lands that fell outside of the determined need for individual allotments was deemed surplus and sold (Rollings, 2004). After respectable Native service in WWI this act was overwritten by the Indian Reorganization Act of 1934, which put a halt to the allotment process and returned portions of seized "surplus" land. Around 20 years later, Native land trusts were dissolved altogether for over a hundred tribes with the Termination Act of 1953 (public law 588; Walch, 1983) and those remaining on reservations were given incentives to leave with the promise of work with the Indian Relocation Act of 1956 (public law 959). Another example is the Indian Citizenship Act of 1924. Prior to the act, citizenship was only awarded to Natives on a negotiated basis (e.g., by trading land, renouncing tribal citizenship, or joining the military). Following the act all Natives born within the U.S. were considered citizens; however, citizenship did not include at that time the right to vote (Houghton, 1931) or freedom of religion (see American Indian Religious Freedom Act, 1978).

Following the Civil Rights Movement, legislation changed for Native Americans. President Nixon retracted the termination policies of the 1950's and argued that tribes be allowed to control their own affairs while still being eligible for Federal assistance. The Self-Determination and Educational Assistance Act of 1975 (public law 93-638) made it possible for Native organizations to apply for grants and contract services otherwise assumed exclusively by the government with regard to health, public safety, environmental management, and education, among others. It has been argued by Native and non-Native authors (Brayboy & Castagno, 2009; Deyhle & Swisher, 1997; Lomawaima & McCarty, 2002) that culturally responsive education is a manifestation of self-determination in that it gives Native communities input and control over what and how education will be implemented.

Remediation: To understand the significance of culturally responsive approaches for Native Americans, it is necessary to situate the practice within the larger historical context. Prior to the arrival of Spanish, Dutch, English, and other European colonists, education was a semi-formal, intergenerational, and community endeavor, where information was transmitted in various forms (e.g., stories, songs, rituals, and mentorship) for the sake of survival and symbiotic coexistence with the local ecology and other tribes (Cajete, 1994; Berkes, Colding & Folke, 2000). Not long after the arrival of explorers and colonialists, education was usurped first by the missionaries (as early at 1568) and later by the U.S.

government's boarding and public schools (Berry, 1968; DeJong, 1993). The history is long and complex and beyond the scope of this review, however, the overriding theme is that rather than provide a means of participating in the U.S. economy, "Indian education" became an avenue to Christianize and civilize the Indigenous population by overwriting Native culture (Berry, 1968; Deyhle & Swisher, 1997; Lomawaima, 1999; Reyhner, 1993; Szasz, 1983). Methods of "education" included mandates for children to leave their families for school, assignment of new Euro-American names, cutting students' hair, requiring uniforms, punishment for use of one's tribal language, frequent corporal punishment and manual labor, and regular "outings" (i.e., vacations spent in devout Christian homes); all to better interrupt the transference of Native culture and prepare students for low-end jobs (Berry, 1968; DeJong, 1993; Deyhle & Swicher, 1997; Reyhner, 1997; Trennert, 1982, Ziibiwing Center, 2011).

In 1924, the Indian Citizenship Act helped raise attention to Native issues in Congress and the American public, helping lead to the study *The Problem of Indian Administration*, otherwise known as the Meriam report after its lead author Lewis Meriam. This study heavily criticized Indian education programs for their lack of adequate funding, which resulted in sub-standard teachers, negative assessments of student learning, child labor for school upkeep (sometimes consuming up to half of a student's day), overcrowding, the spread of preventable disease, poor nutrition, and unsanitary housing and bathroom facilities (Meriam, 1928). Among other things, the Meriam report recommended that, "The effort to substitute educational leadership for the more dictatorial methods now used in some places will necessitate more understanding of and sympathy for the Indian point of view. Leadership will recognize the good in the economic and social life of the Indians in their religion and ethics, and will seek to develop it and build on it rather than to crush out all that is Indian" (p. 23).

Forty years later Indian education was criticized again, this time with a focus on educational outcomes. Senator Robert Kennedy reviewed a range of indicators collected by that time (e.g., percentage of population in school, dropout rates, level of education, income, and self-efficacy in school) and concluded that the nation had failed to keep its commitments to the tribes as Natives maintained the worst statistics of any other group (see also the Havighurst Report, 1970). The 1969 "Kennedy Report," *Indian Education: A National Tragedy – A National Challenge*, made recommendations, among others related to health and administration, for the development of bi-cultural or "culturally sensitive" materials for education (p. 116-117, 121-122). The report led to the Indian Education Act of 1972, which provided funds to public schools with Native students, recognizing "that American Indians have unique, educational and culturally related academic needs" (OESE, 2005). The importance of this mission was reaffirmed with amendments and continued funding in 1994 (public law 103-382), 1998 (executive order 13096), 2001 (public law 107-110), 2004 (executive order 13336), and 2011 (executive order 13592).

Unfortunately, despite national attention Natives still have some of the worst educational and employment outcomes of any other American minority

(NIEA, n.d.; OCR, 2012; Robers, Kemp, & Truman, 2013; Ross et al., 2012) and culturally responsive designs have yet to become the norm. To make matters worse, the stigma around education continues to be perpetuated with recent examples, such as the largest settlement case to date from the Roman Catholic church, paid to past students of Native boarding schools throughout the Pacific Northwest for almost ubiquitous physical and sexual abuses (Yardley, 2011), and the recently uncovered experiments in starvation in First Nations boarding schools in Canada (Mosby, 2013). While the past cannot be re-written, culturally responsive education does offer an opportunity to heed mandates and recommendations and change impressions in the future.

Achievement gap: A third rationale for utilizing culturally responsive approaches with Native students has come from arguments that such designs will help close the persistent achievement gap in education and employment (see Steeves et al., this volume). Native students are more likely to be eligible for special education, attend schools with lower average yearly progress or academic counseling, and less likely to score as college-ready on high school assessments, graduate with a degree, or earn a comparable income to Whites, even when working in similar fields (e.g., in science, technology, engineering, and math) with similar education (NIEA, n.d.; Ross et al., 2012). Scholars in psychology, education, educational anthropology, and related topics have proposed that, in addition to environmental factors such as poverty and lack of infrastructure (see James, 2000), educational disparities are the result of cultural differences between student home and school cultures.

The proposition has been named "Cultural Difference Theory" and grew to replace the cultural deficit and deprivation theories of the 1950's and 1960's (Banks, 2013). Although there are different ways to divide the cultural differences literature comparing Native Americans and mainstream schooling, arguments generally fall into the realms of epistemologies, learning styles, and etiquette, or how Natives think, learn and act.

*Epistemologies***.** Epistemology refers to the methods and limits of creating knowledge, or how we know what we say we know. Much of the work comparing Natives and mainstream epistemologies has been done within the science education (Aikenhead & Ogawa, 2007; Allen & Crawley, 1998; Barnhardt & Kawagley, 2005), environmental science (Berkes, Colding, & Folke, 2000; Cajete, 2000; Kawagley & Barnhardt, 1998; Tsuji & Ho, 2002), and sustainability science literature (Battiste, 2002; Chambers & Gillepsie, 2000; Murry, James, & Drown, 2013). For example, Aikenhead and Ogawa (2007) articulated that scientific knowledge is founded upon beliefs that nature is knowable through data, universal truth is possible, parts can be summed to understand the whole, data comes through measurement, and reality and perceptions of reality are distinct. As a consequence, methods of discovering knowledge can be applied to any and all experiential domains, follow a linear progression, and include reductionism, quantification, replication, and generalizability within the contexts of funded pathways and societal interests. In a traditional indigenous sense, or what Aikenhead and Ogawa (2007) refer to as "Indigenous Ways of Living with

Nature," knowledge is based on beliefs that nature is knowable through relationship, truth is place-based and changing, the whole is different than its parts, data comes from experience and reflection, and our perceptions are part of reality. Consequently, methods for discovering knowledge are based on firsthand experience, changing iteratively to adapt to new environments, circularity in time and being, holistic and inter-generational observation, and a tolerance for mystery or multidimensional intersecting influences. It is argued that culturally responsive approaches should provide an avenue to work with, rather than against, such differences (Allen & Crawley, 1998).

*Learning styles***.** Learning style has been defined as mental (i.e., cognitive), emotional (i.e., affective), and physiological preferences that influence how learners perceive, interact with, and respond to the learning environment (Swanson, 1995; Keefe, 1979). Researchers have debated the utility of building instructional methods around particular learning styles because there is so much variation within a group, and have since argued for simply more variety in learning environments (Dunn, Beaudy, & Klavas, 2002; Pashler, McDaniel, Rohrer, & Bjork, 2008). Nevertheless, the sheer amount of research on Native American learning styles make them worth considering with regard to the value of culturally responsive approaches (Berry, 1966, 1969, 1971; More, 1987; Kleinfeld & Nelson,1988).

Hilberg and Tharp (2002) reviewed the empirical literature to conclude that higher percentages of Native American learners are global (holistic) thinkers, visually oriented, reflective, and collaborative compared to their White peers who fall on opposite ends of those continuums. Global, or holistic, thinkers prefer to consider pieces of information simultaneously through first hearing broad overviews and context to conceptualize a problem. This is contrasted with sequential thinkers who prefer more linear, piecemeal sets of information. Visually-oriented thinking as a term is self-explanatory in that it describes a benefit from visual aids to process information (versus text only). Reflective thinkers tend to consider an issue before acting (versus trial-and-error), and collaborators are more likely to prefer group work, shared goals, responsibilities, and shared rewards (versus competitive orientations; see also a review by Pewewardy, 2002). The incorporation of lesson plans that provide overviews and metaphors to give learning purpose, group work and visual materials, and sufficient time to process before acting should all be included in a culturally responsive design for Native Americans.

