Living Ethically within Conflicts of Colonial Authority and Relationality

DWAYNE DONALD, FLORENCE GLANFIELD, & GLADYS STERENBERG

University of Alberta

Within the research community there is an increased awareness of the importance of including Indigenous people in the development of research programs related to their communities. We were invited by an Indigenous community to work with the community and school leadership to develop a research program related to student performance in mathematics. Through our work, we have come to wonder about the authority of researchers, the authority of mathematics, and the authority of culture. We have come to understand how easy it is to replicate colonial logics as authoritative and have encountered conflicts within ourselves when resisting these stances. In this paper, we offer some reflections and insights regarding how, and in what ways, we attempted

to disrupt colonial logics. We have come to conceptualize cultural relationality as an ethic guiding our participation in a research project with an Indigenous community.

To consider more fully the contextual complexities of living ethically as curriculum scholars, we wish to attend to the various discursive regimes that effectively delimit and circumscribe research projects initiated in partnership with Indigenous peoples and their communities. The habitual disregard of Indigenous peoples stems from the colonial frontier experience and is perpetuated in the present educational context as a curricular and pedagogical logic of naturalized separation based on the assumption of stark, and ultimately irreconcilable, differences (Donald, 2009a; 2009b). The overriding assumption at work in these colonial frontier logics is that Indigenous peoples and Canadians inhabit separate realities. The inherent intention is to deny relationality.

Kovach (2009) challenges the reproduction of colonial relationships in which "Indigenous communities are being examined by non-Indigenous academics who pursue Western research on Western terms" (p. 28). Within the research community there is an increased awareness of the importance of including Indigenous people in the development of research programs related to their communities (Battiste, 2008; Weber-Pillwax, 2004; Wilson, 2008). As researchers, we were invited by an Indigenous community to work with the community and school

leadership to develop a research program related to student performance in mathematics. In our work with the school staff, Band Councillors (elected community representatives), and children, we have become aware of our vulnerabilities and have come to wonder about the authority of researchers, the authority of mathematics, and the authority of culture. While we have co-published elsewhere with our colleagues (Glanfield, Donald, Poitras-John, Sept, Sterenberg, & Youngchief, 2009a; 2009b), this paper focuses on the colonial logics we encounter as university researchers. We have come to understand how easy it is to replicate colonial logics as authoritative and have encountered conflicts within ourselves when resisting these stances. Here, we offer some reflections and insights regarding how, and in what ways, we attempted to disrupt colonial logics that are shadows of the lives we live. We have come to conceptualize cultural relationality as an ethic guiding our participation in an Indigenous community.

Florence's conflict: The authority of the researcher

My trip to Eagle Flight First Nation[i] arose out of a telephone conversation that I had about three weeks prior. I received a telephone call from Samuel, a member of the Band Council, whose portfolio included education for Eagle Flight First Nation. Samuel had graduated from our University and wanted someone from the University to be engaged in research at Eagle Flight School. Samuel shared with me that

the Band Council and the school administration were very concerned about student performance on the Provincial Achievement Tests.

Around the same time, the Band Council decided that one way to show that their school performed as well as the provincially funded schools in surrounding communities was to have the children at Eagle Flight School participate in the Provincial Achievement Testing Program. The results over the three years that the school had participated in the program indicated that, overall, the performance of the children in the school was well below the provincial level of acceptable standards. Samuel expressed that student performance on the Provincial Achievement Test in mathematics was a great concern for the Band Council and for the viability of the school.

