# **The Case for Culture and Language** Stephanie Furuta, Larry Steeves, Sheila Carr-Stewart, Taneisha Ingleton

Differential rates of student achievement among Indigenous and non-Indigenous students are a challenging concern. William Demmert (2001), giving focus to a holistic approach to this issue, argued for the beneficial educational outcomes resulting from strengthening traditional Indigenous cultural identities. This chapter explores the relationship between academic achievement and cultural identity within the context of the history of conquest and assimilation of Indigenous peoples. Finally, Hawaiian and New Zealand efforts aimed at improving Indigenous student outcomes through greater attention to Indigenous culture and language are described.

Bernice, a Cree grandmother who resides in Southern Saskatchewan and who has been involved as an education advocate for her people for many years, stated in a 2011 interview that we have to "teach our children the traditional cultural values that we have with our people. A lot of them have lost their culture and their language." She added, "I have heard Elders say...if we don't teach our children our traditions and our cultural activities, what are they going to know in the future? We are going to lose everything. We are going to lose our treaties. We are going to be just nothing. We are going to be lost. Our kids are going to be lost" (Interview, Nov. 2011). Research carried out by Bishop & Berryman (2010), Bell, Anderson, Fortin, Ottoman, Rose and Sinard (2004) and Battiste (2002) supports Bernice's heartfelt belief and the renewed focus on knowing one's culture and language if lifelong learning and socioeconomic opportunities are to be improved for all Indigenous peoples. William Demmert (2001) argued, "[1]he available research on the influences of Native language and cultural programs on academic performance is growing in both volume and importance" (p. 8).

We consider the implications of these comments by Bernice and Demmert, exploring their historical context, providing research illustrating the importance of culture and language to Indigenous student achievement and reporting on concrete examples of how pre-service and pre K-12 education programs are contributing to this goal. Finally, implications regarding the use of culture and language in these settings will be proposed. Demmert (2001) provides our conceptual framework,

The studies...shed light on two interrelated interests: (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)

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We concentrate particularly upon the relationship between improved Indigenous student learning outcomes and culture and language. We maintain that past practices of cultural and linguistic assimilation failed to support the learning of Indigenous youth and that an increased emphasis on initiatives such as culturally based pedagogy is necessary if Indigenous students are to experience greater educational success. Two examples of an enhanced focus on Indigenous culture and language are provided, one a Hawaii pre-service teacher training effort and the second in New Zealand, which among other aspects, prioritizes a culturally based pedagogy of relationship.

#### Setting the context

It is difficult to engage in a meaningful discussion of Indigenous education without considering the historical context in which it resides. The incursion of European settlement in traditional Indigenous lands, whether in North America, Hawaii or New Zealand were marked by a history of destructive disease, practices that would today be termed ethnic cleansing and assimilationist policies. The impact of European settlement on traditional Indigenous societies was, to put it bluntly, catastrophic (Mann, 2005). Russell Thornton (1987) documents an "American Indian holocaust" that saw the Indigenous population in what is now the United States plummet from several million before Columbus's arrival to a little over two hundred thousand at the beginning of the twentieth century with disease as a key reason for this decline.

Charles Mann's (2005) book, 1491: New Revelations of the America's before Columbus, documents the precipitous population loss that occurred in the America's as a result of the introduction of European diseases from which the Indigenous population had little resistance. Population losses from disease such as smallpox often ranged up to 90-95% of the population. In one example, Mann (2005) stated that "[w]hen Cortez landed, according to Cook and Borah, 25.2 million people lived in central America, an area of about 200,000 square miles. After Cortez, the population of the entire region collapsed. By 1620-25, it was 730,000, approximately 3% (p.129). Further, Mann wrote, "Europe's defenders agree that the mass death cannot be described as genocide. The epidemics often were not even known to Europeans, still less deliberately caused by them" (p. 130). However, Mann indicated a personal conclusion that this may have been unduly generous. Some stories support this critical perspective; for example the British at Fort Pitt in 1763 (Wikipedia, August 21, 2013) providing smallpox infected blankets to besieging Indians. Other stories suggest a more compassionate approach; one example is William Tomison, a Hudson's Bay Company's trader posted at Cumberland House on the Saskatchewan River, who "showed remarkable compassion. He and his men took dying Indians into their already crowded quarters, and provided them with food, shelter and 24 hour care" (Houston & Houston, 2000). Houston and Houston (2002), referencing Tomison's records, indicated that "[o]nly 13 Indians in this substantial region are mentioned as having recovered from smallpox, suggesting a mortality rate of up to 95%."

This is the case with Native Americans and other Indigenous peoples, the Native Hawaiian population was also subject to destruction by European diseases. According to Stannard (1989), by the late 1700s, the Hawaiian population was estimated at a robust 800,000 - the Native Hawaiian society and culture was thriving. However, as Europeans such as Captain James Cook, in 1778, arrived in the Hawaiian Islands and brought with them foreign disease, the Native Hawaiian population began a steep decline. They were fatally overwhelmed by whooping cough, mumps, cholera, influenza, smallpox, colds and measles. Budnick (1992) related that "[t]hroughout the 1800s, each succeeding generation of native Hawaiians declined by one-half" (p.31). By 1900, the Native Hawaiian population had an estimated loss of over 90%, a mere 29,000 native people survived. Whether Europeans were guilty of a deliberate campaign of genocide is questionable, however, the effective impact of European contact was a catastrophic decline in population with all the accompanying damage on Indigenous people and their way of life that this decline would precipitate. Reyhner and Eder (2004) suggested that "[p]redictions of the Indian's ultimate demise led to the popularity of the term "Vanishing Indian" in the nineteenth century", further indicating that "humanitarians saw education and assimilation as the only hope for Indians" (p. 1). Further damaging to Indigenous people was the onslaught of European settlement in North America. Reyhner and Eder (2004) referenced the Northwest Ordinance by the United States Congress which guaranteed that Indian lands would never be taken without prior consent. They further suggested that "[t]here was a consensus, at least among humanitarians, that it was necessary to civilize Indians so that they would live in harmony with the settlers who were taking their lands. In exchange, the Indians would receive civilization and education" (p.40-41). This agreement, Reyhner and Eder indicated, would "make them independent yeoman farmers, thus freeing up their vast hunting grounds for while settlement" (p.41).