*Etiquette (communication norms)***.** The potential for miscommunication between Native students and Anglo teachers was identified in the dissertation work of Susan Urmston Phillips (1972) on the Warm Spring reservation in Central Oregon. Over the course of her research, she documented how communication in the home and in cultural life was very different than in the classroom (Phillips, 1976). Native communication tended to involve less talking, slower and softer speech, more listening, showing attention inadvertently (less gazing), requiring attention subtly (i.e., less eye contact), surround a physical activity, and use less body language. In addition, there are rules of etiquette for youth when speaking

to each other that differs when speaking to adults. That style of communication was contrasted with that expected in the typical classroom, which is much more verbose, boisterous, competitive, sedentary, and demanding of attention. Similar results were found amongst the Apache in the Southwest (Ingalls & Hammond, 2007). Pueblo author and scholar Greg Cajete (1999) argues that communication and behavioral norms like the ones documented by Phillips are often wrongly labeled by teachers as defiance, laziness, or a lack of engagement or ability. Culturally responsive designs should help to address these types of miscommunications and the consequences to students given the prescription for cultural competence on behalf of the instructors.

Review of the Research

As should be evident from the above review, culturally responsive education has become more than a philosophical fad. For Native Americans in particular and minorities in general, culturally responsive education has become an agenda that binds together education with history, politics, identity, science, and ethics. At this point the push for culturally responsive education is going to continue with or without the research to back it up. However, to the extent that research can help to convince policy-makers, solicit grant funding, and establish best practices, it is worthwhile to ask, "According to the research, does it work better than traditional mainstream education?"

Early research (1971-2003): Research on how to improve the education of Native Americans blossomed in the 1970's following supportive legislation, continued into the 1980's, and grew substantially in the 1990's. In 1998, President Clinton's Executive Order on AI/AN education (#13096) requested an evaluation of the effective strategies and promising approaches to closing the achievement gap, especially those that involved native languages and cultures (Clinton, 1998, p. 42682). As part of that research request, over 100 articles, books, dissertations, and theses were exhaustively reviewed and annotated by Tlinget/Lakota scholar William G. Demmert Jr. for Washington D.C.'s Office of Educational Research and Improvement (Demmert, 2001) and Portland's Northwest Regional Education Lab (Demmert & Towner, 2003). Since Demmert's reports have yet to be rivaled in their treatment of the literature and have become reference texts for researchers on culturally responsive education for Native students, I chose the date of the later report as the cut-off for the early period of research.

Together Demmert's 2001 and 2003 reports provide the most supportive and the most damaging evidence for culturally responsive education. Initially, Demmert (2001) concluded that, "a series of studies in the past 30 years collectively provides strong evidence that native language and cultural programs – and student identification with such programs – are associated with improved academic performance, decreased dropout rates, improved school attendance rates, decreased clinical symptoms, and improved personal behavior" (p. 17). Further, Demmert, McCardle, Mele-McCarthy, and Leos (2006) wrote that Demmert's (2001) report described, "Information on teachers, instruction, and curriculum [that] tells us that teachers competent in their subject areas, given a variety of

instructional approaches and a challenging, culturally-based curriculum, can motivate students to do well in school" (p. 94).

Such conclusions must be tempered however as Demmert (2001) admittedly did not assess the quality of the research for his exhaustive review (p. iv). Two years later, Demmert and Towner (2003) revisited the same literature with a more critical eye toward methodology. This time, studies were screened by two criteria: They had to use a) culturally responsive interventions and b) experimental or quasi-experimental designs. Demmert and Towner (2003) delineated that to be considered "culturally responsive," six components needed to be present in some degree: 1) recognition and use of Native languages, 2) pedagogy that stresses traditional cultural characteristics, 3) pedagogy that uses teaching strategies that are congruent with traditional culture, 4) curriculum based on traditional culture and recognizes the importance of Native spirituality, 5) strong Native community participation, and 6) knowledge and use of the socio-political norms of the community (p. 9-10). Experimental designs were those characterized by questions of causation, included random assignment, and control groups. Quasi-experimental designs were evaluations that were, for whatever reason, unable to randomize assignment into treatment or control groups.

Of the over 100 studies reviewed by Demmert (2001), Demmert and Towner (2003) found that, "nearly all of the research consisted of qualitative case studies and simple descriptions. Of all the studies reviewed, only six studies targeting culturally based education could be considered experimental or quasi-experimental, and only one speaks directly to the culturally based education/academic achievement link … Obviously, there is a strong need to design and implement research studies that will yield valid and reliable information" (p. 7). The one study they identified, by Tharp (1982), was an extensively implemented Kamehameha Early Education Program (KEEP) in Hawaii, which admittedly was an evaluation of a teaching method that focused on comprehension rather than phonics, of which culturally compatibility was only one component (p. 523). Demmert and Towner (2003) ended with four basic research prescriptions to improve research in this area:

1. Carefully define the culturally-based education intervention,
2. Target student learning as an outcome,
3. Include estimates of effect size, and
4. Design research with an adequate comparative base.

Current research (2003-2016): Thirteen years have gone by since Demmert and Towner's (2003) recommendations. Publications since that time have been numerous, but still not heeding to the standards of empirical rigor requested in their report. I searched a series of electronic databases available through my university (e.g., PsycINFO; Google Scholar) with the terms "Native American," "American Indian," "Alaskan Native," "Indigenous;" "culturally-responsive," "-congruent," "-tailored," "-sensitive," or "-based;" "education," "curriculum," "schooling," "teaching," or "pedagogy." I focused on peer-reviewed journal

articles since that is the accepted medium of scientific discourse and the source of information for any student or scholar in search for evidence.

In my search I recovered six articles that evaluated culturally responsive approaches that focused on Native student achievement (Bang & Medin, 2010; Hermes, 2007; Hickling-Hudson & Ahlquist, 2003; Lipka & Adams, 2004; McCarty & Lee, 2014; Powers, Potthoff, Bearinger, & Resnick, 2003) which offer some support. Of these six articles, only two used quasi-experimental designs that included controls groups, and only one of which incorporated random assignment. Lipka and Adams (2004) randomly assigned teachers who were trained in either standard or culturally responsive curriculum to 15 classrooms. Their study showed convincingly that receiving culturally responsive education predicted a significant improvement on math test scores over the course of a semester above the standard curriculum. Powers et al. (2003) compared Native students in public schools with Native students enrolled in a culturally-based program called the Indian Youth Resiliency Impact Study. After controlling for other variables in a structural equation model, they showed that culturally responsive education works through its influence on parent involvement and school climate, while the cultural program itself had negligible direct effects on educational outcomes.

Two studies used comparative designs, but were not quasi-experimental in that there was either no control group or no assignment (random or otherwise) into treatment or control conditions. In an innovative mixed-method, pre-test/post-test design, Bang and Medin (2010) coded and compared pre- and post-science camp interviews using paired-sample t-tests. They reported increased student perceptions of the Native community as a space to learn science, that Natives do science as well as non-Natives, and in knowledge of plant properties and causal chains within the environment. However, there was no control group or random assignment and the coding process was not described in sufficient enough detail to replicate the analysis or ascertain exactly what change meant beyond their claims.

Hickling-Hudson and Ahlquist (2003) conducted a comparative case study of two schools in the U.S. and two schools in Australia, one each that was culturally responsive. In their comparison, one of the culturally responsive schools (in Australia) had strong tests scores. Comparative case studies are interesting, however it is impossible to know whether or not the strong test scores of the one school was due to culturally responsive education or something else (e.g., school climate) due to the retrospective selection process of the schools that were compared, the lack of a manipulated "treatment," and no assessment of change following the introduction of culturally responsive curriculum.

Finally, two studies claimed benefits of culturally responsive education but did not employ comparative designs or provide evaluative data. McCarty and Lee (2014) used an ethnographic approach to describe two schools, the Native American Community Academy (NACA) and the trilingual charter Puente de Hózhó. McCarty and Lee mention that student achievement at NACA has improved since its inception in 2006, citing unpublished documents, but it is unclear whether these improvements are due to the school's maturation or due specifically

to their culturally-embedded curriculum. At Puente de Hózhó, Native students outperform Native students in the general public schools in both English and Math, but without quasi-experimental designs it is impossible to know whether or not these differences are the result of factors other than language programs (e.g., teacher commitment, organizational support). Hermes (2007), describing tribal schools that were implementing cultural responsiveness exclusively through language immersion, admits that there is no data as of yet, but argues that the fact that their language program exists, has high parent involvement, and students report high motivation should be considered preliminary evidence supporting the program.

To be clear, all of the schools and programs described in these studies are doing good work and should be acknowledged for their creativity and contribution to Native student progress, tribal sovereignty, and cultural revitalization. From a policy and research standpoint however the available literature still lacks in both quantity and quality.

Moving Forward – Seven Designs of Incremental Rigor

The research literature that supports culturally responsive education has improved since the earlier era, but it still has a long way to go. In thirteen years only one study (Lipka & Adams, 2004) used a compelling experimental design. While the theory, the reviews, case studies, and reflections for culturally responsive approaches are plentiful and useful for generating hypotheses, they do not in and of themselves demonstrate the effectiveness of culturally responsive programs. To honor the good work that our teachers are doing, we need more evaluations that can clearly and unequivocally establish their culturally responsive instructional methods as the causes for students' improved achievement. Below I briefly review seven different types of evaluation designs, noting their strengths and weaknesses in establishing cause and effect. It is my hope that these figures and descriptions will serve as a resource for those who are in the position to evaluate culturally responsive programs. But first, some essential concepts…

Some essential concepts: In an article on training evaluations in the organizational literature, Sackett and Mullen (1993) argue that the level of rigor required by an evaluation should be matched with what the evaluator (and organization hiring her/him) needs from the assessment. While they acknowledge that the full fledged experiment is the gold standard (i.e., random selection, random assignment, control groups), they point out that the experiment is often too expensive or simply not feasible given the amount of control one has over the situation (e.g., even if you can randomly assign students into one or another classroom, it is not likely that you will be able to randomly select students from the total population of students). That said, just because a full experimental design may not be feasible, there are still decisions that make an evaluation's conclusions more or less compelling. Before I get into the specifics, there are a few concepts that need to be understood to situate the value of the designs discussed below.