The drive to the community took me through a portion of the province in which I grew up. The farm fields along the highway showed that the harvest was complete. The setting sun was reflecting the short stalks of the cut grain in some fields; in other fields the freshly turned sod was evident, telling me that the farmers were preparing the field for next spring's planting. Further along in the trip, the deciduous trees that lined the road were empty. I could see the leaves on the ground at the base of the trees. Again, the setting sun was reflecting off the bare branches of the trees and the leaves on the ground, reminding me of the many years of seeing this while growing up on the ranger station not far from my location on the highway. As I got closer to the community, I

drove by a lake – the same lake that I visited as a child. It was dusk now, yet I could still remember the outline of the cabin, and it seemed that I was making that first visit to the lake all those years ago. I remember that as a child I had arrived at the lake in dusk and could see the shadow of the cabin in the lake. After all those years, I looked over at the lake and saw the vivid outline of the cabin once again. Other shadows became clearer in the story that I live by (Connelly & Clandinin, 1999) as I drove to Eagle Flight First Nation.

Shadows are also very vivid in stories people in my family tell about researchers. One such story is that of a researcher engaged in an ethnographic study of the small northern community where many of my family members – from my mother's family – live. The story tells about how the researcher moved to the community, lived there for a few years, and gradually took artifacts and stories out of the community. My family members tell the story of how they trusted the researcher and did not ever learn what happened to the artifacts and stories that left. I listened to stories about this researcher as I grew up and knew that I did not want to have stories rooted in colonial logics[ii] told about me in this way.

The second story that lives in me, and whose shadows are very vivid, are the stories that my father tells about researchers. My father completed the ninth grade in school and then a short course at a technical school to become a forest officer. My father frequently felt that his voice was not heard when he was working with individuals who had

more formal education than he did. He would openly express his frustration when forest researchers would come to work alongside him in his projects and tell him what he "should" be doing. My father would try to tell these researchers that the "should" way might not be completely appropriate because of the place in which they were: that the tree type was different or the soil was different and the "should" way needed to be adapted. He would see the follow-up reports of the researchers and express more frustration because the reports would describe how the "should ways" were not being followed. Other times he would read the reports and find that the researchers claimed that they had discovered something new, without reference to the teachings of my father.

As I prepared to meet with Samuel and his colleagues, vulnerability was present. How might I – a Métis girl from a small community, who grew up with these family stories of researchers, who is now in a place close to where I grew up, who is now in a place with a PhD and called a researcher – be? How do I live with the "researcher shadow": that researchers "take away"; that researchers do not honour the voices and stories of the other; that researchers have the knowledge; and that the researchers' knowledge and ways are valued? Researchers are the knowers and the ones with answers; all researchers have to do is provide an answer.

Gladys' conflict: The authority of the mathematics

Soon after Florence's initial meeting with Samuel, I was invited by Florence to work with her and Dwayne alongside Eagle Flight First Nation community. I was hesitant, unsure of my credentials. I had been working with a teacher at Big Rock First Nation School, but had limited experience with Indigenous communities. I did not know the protocols; I did not have an Indigenous background. Indeed, I wondered why I was invited to work at this particular research site.

We began by meeting with the school community. We were asked to introduce ourselves by describing our background. Who was I? Where was I from? As I looked around me, I was aware that I could easily position myself as an authority of learning and teaching mathematics because of my role as a mathematics educator. This stance was comfortable and had often been expected of me in previous situations when working with teachers.

In my shadows was my background: my father's family farmed land adjacent to a reserve; my mother's brother was a missionary/teacher in a residential school. Our family stories highlighted agendas of colonization. In general, the colonialist solution to the perceived problem of bringing education to the "Natives" was to follow a coercive and abusive program of assimilation during which Indigenous children were subjected to a forced forgetting of the languages and knowledge learned from their families and communities. In the Canadian context, legislators

repeatedly endorsed federal residential school policies that forcibly removed Aboriginal children from their homes, housed them in harsh environments, unraveled their connections to their cultural values, identities, families, languages, and spiritual practices, and disrupted the functioning of family and cultural institutions (Miller, 1996; Milloy, 1999). At its height in Canada, the residential school program was an all-encompassing experiment in the resocialization and civilization of "Indian" children. To residential school administrators and teachers, who were usually also missionaries, the civilizing impetus necessitated a total remaking of the Indian child (Milloy, 1999).