From a Canadian perspective, Battiste (2002) commented,

The persistent and aggressive assimilation plan of the Canadian government and churches throughout the past century, the marginalization of Indigenous knowledge in educational institutions committed to Eurocentric knowledge, and the losses to Aboriginal languages and heritages through modernization and urbanization of Aboriginal people have all contributed to the diminished capacity of Indigenous knowledge, with the result that it is now in danger of becoming extinct. (pp. 4-5)

The vehicle chosen for this process was the treaty which, in theory recognized the rights of Indigenous people to their land and established a negotiated process by which land could be accessed legally by the European settlers. From a Canadian perspective, although the Grand Chief Cope of the Mi'kmaq and His Excellency Peregrine Thomas Hopson, on behalf of the British Sovereign, agreed to articles of peace and friendship in 1752, the Royal Proclamation of 1763 formed the basis of Britain's treating with First Nations (Isaac, 1995). It also "established the

Crown's relationship with First Nations and recognized the latter's pre-existing land rights" as well as it "formed the basis for the relationship between the two parties in all future negotiations relating to Aboriginal rights" (Steeves, Carr-Stewart, & Pinay, 2013, p. 65).

As Canada expanded its jurisdiction following the decision by the British Crown to cede the North West Territory to the newly formed Canadian Confederation, between 1871 and 1921, "a series of numbered treaties, Treaty 1 through 11, were negotiated between the Crown's representatives, Treaty Commissioners, and Chiefs and Headmen of the western prairies and the northern territories" (Steeves, Carr-Stewart & Pinay, 2013, p. 65). While both parties negotiated these treaties in good faith, they had different perceptions regarding the intent of the treaties. Taylor (1985) indicated that the First Nations signatories to the numbered treaties in western Canada had no intention of agreeing to the absolute surrender of their traditional lands. Steeves, Carr-Stewart and Pinay (2013) suggested,

the Treaty Commissioners entered into negotiations to gain title to all the ceded lands of the First Nations in exchange gifts and services. 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 in order to live and prosper in the new era of economic change, an ever growing influx of newcomers, and a transcontinental railway. (p. 66)

Indigenous leaders hoped that an important outcome of the treaty making process would be an opportunity for their youth to gain the knowledge required for success in the new era while maintaining their cultural traditions and values. The First Nations wished to negotiate the peaceful sharing of their land in exchange for services that would enable them to survive the loss of their traditional lifestyle and to participate fully in the new economy (Treaty 7 Elders & Tribal Council, 1996, p. xi). They were to be sadly mistaken; the new order quickly became a place in which Indigenous people were expected to join the dominant European society, and forego their traditional languages and culture. Assimilation of Indigenous peoples was to occur, not peaceful and productive coexistence with the new White order.

## **Education and assimilation**

Treaty 4, signed in 1874 and including what is now southern Saskatchewan, was a typical example of commitments were made by the Crown, or Canadian government. Steeves, Carr-Stewart and Pinay (2013) indicated,

Those discussions...resulted in the commitment by the Crown to a specific quantum of land for the families within each First Nation, a series of services and 'gifts' – including treaty annual payments of \$5.00 per person, agriculture equipment, clothing, and a school to be built on each reserve – western education would be incremental to Indigenous teachings. (p. 67)

The Treaty Commissioner, Morris (1881/1990), negotiating for the Crown assured First Nations leaders that these commitments would be honored, stating that they were not just "for today or tomorrow only but should continue as long as the sun shone and the river flowed" (Morris 1881/1990, p. 208). Morris further stated that the quality of educational opportunity would be equitable with non-Aboriginal educational services and that they would not "deter" indigenous educational beliefs and practices (Morris, 1880/1991). Sadly these commitments were not honored. Steeves, Carr-Stewart, and Pinay (2013) indicated that,

First Nations understood the treaties were between two equal partners but in 1876, Canada passed its own legislation, the Indian Act, which gave the government of Canada and it's administrative arm, the Department of Indian Affairs now renamed as the Department of Aboriginal Affairs, jurisdiction and control over all aspects of First Nations peoples' lives. The imposition of the Indian Act guaranteed a different future for First Nations communities that promised in the treaties, nowhere is this more evident than in the provision of educational services. (p. 67)

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 characterized 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. Much has been written of this era; suffice it to say that its pernicious effects continue to the present time.

The situation in the United States was broadly similar, if perhaps more brutal in approach. Reyhner and Eder (2004) documented that the "western removal", indicating that in 1820 congressional leaders became planning to remove eastern tribes west of the Mississippi River. They further state, "President Monroe gave his support to removal as a way to protect Indians from whites" (p. 48). Reyhner and Eder (2004) referred to comments by Alexis de Tocqueville, "who witnessed the removal, wrote in Democracy in America of the great evils of the young republic's treatment of Indians. According to Tocqueville, the tribes stood in the path of the greediest nation on earth, a nation destitute of good faith" (p. 50).