A word on causation: Cause and effect is a deceptively simple thing. History is littered with disregarded beliefs about causes and effects that were at one time

propagated in society (Webster, 2008), and I know that in my own life I have attempted to resolve problems with strategies that failed to achieve the effect I desired, no doubt due to a misunderstanding as to where or how to intervene to interrupt the cause and effect cycle. As it turns out, it is not enough to listen to this or that advice that, "if we only do this, then that will happen," as we are all subject to mistakes, misperceptions, biases, and over-simplified understandings.

In the scientific community, before we can claim that one thing causes another, we have to establish three things (Cook & Campbell, 1979). First, the cause has to happen before the effect (i.e., temporal precedence). Unfortunately, the old playground song, "First comes love, then comes marriage, then comes baby in a baby carriage" does not qualify. It turns out that the outcome does not require the first two ingredients. Second, the thing that we believe to be the cause has to co-occur with the effect (i.e., covariation). Although the rooster crowing comes before the sun-rise, even if we eat the rooster the sun still comes up. Thirdly, alternative explanations have to be cancelled out. While it may be true that shoe size and intelligence are correlated in children, it is probably the maturity of the child rather than the size of the sneaker that is driving the change.

These three principles for attributing cause and effect are important as they will come up in our discussion of research designs. Although we know most of these principles from experience, we often do not apply them to evaluations of our programs. More will be said about these under the "weaknesses" sections of several of the designs.

A word on randomization: When it comes to fair outcomes, there is a degree of certainty when it comes to chance. Flipping a coin should, over time, give us an equal amount of heads and tails (i.e., 50% each). In my discussion of three of the seven designs, the idea of random selection or random assignment will be mentioned. The reason why this is important is because we are all different and similar in many ways. While it may be possible to assign two groups with 50% males and 50% females, it may not be as easy to assign two groups with an equal amount of extroverts and introverts, conservatives and liberals, high in cognitive ability and low, rude and considerate, and on and on. You never know, maybe your program works best for introverted, conservative, low cognitive ability, considerate, older, males, who are highly educated, rich, married, and live in urban areas. Randomization, which is a fancy word for everyone gets an equal chance to receive your new and improved program versus the old and regular program, is our tool for assigning people from every continuum imaginable equally into however many groups we have created to compare. In theory, over time and with larger numbers, random assignment should (as a flip of the coin predicts) give us an equal amount of every combination of people.

Not only does randomization provide us with the theoretical confidence that individuals will be assigned fairly and equally, it also helps us to prevent "self-selection bias." Self-selection bias occurs when the type of people who would volunteer for your program represent a group that is different or unique compared to everyone you would hope to recruit to your program. For instance, if a magnet program offers more resources (e.g., computers, field trips, laborato-

ries, and libraries) and better learning environments (e.g., larger spaces, smaller teacher to student ratios, and air-conditioning or heating), and students' parents are responsible for enrollment, it is possible that only students whose parents are involved school affairs, who read school announcements, and have the time to participate in parent-teacher associations will enroll their children. At the end of the school year, when assessments are due, it is possible that the magnet program's resources are responsible for the higher scores of their students; however it is also possible, indeed highly probable, that differences between magnet school scores and regular school scores are due to the fact that only students whose parents are highly involved in their education were enrolled. This is tied to the third criteria listed above regarding a design's ability to cancel out alternative explanations.

There is a second kind of randomization: random selection. While I might take a group of students and randomly assign them into one group or another, the initial pool of students may not be representative of the general population. For example, if I randomly assigned athletes to a specialized exercise program or a specialized nutrition program, I would still not be able to make conclusion about how these programs would work for the general population, since I started with only athletes. It is possible that they are different and unique in ways that would affect the conclusions I could draw from the effectiveness of my program.

A word on pre-tests: Despite the theoretical assumption that randomization gives us equal groups to compare without self-selection bias, sometimes random chance fails us; sometimes flipping a coin results in more heads than tails and sometimes random number generators in Microsoft Excel gives us more odd numbers than even numbers. To check and control for differences in our comparison groups, and even if it is not feasible to randomly assign people into groups, pre-tests can help equalize groups that are different. Pre-tests can include demographic assessments (e.g., gender, motivation, self-efficacy, parental involvement) and they can include knowledge and skill assessments (e.g., final exams delivered at the beginning of the semester). If you cannot randomly assign students to different groups (new culturally responsive program versus old regular program) or if random assignment fails, analyses such as multiple regression and ANCOVA (analysis of covariance) can still assess the effect of your program holding unexpected differences constant if you take the time to measure them. In other words, you can check the effect of your program after removing the effect of individual differences.

Pre-tests are most often used to assess change. If you give an history test at the beginning of your history class and then give the same test after your class, there are ways to analyze whether a student did better or worse than their initial score (i.e., pair-sample t-tests, repeated measures/within-subjects ANOVA's, multi-level modeling regression with nesting within individual). This is especially useful if your sample sizes are small, since the power to find an effect is stronger in paired-samples (where a person essentially serves as the control group for themselves). Also, if one group starts off in a lower position than the other, sometimes it is better to compare rates of change rather than to compare groups.

A word on control groups. Control groups are essential to experimental and quasi-experimental designs. You basically give your "treatment" to one group and withhold it from your "control" group, with the expectation (or hypothesis) that your treatment group will out-perform the control group. The treatment could be anything you want to evaluate the effect of, in our case it would be culturally responsive education. In health research the treatment group is usually given a new medication, while the control group is given the currently prescribed medication. Sometimes there are multiple control groups. For instance, one group will get the new treatment, one group will receive the currently prescribed treatment, and one group will receive no treatment, with the expectation that both groups that receive treatment will do better than those who receive no treatment, but that the group that received the new treatment will do better than the group that receives the regular old treatment.

In the language of culturally responsive education, the logic of control groups is that we have to assume that students will learn something from the education process. What we want to conclude is that students will learn more in a culturally responsive context than they would in a non-culturally responsive context. If students learn in our culturally responsive classrooms, that's good, but it is altogether different than saying they learned more than they would without the cultural responsiveness. Control groups give us the ability to say whether or not our definitions and/or implementations of cultural responsiveness out-performed the standard curriculum. This could also be a way to assess how much cultural responsiveness is necessary, if each treatment group included more and more cultural responsiveness.

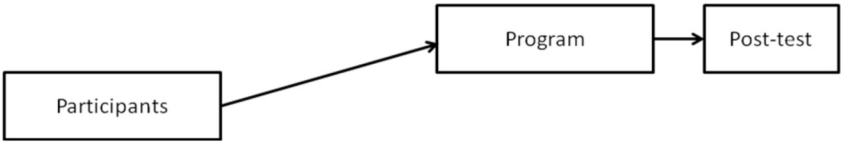
The Seven Designs of Incremental Rigor

Below are seven designs for program evaluation, listed in order of their ability to make claims about a program's effectiveness. I have labeled this section "the seven designs of incremental rigor," but as I alluded to earlier, rigor is defined by the exacted level of design necessary to achieve a certain set of conclusions, which may differ according to organizational need (see Sackett & Mullen, 1993). Therefore, the order that I list these designs in is reflective of their increasing ability to establish cause and effect and cancel out alternative explanations (e.g., designs 1-2 are simple designs, 3-6 are quasi-experimental designs, and 7 is an experimental design), but also of my own agenda to make claims about a program rather than some other agenda (e.g., assessing proficiency). Under each definition and figure I note the strengths and weaknesses of each design given the context of establishing culturally responsive education practices for Native students as a better method of instruction than current mainstream educational practices. Whether or not a particular design is necessary will depend on the needs of the evaluator, or the tribe, organization, or funding agency that hired them.

1. Post-test only, no control group: A post-test only design with no control group is the simplest design available. It consists of recruiting participants for a program or being given a group of students, exposing them to ideas and activi-

ties designed to impart knowledge and skills, and then evaluating them on those knowledge and skills through some assessment (see figure 1).

Figure 1. Post-test only design with no control group



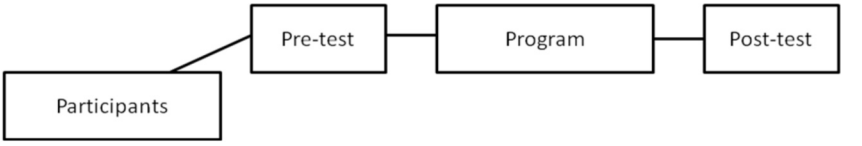
Strengths: The strength of this design is that it is easier and generally less expensive than other designs, and that it is adequate for assessing proficiency. With regard to its adequacy for assessing proficiency, it is not always necessary to make the claim that the program is what caused a participants' level of proficiency. For example, for a little over ten years I worked as a preloader or sorter at UPS. Due to the physical nature of the job, we were regularly trained and tested on our safety knowledge. After each training program, there was a test regarding our knowledge of safe practices. More important than where we learned them was whether we knew safe working behaviors. In this case, a post-test only design with no control group was sufficient since whether we knew safe practices from on-the-job training, other employees, previous trainings, or that specific training was not the point. The company was going to offer these trainings regularly as part of part of their due diligence and assess employee knowledge of its content. Since a post-test only design without a control group was sufficient for the organization's needs, a more complex design was not necessary. This type of assessment might be sufficient for U.S. education in general, but for those of us arguing for a different method, it is not sufficient.