My family stories of participating in these colonialist solutions were concealed from the people I was meeting and from my research colleagues. Hiding behind the stance of mathematical authority could mitigate my vulnerability in being a white teacher and having a shameful, guilt-ridden past of being different and of my family's participation in colonial frontier logics of education. I could choose to respond to the community's invitation by focusing on the achievement gap and the mathematical knowledge needed by both students and teachers to bridge this gap. This response would assert an authoritative status of mathematics and would place me in a role as an outside educational expert who would provide "the way" to success. This would allow me to ignore the shadows and maintain my authority.

In addition to asserting myself as an expert with mathematical knowledge, this response would present mathematics itself as authoritative. It would advance the notion that closing the achievement gap in mathematics is accomplished through adherence to programs of study that reflect mathematical standards and systemic structures that promote accountability through high stake testing. Indeed, current programs of studies across North America (e.g., Alberta Education, 2007; National Council of Teachers of Mathematics, 2000) emphasize goals, standards, expectations, general and specific outcomes, and achievement. In these programs of studies, conformity to social, political, and economic goals is pursued. Schooling is functional as students are prepared for productive lives in a "rapidly advancing, technological society" (Alberta Learning, 1997, p. 2). The authoritative position of mathematics in society is rationalized, as proficiency in using mathematics "increases the opportunities available to individuals" (p. 2). Rather than seeking to change existing social structures, this program of studies reproduces social inequities by supporting an underlying ideology of authoritativeness, as "all students should receive a level of mathematics education appropriate to their needs and abilities" (p. 2).

Such a response focused on improving student achievement in mathematics might include imitating best practices of model programs, schools, and teachers who have experienced academic success in mathematics. Programs of studies across North America reflect colonial

logics where people with mathematical authority set the priorities. An underlying assumption is that not all students are capable of learning mathematics and an authoritative person must decide on students' needs and abilities in order to implement the program at the students' levels. The stance is that students inhabit different realities. In addition, a focus on best practices suggests a unilateral predetermination of what is needed in all learning contexts and emphasizes a notion of mathematics as universal and culture-free. Mathematics appears to be universal because of the prevalence of absolutist philosophies of mathematics. These philosophies view mathematics as timeless because it builds on logics of deduction. Mathematical knowledge is "superhuman and ahistorical, for the history of mathematics is irrelevant to the nature and justification of mathematical knowledge; it is pure, isolated knowledge, which happens to be useful because of its universal validity; it is value-free and culture-free for the same reason" (Ernest, 1994, p. 339). Mathematics is viewed as culture-free because "every trace of human effort and activity (and value-ladenness) is expunged from the final printed version" (p. 52). Moreover, by ignoring the historical development of mathematical knowledge in non-Greek places, such as Africa, China, Middle East, India, Central and South America, the myth of mathematics as a European discipline is promoted and sustained. Colonial logics underlie this perspective as the European project of domination continues.

How might I – a white girl from a border community, who grew up with these stories of mathematical authority and colonization, who is now in a place different from where I grew up, who is now in a place with a PhD and called a mathematics educator – be? How do I live with the "white" shadow: that educators colonize and that educators do not honour the other. Mathematics educators are the knowers and the ones with answers; all mathematics educators have to do is provide an answer.

Dwayne's conflict: The authority of the culture

When Florence first shared the news that she had been invited to begin a research relationship with Eagle Flight School, and then invited Gladys and I to join her on the project, I accepted without hesitation. Even though I was a beginning academic with an already lengthy list of research priorities and responsibilities, and even though I had very little experience working within the field of mathematics education, I was anxious to connect with the teachers and students at Eagle Flight School. The general busyness of academic life can sometimes make it difficult to get out of the city and visit First Nation communities and schools, and I was suffering the effects of this disconnect. Previous to moving to the University, I had been a teacher at Buffalo Runner First Nation School for a decade. I had accepted the offer to teach at the school even though I had little understanding of the complexities of life on a reserve. I was a

generic urban "Indian" looking for a job, and Buffalo Runner First Nation School seemed like a good place to start my teaching career. I figured that coming from the big city had its benefits, and so I thoughtlessly concluded that I would have much to offer the school and community. Ironically, I soon realized that I was the one who had the most to learn.

