

**AN ARTICULATION OF INDIGENOUS AND SOCIOCULTURAL APPROACHES:
THEORY, METHODOLOGY, AND APPLICATION TO INDIGENOUS SCHOOL
ENGAGEMENT**

by

Krysta Leeanne Cochrane

B.A., The University of British Columbia, 2006

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF

MASTER OF ARTS

in

The Faculty of Graduate Studies

(Human Development, Learning, and Culture)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

June 2009

© Krysta Leeanne Cochrane, 2009

Abstract

This thesis is a philosophical inquiry that advances an articulation of Indigenous theories of learning and methodology with Vygotsky's sociocultural theory and methodology. An Indigenized sociocultural approach may provide a culturally appropriate theoretical and methodological framework that enables researchers to overcome the prevailing ideological assumptions in the conduct of research with Indigenous communities, including eurocentrism, objectivism, and psychological individualism. More specifically, by Indigenizing a sociocultural approach, and approaching research with this new framework, researchers may be better equipped to conduct research with communities and educators in ways that lead to the production of culturally sensitive recommendations for communities, schools, and classrooms to help engage Indigenous youths. Research that is culturally appropriate is urgently needed given the significantly higher early school leaving rates of Indigenous students compared to non-Indigenous students, due in part to historical, social, and cultural factors. The Indigenized sociocultural approach generated through this philosophical inquiry is applied to Indigenous early school leaving and disengagement in order to highlight how such an approach may contribute to the literature. In addition, recommendations based on the extant literature that explore the possibility of increasing school engagement with Indigenous youths are used as guidelines for future empirical research. Finally, limitations of the theory, methodology, and the thesis itself are discussed.

TABLE OF CONTENTS

Abstract.....	ii
Table of contents.....	iii
Acknowledgements.....	viii
Dedication.....	ix
Chapter 1: Introduction.....	1
Historical context of Indigenous education in Canada.....	3
The legacy of residential schools and eurocentrism in education and its impact on school engagement	6
Social marginalization.....	7
Economic marginalization.....	9
Political marginalization	10
Globalization and generalization.....	11
Standardization.....	13
Eurocentrism in school structure and policy	15
Eurocentrism and positivism in educational research: A critique.....	17
Eurocentrism and positivism in educational research: An Indigenous perspective	17
Eurocentrism and positivism in educational research: A sociocultural perspective	21
Research questions.....	22
Summary.....	23

Chapter 2: Literature review	25
Indigenous theory and methodology	25
Indigenous theories of learning.....	26
Learning through transformation.....	28
Learning through holistic knowledge	29
Learning through experience	32
Learning for, through, and with others	33
Learning through oral traditions	36
Learning through the land.....	39
Learning through spirituality.....	42
Indigenous methodology in research.....	44
Sociocultural theory and methodology	48
Sociocultural theory of learning	48
Elementary and higher psychological processes.....	51
Mediation	53
Internalization	54
The zone of proximal development.....	55
Sociocultural methods in research.....	57
Summary.....	62
Chapter 3: Methodology	64
Philosophical inquiry.....	64
Procedure.....	65
Location of the researcher.....	67

Summary.....	70
Chapter 4: Articulating Indigenous and sociocultural theories and	
methodologies	72
Indigenous and sociocultural theories of learning: Convergences	72
Learning as a situated process.....	72
Learning as a social process	74
Learning through language.....	75
Learning through experience and participation.....	76
Learning as a transformative process.....	77
Learning as a holistic process	78
Overlaps between Indigenous and sociocultural methodologies.....	78
Subjectivity and qualitative research methods.....	79
Multiple explanatory principles.....	80
Indigenous and sociocultural theories of learning: Divergences.....	81
Historical progress	81
Mastery over nature.....	83
View of animals.....	84
Individual vs. group mastery	85
Tensions between Indigenous and sociocultural methodologies.....	86
Cultural responsibility.....	86
Evolutionary progress	87
Theorizing an Indigenized sociocultural approach	88
Power in social relations and relationships	89

Multi-level approach.....	96
Learning is situated in cultural, historical, and political contexts	97
Learning is a social process	98
Subjectivity and qualitative research methods	101
Cultural responsibility.....	104
Summary.....	105
Chapter 5: Theoretical application to Indigenous early school leaving and	
disengagement	106
Learning is situated in social, historical, and political contexts	107
Indigenous early school leaving and disengagement and globalization	108
Indigenous early school leaving and disengagement and the hidden curriculum.....	111
Indigenous early school leaving and disengagement and “multiculturalism”	114
Indigenous early school leaving and disengagement and identity	116
Indigenous early school leaving and disengagement as a self-fulfilling prophecy	116
Indigenous early school leaving and disengagement and similarities with other minority groups	117
Indigenous early school leaving and disengagement and urban Indigenous youths	119
Learning is a social process	120
Indigenous early school leaving and disengagement and literacy	121
Indigenous early school leaving and disengagement and pedagogy	125

Indigenous early school leaving and assessment.....	128
Summary.....	129
Chapter 6: An Indigenized sociocultural approach to Indigenous school	
engagement, future research, and limitations	131
An Indigenized sociocultural approach to Indigenous school engagement:	
Recommendations and future research.....	131
Indigenous education as controlled by Indigenous peoples	131
Indigenous control over education research	135
Indigenous education as multi-modal to reflect the diversity of	
different learning contexts	137
Indigenous education as grounded in relevant curriculum.....	138
Indigenous education as grounded in multiliteracies	139
Indigenous education as bicultural	141
Indigenous education as linked with families and communities.....	142
Limitations	143
Limitations of an Indigenized sociocultural approach.....	143
Limitations of this thesis.....	145
Summary.....	145
References	147

Acknowledgements

I greatly acknowledge my thesis chair, Dr. Jennifer Vadeboncoeur, for her tremendous support and hard work in assisting me. I also thank my committee members, Dr. Michael Marker, Dr. Deirdre Kelly, and Dr. Kent McIntosh, for their contributions to this work. Special thanks to my mother, Dr. Nancy Cochrane, for her inspiring ideas and inspiration, and to the Social Sciences and Humanities Research Council for funding this research in the form of a Canada Graduate Scholarship – Master’s, Award No. 766-2007-1072.

Dedication

To my mother

CHAPTER 1: INTRODUCTION

Although the population of Indigenous youths, including those of First Nations, Métis, Inuit, and Cree ancestry, accounts for only 3.3% of Canada's population, Indigenous children account for 5.6% of all children in Canada (Statistics Canada, 2003). Thus, the Indigenous population of Canada is not only younger than the rest of Canada, it is also growing at a much faster rate, particularly in urban areas (Statistics Canada, 2003). As these children grow, there will be an increasing number entering the working population that will need to keep pace with society's demands for greater education through technology and innovation (Canadian Policy Research Networks Conference, 2002). This makes more urgent the need to address the high early school leaving rate of Indigenous students in Canada (Statistics Canada, 2003).

Indigenous students, who make up 8.4% of all students in British Columbia (B.C.), have significantly higher early school leaving rates compared to non-Indigenous students, despite the vast amount of research conducted in an effort to address and alleviate this problem (British Columbia Ministry of Education, 2004; Hodgson-Smith, 2000). For example, among Indigenous students entering Grade 8, only 42% graduated with a Dogwood Diploma — the B.C. Certificate of Graduation for students who complete the B.C. K-12 school curriculum — within 6 years, compared to 79% of non-Indigenous students (Association of Canadian Community Colleges, 2005; British Columbia Provincial Health Officer, 2002). Despite these trends in demographics, the high school early school leaving gap between Indigenous and non-Indigenous students remains, due in part to the prevailing eurocentrism in research, curriculum, policy, and practice

(Archibald, 1995; Battiste & Henderson, 2000; Cole, 2002; Marker, 2000, 2006; Smith, 1999).

In order to learn more about how to increase school engagement with Indigenous youths, researchers and community members need to challenge current eurocentric oppressions where they exist, such as dominant cultural assumptions embedded in language, culture, and epistemology, and then redefine and reclaim the validity of Indigenous knowledges in research practices (Smith, 1999). This means approaching research from Indigenous and other appropriate perspectives, and embracing Indigenous concepts and methodology. It also means Indigenizing Western theories so that the perspectives they have to offer Indigenous peoples may be useful for them. A sociocultural approach (Wertsch, 1991) and methodology may be a culturally appropriate framework to articulate Indigenous perspectives, in an effort to develop theories and methodologies that more accurately capture the experiences of Indigenous youths who leave school prior to graduation. By Indigenizing a sociocultural approach and methodology, and approaching research with this new framework, researchers may be better equipped to conduct research with communities and educators in ways that lead to the production of culturally sensitive recommendations for classrooms and schools. These recommendations may enable educators to more effectively engage Indigenous youths.

In this study, I examine the articulation of Indigenous and sociocultural literature in order to determine the extent of their conceptual and methodological compatibility. This

chapter provides an overview of the historical context of Indigenous education in Canada while addressing current eurocentrism in school structure, policy, and educational research from both Indigenous and sociocultural perspectives. In addition, research questions are articulated based on the historical context of the problem.

Historical context of Indigenous education in Canada

Understanding and appreciating the circumstances of contemporary Indigenous communities requires some knowledge of their history since their first contact with Europeans (Neegan, 2005). Over the past 200 years, Canadian society has stripped Indigenous peoples of their land, cultures, spiritual beliefs and ways of life (Chisholm, 1994; Neegan, 2005). During the 18th and 19th centuries, colonialist institutions relegated Indigenous peoples to the lowest social status, and rendered them virtually powerless (Waller et al., 2002). In addition, colonialism created patriarchal structures imposed on Indigenous societies that often created injustices against women (Shouls, 2003). As a result, women in many Indigenous communities became devalued and displaced from their cultural significance and responsibilities.

Beginning in 1871, Indigenous communities in B.C., for example, signed treaties with the imperial Crown in exchange for their land. In these original treaties, the Crown's obligation and fiduciary responsibility for education was identified, along with the right of Indigenous peoples to have formal educational services (Carr-Stewart, 2007). Indigenous education customs or laws were never expressly given away, nor were they delegated to the Crown. On the contrary, the Crown agreed that Indigenous

communities were full partners in the administration of education and that Indigenous peoples' choice in education was a prerogative right (Henderson, 1995). Provisions, such as the content, nature, and scope of Indigenous education, were thus intended to reside as the choice of the community.

Over time, the Crown's obligations to Indigenous education were not observed by Federal and Provincial governments. For example, when the *Indian Act* was passed in 1876, it included no Federal legislation on the establishment of schools or the employment of teachers on reserves (Henderson, 1995). Through ongoing amendments to the *Indian Act*, Indigenous education changed from being something that was owned and directed by Indigenous peoples to a means through which the Crown could assimilate the "primitive" people of Canada. The systemic oppression of Indigenous peoples was justified by a widespread belief in the European society of evolutionary superiority: Indigenous peoples were perceived to be primitive savages whom members of European society had surpassed both developmentally and culturally (Neegan, 2005). Further, formal schooling was seen as one way of "helping" the Indigenous peoples of Canada to become more "civilized" (Waller et al., 2002). In doing so, the Crown's educational policy of assimilation negated its treaty commitment that educational services would not impinge on Indigenous teaching and learning practices (Carr-Stewart, 2007; Macklem, 2001).