Weakness: As I mentioned in the strengths, a weakness of this design is that little to no claims about the specific program's ability to impart knowledge and/or skills can be made. While assessments can make claims about participants passing/not passing, it is not possible to cancel out the possibility that a different program, or no program at all (e.g., as in the case of peer mentoring), would be equally effective in imparting knowledge, skills, or motivation. With this design, it is also not possible to assess whether or not those who entered the program with some or no knowledge increased their knowledge due to the program, if results are due to the type of people who participated in the program, or if results are applicable to anyone else. In a culturally responsive education context, a post-test only design with no control group could tell us that a group of students met some criteria for passing/not passing, but not whether or not those same rates would have occurred in another program, if those students improved because of the program, if success was a product of the type of students who happen to be in the program, of if this program would work for others.

2. Pre-test and post-test with no control group: A pre-test/post-test design with no control is referred to as a paired-sample, repeated measures, or within-subjects design, since individuals are essentially compared to themselves at an

earlier point in time. It consists of recruiting a set of participants or being given a group of students, assessing them on variables of interest, exposing them to ideas and activities meant to impart knowledge and skills or motivation (e.g., the culturally responsive program), and then assessing them again on variables that would be expected to increase or decrease as part of exposure to those ideas and activities (i.e., the program; see figure 2).

Figure 2. Pre-test and post-test design with no control group

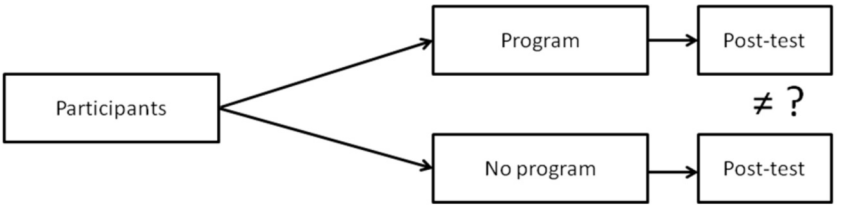


Strengths: In addition to the ability of design #1 to assess proficiency given some cut-off, the pre-test and post-test design without a control group can assess change in knowledge, skill, and motivation beyond chance (typical critical alpha = 5% or $p =< .05$). Although figure 2 only depicts one pre-test occasion, assessments can be collected at multiple time points during (especially valuable for long-lasting programs) and after the program to evaluate the impact of the program in the long-term. In addition, if demographic variables (e.g., gender, age) are measured during the pretest, differential change based on individual characteristics can be assessed (sometimes the program works better from some folks more than others).

Weakness: The largest criticism of this design is that even if change does occur pre- to post program on some variable of interest (e.g., achievement, motivation), it cannot be claimed that the same amount of change wouldn't occur in another program, or no program (e.g., maturation), due to the lack of a control group. In addition, since random selection or random assignment was not used, we cannot say with confidence that the results are not a product of the unique group of participants who happened to make it into our program.

3. Post-test only with a control group but without random assignment: In a post-test only design with a control group without random assignment to one group or another, participants who are in one group (e.g., culturally responsive school) are usually compared to another (e.g., non-culturally responsive school) on an outcome (e.g., national assessment scores; see figure 3). Participants for each group are recruited or present for some other compulsory or happenstance process. Comparisons test whether or not the two groups (e.g., schools) are significantly different from one another more than we would expect from random chance (typical critical alpha = 5% or $p =< .05$).

Figure 3. Post-test only design with control group but no random assignment

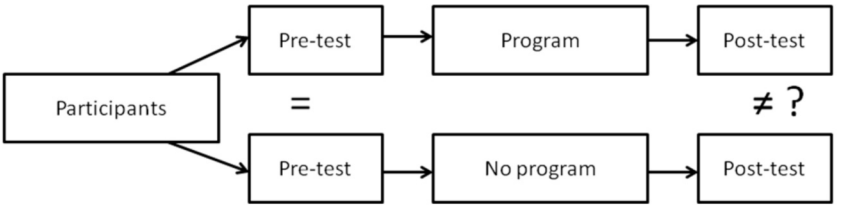


Strengths: In addition to the earlier listed designs' ability to assess whether or not participants met a given cut-off (design #1), the control group(s) makes it possible to evaluate whether or not the program out performs a standard curriculum, or medicine, or program, or nothing at all (e.g., participants on waitlist).

Weakness: This design is not able to assess change, control statistically for group differences, cancel out the possibility for self-selection bias, or assert that the results should apply to people in general.

4. Pre-test and post-test with a control group but no random assignment: In the pre-test and post-test design that includes a control group without random assignment, participants are recruited or present for some compulsory or happenstance process. Individuals of each group are given a pre-program assessment of demographic, knowledge, skill, or motivation, exposed to ideas and/or activities meant to influence outcomes, and then tested again on the same knowledge, skills, or motivations.

Figure 4. Pre-test and post-test design with a control group but no random assignment



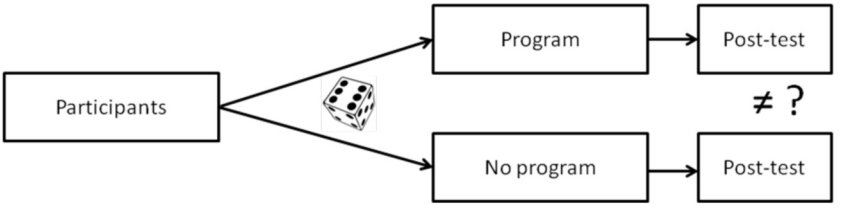
Strengths: The addition of a pre-test to this control group design allows us 1) evaluate and statistically control for measured differences between our comparison groups, 2) evaluate participants according to some cut-off (similar to design #1), 3) assess change pre- to post-program (similar to but beyond design #2), and 4) compare whether or not the program out-performed an alternative (e.g., standard curriculum or no curriculum at all; similar to design #3). This is a relatively strong quasi-experimental design.

Weakness: Although we can assess equivalence and control statistically for differences in program and no program groups (on things measured on the pre-

test), this design does not cancel out the alternative explanation that our initial group of participants were not different or unique from the general population or that program-participants were not biased in there self-selection.

5. Post-test only with a control group and random assignment: In the post-test only design with a control group and random assignment, one would start with a group of would-be participants (e.g., students) who they would randomly assign to either a treatment group (e.g., culturally responsive program) or control group (e.g., either a standard education program or no education program or both). After the program delivered the ideas and activities meant to impart knowledge, skills, and/or motivation, a test would be administered to assess outcomes of interest (i.e., knowledge, skills, and/or motivation). Groups would be compared statistically to evaluate whether they performed the same or, if one out-performed the other, in which direction.

Figure 5. Post-test only design with control group and random assignment

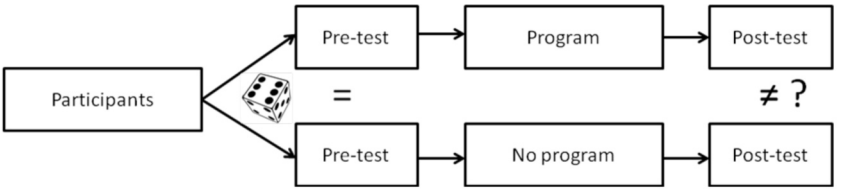


Strengths: Similar to design #3, this design can assess 1) proficiency cut-offs, 2) compare the performance of a program to the standard practice or no program, however 3) it can also rule out self-selection bias.

Weakness: Unlike design #4, this design does not collect pre-program demographics or pre-test information. Therefore this design cannot assess change or statistically control for group differences in case random assignment failed. In addition, without random selection of the participants in general, there is no way to assert that the participants who were randomly assigned were not different or unique in and of themselves. For example, if everyone in the initial sampling pool were high achievers, regardless of which group they were assigned too, the results of the manipulation may not work for students in general.

6. Pre-test and post-test with a control group and random assignment: The pre-test and post-test design with a control group and random assignment is the strongest quasi-experimental design. There is not a random selection of participants to get randomly assigned into groups, but otherwise each step mimics a full-fledged experiment. Of a participant pool, participants are randomly assigned into each group(s), a pre-test is administered, the treatment or program is delivered, and a post-test is administered.

Figure 6. Pre-test and post-test design with control group and random assignment

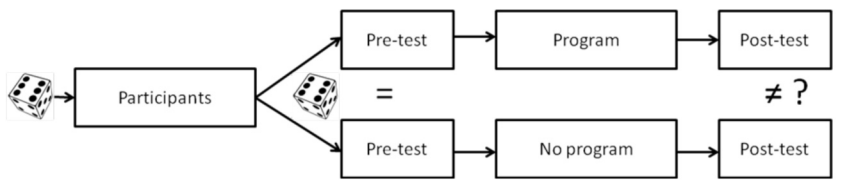


Strengths: This design has all the strengths of designs #1-5. The evaluator can assess whether participants 1) met a given cut-off, 2) improved during the course of the program, 3) treatment(s) outperformed controls, 4) groups were comparable, 5) and cancelled out self-selection bias. If two (or more) control groups were included with varying levels of cultural responsiveness (from none, to low, to medium, to high), this would be an incredibly powerful and informative design.

Weakness: The only weakness of this design is that the initial sample might be comprised of different or unique individuals, such that the conclusions of the quasi-experiment would not be applicable to the general population (e.g., of Native students).

7. Pre-test & post-test, control group, random selection + random assignment: This seventh design represents the true experiment. Out of a universe of a given population, participants are selected at random. Of those randomly selected participants, those are randomly assigned to treatment and control groups, administered a pre-test, delivered a program (or not), and administered a post-test.