The decade that I spent with the people of Buffalo Runner First Nation changed my life. During my time teaching there, I was gifted a beginner's education in wisdom traditions, spiritual practices, and philosophical foundations that continues on. The Elders, teacher colleagues, and community leaders whom I interacted with were generously supportive of the reeducation process that I underwent while teaching at their community school. With their help, I became much more critically conscious of the ways in which colonial logics and structures have oppressed Indigenous peoples and their knowledge systems and continue to constrain their expression in the world today. I also participated in and witnessed ceremonial and spiritual traditions that resist colonial power, assert a place-based form of sovereignty, and thus enact Indigenous philosophies. This critical reeducation in the Buffalo Runner First Nation context has been tremendously influential in my development as an educator and curriculum studies scholar.

These provocative personal and professional explorations of the significance of Indigenous ways were lingering in the shadows as I

considered the invitation to begin a research relationship with students, staff, and community members at Eagle Flight School. For me, such shadows serve as reminders of the gifts that I have been given and the responsibility that I have to honour the gifts by taking them seriously in my life and in my work as an educator. The shadows linger as persistent reminders of the ongoing reeducation process that was put in motion at Buffalo Runner First Nation School. One of the more significant outcomes of this reeducation process is a deep commitment to curriculum development projects that facilitate meaningful engagements with Indigenous philosophies and knowledge systems as these are understood and lived by Elders and community leaders. This is the type of engagement I had in mind when I eagerly accepted the invitation to begin a research partnership with teachers, students, and leadership associated with Eagle Flight School. However, after a few visits with teachers and students from the school, I realized that the shadows had become so powerfully influential that I had begun seeking to replicate the experiences I had as a teacher and researcher at Buffalo Runner First Nation School. In a sense, I was elevating my experiences at Buffalo Runner First Nations School to best practices status, and Eagle Flight School had become a place to implement these practices. The logic at play in the presumed transferability of best practices approaches is that the particularities of culture and context do not really matter very much (Chandler & Lalonde, 2004). In this scenario, best practices come

predetermined, and Eagle Flight School becomes merely a site for the implementation of such approaches.

A related logic also lingering in the shadows of best practices approaches is the idea that particular understandings of culture can help improve educational experiences for Indigenous students. Implied in this assertion is an assumption that culture can be revitalized through educative means and that it can help Indigenous peoples heal from the multiple traumas stemming from colonization and colonial experience (St. Denis, 2009). Following this logic of culture as authoritative, one possible response to the problem of improving Provincial Achievement Test scores in mathematics for students who attend Eagle Flight School is to emphasize the revitalization of culture and the development of culturally responsive curriculum and pedagogy. This response derives from Indigenous education initiatives around the world that have promoted curriculum as a restorative tool that can help formerly colonized peoples heal and revitalize their communities through the identification, teaching, and learning of relevant notions of culture. In the North American context, culture-based curricular and pedagogical approaches are similarly viewed by many educators and scholars as the key to changing the educational experiences of Indigenous peoples (Aikenhead, 2002; Au & Jordan, 1981; Battiste, 2000, 2002; Castagno & Brayboy, 2008; Ezeife, 2002; Gay, 2000; George, 2003; Ladson-Billings, 1994, 2009; Lipka & Stairs, 1994). To understand the intentions informing

such calls for culturally responsive education for Indigenous youth, it is important to recall the difficult experiences that Indigenous peoples have had with formal schooling. The response to develop culturally responsive education offers a way to disrupt colonial logics.