As a consequence, the educational system has historically been a means to propagate historical colonial attitudes towards Indigenous peoples in Canada (Indian and Northern

Affairs Canada, 1995). One of the main avenues for subjugating Indigenous peoples to colonial culture and governance was through the Indian Residential Schools program that denied the legitimacy of thought, lifestyles, religions, and languages of the Indigenous peoples (Ball, 2004). In Canada alone, more than 100,000 Indigenous children were taken from their homes and communities to white-run mission schools where assimilation was the primary goal (Bull & Alia, 2004). The social attitudes of the time conveyed that it was imperative, and even beneficial, for Indigenous peoples to be assimilated with the Western culture. This led to cultural genocide. For more than a century, residential schools brought disease, religious conversion, colonization, sedentarization, relocation to reserves, prolonged separation from family, and political marginalization to Indigenous peoples; all have contributed to outcomes spanning from cultural disruption to cultural genocide (British Columbia Provincial Health Officer, 2002; Kirmayer, Brass, & Tait, 2000).

After attending residential school, children returned home as strangers to their families and cultural ways, and some were critical of their family and community ways of life (Archibald, 1995; Bull & Alia, 2004). Frequently, the disruption in family life and child-rearing practice resulted in adult survivors not having the skills required to care adequately for their own children; a consequence that may partially contribute to a cycle of abuse (Bull & Alia, 2004; Sutherland, 2005). Although the last residential schools officially closed in 1984, there are still approximately 35,000 British Columbians who are residential school survivors living today (Provincial Residential School Project, 2001). Further, the negative effects of residential schools on Indigenous peoples' lives

continues, consequently affecting the younger generations' attitude towards school (Provincial Residential School Project, 2001). Given this history, many Indigenous peoples in Canada have become reluctant to have faith in the education system (Loyie, 1992).

The legacy of residential schools and eurocentrism in education and its impact on school engagement

The legacy of residential schools and colonization of Indigenous youths is still highly prominent. For instance, the lives of Indigenous youths today are still influenced by both historical injustices in society including social, economic, political, educational, and health inequities (Akan, 1999; Archibald, 1995; Ball, 2004; Battiste & Henderson, 2000; Bazylak, 2002; Brown et al., 2005; Bull & Alia, 2004; Chisholm, 1994; Machamer & Gruber, 1998; Marker, 2000, 2006; Smith, 1999; Statistics Canada, 2003). Specifically, the issues facing youths are rooted in a history of colonization, including dislocation from their traditional lands, communities and cultural traditions and the inter-generational impacts of the residential school system, as well as current inequality, racism, and discrimination (Brown et al., 2005; Chalifoux & Johnson, 2003). For Canada's Indigenous youths, the legacy of assimilationist policies is evident in current social conditions: academic failure and high attrition rates, substance and alcohol abuse at increasingly young ages, a disproportionate ratio of Indigenous to white prison inmates, suicide rates at twice the national average, and incidents of violent deaths at three times the national average, all of which are predominantly among youths (Chisholm, 1994). Thus, the effects of the political, economic, and cultural oppression

of residential schools and colonization continue to be inextricably linked with the experience of Indigenous peoples in the educational system today (Waller et al., 2002).

Social marginalization

Despite the current, seemingly non-racist and inclusive agenda that Canada has towards its Indigenous citizens, such as the attempt to resolve Indigenous land claims and to provide greater access to educational and social services than in the past, a large number of Canadians are misinformed and unsupportive towards Indigenous peoples (Maudie, 2004). According to a recent poll conducted by the Centre for Research and Information Canada (CRIC), most Canadians do not consider improving the quality of life of Indigenous Canadians to be a high priority for the federal government, despite the fact that many Indigenous peoples have health and literacy indicators comparable to developing countries (Maudie, 2004). The poll states that almost one in two Canadians (49%) believe that Indigenous Canadians are on an equal footing with, or better off than, other Canadians. The same percentage of people who felt that improving the lives of the Indigenous peoples was not a high priority, rated increasing military spending a high priority (Maudie, 2004).

This misconception of the health and welfare of Indigenous Canadians, due in part to media and social misrepresentation of Indigenous peoples, allows racial stereotypes to prevail. The constant, underlying marginalization of Indigenous peoples is felt by Indigenous youths every day in school settings, as these social stereotypes have infiltrated a large number of teacher, peer, and administrator values. Thus, despite the

fact that residential schools are no longer actively oppressing the Indigenous peoples of Canada, it appears that their legacy of cultural oppression is still living on through alternative means in society. For example, research shows that elite members of society, such as white, middle, or upper class student and parent groups, are interested in maintaining the status quo and do not want to hear about the current problems in Indigenous health or education (Kelly & Brandes, 2008). In Kelly and Brandes' (2008) research, for example, they found that parents of and students in an upper middle class Grade 9 Social Studies class students were resistant to learning about the current high rates of poverty and negative health indicators among Indigenous peoples, despite their near cultural genocide. In addition, these historical and current trends were not addressed in the Provincial educational school curriculum.

Typically, when the history of Indigenous peoples is brought up in classrooms, students are taught about the past as a frozen, isolated time period in history, predominantly from a Western perspective. Schools mirror much of the media misinformation on Indigenous peoples in that they convey the idea that current issues in Indigenous communities are not important and act as if the wrong-doings of the past have now disappeared (Brown et al., 2005). This negligence allows educators to avoid discussing the current situation of Indigenous peoples in Canada and prevents the youths from accessing information that may help them to think critically about current political oppressions on Indigenous society.

Therefore, due to the fact that an accurate picture of Indigenous history and culture has not been incorporated into curriculum and teaching practices, Indigenous students are frequently subject to the often unintentional racial stereotyping that takes place in schools. For example, verbalization is normative in Western culture. European North Americans tend to speak often and rapidly, whereas many Indigenous languages are spoken more slowly with pauses for thinking and reflection (Waller et al., 2002). Indigenous students, therefore, may be perceived as not responding and the teacher may react negatively to this. When the classroom is repeatedly out of sync with the students' pacing, and when there is an ongoing discrepancy between the verbal participation of white students and Indigenous students, Indigenous students may feel undervalued or invisible in the classroom (Waller et al., 2002). This creates an underlying message in classrooms that Indigenous peoples do not fit with the school and social climate, and may reduce Indigenous students' sense of cultural pride. It may also challenge their confidence in the validity of the cultural knowledge that they bring to the school.

Economic marginalization

Motivations to succeed in school are directly related to perceptions and assumptions of the economic opportunity structure (Wood & Clay, 1996). Therefore, Indigenous peoples who have experienced prolonged periods of discrimination, contributing to the development of artificially imposed barriers to upward mobility, may be reluctant to have faith that there will be any pay-off for their efforts in school (Marker, 2006). Moreover, Indigenous students may distrust eurocentric institutions and have negative perceptions

regarding the likelihood of achieving social mobility through educational attainment (Wood & Clay, 1996). As such, perceived cultural constraints play a significant role in reducing academic performance among Indigenous students (Marker, 2006). For example, seeing predominantly white professionals in society serves as a basis for the expectation that white people are more likely to succeed in the professional world. In addition, poverty and economic marginalization make it difficult for some students to stay in school, as they may have to assume employment while in school to help their family survive. As a result, many Indigenous peoples are subject to widespread economic marginalization.

Political marginalization

Political ideologies on class, race, language, gender, and disability are inextricably embedded in Indigenous education (Marker, 2000). Culturally and politically elite groups have more weight in determining the curriculum in schools and what is considered to be “official knowledge,” including what is assessed (Apple, 1996). A policy-driven curriculum in schools that is designed and delivered predominantly by white politicians attempts to create a school culture in a disembodied, secularized fashion. It views the scientific paradigm as a rational, objective counter to the superstitions from a primitive past (Neegan, 2005). Further, mainstream culture in the classroom frequently silences Indigenous voices and deeper cross-cultural reflection because it presumes a cultural neutrality of science and technology, rendering Indigenous understandings to be irrelevant. As a result, Indigenous culture, which is of

a supposed primitive past, is not considered to be of social or educational value, and thus not worthy for inclusion in school curriculum (Archibald, 1995).

In addition, if elements of Indigenous culture are to be discussed in classrooms, they tend to be reported by teachers who do not fully understand Indigenous culture themselves (Archibald, 1995). Though the modern day societal façade assumes that we are being culturally sensitive and providing equal opportunities to Indigenous students, even today when programs are being developed around traditional cultural perspectives on education, they are framed in the realities of the economic and political power of the dominant society (Archibald, 1995).

Globalization and generalization

Despite the fact that residential schools are no longer operating in Canada, there remain other social and political forces that work to assimilate the Indigenous peoples of Canada into mainstream society. For example, society has been leaning towards making schools operate according to a global capitalist agenda (The New London Group, 2000). This demands that people assimilate to mainstream norms, and schooling plays a key role in this process (Marker, 2006; The New London Group, 2000). This has created a tension between Indigenous local and sacred knowledge and the scientific universalization of knowledge (Marker, 2006). The tension between the local and sacred and the scientific universalization of knowledge has been at the core of conflicts around Indigenous knowledges (Marker, 2006). This is due in part to globalization, defined here as the tendency for economic, social, political, and cultural

processes to take place on a global scale rather than within the confines of particular countries or regions, and has threatened Indigenous cultures through social, economic, and political forces that work to standardize, homogenize, and marginalize members of society (Fairclough, 2000; McCarty, 2005).

A problem with this social movement occurs because we live in a world with diverse subcultural differences, and when world cultures take up the predominant space in society and become the dominant form of “culture” in the school context, the local history of Indigenous peoples is often ignored or submerged (Marker, 2006). Local Indigenous knowledges become invisible even though modern education is *Pakoosewaywin*, according to a Salteaux elder, meaning that education is a borrowed cultural product and that it should not replace traditional modes of teaching and learning (Akan, 1999). Moreover, Western ways of educating do not reflect Indigenous cultural values that revolve around collective action (Kelly & Brandes, 2008). Instead, schools operate from an anthropocentric perspective: an individually centred way of understanding intelligence, creativity, and moral reasoning (Neegan, 2005). As a result, Indigenous students are taught to be competitive, rather than work as a team, silencing their traditional values at the expense of individualism (Marker, 2006). Individualistic notions of competition are problematic for Indigenous youths because the competitive focus on individual achievement, competition, and comparative evaluation is antagonistic to many Indigenous cultural values and is even considered to be rude in many communities (Waller et al., 2002).