Figure 7. Pre-test and post-test design with control group, random selection, and random assignment



Strengths: This design has all the strengths of designs #1-6. The evaluator can assess whether participants 1) met a given cut-off, 2) improved during the course of the program, 3) treatment(s) outperformed controls, 4) groups were comparable at the outset, and 5) cancelled out self-selection bias. However, this design adds the benefit of 6) heightened external validity, or confidence that results from this study can be applied to the general population. Like #6, if two or more control groups were included with varying levels of cultural responsiveness (from none, to low, to medium, to high), this would be an incredibly powerful and informative design.

Weakness: Very difficult if not impossible to conduct in real life. Almost every researcher has to work with the samples that they have access to, either through networking or convenience but limited and biased nevertheless.

Conclusion

Culturally responsive education, if nothing else, is an important symbol on systemic and the one-to-one levels. It represents tribal sovereignty and self-determination, good-will between the United States and the up-and-coming generation of Native students, positive and proactive intentions of the educational system, and hope for culturally diverse individuals. Whenever possible, we should use the research methods available to support the transition from standardized system conformity to organic human responsiveness.

References

Agbo, S. (2004). First Nations perspectives on transforming the status of culture and language in schooling. *Journal of American Indian Education, 43*(1), 1-31.

Aguilera, D., Lipka, J., Demmert, W., & Tippeconnic, J. (2007). Special issue on culturally responsive education for American Indian, Alaska Native, and native Hawaiian students. *Journal American Indian Education, 46*(3), 4-10.

Aikenhead, G.S. & Ogawa, M. (2007). Indigenous knowledge and science revisited. *Cultural Studies of Science Education, 2*, 539-620.

Allen, N.J. & Crawley, F.E. (1998). Voices from the bridge: Worldview conflicts of Kickapoo students of science. *Journal of Research in Science Teaching, 35*(2), 111-132.

Atkinson, T. (1769). Charter of Dartmouth College. Retrieved June 15, 2014 from http://www.dartmouth.edu/~trustees/docs/charter-2010.pdf.

Averill, R., Anderson, D., Easton, H., Maro, P. T., Smith, D., & Hynds, A. (2009). Culturally responsive teaching of mathematics: Three models from linked studies. *Journal for Research in Mathematics Education*, *40*(2), 157-186.

Balter, A. & Grossman, F. (2009). The effects of the No Child Left Behind Act on the language and culture education in Navajo public schools. *Journal of American Indian Education, 48*(3), 19-46.

Banks, J. A. (2007). *Educating citizens in a multicultural society* (2nd ed.). New York: Teachers College Press.

Banks, J. A. (2013). The Construction and Historical Development of Multicultural Education, 1962–2012. *Theory Into Practice, 52*(sup1), 73-82.

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

Barnhardt, R. & Kawagley, A.O. (2005). Indigenous knowledge systems and Alaska native ways of knowing. *Anthropology & Education, 36*(1), 8-23.

Battiste, M. (2002). *Indigenous knowledge and pedagogy in First Nations education: A literature review with recommendations*. Ottawa: Apamuwek Institute.

Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Ecological applications, 10*(5), 1251-1262.

Berry, B. (1968). *The education of the American Indians: A survey of the literature.* Washington, DC: Office of Education, Bureau of Research.

Berry, J. W. (1966). Temne and Eskimo perceptual skills. *Journal of International Psychology, 1*(3), 207-299.

Berry, J. W. (1969). Ecology and socialization as factors in figural assimilation and the resolution of binocular rivalry. *International Journal of Psychology, 4*(4), 271-280.

Berry, J. W. (1971). Ecological and cultural factors in spatial perceptual development. *Journal of Behavioral Science, 3*(4), 324-336.

Bloom, B. S., Davis, A., Hess, R. D., & Silverman, S. B. (1965). C*ompensatory education for cultural deprivation.* New York: Holt, Rinehart and Winston.

Brayboy, B. M. J., & Castagno, A. E. (2009). Self-determination through self-education: Culturally responsive schooling for Indigenous students in the USA.*Teaching Education, 20*(1), 31-53.

Brown-Jeffy, S., & Cooper, J. E. (2011). Toward a conceptual framework of culturally relevant pedagogy: An overview of the conceptual and theoretical literature. *Teacher Education Quarterly, 38*(1), 65-84.

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

Cajete, G. A. (1999). The Native American learner and bicultural science education. In K.C. Swisher & J.W. Tippeconnic III (Eds.), *Next steps: Research and practice to advance Indian education.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Cajete, G.A. (2000). *Native science: Natural laws of interdependence*. Santa Fe, NM: Clear Light Publishers.

Castagno, A.E. & Brayboy, B.M.J. (2008). Cultural responsive schooling for Indigenous youth: A review of the literature. *Review of Educational Research, 78*(4), 941-993.

Chambers, D. W. & Gillespie, R. (2000). Locality in the history of science: Colonial science, technoscience, and indigenous knowledge. *Osiris,* 221-240.

Cohen, F. S. (1945). *Handbook of federal Indian law: With reference tables and index.* Washington, DC: US Government Printing Office.

Colby, S.L. & Ortman, J.M. (2015). *Projections of the size and composition of the U.S. population: 2014 – 2060*. Washington, DC: U.S. Census Bureau.

Cook, T.D., & Campbell, D.T. (1979). *Quasi-experimentation: Design and analysis for field Settings*. Chicago: Rand McNally.

DeJong, D. H. (1993). *Promises of the past: A history of Indian education in the United States*. Golden, CO: North American Press.

Demmert, W. G., Jr., & Towner, J. C. (2003). *A review of the research literature on the influences of culturally based education on the academic performance of Native American student*. Portland, OR. Northwest Regional Educational Laboratory. Retrieved from http://www.nwrel.org/indianed/cbe.pdf

Demmert, W.G. (2001). *Improving academic performance among Native American students: A review of the research literature*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, Appalachian Educational Laboratory.

Demmert, W.G., McCardle, P, Mele-McCarthy, J., & Leos, K. (2006). Preparing Native American children for academic success: A blueprint for research. *Journal of American Indian Education, 45*(3), 92-106.

Department of Labor, US [DOL]. (2011). *Labor force chracteristics by race and ethnicity, 2010.* Washington, DC: U.S. Bureau of Labor Statistics.

Deyhle, D., & Swisher, K. (1997). Research in American Indian and Alaska Native education: From assimilation to self-determination. *Review of Research in Education, 22*(1), 113-194.

Dunn, R., Beaudry, J. S., & Klavas, A. (2002). Survey of research on learning styles. *California Journal of Science Education, 2*(2), 75-98.

Fleming, W. C. (2006). Myths and stereotypes about Native Americans. *Phi Delta Kappan, 88*(3), 213.

Gay, G. (1983). Multiethnic education: Historical developments and future prospects. *Phi Delta Kappan*, *64*(8), 560-563.

Gay, G. (2000). *Culturally responsive teaching: Theory, research, and practice.* New York: Teachers College Press.

Greenbaum, P.E. & Greenbaum, S.D. (1983). Cultural differences, nonverbal regulation, and classroom interaction: Sociolinguistic interference in American Indian education. *Peabody Journal of Education, 61*, 16-33.

Havighurst, Robert J. (1970). *The education of Indian children and youth. The national study of American Indian education, Summary report and recommendations.* USCE OEO-0-8- 080147-2805, Series IV, No. 6. Chicago, IL: University of Chicago Press.

Hermes, M. (2007). Moving toward the language: Reflections on teaching in an Indigenous-immersion school. *Journal of American Indian Education,46*(3), 54-71.

Hickling-Hudson, A. R. (2005). 'White','Ethnic'and 'Indigenous'. Pre-service teachers reflect on discourses of ethnicity in Australian culture. *Policy Futures in Education, 3*(4), 340-358.

Hickling-Hudson, A., & Ahlquist, R. (2003). Contesting the curriculum in the schooling of Indigenous children in Australia and the United States: From Eurocentrism to culturally powerful pedagogies. *Comparative Education Review, 47*(1), 64-89. doi:1. Retrieved from http://www.jstor.org.ezproxy1.library.arizona.edu/stable/10.1086/345837 doi:1

Hilberg, R. S., & G Tharp, R. (2002). *Theoretical perspectives, research findings, and classroom implications of the learning styles of American Indian and Alaska Native students.* Center for Research on Education, Diversity & Excellence.

Hobbs, F., & Stoops, N. (2002). *Demographic trends in the 20th century* (Vol. 4). Chicago: US Census Bureau.

Howard, T. C. (2003). Culturally relevant pedagogy: Ingredients for critical teacher reflection. *Theory into Practice, 42*(3), 195-202.

Ingalls, L. & Hammond, H. (2007). The match between Apache Indians' culture and educational practices used in our schools: From problems to solutions. *College Teaching Methods & Styles Journal (CTMS), 3*(1), 9-18.

Jahoda, G. (2012). Critical reflections on some recent definitions of "culture". *Culture & Psychology, 18*(3), 289-303.

James, K. (2000). Social psychology: American Indians, science and technology. *Social Science Computer Review, 18*, 196-213.

James, K. (2006). Identity, cultural values, and American Indians' perceptions of science and technology. *American Indian Culture and Research Journal, 30*(3), 45-58.

Jensen, A. R. (1969). How much can we boost IQ and scholastic achievement. *Harvard Educational Review, 39*(1), 1-123.

Keefe, J. W. (1979). Learning style: An overview. In *NASSP's Student learning styles: Diagnosing and prescribing programs* (pp. 1-17). Reston, VI: National Association of Secondary School Principals.

Kennedy, E. (1969). *Indian Education: A national tragedy—A national challenge.* Washington, DC: U.S. Government Printing Office.