A focus on culture as a codified authority can result in a reduction of culture to essentializations, meaningless generalizations, or trivial anecdotes. Verna St. Denis, a Cree/Métis scholar working at the University of Saskatchewan, confronts the problem of culturalism in provocative ways. St. Denis (2004) argues that the focus on cultural revitalization in Aboriginal education in the wake of the residential school experience has led to the predominance of a vexing form of cultural fundamentalism in the field. "Adherence to cultural revitalization encourages the valorization of cultural authenticity and cultural purity among Aboriginal people and has helped to produce the notion and the structure of a cultural hierarchy. 'Authentic' cultural Aboriginal identity has become high currency" (p. 37). The author argues that cultural fundamentalism has created a particular problem for many Aboriginal teachers and students who come to feel culturally inadequate as "Indians" because they cannot perform their culture or language in authoritatively authentic ways. Writers and researchers working with culture-based approaches to curriculum and pedagogy in Indigenous education have struggled to present culture as something more complex than food, festivals, tipis, and legends. As St. Denis (2009) notes, there is

a complex irony associated with these preoccupations with codified notions culture in that they are largely informed by the work of researcher anthropologists who studied and theorized Indigenous peoples as part of the colonial project.

In light of these multiple complexities, how might I – a Cree kid from the city, who was raised up with these stories of cultural authority and colonial logics, who is now working at a place with a PhD and called a curriculum scholar – be? How do I live with the various shadow "knowledges" that linger: that educators colonize and the educated simply repeat what the educators say. Indigenous curriculum educators are the knowers and the ones with answers; "culture" is the unquestioned answer to the problems we face as educators and as people.

Living in an ethically relational way

Embracing our vulnerabilities and deliberately deciding not to reside in the shadows of authority, we chose to engage in this project in an ethically relational way. Remembering the Latin root of authority, "augēre," as "making grow" (Oxford English Dictionary, 2011), we sought generative relationships. We recognized that the establishment of meaningful and trusting relationships with the teachers and students of Eagle Flight School would take time, energy, thoughtfulness, and an ethical commitment to carefully attend to the cultural and contextual

particularities of their school and community. We believed this is what would bring unity and spirit to our research partnership.

We were invited to engage in research in the community (as represented by the Band Councillors), and we invited the community to engage in research with us. Together with the community and school staff, we worked to define our community-based research project. Our research project explores the ways in which community members, children in school, school staff, and school and community leadership come to develop a shared understanding of mathematics. The first stage of this project, defined after a year of meetings among the community members, teachers, staff, and university researchers, has been to develop an understanding of the ways in which children in the community know mathematics. We are in the fourth year of the first stage of this project, and children and teachers in kindergarten to the ninth grade are participating. We identified the need to know what the children could do mathematically and designed a variety of assessment strategies, such as performance-based tasks and interviews, to develop an understanding of the way in which the children in the classrooms think about mathematical ideas. In the second year of the project, we focused on the classrooms of three teachers as we engaged children in mathematical interviews and collected data on children's thinking through video-recordings. The recordings were analyzed by our team. In the third year of the project, we decided to engage all children in paper-and-pencil and

performance task assessments. The results were analyzed during a multi-day in-service meeting at the beginning of the fourth year.

Another aspect of the project is mathematics teacher development. In this fourth year, we are using what we are learning about children in the classes to inform planning and classroom practices. Specifically, we are focusing on mathematical vocabulary development and teaching with manipulatives. Assessments of children's thinking are ongoing and data collected on these assessments is shared among us. During staff in-service meetings, our conversations about what we are learning from children when children are asked to explain their mathematical thinking are recorded as data. Insights into the ways in which we are learning inform our ongoing work together.