Indeed, the ability to accommodate global trends becomes available only if a person has the privilege of participating in the mainstream culture (The New London Group, 2000). For those who are not as fortunate, the uptake of global trends is more problematic given the force to assimilate to the dominant Western culture: a process requiring a complete cultural value change, in some cases. The pressure to conform to the dominant Western culture worldwide creates a sense of disorientation and distress for many Indigenous peoples because they feel pressure to choose between traditional values and the values of the dominant Western culture in order to survive in the economic world (Waller et al., 2002). If Indigenous peoples do not conform, they risk not attaining social mobility. If Indigenous peoples do choose to conform, they risk maintaining the status quo and the dominance of Western society, as well as being alienated from their culture and identity.

Standardization

There has been a steady increase, since the 1970s, of large-scale standardized academic achievement testing as a policy tool to change instruction with increasing emphasis on the stakes attached to standardized test scores for students, teachers, and schools (Waller et al., 2002). This practice has not only narrowed the curriculum, limiting culturally diverse learning, but also has discouraged creative pedagogical practices especially for students in low socioeconomic, inner-city schools or schools serving diverse populations. The current trend to standardize everything in schools, including standardized tests and grade-level exams, contributes to a colonizer/colonized power differential (Waller et al., 2002). Since these tests tend to be created by middle

to upper class white people, and/or reflect dominant values of individualistic Western culture, they are designed to favour test takers from the same socioeconomic, cultural, and language background with experience with the test content and the values for its use. Thus, biased and culturally oppressive eurocentric assessment practices, such as the example given above, are still a problem in today's society.

In addition to testing and exams, the school curriculum is also standardized. As Ball (2004) stated:

The illusion of “best practices” is an idea in western thought that models of services can be transported to varying contexts with the expectation of the “best” outcomes regardless of the state of readiness, resources, values, or goals of people in each setting, trying to reach universal applicability. (p. 459)

Standardization fails to consider the uniqueness of a cultural or school context and thus favours students who are more apt to comply with the mainstream curricula, namely white middle and upper class students.

A classic example of mass standardization with the intent of developing “best practices” is the passage of the No Child Left Behind Act in 2001 in the United States. The No Child Left Behind Act is problematic because it sets aside culturally-relevant curriculum to meet “one-size-fits-all” standards (Manuelito, 2005). An assimilationist curriculum robs students of their ability to experience their own culture in education and to learn things that are relevant to their culture and individual needs. This goes against many Indigenous ways of knowing that foreground the importance of traditional ways and

family values within all parts of one's educational life (Manuelito, 2005). For example, when a one-size-fits all curriculum is all that is offered, too often the result is a "homogenizing, monocultural, colonizing approach to community and human service development that is inappropriate for the varied social ecologies of Indigenous children and families" (Ball, 2004, p. 457). As a result, Indigenous ways of knowing and teaching are once again pushed to the margins of society. If Indigenous youths want to do well in school and pass each grade, they are forced to study and achieve within the framework of the one-size-fits all curriculum, even if it works to their disfavour.

Eurocentrism in school structure and policy

Eurocentrism, the institutional context that assumes a European norm as standard and that often informs contemporary scholarship, opinion, and law, has traditionally dictated the protocols and formats for education. It assumes that facts may be perceived solely through the categories of the mind or worldview of the European theorist, and that anything compared to it is deficient (Battiste, 2000). This colonialist, eurocentric worldview is pervasive in educational practice for both socioeconomic and political reasons. Consequently, it has the power to determine what is normal and valued in society. Further, eurocentrism tends to universalize thought so that it becomes perceived as "the truth." For example, the dichotomy of "the savage vs. the civilized" legitimizes a eurocentric worldview privileging European perspectives over the perspectives of "othered" cultures. Eurocentrism has manufactured the physical and cultural inferiority of Indigenous peoples (Battiste, 2000). The underlying notion of the inferiority of Indigenous peoples may lead to the loss of cultural identity and internalized

colonization among Indigenous peoples living in a dominant white society (Battiste, 2000).

The eurocentric worldview, which has influenced schooling in Canada, frequently comes into conflict with Indigenous worldviews because Indigenous parents and community members are still on the periphery of educational decision making regarding their children's education (Hodgson-Smith, 2000). This is due, in part, to the fact that the historical structure of Western schooling, which has perpetuated the focus on individuals through its structure and policy, tends to ignore the relevance of the role of parents and community involvement (Berger, Ross, & Moller, 2006). For example, it has focused on treating lack of ability or problem behaviour in schools as an individual problem and on a case-by-case basis (Maehr & Meyers, 1997). Children are often pulled out of mainstream classrooms and schools in order to fix "their" learning problem, as opposed to involving parents or the community for guidance (Berger et al., 2006). These procedures reify the problem as an individual and internal characteristic, rather than something that may be common among a social or ethnic group of students (Mehr & Meyers, 1997) or something that may be a secondary cultural characteristic that surfaced in response to colonization (Ogbu, 1992).

The traditional focus in education has been on changing the individual student to fit the school environment, rather than changing the school environment to fit students' needs. In addition, modifications to student learning support tend to occur in specific subject areas, such as mathematics or reading (Maehr & Meyers, 1997). Modifications are thus

potentially invalid if they do not account for the differences between the context within which modification takes place and the context within which learning takes place (Berger et al., 2006). Some researchers have also identified schools that follow policies and procedures that ignore the developmental needs of the students (Berger et al., 2006; Midgley, 1993). As a result, some students, especially ethnic minority students, become “at risk” for decreased school engagement and increased maladaptive behaviours as a result of their context (Wigfield & Eccles, 2002).

Eurocentrism and positivism in educational research: A critique

In this section, brief discussions of both Indigenous and sociocultural criticisms of eurocentrism and positivism in educational research are noted respectively. These critiques identify areas of overlap and compatibility between theorized perspectives and, as such, a place to begin this conceptual research.

Eurocentrism and positivism in educational research: An Indigenous perspective

In addition to eurocentrism in school structure and policy, research practices in Indigenous education have traditionally maintained the eurocentric oppression against Indigenous communities, for the most part, by using concepts and methodologies that are unsuitable and insensitive to Indigenous practices and contexts (Smith, 1999). Indeed, the word “research” is one of the most offensive words in the vocabularies of Indigenous peoples. Eurocentric research, in particular, postulates the superiority of Europeans over non-Europeans and that intelligent thought arises from creativity and the quest for knowledge alone (Battiste, 2000). It is also built on a set of assumptions

that knowledge must be supported by objectively obtained “empirical facts” to discover a universal truth. This epistemology has led some scientists to assume that they have the unquestioned “right to know” in terms of their concepts and methods, not just in academia but also in government and industry (Apffel-Marglin, 1998; O’Riley, 2004). Eurocentrism has also led professional researchers to exclusively contribute their work to the knowledge of their professions, rather than the people they are studying (Apffel-Marglin, 1998). This has robbed the “researched,” such as the Indigenous peoples of Canada, of voice and self-determination.

Previous research on Indigenous student success and engagement has failed, in part, because it did not consider several issues regarding research on Indigenous education that need to be addressed in order for research to be culturally sensitive and valid. First, previous research that looks at Indigenous education has not taken into consideration the historical, social, political, and economic factors that currently affect Indigenous education, and the contextual factors that are unique to each community (Grande, 2000; Smith, 1999). According to Marker (2000):

There seems to be a tendency to describe settings and programs in a way that isolates their discussion from larger, economic, cultural, and political concerns...much of the research lacks the intimate description of real people and place that some ethnographic studies from the 1970s and 1980s contained. (p. 30)

Specifically, most research methodologies assume that the researcher is an outsider able to observe without being implicated in the scene (Smith, 1999). This is a key tenet

of the positivist paradigm and its assumptions of objectivity and neutrality that are at the heart of eurocentric research practices.

Second, for the most part, educational researchers have neglected to integrate Indigenous perspectives into research, curricula, and teaching practices. As a result, they have failed to create a culturally sensitive learning environment that supports school engagement (Archibald, 1995; Cole, 2002; Grande, 2000; Marker, 2000, 2006; Smith, 1999). This has led Indigenous peoples to have historically been denied *voice*, defined as the ability to speak and be heard about one's own issues, for oneself (Graveline, 2000). Much research has dismissed, marginalized, and maintained control over the voice of Indigenous peoples by the imposition of researcher-determined positivist and neo-positivist evaluatory criteria, such as internal and external validity, reliability, and objectivity (Bishop, 1998).

Third, eurocentrism has denied Indigenous peoples a voice in research through the assumption that they have the same worldview as Europeans (Deloria, 1998). This has led proponents of eurocentrism to find universal definitions of Indigenous knowledges even though Indigenous scholars have yet to find any universality across Indigenous peoples (Battiste, 2000). Indigenous peoples worldwide are situated in unique political, social, cultural, and economic settings (Marker, 2006). Yet researchers and other members of society still have a tendency to classify them together as a homogenized group (McCarthy, 2005). This is a dangerous position for Indigenous peoples to be in because the people who have the power to decide the definition of things have the

power to decide reality (Battiste, 2000). Unfortunately, because researchers have frequently held this position, they have misrepresented the reality of Indigenous peoples.

Misrepresentation of Indigenous knowledges has also taken place through positivism's use of classification systems. For example, researchers with eurocentric worldviews still insist on research methods that involve the limitless classification and naming of objects and events, rather than on perceived qualities in the objects or events themselves (Battiste, 2000). This process has happened not only in North America, but all over the world. For example, traditional research has misrepresented Maori understanding and ways of knowing by simplifying, conglomerating, and commodifying Maori knowledge for consumption by the colonizers (Bishop, 1998). The classification of Indigenous ways of being and ways of knowing is thus a global pandemic.

However, "Indigenous knowledges" is not a single or uniform concept across all Indigenous peoples and cannot be categorized within eurocentric thought because the process of categorization itself is not an Indigenous concept (Battiste, 2000). In addition, the process of understanding Indigenous culture is more important than the process of classification (Battiste, 2000). Given that eurocentric research focuses on reducing wholes into definable, understandable, and measurable units, it continues to misrepresent Indigenous cultures. Extracting Indigenous knowledges from context means they are no longer holistic, interrelational, and interdependent. Instead, they become fragmented (O'Riley, 2004). Indigenous knowledges, traditions, and artifacts

have been historically misappropriated and misrepresented by non-Indigenous researchers and continue to be so today.

Eurocentrism and positivism in educational research: A sociocultural perspective

In accordance with various Indigenous scholars who have challenged the positivist paradigm in educational research, Vygotsky, (1978), the founder of sociocultural theory, also protested against the established authority that foregrounded tenets of positivism as the criterion for being part of the dominant scientific community. In his view, none of the existing traditional schools of psychological thought provided a firm foundation for establishing a unified theory of human psychological processes (Vygotsky, 1978).