Reyhner and Eder (2004) capture the essence of assimilation from an American context, suggesting,

The era of government control sought to save the Indians from vanishing by substituting a policy of cultural genocide for the old policies of removal and actual genocide. Genocide was embodied in the slogan, "The only good Indian is a dead Indian," which in several cases extended to the killing of women and children.... The new policy as enunciated by the assimilationists was to kill the Indian but save the man. Wrapped in the popular belief that the dominant society represented the pinnacle of civilization, the average American could see no good in Indian culture. But... many Indians stubbornly resisted attempts by the government to control their thinking in the same way that it now controlled their lives, and they clung to their tribal languages and traditions. (p. 107-108)

The American approach to education was also broadly similar, using education as a primary means of promoting a policy of assimilation. Reyhner and Eder (2004) stated that "Schooling in European ways was meant to destroy Indian tribal life, rid the U.S. government of its trust and treaty responsibilities, and repay Indians for land taken from them" (p. 4). Like Canadian residential schools, the United States government placed a heavy reliance on boarding schools to accomplish their assimilationist objectives. And like Canadian residential schools, Reyhner and Eder (2004) further suggested that American boarding schools suffered from "savage" inequities in funding (p. 166), a high rate of student illness (p. 190-192), and a failure to develop parenting skills among their student charges (p. 191). Lack of parental skills proves to be an issue that continues to plague Indigenous families who were forced into the residential/boarding system of education.

John Ogbu (1978), an American anthropologist who wrote extensively regarding the relationship between minority group status and student achievement, provided a helpful means of characterizing the circumstances faced by Indigenous people. Ogbu and Simons' (1998) classification of North American Indians as involuntary (non-immigrant) minorities is an apt descriptor for the situation Indigenous people endured. Ogbu and Simmons suggested that the two primary descriptors of involuntary minorities were that "(1) they did not choose but were forced against their will to become part of the United States, and (2) they themselves usually interpret their presence in the United States as forced on them by white people" (p. 165). Ogbu and Simons (1998) further argued that involuntary minorities are "less economically successful than voluntary minorities, usually experience greater and more persistent cultural and language difficulties, and do less well in school" (p. 166). Ogbu's argument seems to assist in the explanation of what occurred to Indigenous peoples. Notwithstanding the negative impacts of the treaties and their tie to assimilationist policies, traditional Indigenous societies that did not experience treaty making also were forced to endure European domination.

As with Native Americans and First Nations peoples, Native Hawaiians have been subject to negative foreign influences on their population, culture and language. In the 1800's, "Foreign influences immediately began to erode the major institutions of Hawaiian society. Ultimately, this process resulted in the

replacement of the Hawaiian language by English in the major societal domains of commerce, government, and religion and education" (Warner, p.134). Thus, one of the most tragic outcomes of the European domination of Native Hawaiians was in the area of literacy.

By the 1850's, Native Hawaiians were wholly literate (Kloss, 1977) – a remarkable testament to their thriving society:

Hawaiian-language newspapers flourished from 1860 on through the end of the century. Hawaiian oral traditions, which included genealogical as well as other forms of chants, histories, legends, riddles, and various aspects of Hawaiian culture, were documented and circulated amongst the Hawaiian people. Foreign stories, legends, and foreign news items were also translated into Hawaiian and published in weekly newspapers. (Warner, 2001, p. 134)

However, in 1893, the Hawaiian monarchy was overthrown and the new, illegal government, the Republic of Hawai'i legalized the use of English as the official medium of instruction in all schools. In 1896, the use of the Hawaiian language was banned in both public and private schools. Everything spoken and written was only to be in English.

Some Hawaiians educated during this period recall being physically punished or humiliated for speaking Hawaiian in school. Ironically, many teachers who meted out this punishment were also Hawaiian. At this time, the illusion of future prosperity resulting from the abandonment of Hawaiian in favor of English was inculcated into the Hawaiian people (Warner, 2001).

Owing to the overthrow of their government and the forced assimilation of the English language, as well as the forced assimilation of Christianity, Native Hawaiians irreparably lost their Native language, and their culture was replaced by European influences. As a result, Native Hawaiians have since struggled with economic, cultural, educational, and health challenges. The educational challenges, in particular, have had a grave impact on the economic success of Native Hawaiians.

As the Hawaiian example suggested, one of the tragic outcomes of a policy of forced assimilation was an educational system that resulted in poor educational outcomes for indigenous students. Reyhner and Eder (2004) discuss this issue, from an American perspective:

The 1991 Audit Report of the U.S. Department of the Interior's Office of the Inspector General showed that students in BIA [Bureau of Indian Affairs] schools on average achieved far below non-Native students and generally did not receive high-quality education (Office of the Inspector General, 11). Bureauwide, average percentiles ranged from a low of the twenty-fourth percentile for third and ninth grades to a high of the thirty-second percentile in the twelfth grade. Students in only 2 out of

153 schools had average scores at or above the fiftieth percentile (Office of the Inspector General 1991, 11). (p. 309)

Results like these were not unique. In a study of exemplary Indigenous schools in Western Canada, Bell, Anderson, Fortin, Ottoman, Rose, Simard, et al. (2004) commented that "[f]or more than 30 years, both federal and provincial governments have acknowledged the low educational success rates for Canada's Aboriginal students" (p. 19). The Saskatchewan Ministry of Education's 2008 Educational Indicators Report found consistent evidence of under-achievement by Aboriginal students.

Study after study... documents achievement gaps between the Indigenous and non-Indigenous children. Perhaps the clearest statement of the situation is provided in the 2008 Saskatchewan Education Indicators Report which documents high school completion rates.... the striking difference relates to the dramatic difference between Northern and Aboriginal students, as compared to other student cohorts. An approximate 30% completion rate for Northern and Aboriginal students, as compared to 70-80% completion rates for other students, indicates a striking disparity. (Steeves, 2009, p. 39)

In a study of young Aboriginal youth in the western Canadian provinces, Ontario, and Quebec, Richards (2013) (in press) reinforced this troubling statistic, commenting that "What should be of particular concern here is the very high share, over 60 percent, of young adults on-reserve without high school certification. They face severely limited employment opportunities" (p. 4-5).