As university researchers and in the context of this research, we are a relation of the students, their families, the school staff, the children, and the Band Councillors. In a sense, the three of us are relations of the individuals who work at Eagle Flight School and we are relations of the whole community. Through these relationships, we have come to conceptualize culturally relational education from an Indigenist research paradigm. Wilson (2007) uses the term, Indigenist, to label a research paradigm related to Indigenous perspectives. He chooses to use this term as he believes "that an Indigenist paradigm can be used by anyone who chooses to follow its tenets" (p. 193). Wilson also suggests that in order to describe and use an Indigenist research paradigm,

> …researchers and authors need to place themselves and their work firmly in a relational context. We cannot be separated from our work, nor should our writing be separated from ourselves (i.e. we must write in the first person rather than the third). Our own relationships with our environment, families, ancestors, ideas, and the cosmos around us shape who we are and how we will conduct our research. Good Indigenist research begins by describing and building on these relationships. (p. 194)

Throughout the research, we have come to see ourselves as being in relation with the community and live with the responsibilities that come with being a relation. Significantly, we are with the community in multiple ways. We work alongside one another and with the community and school staff to question the ways in which the notion of culture is typically taken up. In this sense, then, we prefer to regard culture as a living, organic creative process that emerges in context and in relation. This process is indeed heavily influenced by the past, but also involves a confluence of present and future commitments. We live with our own vulnerabilities and conflicts and are coming to understand and honour the philosophies that underlie the culture of the community. This is what "culturally relational" has come to mean to us.

We believe that culturally relational education is profoundly dependent on the Cree concept of "miyo-wichitowin," a healing energy or medicine that is generated when we are actively together with the

intention of honouring and respecting the relationships we are enmeshed within. As researchers, we have come to adopt the stance of being a relation in and with Eagle Flight First Nation. We are seeking to honour meaningful engagements with Indigenous philosophies and knowledge systems as they are understood and lived by all in relation.

Notes

[i] All names of schools and communities have been changed.

[ii] Colonial frontier logics are those epistemological assumptions and presuppositions, derived from the colonial project of dividing the world according to racial and cultural categorizations, which serve to naturalize assumed divides and thus contribute to their social and institutional perpetuation (Donald, 2012).

References

Aikenhead, G. (2002). Cross-cultural science teaching: Rekindling traditions for aboriginal students. *Canadian Journal of Science, Mathematics and Technology Education*, 2(3), 287-304.

Alberta Education. (2007). *The Alberta K-9 mathematics: Program of studies with achievement indicators.* Edmonton, AB: Alberta Education.

Alberta Learning. (1997). *Mathematics kindergarten to grade 6.* Edmonton, AB: Alberta Learning.

Au, K. H., & Jordan, C. (1981). Teaching reading to Hawaiian children: Finding a culturally appropriate solution. In H. T. Trueba, G. P. Guthrie, & K. H. Au, (Eds.), *Culture and the bilingual classroom* (pp. 139-152). Rowley, MA: Newbury.

"authority, n." (2011). *Oxford English Dictionary online*. Oxford University Press. Retrieved from http://www.oed.com/viewdictionaryentry/Entry/172481.

Battiste, M. (2000). Maintaining Aboriginal identity, language, and culture in modern society. In M. Battiste (Ed.), *Reclaiming indigenous voice and vision* (pp. 192-208). Vancouver, BC: University of British Columbia Press.

Battiste, M. (2002). *Indigenous knowledge and pedagogy in First Nations education: A literature review with recommendations*. Ottawa, ON: Indian and Northern Affairs.

Battiste, M. (2008). Research ethics for protecting Indigenous knowledge and heritage. In N. K. Denzin, Y. S. Lincoln, & L. Tuhiwai Smith (Eds.), *Handbook of critical and Indigenous methodologies* (pp. 497-509). Thousand Oaks, CA: Sage.

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

Chandler, M. J., & Lalonde, C. (2004). Transferring whose knowledge? Exchanging whose best practices?: On knowing about indigenous

knowledge and aboriginal suicide. In J. White, P. Maxim, & D. Beavon (Eds.), *Aboriginal policy research: Setting the agenda for change* (Vol. II) (pp. 111-123). Toronto, ON: Thompson.

Connelly, F. M., & Clandinin, D. J. (1999). *Shaping a professional identity: Stories of educational practice.* New York: Teachers College Press.