Specifically, Vygotsky argued that psychologists including the introspectionists and the conditioning theorists or behaviourists were not able to explain complex perceptual and problem-solving behaviours. In addition, the reduction of all cognitive and affective phenomena to a set of psychological atomisms was problematic (Vygotsky, 1978).

These perspectives, unlike sociocultural theory, have only one explanatory principle for psychological phenomena. Behavioural empiricists such as Skinner, for example, believed that learning is simply an observable action of an individual (Greeno, Collins & Resnick, 1996). During his time, psychologists had failed to move beyond the description of complex phenomena within their discipline to the explanation of them (Vygotsky, 1978).

Over the decades since Vygotsky wrote, according to Wertsch (1985):

Psychologists have too often isolated and studied phenomena in such a way that they cannot communicate with one another, let alone with members from other disciplines. In psychology, we tend to view culture or society as a variable to be incorporated into models of individual functioning. This represents a kind of reductionism which assumes that sociocultural phenomena can ultimately be explained on the basis of psychological processes. Conversely, sociologists and social theorists often view psychological processes as posing no special problems because they derive straightforwardly from social phenomena. (Wertsch, 1985, p. i)

Thus, disciplines that conduct positivist research lack the ability to converge their knowledges and to find ways to articulate alternative explanations for psychological phenomena. In addition, the positivist commitment to generalizability and universal laws does not adequately take into consideration the context within which development and learning occurs, or the impact of culture, and, perhaps most important for sociocultural theorists, language and semiotic systems as inherently linked with thought and affect. Further, positivism does not provide a framework for researching either the larger social and ideological influences that impact education or mediation: a key concept of sociocultural theory. This discussion of sociocultural concept continues in Chapter 2.

Research questions

The articulation of both Indigenous and sociocultural approaches to problems in education may allow researchers to alleviate many of the problems with eurocentric and

positivistic research. It may do so by looking at social inequalities as expressions of the interconnectedness of historical, socioeconomic, and political conditions that both influence and are influenced by Indigenous peoples, rather than attributing problems to individuals and all peoples as a result of lifestyle, behavioural, and cultural issues (Browne, & Smye, 2002; Wertsch, 1991). Therefore, this study attempts to address these issues by seeking to answer the following research questions: how do concepts from Indigenous theories of learning articulate with a sociocultural approach? In what ways do they converge? In what ways do they diverge? What might an Indigenized sociocultural approach look like both in terms of theory and methodology? How might an Indigenized sociocultural approach be used to ground research into early school leaving with youths from Indigenous communities?

Summary

In summary, this chapter noted that the historical context of Indigenous education in Canada consists of cultural oppression and genocide, due to the power and domination of eurocentric colonialist institutions. The legacy of this cultural domination through education still exists today, through social, economic, and political marginalization, globalization, standardization, and eurocentrism in school structure, policy, and research. Both Indigenous and sociocultural approaches have critiqued the use of eurocentrism and positivism in research, stating that they have limited the ability to account for the effect of larger social and ideological influences in education, such as why many Indigenous students may not be engaging in school. The articulation of Indigenous and sociocultural approaches for educational research may allow

researchers to approach such problems in education from a wider perspective, and to enable voice and authority for Indigenous knowledges and practices. In order to properly articulate these two approaches, it is necessary to have a comprehensive understanding of both theoretical approaches.

This thesis continues with four additional chapters. Chapter Two provides a literature review that outlines the basic components of both Indigenous and sociocultural theories and methodologies. Chapter Three begins with an introduction of philosophical inquiry, followed by the procedure of this study, and includes a discussion of my location as the researcher. Chapter Four outlines the ways in which Indigenous and sociocultural theories and methodologies converge and diverge, as well as articulates what an Indigenized sociocultural approach to Indigenous education might look like. Chapter Five applies this Indigenized sociocultural approach to Indigenous early school leaving and disengagement, with explanations as to why many Indigenous students may not be engaged in school. Finally, Chapter Six looks at recommendations to increase Indigenous school engagement, as a guide for future research, along with limitations of this philosophical inquiry.

CHAPTER 2: LITERATURE REVIEW

In this chapter, aspects of Indigenous and sociocultural theory and methodology are reviewed from the literature. First, seven aspects of Indigenous theories of learning, which consist of learning through transformation, holistic knowledge, experience, others, oral traditions, the land, and spirituality, are addressed. Following this, I describe Indigenous methodology in research. Second, I discuss the basic aspects of sociocultural theory and methodology: in particular, the concepts of elementary and higher psychological processes, mediation, internalization, and the zone of proximal development. Finally, I discuss a sociocultural approach to research methodology.

Indigenous theory and methodology

Education is important for many Indigenous peoples because it has become the primary force in the survival of their languages and culture, as well as the protector of their rights (Manuelito, 2005). Indigenous leaders have linked the improvement of developmental conditions for children to: “the reconstruction of their cultural identity, revitalization of intergenerational transmission of culture with accessibility to modern education, culture and traditional language, and reproduction of culturally distinctive values and practices in programs for children and youth” (Ball, 2004, p. 455). In support of this, a Salteaux elder stated that a good education helps youths to be self-supporting, to earn a living, and to provide themselves with the skills for employment, and is a necessity for native youths in today’s society (Akan, 1999). In addition, Cajete (2000) claimed that economic survival for Indigenous communities is associated with accessibility to modern education. In fact, for many Indigenous communities, education has been inextricably

linked to economic development and *self-determination*, defined by the Navajo as “doing for ourselves” and committing to the community with a communal goal (Manuelito, 2005).

Indigenous theories of learning

In order to foreground what is common across Indigenous theories of learning, it is necessary to have a clear understanding of *Indigeneity*. According to the United Nations Sub-Commission on Prevention of Discrimination and the Protection of Minorities (1986/7):

Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as people, in accordance with their own cultural patterns, social institutions and legal systems. (cited in Battiste & Henderson, 2000, p. 63)

Despite this seemingly inclusive definition of Indigenous peoples worldwide, Indigeneity is not a universal concept across all Indigenous societies. It is important to note that there are vast differences across such communities, and it would be too simplistic to assume that one definition applies to them all since every Indigenous nation has its own teachings and methods for education that need to be represented (Waller et al., 2002).

However, many Indigenous communities have similarities in terms of their theories of learning. “Whatever their historical, political, social, economic, and geographical differences, the world’s Indigenous peoples share certain experiences of colonialism, as well as certain fundamental values as ways of viewing the world” (Kuokkanen, 2007, p. 11).

According to Spivak (1999), there are some things that are more common than not across cultures, even though Indigeneity is multiple and varied. Instead of trying to eradicate essentializing cultures and essentialism in academic discourse, researchers need to become more vigilant about their own practices and use them strategically. Thus, there are times when it may be appropriate to make some generalizations about Indigenous perspectives in order to create a vision for change. Archibald (1995), for example, discussed the various aspects of Indigenous cultures that appear to be similar across Indigenous theories of learning:

The [Indigenous] conception of culture emphasizes the interrelatedness of humans and animals, nature, spirit world; the past, present, and future responsibilities of creating and perpetuating knowledge and values; and the oral way of creating and sustaining understanding. (p. 347)

Indigenous ways of learning appear to incorporate all aspects of Indigenous culture, including philosophies, languages, and cultural practices. These aspects of culture are what make up the values that are transferred to youths in Indigenous education, and are discussed in further detail in this section.

Learning through transformation

Indigenous educators endorse education as a lifelong learning process that involves an active process and a way of being (Archibald, 2008; Castellano, Davis, & Lahache, 2000). It also invokes a personal transformation within the individual and society (Hampton, 1995). According to Ermine (1995), first languages and culture are crucial components in the transformative learning process. He identified three specific orientations of transformation including: skills that promote personal and social transformation; a vision of social change that leads to harmony with, rather than control over the environment, and; the attribution of a spiritual dimension to the environment. Furthermore, Cajete (2000) stated that an “[Indigenous] worldview is comprised of ideas of constant motion and flux, existence consisting of energy waves, interrelationships, all things being animate, space/place, renewal, and all things imbued with spirit” (p. x). Thus, the world is constantly in motion, and things are constantly undergoing transformation. In fact, some say that the essence of life for Indigenous peoples itself is in movement (Witherspoon, 1977).

In support of this, Cajete (2000) stressed that education invokes a renewal process that must be maintained for people to survive. For example, most Indigenous languages are verb-based and emerge from active participation in the world. Thus, Indigenous languages describe human experiences as processes that are constantly changing, rather than maintaining a static existence. In addition, Cajete (2000) perceived Indigenous education to include a creative universe in which human beings are active and creative participants, noting “Human life at all levels is wholly a creative activity and

may be said to be an expression of the nature within us. We are, after all, a microcosm of the macrocosm. We are a part of a greater generative order of life that is ever evolving” (p. 15). Indigenous education is thus part of a transformative metaphysical universe that is ever evolving, adapting, and transforming.

Learning through holistic knowledge

Indigenous education is a holistic experience that is rooted in particular cultures and geographies, and emphasizes interconnectedness (Calliou, 1995; Castellano et al., 2000). Archibald (2008) posited that an Indigenous philosophical concept of holism refers to the interrelatedness between the intellectual, spiritual, emotional, and physical realms to form a whole, healthy person. She stated that the development of holism extends to and is mutually influenced by one’s family, community, band, and nation. To symbolize holism, the image of a circle is used by many Indigenous peoples to represent wholeness, completeness, and ultimately wellness. Cajete (2000) also shed light on the importance of such symbolism stating that symbols are the very essence of art with the power beyond their literature connotations. Each symbol represents a metaphor and a meaning that is contextualized in myth, experience, or understanding of a tribal group or clan (Cajete, 2000). For example, the circle shows both the synergistic influence of and our responsibility toward the generations of ancestors, the generations of today, and the generations yet to come. Archibald (2008) further suggested that both human and animal kingdoms, the elements of nature, and the Spirit World are integral parts of the circle.

According to Archibald (2008), each Indigenous group developed its own cultural content for the holistic circle symbol. A common example of this is the medicine wheel that is used by many Indigenous communities in education as a reflection of interconnectedness and holism. The medicine wheel is a teaching device that originated among the Indigenous peoples of the Plains, and represents a circle of harmony and courage (Castellano et al., 2000). Superimposed on the circle are four equidistant points. These points identify the power of the four directions: north, south, east, and west (Calliou, 1995). The four directions tend to be seen as interconnected tensions, evident in all being, events, and conditions simultaneously (Calliou, 1995). Typically, they symbolize the integration of physical, emotional, intellectual, and spiritual aspects of living, but various cultural communities associate different aspects — such as their humanness, seasons, colours, animals, plants, and minerals — with each of the four directions (Calliou, 1995; Castellano et al., 2000). Thus, there is no one absolute version of the wheel, and not all Indigenous communities use this instructional device (Hampton, 1995). However, the medicine wheel has gained broad acceptance across many Indigenous communities as a means of maintaining awareness of the interrelatedness of all life in order to deepen our understanding by focusing on segments of the whole (Calliou, 1995).