Kleinfeld, J., & Nelson, P. (1988). Adapting instruction to Native Americans 'learning Styles': An iconoclastic view. ERIC Document 321952.

Ladson-Billings, G. (1989). *A Tale of two teachers: Exemplars of successful pedagogy for Black students.* Paper presented at the Educational Equality Project Colloquium (New York, NY, May 4-5, 1989). Washington, DC: National Academy of Education.

Ladson-Billings, G. (1990). Like lightning in a bottle: attempting to capture the pedagogical excellence of successful teachers of black students 1. *Internation Journal of Qualitative Studies in Education, 3*(4), 335-344.

Ladson-Billings, G. (1994). T*he dreamkeepers: Successful teaching for African-American students.* San Francisco: Jossey-Bass.

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal, 32*(3), 465-491.

LaFromboise, T. D., Trimble, J. E., & Mohatt, G. V. (1990). Counseling intervention and American Indian tradition An integrative approach. *The Counseling Psychologist, 18*(4), 628-654.

Lipka, J., & Adams, B. (2004). Culturally based math education as a way to improve Alaska Native students' math performance. Appalachian Collaborative Center for Learning, Working Paper #20.

Lomawaima, K. T. (1999). The un-natural history of American Indian education. In K.G. Swisher & J.W. Tippeconnic (Eds.) *Next steps: Research and practice to advance Indian education* (pp. 2-30). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

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

Maina, F. (1997). Culturally relevant pedagogy: First Nations education in Canada. *Canadian Journal of Native Studies, 17*(2), 293-314.

Martin, B. (1997). *Culturally responsive teaching. A review of research and literature.* ERIC Docment 408387.

McCarty, T., & Lee, T. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard Educational Review, 84*(1), 101-124.

Meriam, L. (1928). *The problem of Indian administration* (Report of a survey made at the request of Honorable Hubert Work, Secretary of the Interior). Baltimore: The Institute for Government Research.

Mohatt, G., & Erickson, F. (1981). Cultural differences in teaching styles in an Odawa school: A sociolinguistic approach. In H. Trueba, G. Guthrie, & K. Au (Eds.), *Culture and the bilingual classroom: Studies in classroom ethnography* (pp. 105-199). Rowley, MA: Newbury House.

More, A. J. (1987). Native Indian learning styles: A review for researchers and teachers. *Journal of American Indian Education, 27*(1), 17-29.

Mosby, I. (2013). Administering colonial science: nutrition research and human biomedical experimentation in Aboriginal communities and residential schools, 1942–1952. *Histoire sociale/Social history, 46*(1), 145-172.

Murry, A. T., James, K., & Drown, D. (2013). From pictures to numbers: Vision mapping and sustainability collaboration between Native American community members and mainstream scientists. *American Indian Culture and Research Journal, 37*(4), 1-24.

Nagel, J. (1994). Constructing ethnicity: Creating and recreating ethnic identity and culture. *Social problems*, *41*(1), 152-176.

National Indian Education Association (NIEA). (n.d.) *Statistics on Native students.* Retrieved from http://www.niea.org/Research/Statistics.aspx.

Nieto, S. (1999). *The light in their eyes: Creating multicultural learning communities*. New York, NY: Teachers College Press.

Oetting, E.R., & Beauvais, F (1990-1991). Orthogonal cultural identification theory: The cultural identification of minority adolescents. *International Journal of Addiction, 25*(5A & 6A), 655-685.

Office of Elementary and Secondary Education (OESE). (2005). *History of Indian education.* Retrieved from http://www2.ed.gov/about/offices/list/oese/oie/history.html.

Ogbu, J. U. (1992b). Understanding cultural diversity and learning. *Educational Researcher, 21*(8), 5-14.

Paredes, J. A., & Hepburn, M. J. (1976). The split brain and the culture-and-cognition paradox. *Current Anthropology, 17*(1), 121-127.

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles concepts and evidence. *Psychological Science in the Public Interest, 9*(3), 105-119.

Pewewardy, C. (2002). Learning styles of American Indian/Alaskan Native students: A review of the literature and implications for practice. *Journal of American Indian Education, 41*(3), 23.

Philips, S. U. (1976). Some sources of cultural variability in the regulation of talk. Language in Society, 5(01), 81-95.

Philips, S.U. (1972). Participant structures and communicative competence. In C. Cazden, V. John, & D. Hymes (Eds.), *The function of lanuage in the classroom* (pp. 370-394). New York: Teachers College Press.

Reyhner, J. (1993). American Indian language policy and school success. *The Journal of Educational Issues of Language Minority Students, 12*(3), 35-59.

Reyhner, J. (Ed.). (1997). *Teaching Indigenous languages*. Flagstaff, AZ: Northern Arizona University. Retrieved from http://jan.ucc.nau.edu/~jar/TIL_Contents.html

Robers, S., Kemp, J., & Truman, J. (2013). *Indicators of school crime and safety: 2012.* NCES 2013-036/NCJ 241446. Washington, DC: National Center for Education Statistics.

Roderick, J. (1970). Minority groups in textbooks. *Improving College and University Teaching, 18*(2), 129-132. Retrieved from http://www.jstor.org.ezproxy3.library.arizona.edu/stable/27563057

Rollings, W. H. (2004). Citizenship and suffrage: The Native American struggle for civil rights in the American west, 1830-1965. *Neveda Law Journal, 5*, 126-140.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom: teacher expectation and pupils' intellectual development.* New York: Holt, Rinehart & Winston.

Ross, A. C. (1982). Brain hemispheric functions and the Native American.*Journal of American Indian Education, 21*(3), 2-5.

Ross, T., Kena, G., Rathbun, A., KewalRamani, A., Zhang, J., Kristapovich, P., & Manning, E. (2012). *Higher education: Gaps in access and persistence study* (NCES 2012-046). U.S. Department of Education, National Center for Education Statistics. Washington, DC: Government Printing Office.

Sackett, P. R. & Mullen, E. J. (1993). Beyond formal experimental design: Towards an expanded view of the training evaluation process. *Personnel Psychology, 46*(3), 613-627.

Santoro, N. (2007). 'Outsiders' and 'others':'different'teachers teaching in culturally diverse classrooms. T*eachers and Teaching: theory and practice,13*(1), 81-97.

Savage, C., Hindle, R., Meyer, L. H., Hynds, A., Penetito, W., & Sleeter, C. E. (2011). Culturally responsive pedagogies in the classroom: Indigenous student experiences across the curriculum. *Asia-Pacific Journal of Teacher Education,39*(3), 183-198.

Siebens, J., & Julian, T. (2011). *Native North American languages spoken at home in the United States: 2006-2010*. US Department of Commerce, Economics and Statistics Administration, US Census Bureau.

Sleeter, C. E. (2011). *The academic and social value of ethnic studies: A research review.* Washington, DC: National Education Association Research Department.

Spindler, L., & Spindler, G. (1958). Male and female adaptations in culture change. *American Anthropologist, 60*(2), 217-233.

Südkamp, A., Kaiser, J., & Möller, J. (2012). Accuracy of teachers' judgments of students' academic achievement: A meta-analysis. J*ournal of Educational Psychology, 104*(3), 743.

Swanson, L.J. (1995). Learning styles: A review of the literature. ERIC Document 387067.

Swisher, K., & Deyhle, D. (1987). Styles of learning and learning of styles: Educational conflicts for American Indian/Alaskan Native youth. *Journal of Multilingual & Multicultural Development, 8*(4), 345-360.

Szasz, M. C. (1983). American Indian education: Historical perspective. *Peabody Journal of Education, 61*(1), 109-112.

Tharp, R. G. (1982). The effective instruction of comprehension: Results and description of the Kamehameha Early Education Program. *Reading Research Quarterly*, *17*(4), 503-527.

Trennert, R. A. (1982). Educating Indian girls at nonreservation boarding schools, 1878-1920. *The Western Historical Quarterly, 13*(3), 271-290.

Tsuji, L. J., & Ho, E. (2002). Traditional environmental knowledge and western science: in search of common ground. *Canadian Journal of Native Studies,22*(2), 327-360.

U.S. Department of Labor (2012). *The African-American labor force in recovery.* Retrieved August 6, 2016 from https://www.dol.gov/_sec/media/reports/BlackLaborForce/BlackLaborForce.pdf.

United States Commission on Civil Rights. (2003). *A quiet crisis: Federal funding and unmet needs in Indian country*. Washington, DC: Office of Civil Rights Evaluation. Retrieved from http://www2.ed.gov/about/reports/annual/ocr/report-to-president-2009-12.pdf.

US Census. (2008). *American Indian and Alaska Native policy of the US Census Bureau.* Retrieved June 1, 2014, from http://www.census.gov/aian/pdf/Appendix-F.pdf.

Villegas, A. M., & Lucas, T. (2002). Preparing culturally responsive teachers rethinking the curriculum. *Journal of Teacher Education, 53*(1), 20-32.

Walch, M. C. (1983). Terminating the Indian termination policy. *Stanford Law Review*, *35*(6), 1181-1215.

Waldman, C. (2009). *Encyclopedia of Native American tribes*. Infobase Publishing.

Webster, R. (2008). *The encyclopedia of superstitions.* Woodbury, MN: Llewellyn Publications.

Yardley, W. (March 25, 2011). Catholic order reaches $166 million settlement with sexual abuse victims. *New York Times online*. Retrieved from http://www.nytimes.com/2011/03/26/us/26jesuits.html?_r=0.

Young, E. (2010). Challenges to conceptualizing and actualizing culturally relevant pedagogy: How viable is the theory in classroom practice?. *Journal of Teacher Education, 61*(3), 248-260.