Donald, D. (2009a). *The pedagogy of the fort: Curriculum, Aboriginal-Canadian relations, and Indigenous Métissage*. (Unpublished doctoral dissertation). University of Alberta, Edmonton.

Donald, D. (2009b). The curricular problem of Indigenousness: Colonial frontier logics, teacher resistances, and the acknowledgment of ethical space. In J. Nahachewsky, & I. Johnston (Eds.), *Beyond presentism: Re-imagining the historical, personal, and social places of curriculum* (pp 23-39). Rotterdam, The Netherlands: Sense Publishers.

Donald, D. (2012). Forts, colonial frontier logics, and Aboriginal-Canadian relations: Imagining decolonizing educational philosophies in Canadian contexts. In A. Abdi (Ed), *Decolonizing philosophies of education* (pp. 91-112). Rotterdam, The Netherlands: Sense Publishers.

Ernest, P. (1994). The philosophy of mathematics and the didactics of mathematics. In R. Biehler, R. W. Scholz, R. Strässer, & B. Winkelmann (Eds.), *Didactics of mathematics as a scientific discipline* (pp. 335-350). Dordrecht, The Netherlands: Kluwer.

Ezeife, A. N. (2002). Mathematics and culture nexus: The interactions of culture and mathematics in an Aboriginal classroom. *International Education Journal, 3*(2), 176-187.

Gay, G. (2000). *Culturally responsive teaching: Theory, research, & practice.* New York: Teachers College Press.

George, P. (2003). The rainbow/holistic approach to Aboriginal literacy. *Canadian journal of Native education, 27*(1), 29-40.

Glanfield, F., Donald, D., Poitras-John, C., Sept, B., Sterenberg, G., & Youngchief, C. (2009a, May). *Ways in which First Nation children know mathematics.* Knowledge sharing session presented at the DreamCatching Conference, Winnipeg, MB.

Glanfield, F., Donald, D., Poitras-John, C., Sept, B., Sterenberg, G., & Youngchief, C. (2009b, October). *Lesson design: Real learning from children.* Session presented at the annual Mathematics Council of the Alberta Teachers' Association, Edmonton, AB.

Kovach, M. (2009). *Indigenous methodologies: Characteristics, conversations, and contexts.* Toronto, ON: University of Toronto Press.

Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children* (1st ed.). San Francisco, CA: Jossey-Bass Inc., Publishers.

Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children* (2nd ed.). San Francisco, CA: John Wiley & Sons, Inc.

Lipka, J., & Stairs, A. (1994). Negotiating the culture of Indigenous

schools [Special issue]. *Peabody Journal of Education, 69*(2).

Miller, J. R. (1996). *Shingwauk's vision: A history of native residential schools.*

Toronto, ON: University of Toronto Press.

Milloy, J. (1999). *A national crime: The Canadian government and the*

residential school system, 1879-1986. Winnipeg, MB: University of

Manitoba Press.

National Council of Teachers of Mathematics. (2000). *Principles and*

standards for school mathematics. Reston, VA: Author.

St. Denis, V. (2004). Real Indians: Cultural revitalization and

fundamentalism in Aboriginal education. In C. Schick, J. Jaffe, & A.

Watkinson (Eds.), *Contesting fundamentalisms* (pp. 35-47). Halifax, NS:

Fernwood.

St. Denis, V. (2009). Rethinking cultural theory in Aboriginal education.

In C. Levine-Rasky, (Ed.), *Canadian perspectives on the sociology of*

education (pp. 163-182). Toronto: Oxford University Press.

Weber-Pillwax, C. (2004). Indigenous researchers and Indigenous

research methods: Cultural influences or cultural determinants of

research methods. *Pimatisiwin: A Journal of Aboriginal and Indigenous*

Community Health, 2(1), 77-90.

Wilson, S. (2007). Guest editorial: What is an Indigenist research

paradigm? *Canadian Journal of Native Education, 30*(2), 193-195.

Wilson, S. (2008). *Research is ceremony: Indigenous research methods.*
Winnipeg, MB: Fernwood.