The medicine wheel has been used to help students to understand the nature of certain natural relationships such as water, air, and plants. It is also a pedagogical device designed to assist contemplation of the continuity and interconnectedness of events and conditions of all beings as it symbolizes continuity and connectedness of events

(Calliou, 1995). By drawing attention to the harmony that can be achieved when divergent elements are brought into balance within the circle of life, the medicine wheel illustrates the necessity of attending to all dimensions of learning and personal development (Castellano et al., 2000).

Cajete (2000) applied the notion of interconnectedness from the medicine wheel to communication noting that in encountering the world, our natural tendency is to engage in a reciprocal body of communication. However, “if we objectify or rationalize our experience, we distance ourselves from the relationship and repress the full involvement of our senses” (Cajete, 2000, p. 26). Unlike the linear mode of thought and communication, Cajete (2000) described Indigenous science as including order and harmony, but at the same time acknowledging diversity and chaos as creators of reality. He also believed that language is more than a code; it is a way of participating with each other and the natural world. Cajete (2000) described language, at one level, as a symbolic code for representing the world that we perceive with our senses. At a deeper level, it is sensuous and evocative and filled with emotion, meaning, and spirit. He argued that the meanings from communication are not solely connected to their ordinary definition, but to the very life of the body and spirit of the speaker:

In its holistic and natural sense, language is animate and animating; it expresses our living spirit through sound and the emotion with which we speak. In the [Indigenous] perspective, language exemplifies our communication with nature rather than our separation from it. (Cajete, 2000, p. 72)

Thus, communication is a holistic experience that must allow for engagement with each dimension of the individual, as well as our continual engagement with nature.

Learning through experience

Most Indigenous learning is experiential, involved with “doing” while learning new tasks (Cajete, 2000). For example, Stairs (1995) stated that Indigenous learners typically develop concepts and skills by repeating tasks in many different situations, such as hunting under various conditions of weather and animal movement and with various types of equipment. Stairs also observed that Indigenous peoples do not traditionally make explicit verbal formulations of basic ideas or rules for success, but rather they have a tendency to recount what they have experienced. In learning through experience, learners gain concepts and principles implicitly about their culture and ways of life. Thus, learning occurs by way of thought *and* action, consisting of one’s direct subjective experience of the world. This, in turns, leads to the awareness of the subtle qualities that Indigenous peoples experience in life and in nature (Cajete, 2000).

Consistent with the idea that learning needs to be subjective and experiential, Cajete (2000) noted the unique qualities of each child as a learner as naturally accepted and honoured in their families and communities. He positioned Indigenous teachers as imbued with the intuitive understanding that people learn in many ways, and that each person perceives, thinks, and acts uniquely. Historically, it appeared that general rules were given and a contextual milieu and expectation was established when teachers were engaging learners. However, ultimately individuals choose their own ways to learn

things, and how much they learn based on their own inclinations of learning and doing (Cajete, 2000). Thus, it was not only *accepted* that each person learned differently, but *embraced*. There were no standards or generalizations as to *when* a learner was expected to learn something, or *how* they were to learn it.

Leavitt (1995) posited that parents and elders maintain the integration of knowledge as they teach younger people by sharing experiences with them, not by isolating the knowledge and skills required by certain disciplines. He stipulated that each skill has a social, economic, spiritual, and historical context. Thus, children must participate in the daily activities of adults instead of practicing them in an artificial and out-of-context classroom. Leavitt (1995) also observed that in Indigenous education, each aspect of learning is developed further from repeated experience and its relation to other natural processes. Consistent with this, Archibald (2008) stated that the ways of acquiring knowledge and codes of behaviour are embedded in participation in cultural practices. For example, one cultural practice that plays a key role in the oral tradition is storytelling, which is discussed later.

Learning for, through, and with others

Hampton (1995) observed that the purpose of education is to serve the people, not for individual advancement or status. Thus, individuals do not form their identities in opposition to the group. Instead, they recognize the group as relatives who are included and embedded in their own identity. In support of this, Cajete (2000) stated, “Relationship[s] [are] the cornerstone of tribal community, and the nature and

expression of community is the foundation of tribal identity” (p. 86). He argued that through community, Indigenous peoples come to understand their personhood and their connection to the communal soul of their people. Stairs (1995) also stated that Indigenous knowledges require group cohesion, awareness of interpersonal relationships and one’s role in the social network that constitutes maturity. He stated that social competence has priority over individual excellence and productivity, and that the goal of education is the well-being of the group, rather than personal self-sufficiency. In Indigenous thought, knowledge is a shared resource acquired cooperatively, as older siblings teach newly acquired skills to younger ones. This appears to be in contrast with dominant Western thought that privileges individuality over social responsibility.

Indigenous education also relies upon collaboration between children and adults (Cajete, 2000; Leavitt, 1995). In Indigenous communities, all adults are considered teachers who guide development so that each child becomes a complete person for the good of the people (Cajete, 2000). Cajete posited Indigenous kinship as a network of extended family and clan that provided a web of relationship. Kinship relationships profoundly affected perception, which is learned early within the family. The values engendered concern family, responsibility, respect, and the foundations of relationship and kinship. Stairs (1995), for example, stated that “Isumaqsayuq” is the way of passing along knowledge through the observation and imitation embedded in daily family and community activities. In Isumaqsayuq, integration into the immediate shared social structure is the principal goal, with a focus on values and identity. This valued integration is developed through the learner’s relationship to other persons and to the

environment. Stairs (1995) also observed that Indigenous children are often taught through a process where the final steps of essential adult tasks are progressively left undone for children to complete, thus giving them an immediate and important role in community work. Thus, learning with others is necessary in the context within which the person comes to know relationship, responsibility, and participation in the life of one's people (Cajete, 2000).

According to Barnhardt and Kawagley (2005), traditional Indigenous knowledge systems uphold and demand relationships of personal respect. In other words, group cohesion and strong relationships within the community are important for the passing on of Indigenous knowledges to younger generations. Consistent with Barnhardt and Kawagley, Hampton (1995) argued that education maintains continuity with tradition, and that our traditions define and preserve us. He valued continuity of a living culture to be important, not as the preservation of a frozen and static museum specimen. In order for this to happen, members of the community have to practice these traditions together as a group, rather than as individuals. Further, Kuokkanen (2007) identified the intergenerational accumulation and communication of knowledge as being central to Indigenous epistemologies. She stated that within an Indigenous system of knowledge, final decisions as to the validity and usefulness of knowledge are made jointly, based on the diverse experiences of the community members.

Elders also play an important role in learning through others, as important cultural knowledge and teaching are learned over time through the interaction with elder

teachers. Barnhardt and Kawagley (2005) stressed the importance of drawing on Indigenous elders in the educational process, while utilizing natural learning environments. In these ways, the knowledge that is being passed on to students by elders assumes an appropriate meaning and value and it is reinforced in the larger community. Archibald (2008) also emphasized that cultural understandings are formed through relationships with Indigenous elders. She noted that sharing what one has learned is an important Indigenous tradition. She also observed that “authority and respect are attributed to elders who have acquired wisdom through life experiences, education, and reflection” (Archibald, 2008, p. 37). Thus, elders gain respect in Indigenous communities because they have accumulated knowledge through lived experience. Learning for Indigenous communities, then, is dependent upon these relationships between the elders and the younger generations.

Learning through oral traditions

Indigenous cultures and histories have always been passed down through oral tradition, which involves intimate and endless listening to stories and dialogue with elders, parents, and community members (Archibald, 2008; Loppie, 2007). Oral traditions are seen as an important means in which to reproduce culture, because they are the critical link between sacred knowledge and the skills required for survival. Particularly, they describe how to maintain a sustainable relationship with the land and the eco-system (Battiste & Henderson, 2000; Cajete, 2000). Further, Indigenous oral traditions are a form of spiritual identity, and they allow access to this spiritual identity through participation in the oral discourse as either the speaker or the listener (Loppie, 2007).

Finally, oral traditions have important moral and factual purposes. These stories also assist children and youths to learn history and how to show respect for specific values and actions (Hampton, 1995). The stories point out difficulties and dangers in the social and natural worlds, as well as ways of overcoming them. For all of these reasons, the reproduction of Indigenous culture is dependent upon oral knowledge.

In support of this, an elder from the Sioux Valley First Nation in Manitoba stated the importance of maintaining Indigenous languages, by referring specifically to oral traditions as the “native language”:

Our native language embodies a value system about how we ought to live and relate to each other...It gives a name to relations among kin, to roles and responsibilities among family members, to ties with the broader clan group...There are no English words for these relationships...Now, if you destroy our languages you not only break down these relationships, but you destroy other aspects of our Indian way of life and culture, especially those that describe man's connection with nature, the Great Spirit, and the order of things. Without our languages, we will cease to exist as a separate people. (Assembly of First Nations, 1992, p. 14)

The main way in which these ways of life are passed down orally is through stories and narratives. Due to the importance of oral traditions for the reproduction of Indigenous society and culture, storytelling and narratives are used not only as a teaching tool, but a social practice to direct socially appropriate behaviour and to share knowledge. An interesting aspect of stories is that they are dynamic: they change to fit the

circumstances in which they are told (Loppie, 2007). Further, oral traditions typically take place in a group, with the participation of families, friends, elders, and extended family (Battiste & Henderson, 2000). The involvement of the group has allowed for engagement in reciprocal learning and sharing of stories. Consequently, the learning of Indigenous knowledges through oral traditions is based on collective action. This is important for passing on knowledge because no one elder knows the complete story. Rather, each elder's story needs to be verified by other elders in order for learners to receive a more holistic picture of the elders' teachings. A story's accuracy and credibility are open to review by the community of elders who witnessed the events and historical translation of them. The listener must put the pieces together and ask for clarification about its content and meanings. Further, only through repeated and continuous contact with Indigenous communities can the complete stories be known by its members.

Oral traditions are an important part of Indigenous culture because until recently, Indigenous languages have been developed entirely in the oral and symbolic modes. Speakers hold, in their individual and collective memories, everything they know about the world, which is accessible only through their conversation with others (Leavitt, 1995). Thus, Hébert (2000) stated that storytelling is powerful because it represents Indigenous voice and position more than any other form of communication. For example, Keeshig-Tobias (2003) stated that stories reflect the deepest, most intimate perceptions, relationships, and attitudes of a people, and even show how a culture thinks. Further, through their many different functions, stories can be an entertainment,

a culture-preserving, or a relational device (Hébert, 2000). Despite the variety of functions of stories, they can be easily remembered because important principles that they contain are grounded in the metaphors of story characters and plots. Stories provide a “classroom without walls” in which learners engage by listening and watching. Through listening and watching, the learner is then able to engage in practicing the language and skills of their elders or teachers (Hébert, 2000). Repetition, modeling, and participation thus play important roles in this process of learning and engagement.