Ziiwibing Center (2011). *American Indian boarding schools: An exploration of global ethnic & cultural cleansing.* Retrieved from http://www.sagchip.org/ziibiwing/planyourvisit/pdf/aibscurrguide.pdf

Guiding Pronunciation of Blackfoot Melody[1]

Naatosi Fish and Mizuki Miyashita

This paper reports our project on "sound education" in second language teaching in Blackfoot. "Sound" in this context refers to word melody and pitch accent. As described in (Frantz, 2009), accents in some words impact meaning. For second language learners of Blackfoot, in addition to learning words with the correct pitch accents, it is also important to learn correct word melody. Sounding "right" or sounding like elderly fluent speakers of their community may lead to self-confidence and a strong cultural identity. Out goal is to provide an example to help others teach the melody of Blackfoot to second language learners.

The Blackfoot Language

The Blackfoot language is spoken by members of four bands, three in Alberta, Canada (the Siksiká, the Aapátohsipiikanii, and the Kainai), where there are an estimated 3250 speakers (Census Canada, 2011), and one in Montana (the Amsskáápipiikanii), where there are approximately 50 speakers (Kipp, p.c., 2011). There has been a very large movement to revitalize the Blackfoot language, leading to varying levels of language instruction. One example is Cuts Wood Academy (Formerly Cuts Wood School or Nizipowahsin), which is a private language immersion school on the Blackfeet reservation. Blackfoot is also taught at the collegiate level; classes are offered at The Blackfeet Community College, The University of Lethbridge, Red Crow College, and The University of Montana. Students taking these classes include a large number of people learning their ancestral language, Blackfoot, as a second language.

Second Language Sound Acquisition and Word Melody

It has been suggested that learning a second language is a very difficult task if one aims to obtain native-like proficiency (White & Genesee, 1996). This is especially true if sound acquisition in the second language doesn't occur very early in one's life; as an infant acquires the sounds of her own language, she starts to lose the natural ability to acquire the sounds of other languages (Kuhl et al., 2001). Accordingly, it is challenging for an older English speaker to acquire the prosody of Blackfoot as a second language because of the differences in their prosodic systems (e.g., Van Der Mark, 2002, Weber, 2012). For example, the phonetic correlate associated with word prominence in English is intensity, but in Blackfoot it is pitch (Frantz, 2009, Van Der Mark, 2002). Because most modern Blackfoot learners are fluent in English as a first language, it could be assumed that it is challenging for them to hear and speak Blackfoot words with a native-like word melody. In addition, without being formally trained most learners (and even teachers) are unaware that there is a prosodic system at work that could help

them recognize word melody when hearing and producing the language.

Word melody is the continuous movement of pitch throughout a word, and pitch is the auditory perception of sound frequency. Sound frequency, in regard to the pitch of a word, is the speed of vibration in the sound wave created by the movement of the vocal folds. The faster the vibration, the higher the pitch, and vice versa. Taylor (1969) observed the rise and fall of pitch in Blackfoot, which resembles a musical melody. Word melody is an important component of the Blackfoot language because changes in pitch can affect the meaning of words. For example, *apssiw* has two distinct meanings based on where the pitch accent occurs. When the accent is located on the first syllable, *ápssiw*, it means 'it's an arrow'; when it is located on the second syllable, *apssíw,* it means 'it's a fig'. Thus, word melody is semantically important as it distinguishes meaning.

Besides its structural importance, word melody plays a key role in developing a sense of identity and sense of belonging to the community. Many learners become interested in their ancestral language as part of establishing a cultural identity. Often, Blackfoot learners are community members, and the desire to establish and maintain their identity motivates them to sound fluent.

Orthography and the Difficulty of Pitch Realization

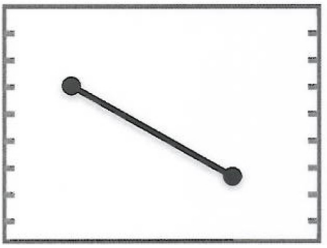
The primary Blackfoot orthography was developed by Frantz with native speakers (1978). In this writing system, an acute symbol (´) is used above a vowel to mark the highest pitch in a word. This accent marking system is used in particular within the Blackfoot grammar book (Frantz, 2009) as well as the dictionary (Frantz & Russell, 1995). This same system was voted for at a conference for Blackfoot language educators (Darrell Kipp, p.c., 2007) to be used for education, and, although its use is not ubiquitous, we find teachers in Canada who are trained (or self-trained) in the orthography. However, in Montana the orthography is not in use. As a result, we have observed that many teachers write Blackfoot words using their knowledge of English orthography.[2] This phenomenon has also been observed in tribes in California (Hinton, 2003).

Even where the orthography is used, we have not observed anyone marking pitch in writing. We assume that this is because pitch is not something speakers are consciously aware of, and we therefore assume that it is not implemented in their language teaching.

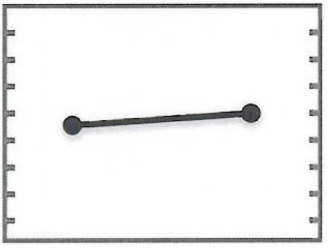
Another element which must be mentioned is that orthographic pitch marking does not fully represent word melody. The acute accent indicates the highest pitch in the word, but the pitch of other syllables is unrepresented. This can result in speakers producing a variety of non-Blackfoot melodies. Take the two examples already mentioned: *ápssiw* 'it's an arrow' and apssíw 'it's a fig.' They are pronounced exactly the same in terms of the sequence of sounds: *apssiw*. The only difference in terms of the orthographic representation is the location of the pitch marker indicating the highest pitch in each word. It would be natural to assume that the first syllable of *ápssiw* and the second syllable of apssíw, both marked high, are pronounced at the same high pitch. In the same way, it may be assumed that the pitch of the unaccented syllables (the second syllable of

ápssiw and the first syllable of apssíw) is low and at about the same low pitch. However, the actual pitch range of these two words is quite different. As shown in (1), when the first syllable is accented, the pitch starts from a high point and drops steeply (1a). On the other hand, when the second syllable is accented, the unaccented first syllable is not as low; the word melody starts from a mid-point and rises gradually (1b).

(1) Visual representation of pitch



(a) *ápssiw* 'it's an arrow'



(b) *apssíw* 'it's a fig'

This sound realization is not usually focused on by language teachers. We believe that it is important to increase awareness of the language's linguistic properties: pitch is a significant element of learning Blackfoot, and there are patterns that learners must acquire. As discussed above, pitch is not fully represented in the orthography and, therefore, presenting pitch patterns in the form of a pronunciation guide may help learners' pronunciation.

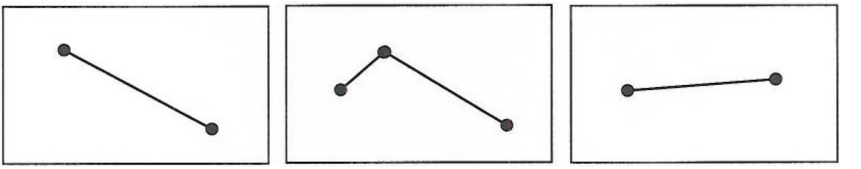
Pitch Pattern Study

In order to create a pronunciation teaching tool, first we need to understand the patterns of Blackfoot pitch. Although Blackfoot is a relatively well-studied language, very few studies describe word melody or pitch range, the exceptions being Frantz (2009) and Taylor (1969). Even these descriptions, however, do not include sound files. Therefore, for our recent study of Blackfoot pitch (Miyashita & Fish, 2015) we used a set of recordings produced by Chief Earl Old Person. He is considered one of the most proficient speakers today in Montana, and he is also knowledgeable in the Blackfeet culture.[3] Furthermore, he is a singer and storyteller, which means he is a "special style" speaker. According to Tsunoda (2006), a speaker who has a command of special style speech also has a command of ordinary speech. Thus we are confident that his pronunciation can be used as a model.

Based on our research, there are several pitch patterns among two-, three-, and four-syllable words: (i) a word contains an accent on the first, second, or third syllable; (ii) for unaccented syllables, the pitch of a first syllable is at the mid-point and of a last syllable is at the low point; (iii) the accented syllable has a higher pitch than any unaccented syllable. These principles result in three general patterns. Schematic illustrations of these types are shown in (2). The first type is seen in words of two to four syllables. It begins with a very high pitch, and the

pitch drops towards the end of the word, as in (2a). The slope of pitch-drop is steep in disyllable words and gradual in four syllable words. The second type, shown in (2b), is observed in three- and four-syllable words. The accent is on the second syllable; the pitch starts from the mid-point, rises the highest at the second syllable, and drops to the lowest toward the end. The third type is seen in two- and three-syllable words when the last syllable is accented. The slope is steady and almost flat, as shown in (2c).

(2) a. b. c.



For example, words that have the same pattern as the type in (2a) include *nínaa* 'man' and *ónni* 'his father,' and *áóttaki* 'bartender' Words that have the same pattern as the type in (2b) include *makóyi* 'wolf' and *saahkómaapi* 'boy.' Words that have the same pattern as the type (2c) include *ponoká* 'elk,' *imitáá* 'dog,' *sinopá* 'fox,' s*iksiká* 'Blackfoot', etc. The last type has an accent on the final syllable in trisyllable words, and the pitch movement is almost flat and steady.

Pronunciation Guide: Pitch Art Creation Process

Using these findings, we are in the process of creating a visual pronunciation aid that we call *pitch art*. The term pitch art is adopted from tone art, which is a pronunciation aid for Cherokee language teaching (Herrick & Hirata-Edds 2015).[4] To create pitch art, we first used an acoustic analysis program called Praat (Boersma & Weenink, 2001) to measure the pitch of every syllable in a word. Figure 1 shows a screenshot of the word *ponoká* 'elk' as seen in Praat. The layers of dark horizontal lines show vowel formants, and the sloping line drawn over the spectrogram is pitch tracking. This line shows the movement of the pitch throughout the word where sounds are voiced. In this word, the last vowel is accented but the pitch movement is more or less flat. The pitch pattern is the type shown in (2c) above.