These issues are not unique to North America; the experience of Native Hawaiians demonstrated similar challenges with student achievement as do other Indigenous peoples. In 2008, the total State of Hawaii public school population was approximately 170,000 students; 45,000 of those students, or 26%, were of Native Hawaiian ancestry (Office of Hawaiian Affairs, 2011). Native Hawaiian students represent the largest ethnic group in Hawaii. School districts, such as the Leeward District on Oahu, have large populations of Native Hawaiian students. Within the Leeward District the Wai'anae and Nānākuli complexes have the largest numbers of Native Hawaiian students. In 2009, the Wai'anae complex reported 60% of their student body as Native Hawaiian and Nānākuli reported 73% (State of Hawaii Department of Education, 2009). Table 1 illustrates the academic achievement of the students in those complexes, as indicated by both reading and math scores from the annual Hawaii State Assessment (HSA). Both complexes fared poorly on the reading and math assessments, scoring significantly lower than the state average. On the other hand, Radford complex, located in the Central district of Oahu had the least amount of Native Hawaiian students in the state in 2009, and also scored very well on the HSA. Their school reading and math scores surpassed the state average.

In 2011, the Regional Educational Laboratory at Pacific Resources for Education and Learning (REL) published a study comparing the educational achievement of 8th grade students of Native Hawaiian and non-Native Hawaiian ancestry. In each year of the study, non-Native Hawaiian 8th graders had higher proficiency rates than Native Hawaiians in both reading and math.

As low student achievement has afflicted Native Hawaiians, ramifications of this can be seen in areas of post-secondary graduation and employment rates. In 2009, 46.8% of the Native Hawaiian and Pacific Islander population across the nation had their high school or General Educational Development (GED) diplomas. Although that number is positive, that is the highest level of education attained. The numbers of Native Hawaiian graduates steeply declined as the educational attainment levels increased. Only 24.7% of Native Hawaiians have some college credit without a degree. Notably, 7.9% of Native Hawaiians and Pacific Islanders have their Associate's Degree, 6.8% have their Bachelor's Degree and only 2.4% of have a graduate or professional degree (Education Commission of the States & National Center for Higher Education Management Systems, 2011). Thus only 17.1% of Native Hawaiians and Pacific Islanders had a postsecondary degree in 2009. These numbers illustrate a huge disparity between Native Hawaiian educational attainment and other ethnic groups.

Complex		% Non-Native Hawaiian students	Hawaii State Assessment (HSA) Reading: meets or exceeds proficiency (state avg. = 65%)	HSA Math meets or exceeds proficiency (state = 44%)
Wai'anae	60%	39.3%	48%	33%
Nānākuli	73%	26.3%	40%	19%
Radford	4.9%	95.1%	72%	48%

Table 1. Student Achievement Levels

(State of Hawaii Department of Education, 2009)

There is a direct correlation between educational attainment and employment. According to the U.S. Bureau of Labor Statistics (2013), the unemployment rate for graduates with doctoral degrees was 2.5%. For those with master's degrees, the unemployment rate was 3.5%. High school graduates had an unemployment rate of 8.3%, but that number jumps to 12.4% for those with less than a high school diploma. These statistics clearly show the influence that education has on employment and employability. If Native Hawaiians have minimal numbers of postsecondary graduates, it is understood that their employment levels and employability are minimal as well. This understanding is supported by the research that has been conducted on Native Hawaiian poverty. Kana'iaupuni, Malone, and Ishibashi (2005) found that "[b]ased on the conservative Census 2000 definition, Native Hawaiians in Hawai'i had the highest percentage of individuals living below the poverty threshold, compared with other major ethnic

groups in Hawai'i.... As of 1999, more than one of every six Native Hawaiians (16.0 percent) had incomes below the poverty line, compared with 10.7 percent of the total state population" (pp. 6–7).

Trask (2000) stated, "as a people, Hawaiians remain a politically subordinated group suffering all the legacies of conquest: landlessness, disastrous health, diaspora, institutionalization in the military and prisons, poor educational attainment, and confinement to the service sector of employment" (p. 3). Kaomea (2005) echoes a similar sentiment:

[Currently] statistics tell us that many Hawaiian families are poor, unhealthy, unstable, and uneducated, and that our children are consequently at risk physically, cognitively, socially, and emotionally. What these statistics neglect to explain is that sandwiched between these contrasting social portraits is a history of invasion and colonialism: a familiar story of theft, genocide, and exploitation that may differ slightly depending on the society – from Native Americans to Aboriginal Australians–but that also shares certain common features. (p. 91)

These findings seem broadly consistent with other jurisdictions. For example, similar levels of educational attainment have been observed within the province of Saskatchewan. Statistics Canada (2008, 2007, 2006) indicates that nearly 27 percent of the total Saskatchewan population has high school certification or its equivalent; only 22 percent of Aboriginal residents have done so. Similarly, 12.9 percent of the overall population have a university certificate, diploma or degree at or above the bachelor level; once again, only 5.8 percent of the Aboriginal population have done so. With respect to the completion of any type of certificate, diploma or degree, 30.2 percent of the Saskatchewan population have achieved these certifications. Once again, 49.4 percent of the Aboriginal do not possess such certifications. The message is clear for Saskatchewan; the Aboriginal population demonstrates consistently lower levels of educational attainment.