Archibald (2008) elaborated seven principles, borrowed from Kirkness and Barnhardt (1991), that she identified from analyzing Indigenous elders’ storytelling practices for educational purposes. These principles include elements of respect, responsibility, reciprocity, reverence, holism, interrelatedness, and synergy. She noted that stories that teach these basic skills were learned without the use of literacy, instead relying on auditory and visual memory development. Furthermore, she argued that stories have the power to make our hearts, minds, bodies, and spirits work together as a holistic and interconnected process. Thus, storytelling is central to Indigenous culture.

Learning through the land

Life in Indigenous communities is interdependent with the immediate and surrounding natural environment (Cajete, 2000). Specifically, Indigenous epistemologies are uniquely based on sustained relationships with the land including the climate, landscape, wildlife, flora and fauna (Marker, 2006). According to Cajete (2000), the true sources of knowledge are found within both the individual and nature. Thus, an

Indigenous way of understanding the world is inseparable from the web of relationships in the natural world (Marker, 2006). In particular, Indigenous education revolves around environmental themes directly related to planetary sustainability and human survival (Marker, 2006). Consistent with this, Cajete (2000) stated, "Traditional forms of education expressed in Indigenous communities transferred the recipe for making a living in a given environment" (cited in Marker, 2006, p. 165). Thus, Indigenous education is rooted in a sacred connection to the land and its ecosystem.

Barnhardt and Kawagley (2005) noted that Indigenous peoples traditionally acquired their knowledge through direct experience in the natural world. For Indigenous peoples, the particulars of the world come to be understood in relation to the whole, and historical teachings are continually tested in the context of everyday survival. More specifically, in their traditional education, Indigenous thinking and doing processes were carefully constructed around observing natural processes, adapting modes of survival, obtaining sustenance from the plant and animal world, and using natural materials to make their tools and implements (Barnhardt & Kawagley, 2005). All of this was made understandable through demonstrations and observations, accompanied by thoughtful stories, in which the lessons were embedded (Cajete 1994; Kawagley 1995).

Hampton (1995) recognized the importance of "Indian sense of place, land, and territory," which he believed promoted involvement, rather than segregation or isolation. Archibald (2008) also identified the importance of the natural context for learning stories, as it brought together all things living within it. Therefore, it is not uncommon for

Indigenous people to have a spiritual connection to specific places within their communities. Sometimes these places are named and revisited for purposes of reflection, calming, and being in harmony with the land. Due to this spiritual connection with the land for many Indigenous peoples, many events, patterns, and cycles, are dependent upon certain places on the land (Cajete, 2000). Each tribal territory has its sacred sites, and particular environmental and ecological combinations result in particular relational networks and meanings (Cajete, 2000).

The natural world is oftentimes used as a metaphor for Indigenous knowledges because it determines both meaning and application. According to Cajete (2000), nature is the frame of reality that formed and informed most, if not all, learning experiences:

The geographical and structural orientations of Indigenous communities to their natural place and the cosmos reflected a communal consciousness that extended to and included the natural world in an intimate and mutually reciprocal relationship. Through clan and societal symbolism, ritual, art, and visionary tradition, members connected themselves to the plants, animals, waters, mountains, sun, moon, stars, and planets of their world. (Cajete, 2000, p. 95)

It follows that language is also intimately tied to the landscape, and inspires individual development (Cajete, 2000). For example, Cajete (2000) observed that Indigenous languages are highly descriptive of natural places: “A sacred place becomes an extension of the Indigenous mind, for it is the place that holds memory” (p. 205). Consequently, the land contains memories, and in doing so, defines Indigenous peoples: their history, evolution and practice.

Learning through spirituality

Spiritual issues and values are important facets of education (Hampton, 1995). In fact, the most important standard of Indigenous education is spirituality, with an emphasis on spiritual relationships that exist between all things (MacIvor, 1995). Castellano et al. (2000), for example, posited that Indigenous peoples believe that learning through spirituality will instruct them in ways to live long and well on Mother Earth, and that it will instil in them the wisdom and the capacity to carry their responsibilities in the circle of all life. This position was rooted in a fundamentally spiritual understanding of the universe.

MacIvor (1995) went further to extrapolate the nature of Indigenous knowledges of the natural world and religious traditions, stating that they are so closely interwoven that we should refer to it as metaphysics, rather than science or religion. According to Deloria (1991), metaphysics refers to the realization that the world and all of its possible experiences constitutes a social reality; a fabric of life in which everything has the possibility of intimate knowing in relationships because everything is ultimately related. Through this metaphysical reality, Indigenous learners engage with their teachers in an experiential form of learning.

An example of this metaphysical reality is the fluid and inclusive perception of animal nature that reduces the distinction between human, animal, and spiritual realities (Cajete, 2000). According to Cajete (2000):

The wall that separates the human and animal worlds is thought to be thin.

Consequently, it is believed possible for humans to transform themselves into

animals and for animals to transform themselves into humans. Many native myths talk about the marriage between humans and animals. When humans are drawn into such special unions with animals they learn important knowledge, which they pass on to future generations. (p. 151)

In support of this, there is no category for “animals” in Indigenous knowledges, just their specific names. Further, animals typically have mutual responsibilities with humans. This highly contrasts with Western society that often fears and wants to dominate animals and nature.

Animals are a source of knowledge and information in many Indigenous cultures. For example, Archibald (2008) noted that among many Indigenous groups, Coyote and his many manifestations is considered a “Trickster,” who has lots to learn and teach while travelling the world. Specifically, she explained that sometimes the Trickster is like a magician, enchanter, prankster, or a Shaman, who often takes on human characteristics. The Trickster uses a variety of ways to teach lessons, through various means such as the use of humour, satire, self-mocking, and absurdity (Archibald, 2008). Archibald (2008) further explained that the Trickster often gets into trouble by ignoring cultural rules and practices, or by giving sway to the negative aspects of “humanness,” such as vanity, greed, selfishness, and foolishness. Like many of us, the Trickster seems to learn lessons the hard way or sometimes not at all. At the same time, the Trickster has the ability to do good things for others and is sometimes like a powerful spiritual being, who is given much respect. For example, Archibald (2008) stated that the Coyote Trickster helps her to reflect and to gain understandings, challenge and

comfort her just like a “critical friend.” She also noted that Thomas King, who is of Cherokee descent, described the positive effect of Trickster’s learning in bringing about balance. He stated that the “trickster is an important figure ... it allows us to create a particular kind of world in which the Judeo-Christian concern with good and evil and order and disorder is replaced with the Native concern for balance and harmony” (1990, xiii, cited in Archibald, 2008, p. 42). Thus, Indigenous spirituality does not maintain the Western dichotomy of “good” and “bad”; it reflects a more holistic portrayal of human experience, and the importance of *all* forms of human experience in developing wisdom.

Indigenous methodology in research

The methods of collecting data as the basis for knowledge are the most important aspect of research in Indigenous methodology (Abolson & Willett, 2005; Smith, 1999). This means that the way in which researchers collect their data and engage in the *process* of knowledge construction is more important than the outcome of the research (Cole, 2002). The emphasis on the process as being important discourages researchers from continuing to recreate colonialist practices through the way in which they gather their knowledge. Further, it contrasts with Western research methods in that theory does not drive methodology. Instead, the practical needs of the community must be the basis for conducting the research. For example, Archibald (2008) stated that the “community must drive the research question and methodology” (p. 36). Subsequently, the objective of Indigenous research methodology is to overturn such deductive means of gathering data and to reclaim and re-validate Indigenous ways of constructing knowledge. Barnhardt and Kawagley (2005) stated that, as a concept,

Indigenous research methods benchmark the limitations of eurocentric theory. In particular, its methodology, evidence, and conclusions reconceptualise the resilience and self-reliance of Indigenous peoples, and underscore the importance of their own philosophies, heritages, and educational processes. Thus, Indigenous knowledges fill the ethical and knowledge gaps in eurocentric education, research, and scholarship.

Archibald (2008) maintained that research must incorporate the “4 Rs,” developed by Kirkness and Barnhardt (1991), throughout the entire research process: Respect, Responsibility, Reciprocity, and Reverence. Therefore, Indigenous research methods must always be conducted in culturally competent ways and be sensitive to traditional values, taking into account definitions and expectations of behaviours within the community and the myriad of factors that affect the research (Caldwell, 2005). Further, members of most Indigenous communities require that research with Indigenous peoples benefit those communities and it should be carried out from inception to conclusion in collaboration with participating communities. For example, Kuokkanen (2007) stated that a central principle of Indigenous research is that of “giving back.” This principle forms the core of the research that is presently being conducted by many Indigenous scholars and students. It expresses a strong commitment and desire to ensure that academic knowledge, practices, and research are no longer used as tools of colonization and as ways of exploiting Indigenous peoples (Smith, 1999). Since many Westernized researchers have conducted research into Indigenous knowledges without ever giving anything back, it is important to acknowledge this history of oppression in order to address it in future research endeavours with Indigenous

communities. Indigenous research protocols exist because research that primarily considers the interests of the community, rather than the larger society and academia, may bring with it significant benefits to the community (Caldwell, 2005). In particular, community-based, collaborative, and participatory research may allow the research to empower these communities to define and to address the issues that affect their members' lives. Thus, an ultimate goal of Indigenous research is to empower communities to assume ownership of the process and to utilize the results to improve their quality of life, rather than robbing their communities of knowledge and then using it in a way that is not for the betterment of the community.

In Indigenous ways of conducting research, the stance of studying the "other," the classical eurocentric stance, is abandoned (Apffel-Marlin, 1998). Research instead, according to Apffel-Marlin (1998), "must depend on long conversations, mutual nurturance, and deep friendships" (p. 41). Archibald (2008) also noted that many Indigenous people have said that "in order to understand ourselves and our situation today, we must know where we come from and know what has influenced us" (p. 69). Thus, the stance of the researcher must be made explicit, along with acknowledgement of cultural history of oneself, one's community, and one's relationship with the community involved in the research. In addition, Archibald (2008) added that Indigenous research requires lots of time to record, and listen, and transcribe, and to reflect meaning of words and translations. She further stated that the research questions must be flexible because they may change depending on the context and what researchers and community members need to know. Consequently, Indigenous

methodologies do not necessarily use research questions and arrive at conclusions, or engage in forms of analysis that would alter the original and holistic structure of the knowledge. Further, questions may not use the word *why* in some communities because *why* may be only known by the Creator (Thomas, 1994). Once again, the emphasis is placed on the process and the relationships with others, with the authority of one's word over an "objectively defined" ability to hold up to statistical significance or reliability.