To generate a simple visual representation suitable for language teaching, the pitch of each vowel is measured using the "get pitch" function. In this word, *ponoká* 'elk,' there are three vowels, and the F0 of these vowels is measured at 85Hz, 89Hz, and 90Hz. The next step is to input the measurements into an Excel file, as shown in Figure 2. With the "insert chart" function, the measurements are turned into a simplified graph.

Finally, the graph image is modified to make it accessible to people who don't have a background in linguistics. Each syllable is transcribed and located under the point of the measured pitch, and the line is made thicker for clear visual presentation as in Figure 3. We believe this is the most important part, as an accessible and non-technical presentation may enhance learners' motivation.

Figure 1. Praat image of the word ponoká ‘elk’

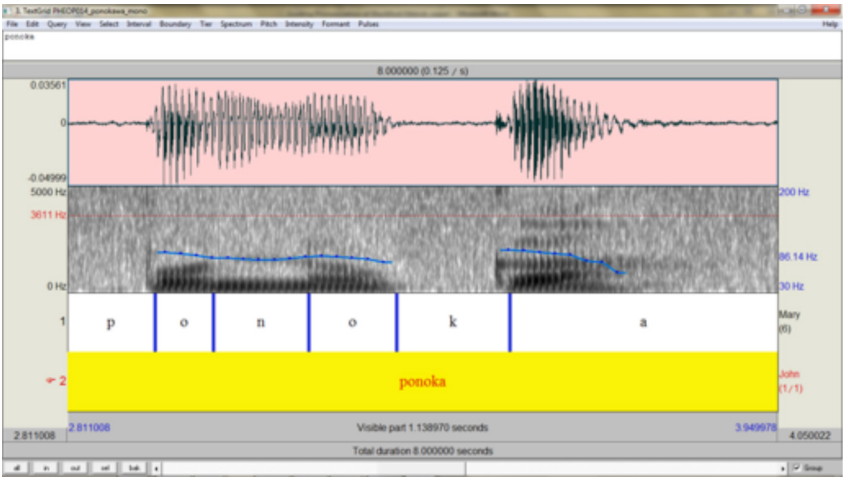


Figure 2. Creating a simplified graph in Excel

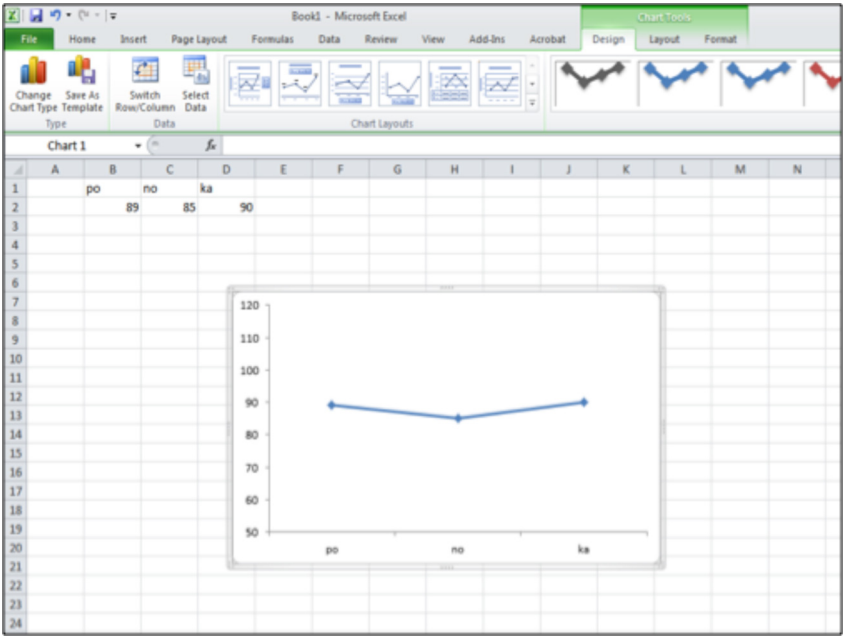


Figure 3. Pitch art for *ponoká* ‘elk’

po no ká

Application

In addition to creating pitch art images, we have been experimenting with animating the graph in PowerPoint to guide speakers through the pitch melody of the word. In the animated version, the left-most point first appears with the syllable 'po,' then the line from this point toward the next point is drawn. When it reaches the second point the syllable 'no' is printed. The line continues from the second point to the last point, and the last syllable ' ká' is printed. The audio is also linked so that the visual guide and the model pronunciation synchronize. This animated version is aimed to help learners acquire the melody or the pitch pattern by the use of a real-time guide.

As we described earlier, there are several pitch patterns and multiple words share the same pattern. Pedagogically, words that share the same melody pattern can be grouped and introduced to learners at the same time. We have seen Blackfoot teaching materials that introduce learners to a group of words that are semantically related (e.g., vocabulary relating to school, morning routine, animals, colors, etc.). Grouping words by pitch pattern would put together semantically unrelated words, but would support learners in hearing and producing accurate word melodies in Blackfoot.

Conclusion

Pronunciation may not be seen as the most important element in language teaching, but the sounds of a language affect members of the community emotionally. Being able to sound like one's people is especially important for those learning their ancestral language. Pitch is one of many components that make up the pronunciation of words, and it must be studied and presented to learners in a way that helps them achieve fluency. The idea of pitch art (or tone art) is an emerging field in indigenous language pedagogy (e.g., Herrick & Hirata-Edds, 2015). Our suggested pitch art is currently based on words of two, three, or four syllables. Eventually, the melody of intonation units in connected speech should be investigated, as we assume we will find more patterns as words or phrases become longer. We hope that this method of sound pedagogy will be introduced to Blackfoot language teachers for all levels, and also that pitch art can be used in other tonal languages to help learners and revitalization efforts.

This pronunciation guide was developed following research describing and analyzing the pitch contour of Blackfoot words. This kind of research cannot be a part of revitalization efforts unless it is applied to and used for language learning. From an indigenous community's point of view, research results are published by the researcher but often not used to help endangered languages (Kipp, 2000). Such research is also not accessible to people without a scientific background, and this inaccessibility can hinder people from making use of the research.[5] This issue may be improved by the involvement of community members in research; however, most involvement is in the form of language consultation, in which linguists ask speakers to translate English into the target language and/or to judge the grammaticality of words or sentences. This process does not readily provide speakers with the linguistic background they would need

to understand and make use of the research. Ideally, members of the community should be actively involved in research in a way that allows the benefits of the research to be well understood. In this way, research results may be applied in language teaching.

As a community member, the first author wishes to learn about linguistic research and turn it into pedagogical materials for the language, as he often asks himself, "Whose job is it to use the research to better the language?"

Notes

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[2]See also Miyashita and Chatsis (2013) for a discussion of the variety of writing systems in Blackfoot.

[3]"Blackfeet" refers to the Blackfoot-speaking tribe in Montana.

[4]Tone art draws a line based on multiple points of pronunciation to capture finer pitch movement. The pitch art described here, though, measures the pitch of vowel centers only.

[5]See also Yamada (2007) for a similar discussion.

References

Boersma, P., & Weenink, D. (2001). Praat, a system for doing phonetics by computer. *Glot International, 5*(9/10), 341-345

Frantz, D. G. (1978). Abstractness of phonology and Blackfoot orthography design. In W. McCormack & S. Wurm (Eds.), *World anthropology: Approaches to language* (pp. 307-325). The Hauge: Mouton.

Frantz, D. G. (2009). *Blackfoot grammar* (2nd Ed.). Toronto: University of Toronto Press.

Hinton, Leanne. (2003). Orthography wars. Originally presented at WAIL [Workshop on American Indigenous Languages], Santa Barbara, California, 2003. Unpublished ms.

Kipp, D. R. (2000). *Encouragement, guidance, insights, and lessons learned for Native language activists developing their own tribal language program*. St. Paul, MN: Grotto Foundation.

Kuhl, P. K., Tsao, F. M., Liu, H. M., Zhang, Y., & Boer, B. (2001). Language/culture/mind/brain. *Annals of the New York Academy of Sciences, 935*(1), 136-174.

Miyashita, M. (2002). *Tohono O'odham syllable weight: Descriptive, theoretical and applied aspects*. Unpublished doctoral dissertation. University of Arizona.

Miyashita, M. (2011). Five Blackfoot lullabies. *Proceedings of The American Philosophical Society, 155*(30), 276-293.

Miyashita, M. & Fish, N. (2015). *Documenting Blackfoot pitch excursion.* Paper presented at 4th International Conference on Language Documentation and Conservation. Hawai'i.

Taylor, A. R. (1969). *A grammar of Blackfoot.* Unpublished doctoral dissertation. University of California, Berkeley.

Tsunoda, T. (2006). *Language endangerment and language revitalization: An introduction*. Mouton de Gruyter.

Van Der Mark, S. (2002). The acoustic correlates of Blackfoot prominence. *Calgary Working Papers in Linguistics,24*, 169-216.

Weber, N. (2012). Accent and prosody in Blackfoot verbs. In J. Randolph Valentine & M.Macaulay (Eds.), *Papers of the forty-fourth Algonquian conference*. Albany, NY: SUNY Press.

White, L., & Genesee, F. (1996). How native is near-native? The issue of ultimate attainment in adult second language acquisition. *Second language research, 12*(3), 233-265.

Yamada, R., (2007). Collaborative linguistic fieldwork: Practical application of the empowerment model. *Language Documentation and Conservation 1*(2), 257-282.

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