These general tendencies may also be observed with respect to Saskatchewan labor force engagement and income levels. Statistics Canada (2008) found that the unemployment rate was 3.25 times higher for Aboriginal citizens, while their employment rate was 28.6% lower than the overall population. Similarly, Saskatchewan Aboriginal income levels were lower than the general population. For example, the average income of Aboriginal residents was \$19,939 in comparison to \$33,108 for the overall population (Statistics Canada, 2008)

It seems clear that Indigenous people experience lower rates of success than non-Indigenous groups on a variety of measures. Another key measure relates to health outcomes. Lemstra and Neudorf (2008), in a study conducted for the Saskatoon, Saskatchewan Health Region identified factors that were related to lower health indicators for Indigenous people within the health district. On a more positive note, Lemstra and Neudorf (2008) indicated that after controlling for variables such as socioeconomic status, Indigenous cultural status "no longer has a statistically significant association with low self report health, diabetes preva-

lence, heart disease prevalence, lower child immunization rates and depressed mood" (p. 7). Other recent work echoes these conclusions; for example, the final report of Saskatchewan's Joint Task Force on First Nations and Métis Education and Employment (2013) recognized "the importance of poverty reduction and anti-racism as complementary strategies to improve outcomes in education and employment for First Nations and Métis peoples" (p.26). Steeves (2009) summed up the essential message of these findings with the comment that "[t]he message here is simple – student achievement must be viewed within a broader context... Attempts to focus narrowly on the educational issues will... prove unsuccessful... attention to larger social, economic, and cultural issues is critical if student learning and achievement are to meaningfully improve" (p. 41).

These conclusions are consistent with student achievement research assessing the role of school related factors as compared to other measures such as socioeconomic status, family, community, gender, or ethnicity. Most research identifies the contribution that school related factors account for 15-20 percent of the variance in student achievement (Marzano, 2003; Lytton & Pyryt, 1998; Scheerens & Bosker, 1997; Stringfield & Teddlie, 1989). Of the remaining 80-85 percent of the variance that is explained by other variables, Chell, Steeves, and Sackney (2009) referenced Nechyba, McEwan, and Older-Aguilar (2007) who, in an exhaustive literature review for the New Zealand government, "outlined a number of studies, which cumulatively suggested that heredity explains approximately 50 percent of the variance related to cognitive ability" (p. 7).

Assuming that this research is broadly correct, there remains an additional 30-35% of the explained variance that is explained by other factors. Chell, Steeves and Sackney (2009) identified extensive relevant research, commenting,

While the specific variance may vary – for example, Lytton and Pyryt (1998) suggested that socioeconomic status explained between 35-50 percent of the variance among elementary students – a solid body of research (Sirin, 2005; Israel, Beaulieu, & Hartless, 2001; Adams & Ryan, 1999; Roscigno & Ainsworth-Darnell, 1999; Ma, 2001; Fege, 2006; Pong, Dronkers, & Hampden-Thompson, 2003; Edgerton, Peter, & Roberts, 2008) suggested that this unexplained variance included a variety of variables including socioeconomic status, family, community, race, and gender. Other studies pointed to the pernicious effect of poverty (McLoyd, 1998; Payne & Biddle, 1999; Lemstra & Neudorf, 2008). (p. 7)

Reflecting on this extensive research and the important role for non-school variables, Chell, Steeves and Sackney (2009) asked the question,

If the impact of 15-20 percent of the variance related to student achievement can make a difference, what could be the results of aligning improvements in school effects with those relating to issues such as socioeconomic status, the family, the community, race and gender?

It would seem that this could produce dramatic change and positive growth for students. (p. 7)

Regarding Indigenous student achievement, what possibilities might exist if recognition of the role of family, community, and culture and language issues were to be meaningfully addressed? The need for improved outcomes seems clear. Helin (2008) and Richards (2008), argued that stronger educational outcomes for Indigenous students is critical if progress regarding life conditions for Canadian First Nations and Métis is to occur. Similarly, the Auditor General of Canada (2004) concluded that "[e]ducation is critical to improving the social and economic strength of First Nations individuals and communities to a level enjoyed by other Canadians (p. 2). The Auditor General further commented "[w]e remain concerned that a significant education gap exists between First Nations People living on reserves and the Canadian population as a whole and that the time estimated to close this gap has increased slightly from about 27 to 28 years" (p. 1).

Perhaps the strongest statement regarding the relationship between education and future success for Canadian Aboriginal students is provided by *The Report of the Royal Commission on Aboriginal Peoples* (1996) when they concluded that "Education programs, carefully designed and implemented with parental involvement, can prepare Aboriginal children to participate in two worlds with a choice of futures. Aboriginal people should expect equity of results from education in Canada" (p. 442).

#### Culture and language in student achievement

The attempt at assimilation within the education of Indigenous children ultimately proved problematic; not only were the desired outcomes regarding assimilation unsuccessful but disastrous student learning outcomes also resulted. A different approach, one that respected the original intent of First Nations treaty signatories, that undertook to both provide western knowledge and support student's culture and traditions, was necessary. Steeves (2009) believed that this is possible, commenting that "[r]esearch related to the impact of language and cultural programs on Indigenous student achievement indicates a powerful relationship" (p. 45). As suggested earlier, Demmert (2001) completed a major review of literature related to Native American student achievement, concluding that the relationship between culture and language and student achievement was a powerful factor affecting student learning outcomes. These research findings led Demmert and Towner (2003) to conduct a further literature review of culturally based education, which explored the role of language and culture programming in supporting Native American student learning.