According to Barnhardt and Kawagley (2005), the study of Indigenous knowledge systems as they relate to education may be categorized into three broad interrelated research themes: (1) documenting and articulating Indigenous knowledge systems; (2) delineating epistemological structures and learning/cognitive processes associated with Indigenous ways of knowing, and; (3) developing and assessing educational strategies integrating Indigenous and Western knowledge and ways of knowing. Although it is imperative that Indigenous knowledges and cultures be well documented and described, it is even more important to engender power and respect for this perspective in Western society. This thesis falls largely into the third research theme, as it aims to arrive at an articulation between an Indigenous theory and a sociocultural theory that is culturally-responsive and reflective of Indigenous epistemologies. This type of articulation may create a space for Indigenous knowledges and practices within academia, and enable the study of problems in Indigenous education more holistically.

Sociocultural theory and methodology

A discussion of sociocultural theory and methodology begins with a brief overview of a sociocultural theory of learning. This includes sociocultural concepts such as elementary and higher psychological processes, mediation, internalization, and the zone of proximal development. These concepts of learning are followed by a brief description of a sociocultural methodology.

Sociocultural theory of learning

In constructing a theory of psychological phenomena, Vygotsky (1978) challenged the established schools of psychological thought, arguing that none of them provided a firm foundation for establishing a unified theory of human psychological processes.

Specifically, Vygotsky (1978) stated that both introspectionists and behavioural empiricists were not able to describe and explain complex perceptual and problem-solving behaviours. They reduced all phenomena to atomistic accounts that, in doing so, lost the complexity of interfunctional relationships (Vygotsky, 1978). While Gestalt psychologists, on the other hand, had less atomistic accounts, they still failed to move beyond the description of complex phenomena to the explanation (Vygotsky, 1978).

Further, Vygotsky was discontented with the split in psychology between the natural sciences and the social sciences. He argued that psychologists too often studied phenomena in communicative isolation from one another and from other disciplines, lacking a holistic picture of human nature (Wertsch, 1985). Additionally, he was scornful of tests of intellectual ability patterned after the IQ tests at the time (Wertsch, 1991).

These tests did not take into account the social context of the child. Vygotsky wanted to connect a biological line of development with a social line of development to construct a comprehensive, holistic approach to psychology. He suggested that psychology must be able to describe and explain phenomena, theorized as an individual/social dialectical relationship, studied by a multi-level methodology.

Sociocultural theory bridges micro and macro levels of development — from the development of mental functions, microgenesis, to the development of the individual, ontogenesis, to the development of a culture and cultural tools, cultural-historical development, to the development of the human species, phylogenesis — and draws from the disciplines of psychology, sociology, anthropology, and history (Wertsch, 1985). It also draws upon both biology and psychology, and includes both descriptions and explanations of higher psychological processes across multiple developmental domains.

Although sociocultural theory is a Western theory, it foregrounds the role of cultural practices, worldviews, and cultural tools in a society as the primary catalysts for individual development and learning (Vygotsky, 1978). By stressing the social origins of language and thinking, Vygotsky was the first modern psychologist to suggest the mechanisms by which culture and biology are interwoven to form a person's history (Wertsch, 1985). In addition, he argued that all of these processes be understood in terms of a Marxist theory of the history of human society (Vygotsky, 1978). According to Wertsch (1991), Marx's theory of society, known as historical materialism, states that

historical changes in society and material life produce changes in human consciousness and behaviour. In addition to Marx, Vygotsky elaborated Engel's notion of the relationship between humans and labour: through labour humans use tools to not only transform nature, but also themselves in the process. According to Lee (1985), Vygotsky drew upon Marx's ideas in several ways regarding the relationships between consciousness and activity: (1) "The analysis of consciousness must start with practical activity"; (2) "the basic components of an analysis of practical activity must be interpreted in a functional form"; (3) "consciousness changes as the organization of practice activity changes" through the dialectical nature of consciousness, and; (4) "new levels of the organization of practical activity and consciousness presuppose different principles of organization and development" (p. 67).

Thus, building on the work of Marx and Engel, Vygotsky proposed that biology can only be used to explain the development of animal social organization. Human productive labour and tool use required a new principle of development and a new mode of analysis. Within this foundation, he set out to develop a solution to scientific incompatibilities that existed during his time and foregrounded the idea that all phenomena should be studied as processes in motion and in change. Vygotsky (1978) argued that not only does every phenomenon have its history, but also this history is characterized by changes that are both qualitative and quantitative. Thus, the gap between natural scientific phenomena and cultural forms of behaviour were bridged by tracing the qualitative changes that occur in the course of development.

Elementary and higher psychological processes

Beginning at birth, Vygotsky argued that development is a co-constructive process in which both the social context and biology are active agents. Vygotsky argued that the biological line initially played a larger role than the social line (Wertsch, 1985). Vygotsky viewed the biological line of development as responsible for elementary, or basic psychological processes (Wertsch, 1985). These psychological processes are equivalent to the cognitive capacities of primates. In contrast, the social line of development consisted of what Vygotsky referred to as higher psychological processes (Wertsch, 1985). These are complex and develop in relation to social practices; they are what distinguish humans from primates. In addition, psychological processes maintain a link between cognition and emotion. Vygotsky (1987) noted: "Thought has its origins in the motivating sphere of consciousness, a sphere that includes our inclinations and needs, our interests and impulses, and our affect and emotion. The affective and volitional tendency stands behind thought. Only here do we find the answer to the final 'why' in the analysis of thinking" (p. 282).

Through social practices humans developed cultural tools, uniquely human material objects and ideal processes. Vygotsky argued that the primary cultural tool that facilitated the development of higher psychological processes was language. Through speech, children free themselves from the immediate constraints of their environment (Wertsch, 1991). At approximately one and a half years of age, when children begin using speech, the social line begins to rapidly increase its influence and, as a result of participation in social practices, higher psychological processes develop (Wertsch,

1985). Speech, signs systems, and semiotic systems of meaning eventually become internalized and transform cognition and affect. Thus, biological development produces functions in their elementary forms, whereas cultural development reorganizes and transforms elementary into higher mental processes.

For example, even at the earliest stages of development, Vygotsky argued that there are two types of memory. The first type, which is associated with elementary psychological processes, is called natural memory. Natural memory is the nonmediated impression of the material world and the retention of actual experiences (Vygotsky, 1978). It is a sensation and perception, as it arises out of the direct and immediate influence of external stimuli. Thus, elementary functions, or natural stimuli, are totally and directly determined by stimulation from the environment. The second type of memory, which is associated with higher psychological processes, is shaped by semiotic systems. Semiotic systems reflect a culturally elaborated organization of behaviour, and are a product of specific conditions of social development (Vygotsky, 1978). They work to extend memory, and other psychological processes, beyond biological dimensions of the human nervous system, and permit it to incorporate artificial, self-generated stimuli that are unique to the social constructions of human beings. Accordingly, for higher psychological processes, the creation and use of semiotic systems as systems of meaning making set the stage for human action, both cognitive and physical.

Vygotsky argued that the type of memory that a child employs does not simply change as the child grows older; the role of these activities in the system of psychological processes also changes. Specifically, with a change a psychological processes there occurs a change not just in a single mental function, but also in the interfunctional relations that connect memory with other psychological processes (Vygotsky, 1978). For example, rote memory, rather than abstract thought, is characteristic of the early stages of cognitive development. However, in the course of development a transformation occurs, especially in adolescence. Vygotsky (1978) articulated this transformation as: “For the young child, to think means to recall, but for the adolescent, to recall means to think” (p. 51). Thus, the memory of older children is qualitatively different from younger children, and plays a different role in the child’s cognitive activity as her memory progresses from concrete to abstract. Once again, the analysis of rote memory and semiotic system, or the type of memory characteristic of younger children versus older children, requires multiple and different explanatory principles.

Mediation

Mediation is the capacity of human beings to use tools and signs to sever the direct influence of environmental stimuli on our responses. Central to mediation is what Vygotsky referred to as mediational means or cultural tools. Cultural tools are human-made constructions, either material or ideational, that allow us to accomplish a task by either controlling nature or controlling ourselves (Vygotsky, 1978). Language, for example, is by far the most important cultural tool for Vygotsky (1978), but cultural tools can also be objects like pencils or computers. Cultural tools, thus, shape nature and

assist us as humans to transform our environment and adapt ourselves (Vygotsky, 1978).

Some cultural tools, like language, may be both a tool and a sign depending on the context of use. The basic difference between the tool and sign rests on the mediating function that characterizes each of them, as they have different ways that they orient human behaviour. A tool is externally oriented and transforms nature, whereas a sign is internally oriented and transforms human action (Vygotsky, 1978). However, it is important to note that the mastering of nature and mastering of human action are mutually linked: “A child’s system of activity is determined at each specific stage both by the child’s degree of organic development and by his or her degree of mastery in the use of tools” (Wertsch, 1991, p. 21). Thus, human development is characterized by the inextricable relationship between biology and culture.

Internalization

In the initial phase of the development of sign operations, reliance on external signs is crucial to the child’s effort. But through development, these operations evolve to take place as internal processes. According to Vygotsky, the more developed child is still engaging in memorization, he or she just perfects the old way of memorizing and develops to abandon the reliance on external signs (Vygotsky, 1978). Thus, the internal reconstruction of an external sign operation is what is known as internalization.

The process of internalization consists of a series of transformations. First, “an operation that initially represents an external activity is reconstructed and begins to occur internally” (Vygotsky, 1978, p. 57). Over time, what originates as an interpersonal, social process is transformed into an intrapersonal one (Vygotsky, 1978). Thus, every function in the child’s development appears twice: first, on the social level and later, on the individual level. This is what is referred to as Vygotsky’s *general genetic law of cultural development* (Wertsch, 1985). Development, according to this law, is a transformative process, not a transmissive process. Therefore, internalization involves the *reconstruction* of psychological activity on the basis of sign operations, and is the process of gaining control over external sign forms (Vygotsky, 1978; Wertsch, 1985). Further, the transformation of an interpersonal process into an intrapersonal one does not just happen overnight. Transformation is instead the result of ongoing developmental events. Wertsch (1985) further developed Vygotsky’s notion of internalization in that he theorized that the process of internalizing was never finite within the individual, that it always remained social in nature to some extent.

The zone of proximal development

Vygotsky (1978) introduced the zone of proximal development (ZPD) in an effort to address two practical problems in educational psychology: the assessment of children’s intellectual abilities and the evaluation of instructional practices (Wertsch, 1985). With respect to the former, he believed that existing techniques of psychological testing focused too heavily on intrapsychological accomplishments and failed to address the issue of predicting future growth, a major concern to Soviet psychology (Vygotsky,

1978). In addition, Vygotsky argued that it was important to assess what children can do with the assistance of others as more indicative of their potential cognitive development than what they can do alone.

Vygotsky defined the ZPD as “the distance between a child’s actual developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Wertsch, 1985, p. 67). It is important to note that the word *proximal* in the ZPD means potential or possible as opposed to physically close. Thus, the ZPD defines those functions that have not yet developed, but are in the process of developing (Wertsch, 1985). It allows us to determine not just what has been achieved developmentally, but also what is on the verge of developing. Thus, learning and instruction drive development. Vygotsky (1978) argued that when instruction is in advance of development, it pulls development forward, highlighting the position where a student may function with the help of another who *scaffolds* or supports their development. In addition, Vygotsky argued that learning via zones of proximal development continues throughout life, and, as noted earlier, that learning includes both cognitive and affective transformation.