Demmert and Towner's research conclusion regarding the relationship between culture and language and improved student achievement are supported by other American research findings. Donna Deyhle (1995) in a decade-long ethnographic study of Navajo youth, concluded that students who were grounded in their traditional tribal culture were also more academically successful. In an-

other study of Navajo youth, Rosier and Holm (1980) report improved learning outcomes from Navajo students beginning school with only Navajo language skills. Their study explored the effect of bilingual instruction with a group of students from the Rock Point Community School who were taught to read in Navajo and then, in the second grade, were also introduced to English. Their standardized achievement test results compared favorably with earlier groups of students from Rock Point, as well as students from other Navajo schools who were taught to read using English as a Foreign Language (EFL). In a broader study, Stiles (1997) compared four indigenous language programs, including the Cree Way in Quebec, the Hualapai in Arizona, Te Kohanga (Māori) in New Zealand, and the Punana Leo (Hawaiian) in Hawaii. Stiles reported that decreased drop-out rates, increased sense of heritage and identity, and improved test scores were observed. The results also reinforced the importance of home and community support, and the value of early intervention programs. The importance of Indigenous culture outside the school setting was identified by Whitbeck, Hoyt, Stubben and LaFromboise (2001) and Coggins, Williams and Radin (1996).

Other Canadian research findings support these conclusions. For example, Goulet (2001) focussed on the stories of two teachers working in northern Aboriginal communities, indicating that the two teachers "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). Steeves (2009) commented, "Goulet's research makes explicit the relationship between ethnocentric curriculum, assimilation and colonization, and the need for a greater focus on Aboriginal language and culture" (p. 45). Louis and Taylor (2001) studied a remote Inuit village in northern Quebec, concluding that the "findings point to the importance of baseline Inuttitut proficiency as a foundation for the critical transition to second-language education" (p. 133). These findings were consistent with research conclusions reached by Wright, Taylor and Macarthur (2000) which found that children, who initially entered English or French instruction, rather than Inuttitut, suffered a slower rate of second-language acquisition.

Perhaps the most ambitious Canadian research was conducted by Bell et al. (2004) and Fulford, Moore, Stevenson, Tolley and Wade (2007). These research projects explored the successes of twenty exemplary Aboriginal schools, with ten located in Eastern Canada and ten in Western Canada. Their conclusions supported Demmert's findings, concluding that more needed to be done to support the role of culture and language in student learning. Steeves (2009) indicated,

The second recommendation proposed by Bell et al. relates to the establishment of a national Centre for Aboriginal Language and Culture that would develop educational curricula and teaching materials and commission research in Aboriginal immersion programs. Fulford et al. extended these recommendations, proposing, among other things, that the Government of Canada officially recognize the special status and diversity of Aboriginal languages, that the provinces undertake concrete

measures to preserve Aboriginal languages, and that regional Centres of Aboriginal Language and Culture be established. (p. 45)

He also identified research that did not suggest a positive relationship between educational achievement and culture and language, citing **a** study by Brade, Duncan and Sokal (2003) that concluded "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). In effect, cultural involvement and Aboriginal teachers as role models were not related to improved educational levels.

Notwithstanding the presence of contradictory findings, it seems clear that the preponderance of research supports the value of attending to the place of culture and language in improved Indigenous student learning outcomes. 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). It seems apparent that any significant attempt to improve learning outcomes among First Nations children must target this critical area.

For this reason, a consideration of research and field experiences related to programs that have successfully addressed the important factor of culture and language in the improvement of learning outcomes, when dealing with Indigenous students seems necessary. It is not enough to report on findings that document the importance of this relationship, one must also identify programs that have actually accomplished this objective. Consistent with this objective, two programs, one dealing with pre-service teacher education training in Hawaii, and another reporting on the success of a large scale reform initiative in New Zealand that prioritizes a culturally based pedagogy of relationship, will be discussed. Both provide useful direction as regards the direction of programming that can accomplish this important goal.

## Pre-service education: Ho'okulāiwi: 'Aha Ho'ona'auao 'Ōiwi

Ho 'okulāiwi: 'Aha Ho 'ona 'auao ' $\overline{O}$ iwi is a multidimensional teacher education and curriculum research initiative designed to raise the educational achievement of Native Hawaiians. The initiative is housed within the Department of Curriculum Studies at the University of Hawai'i at Mānoa. By combining Native Hawaiian traditions, culture, and language with skills and knowledge from the Western world, this initiative focuses on educational success as a means to furthering the life opportunities of Native Hawaiians.

Ho'okulāiwi has two goals. The first is to provide programs of study in teacher education and curriculum research to prepare teachers to provide culturally relevant instruction in schools with large numbers of Native Hawaiian children. The second goal is to prepare Native Hawaiian educational leaders in areas such as curriculum research, school administration, and teacher education through study at the masters and doctoral levels. Ho'okulāiwi's commitment to the well-being of all children, and in particular, Native Hawaiian children, through education and research, is consistent with the vision of the University of Hawai'i

and the mission of the University of Hawai'i's College of Education.

One dimension of Ho'okulāiwi's teacher education program is educating pre-service teacher candidates as part of the Master of Education in Teaching (MEdT) program. This is a two-year, field-based, cohort program. Within the two-year program, K–12 teacher candidates complete extensive coursework in various content areas, participate in seminars based on their field experiences, as well as being immersed in classroom settings every semester. The practical nature of this program creates and nurtures teacher candidates who engage in experiences in different school settings. The essential beliefs promoted throughout the program are similar to some of the components of the Effective Teaching Profile, by Bishop & Berryman (2009): high student expectations; embracing and honoring who the students are and where they come from; and building relationships for student success.

A distinct characteristic of the Ho'okulāiwi MEdT program is that throughout the two-year program, teacher candidates are placed in classrooms within schools where a large portion of the student body is representative of Native Hawaiian or other Indigenous populations. These school populations are not solely Native Hawaiian or Indigenous, but also encompass a variety of students of many ethnicities. What is significant is that a large portion of the multi-ethnic student body is made up of Native Hawaiian or Indigenous students. In this way, the program hopes to train their candidates, both Native Hawaiian and non-Native Hawaiian, to successfully work with Indigenous and Native Hawaiian children, their families, and their communities.

In 2012, 15 Ho'okulāiwi MEdT students graduated from the program. Currently, 10 of them are working in or with schools with large populations of Native Hawaiian or Indigenous students; 67% of the 2012 cohort has chosen to work in schools with this student population, or in initiatives that serve Native Hawaiian and Indigenous people. The just-graduated 2013 Ho'okulāiwi MEdT cohort of 17 students currently has 10 students working in schools with large populations of Indigenous or Native Hawaiian students, or in initiatives that serve Native Hawaiian people. The fact that many of the Ho'okulāiwi MEdT teacher candidates have chosen full-time positions in Native Hawaiian or Indigenous school communities after graduating is a success story in itself. Native Hawaiian communities typically have a shortage of qualified teachers (Tibbetts, 2006) and low student achievement (Hammond, Wilson & Barros, 2011). As well, many of the Native Hawaiian communities are considered to be in more rural areas of the Hawaiian Islands, making employment in these communities even less desirable to new teachers (Hawai'i Educational Policy Center, 2008).

Through its pedagogy, essential beliefs, and the field immersion of its teacher candidates in schools within Native Hawaiian and Indigenous communities, the Ho'okulāiwi MEdT program is finding success in training teachers to work with this population, as well as finding success in developing teacher candidates who choose to work within these communities after graduation.

#### Pre K-12 education: Te Kotahitanga

The importance of improved Indigenous student achievement and the critical role of culture and language programming seem evident. If Indigenous students are to escape from the historical role of deprivation and inadequate levels of educational attainment, attention to teaching methods that focus upon culturally based pedagogy will be critical. Just as the teacher preparation program at the University of Hawaii, Manoa provides an excellent example of what is possible in pre-service teacher education programs, so too are there examples of similar successes in pre K-12 schools. An excellent example of success in this regard is provided by a New Zealand initiative, Te Kotahitanga, developed by Russsel Bishop and Mere Berryman and based on Kaupapa Māori theory. Te Kotahitanga provides evidence that an appropriately designed and implemented large scale improvement program can increase Indigenous student achievement levels.

Perhaps the most succinct description of Te Kotahitanga is provided by Bishop and Berryman (2010),

Te Kotahitanga 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) indicated that the principles underlying Te Kotahitanga are based upon focus group interviews conducted with engaged and non-engaged Māori secondary students, parents, teachers and school administrators. The research findings concluded that while most teachers had positive intentions, "most teachers identified what they saw as Māori students' deficiencies as being the main reason for their low achievement" (pp. 695-696). The authors comment that this was in contrast to the views of students, parents, school administrators and a minority of teachers. For example,

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 improved 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)

From these research finding the Effective Teaching Profile (ETP) described below was constructed. Bishop and Berryman (2009) indicated that it consisted of two essential understandings, the rejection of deficit theorizing, and agentic positioning by teachers. This effectively meant that teachers would consider their work with students as leading to increased student learning, not assuming that poverty, race, or social and economic disadvantage would prevent their students from experiencing success. These two essential understandings were accompanied by six dimensions, or relationships, that effective teachers of Māori students should demonstrate in their daily teaching.

The *Te Kotahitanga* professional development program focuses upon successful implementation of the Effective Teaching Profile. This means teachers receive initial training in cultural issues and effective instruction, followed by ongoing teacher support by program and school-based facilitators. One of the significant features of *Te Kotahitanga* is the level of support and training offered to classroom teachers and school administrators. Bishop et al. (2012) stated that the introductory workshops are followed by a cycle including:

- 1. individual teacher in-class observations using the Te Kotahitanga Observation tool... which is designed to provide teachers with formative feedback so as to assist them to implement the ETP in their classrooms....
- 2. individual teacher feedback, at previously negotiated times following the classroom observations, facilitators give teachers specific feedback about the lesson they have formally observed...
- 3. group co-construction meetings for teachers of a common class reflecting upon student participation and achievement evidence with focused group goal setting....
- 4. targeted shadow-coaching sessions in order to move towards targeted goals (from feedback and co-construction sessions). (pp. 697-698)

The *Te Kotahitanga* ETP as described by Bishop & Berryman (2009) lists the essential understanding that teachers need to effectively teach Māori students effectively. They include rejecting deficit theorizing as a way of explaining Māori students' achievement levels and taking an agentic position and accept professional responsibility for the learning of all students, including Māori students. They emphasize the relationships (dimensions) of teaching and two essential understandings demonstrated through six main dimensions of teaching and learning:

- manaakitanga: caring for students as culturally located individuals
- *mana motuhake*: having high expectations for students' learning
- whakapiringatanga: managing classrooms so as to promote learning
- wänanga: effective teaching interactions with Māori students as Māori
- *ako*: using a range of strategies that support learning and teaching

• *kotahitanga*: monitoring student achievement data and using the information to modify teaching practice to improve Māori student achievement, and sharing this information with students.

Bishop, Berryman, Wearmouth, Peter and Clapham (2011) indicated that implementation of the effective teaching profile promotes contexts for learning where: power is shared; 'culture counts,' and learners cultural knowledge is valued; learning is interactive and dialogic; there is 'connectedness' of teachers with learners, demonstrated by teachers' commitment to their students and the students' communities; and, finally, there is a common vision and agenda for excellence for Māori in education.

Core to *Te Kotahitanga* is a culturally responsive pedagogy of relations; given the foundational research conducted by Bishop and Berryman, the focus on strong teacher/student relationships is critical. In fact, Hattie (2009, p. 118) referenced Bishop's work with Te Kotahitanga as doing an excellent job of promoting student learning by building effective relationship within an appropriate cultural setting. This means that teachers are expected to develop an understanding of traditional Māori culture and utilize these understandings with Māori students within the classroom.

Implementation of *Te Kotahitanga* within New Zealand schools has occurred in five phases, commencing in 2001/2 through to the present time, 2013. Bishop et al. (2011) indicated that the first phase began with a small group of teachers in one school, followed by phase two that involved two secondary and one elementary school. The third phase included 12 secondary schools, with a fourth phase adding an additional 21 secondary schools to the program. Currently, the fifth phase is underway with 17 more new schools. Each school is funded for a three year cycle, with funds gradually reduced over the three year period. At the end of that time, schools are expected to assume full funding responsibility for program maintenance. A sense of overall participation, is provided by a commented by Bishop et al. (2011) that "in 2010 there were 49 secondary schools, 3,264 teachers and approximately 17,000 Māori students participating in Te Kotahitanga" (p.6).

With respect to overall Māori secondary student achievement gains, there is substantial research supporting this fact (Bishop et al., 2011; Bishop et al., 2012). For example, Bishop et al. (2011) comment that "Between 2008 and 2009 Year 10 Māori students in Phase 4 schools achieved a 50% increase in gain scores in TTle reading assessments and had almost closed the gap to that of the national norm for all students in 2009" (p. 14). In another example drawn from Phase 4 schools, they indicate,

Māori students' achievement in Phase 4 schools at NCEA Level 1 in Year 11, and in NCEA Level 2 in Year 12, showed a marked improvement. Year 11 Māori students in Phase 4 schools made twice the percentage point gain of the national cohort of Māori students at Year 11 in NCEA Level 1. Year 12 Māori students in Phase 4 schools also made a greater

percentage point gain at NCEA Level 2 than the national cohort of Year 12 students. (p.14)

One of the distinguishing features of *Te Kotahitanga* has been the attention paid to documentation and analysis of information related to student achievement gains. In some ways reflecting Demmert's (2001) comment regarding the importance of "the relationship between strengthening traditional Native identities and improving educational outcomes for Native children" (pp.89), the Te Kotahitanga program recognized the importance of demonstrating actual student achievement gains. This attention to student learning improvement, combined with a culturally based pedagogy of relationship and a conceptually sound approach to teacher professional development and educational change, has produced a uniquely successful program. The result has been ongoing support to Te Kotahitanga over a 10 year period. Recently, when the New Zealand government sought to build on the success of existing programs, they have accepted a proposal that incorporates Te Kotahitanga as an integral part of an enhanced program (Mere Berryman, personal communication, August, 2013). It will be interesting to observe future developments within the uniquely innovative approach that Te Kotahitanga, and the New Zealand educational system, seems to exhibit.

A concluding comment by Ray Barnhardt (audio taped research conversation, June, 2013), a well known academic who has devoted his life to Alaska Indigenous education, captures the essence of *Te Kotahitanga'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.

#### A concluding comment

This paper commenced with a comment from Bernice, a Cree grandmother, emphasizing the importance of teaching children their traditions and cultural values. It was followed by another from William Demmert (2001) who reinforced "the relationship between strengthening traditional Native identities and improving educational outcomes for Native children" (p. 9). It then reviewed the history of conquest and assimilation, discussing the impact of European settlement, including disease and catastrophic population loss. A consideration of the destructive impact of attempts to accomplish the assimilation of Indigenous people through the education of their children was provided. Included in the many unfortunate effects was a failure of schooling to improve educational and, by extension, life opportunities. The result has been a tragic pattern of reduced educational, employment, and income levels. This has translated into systemic concerns surrounding health outcomes and a variety of other poverty related issues.

Given the impact of these outcomes, improving educational achievement for Indigenous youth has been identified as critical to improved life prospects. Increasingly, research is confirming Demmert's conclusion that attention to

Indigenous culture and language is critical to improved student outcomes. Two programs, one involving pre-service teacher education in Hawaii, and a second focussing on secondary education in New Zealand, that focus upon the relationship between improved student outcomes and a focus on Indigenous culture and language.

The first, *Ho'okulāiwi: 'Aha Ho'ona'auao 'Ōiwi.*, housed within the Department of Curriculum Studies at the University of Hawai'i at Mānoa, is a teacher education and curriculum research initiative designed to raise the educational achievement of Native Hawaiians. Through the combination of Native Hawaiian traditions, culture, and language with Western skills and knowledge, it focuses on educational success as a means of improving life opportunities of Native Hawaiians.

The second, Te Kotahitanga, is a New Zealand initiative developed by Bishop and Berryman, and based on Kaupapa Māori theory. It focuses on Māori secondary students and provides evidence that an appropriately designed and implemented large scale improvement program can increase Indigenous student achievement levels. Its rejection of deficit theorizing by teachers and culturally based pedagogy of relationship appear critical to any meaningful attempts to improve secondary Māori student achievements levels and, by extension, life prospects. Te Kotahitanga, more than any other large scale reform, has demonstrated clear evidence of improved student learning outcomes.

Both programs reinforce the importance of culturally based pedagogy as a critical part of any meaningful effort to improve Indigenous student achievement. Both also reinforce the importance of effective instructional practice if the desired goals are to be accomplished. Finally, these programs rely on meaningful support to teachers as they attempt to incorporate these practices into their daily teaching. For example, Bishop (personal communication, December, 2012) has commented that a failure to invest in meaningful support to teachers will almost guarantee failure in improved student learning. Given the sad history of poorly designed educational programming and under-investment, a failure to properly support programs that have demonstrated success would simply perpetuate past failures. The lessons provided by programs such as Hoʻokulāiwi: 'Aha Hoʻona'auao 'Ōiwi and Te Kotahitanga merit support and expansion if Indigenous children are to improve their life opportunities, and join as fully participating members of contemporary society.

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