The ZPD draws upon a notion that performance comes before competence (Cazden, 1981). As children perform in advance of their competence, with the help of supportive and knowledgeable others that give consistent support, practice enables them to ultimately become competent without the assistance of others. Thus, assessment using

the ZPD looks different from traditional testing, and has important implications for assessment and instruction in classrooms. Traditionally in schools, we have only assessed development retrospectively on tests, measuring individual independent mastery. However, according to Vygotsky, assessment should measure prospective ability and what children are capable of with assistance, and this information should be used to guide instruction.

Building on this idea, it is important to note that the ZPD is a collective process. Learning requires interaction with others in the environment and cooperation with peers, and thus does not occur in a vacuum. Further, in order to make use of the help of more knowledgeable others, there has to be a relationship between the teacher and the learner. Thus, human learning presupposes a specific social nature and a process of socially-dependent intellectual development (Vygotsky, 1978).

Sociocultural methods in research

In response to the reductive tendency of theoretical orientations in psychology, proponents of sociocultural theory stated that we must describe and explain phenomena by examining it using a multi-level methodology that bridges micro and macro levels and draws from the disciplines of psychology, sociology, anthropology, and history (Vygotsky, 1978). Thus, in order to understand the development of a child, we need to examine it within multiple lenses in relation to each other in a holistic way, and to conduct our research in a cross-disciplinary fashion (Wertsch, 1985). Speech, language, mediational means, and cultural tools, as identified by the work of Vygotsky,

are tools that allow access to all four disciplines (Wertsch, 1985). Development is, thus, not an ordered or progressive or linear change, but a complex dialectical process characterized by qualitative transformations across multiple domains (Vygotsky, 1978; Wertsch, 1985).

According to Vygotsky, there are four different levels or genetic domains that roughly reflect the disciplines and that one has to take into account when studying psychological phenomena. The first domain, called phylogenesis, is based on the explanatory principle that the developmental history of the human species occurs via anatomical evolution and natural selection (Wertsch, 1985). In essence, it is the developmental history of the human species and draws from disciplines such as anthropology and biology. This domain focuses on the comparisons between primates and humans and Vygotsky relied heavily on the research by Kohler on tool-mediated practical activity to identify it. Although Kohler claimed that tool use was one of the conditions that set the stage for the emergence of higher psychological processes, Vygotsky argued that tool use was necessary but not sufficient for the emergence of uniquely human higher psychological processes. He argued instead that the use of tools provides the foundation for socially organized labour. With the appearance of labour, the development of mental functioning becomes grounded in qualitatively new principles (Wertsch, 1985). Labour, in addition, is the basic factor in the differentiation between primates and humans and the first basic condition of human existence (Wertsch, 1985). Vygotsky's stress on the notion of labour transforming humans clearly originated from his reading of Marx. But, unlike Marx, Vygotsky foregrounded the importance of

speech, language, and semiotic systems as equally important to labour and production as the key to distinguishing humans from primates (Wertsch, 1985). Thus, with the added notion of cultural tools and labour, the distinction between primates and humans cannot be made solely on the basis of evolutionary theory. Evolutionary theory, according to Wertsch (1985), is simply “the prerequisite for the scientific construction of human psychology and cannot encompass all of it” (p. 28). The other foundation involves mediation and the associated changes in social and psychological development.

The second genetic domain is the sociocultural domain. Drawing on the disciplines of sociology and linguistics, this perspective focuses on the macro level of society, including social discourses, practices, norms, and social evolution (Wertsch, 1985). The sociocultural domain operates based on a different explanatory principle than the phylogenetic domain since the nature of development changes when one moves from one genetic domain to the other (Wertsch, 1985). Specifically, developmental histories in the sociocultural domain are attributed to the decontextualization of mediational means, or “the process whereby the meaning of signs becomes less and less dependent on the unique spatiotemporal context in which they are used” (Wertsch, 1985, p. 33). Language is a classic example of an advanced cultural tool that allows for decontextualization and systemization. Socially constructed meaning attached to signs and symbols that comprise a language allow elementary psychological processes to rise from concrete to abstract. Through the decontextualization of meaning, it becomes possible to conceive of past and present time perspectives (Wertsch, 1985). The

decontextualization of mediational means also allows the use of numbers or words to represent something out of context, and to pass meaning from generation to generation through sociocultural interaction, rather than direct experience. It is through the internalization of culturally constructed and decontextualized signs and symbols that human cognition develops given the ability to classify and interact with phenomena that is mediated through a sign system (Vygotsky, 1978; Wertsch, 1985). Thus, Vygotsky argued that, fundamentally, the collection of signs, symbols, and tools constitutes the developmental history of society and forms the foundation for our higher mental processes.

Ontogenesis, the third domain, is what is known as the developmental history of the individual child. It is based on multiple explanatory principles such as internalization, mediation, dialectical relationships, and the general genetic law of cultural development (Wertsch, 1985). Consequently, the main criterion that distinguishes ontogenesis from phylogenesis and the sociocultural domain is that ontogenesis involves the simultaneous, interrelated operation of more than one force of development (Wertsch, 1985). This aspect of ontogenesis is advantageous on one hand, yet problematic on the other. According to Wertsch (1985), "While this domain has the advantage of being observable in its entirety, it has the disadvantage of precluding the study of any developmental force in isolation" (p. 41). Specifically, the developmental forces of ontogenesis include both a natural, or biological, and a social line of development. The distinction that Vygotsky makes between these two lines of development is closely

linked to the distinction between elementary and higher psychological processes.

According to Wertsch (1985):

The natural line of development is generally associated with elementary functions, and the cultural line with higher mental functions. Furthermore, natural development is explained primarily on the basis of biological principles, whereas cultural development is attributed to principles that apply to mediational means, including the principle of decontextualization. (p. 42)

Thus, the natural line provides the raw materials that are then transformed by cultural forces.

Vygotsky assumed that the natural forces cease to play an active role in ontogenetic change after an early period and that cultural forces take on a greater role over time (Wertsch, 1985). However, constraints from the natural line may still be in effect. Just as in phylogenesis, the natural line provides the necessary, but not sufficient conditions for development (Wertsch, 1985). It provides a rather fixed framework within which cultural forces operate. Cultural forces, on the other hand, continue to evolve and play an active role in ontogenesis (Wertsch, 1985). Since the natural and sociocultural forces of change cannot be empirically separated during any phase of ontogenesis, this domain can only be properly understood by theoretically separating them in order to examine their mutually transformatory powers (Wertsch, 1985).

Microgenesis, the fourth and final domain, is the developmental history of particular higher psychological processes and is based on multiple explanatory principles

(Wertsch, 1985). The first type of microgenesis identified by Vygotsky involves the short-term formation of a psychological process. The study of this domain requires observations of subjects' repeated trials in a task setting (Wertsch, 1985). The second type of microgenesis is the unfolding of an individual perceptual or conceptual act, often over the course of milliseconds, such as speech production or the movement of thought to speech production (Wertsch, 1985).

Traditionally, the discipline of psychology generally has studied the final two domains of developmental history, ontogenesis and microgenesis. Unlike Vygotsky who sought to examine development across all four genetic domains, most psychologists, like Piaget, focused on ontogenesis and microgenesis. However, Vygotsky argued that in order to understand microgenesis, it must be studied in relation to ontogenesis, the sociocultural domain, and phylogenesis. Thus, a complete genetic analysis of human psychological processes calls upon the researcher to integrate factors from several domains, and several disciplines, since more than one explanatory principle is in operation (Wertsch, 1985).

Summary

An investigation of Indigenous education using Indigenous and sociocultural research approaches may address a gap in the literature on Indigenous school engagement. In doing so, however, researchers need to continue to strive to understand the history of Indigenous-white relations that continues to introduce and reinforce barriers to equity. As Marker (2000) stated, "The issues of voice and authority will never be insignificant

factors, but research that emphasizes the history of Indian-white relations, rather than a tourist's approach to studying the Indians, would lessen the concern about non-Natives writing about First Nations" (p. 32). Thus, research must foreground the social struggle by Indigenous peoples to advocate the use of their own perspectives and cultural traditions, and the need to overcome this oppression in society. Further, though sociocultural theory and methodology appears to be successful in addressing some of the previous issues raised by positivist research leading to cultural inequity and misrepresentation, it is imperative that researchers still critically analyze the cultural appropriateness of sociocultural theory and methodology when applied to Indigenous populations. If sociocultural theory and methodology is employed in Indigenous research, it must be informed by an Indigenous approach. This ensures that sociocultural theory foregrounds the interests and values of the Indigenous peoples and/or communities under study.

CHAPTER 3: METHODOLOGY

In this chapter, I discuss philosophical inquiry, the methodology used in this thesis, and the reasons for its use. I, then, discuss my procedure in articulating an Indigenous and sociocultural approach to theory and methodology to Indigenous school engagement. I, finally, locate myself as the researcher and the importance of this step in Indigenous research.

Philosophical inquiry

Philosophical Inquiry is one of the oldest approaches to research in education (Burbules & Warnick, 2006). The founders of philosophical inquiry, namely Socrates and Plato, originally engaged in this method because they felt that “the purposes and methods of education [were] inseparable from reflection on morality, knowledge, or the nature of a just society” (Burbules & Warnick, 2006, p. 489). Thus, the question of how to foster the desirable qualities of an intelligent person or good citizen was an essential part of thinking about what qualities in particular should be studied. However, many positivist researchers in education today often neglect philosophical inquiry. They tend to focus on standardization, test construction, and narrow, objectively framed, individualistic processes in education, rather than looking at the actual framework within which these studies surface (Burbules & Warnick, 2006). It is just as important, if not more so, however, to examine educational aims and their grounding in deeper assumptions about knowledge and value: assumptions derived from socially constructed ideologies, practices, and discourses that construct social contexts and challenge the perspective that objectivism is possible, let alone preferred, in research.

Philosophical inquiry is a way of generating knowledge and perspective that provides answers to questions that we encounter in educational research and practice (Burbules & Warnick, 2006). One of the ways to do this is to speculate about alternative systems or practices of education, whether utopian or programmatic, which contrast with and challenge conventional educational understandings and practices (Burbules & Warnick, 2006). According to Burbules and Warnick (2006), “the aim of this method is to open up an enriched perspective on our own taken-for-granted assumptions about educational aims and purposes” (p. 497). This approach aims to explore what is realistic and relevant, and sometimes creates controversy over the current status quo. The practical procedure that is to be employed in this study accounts for some of the critiques of traditional philosophical inquiry, which are sometimes identified as irrelevancy and impracticality (Burbules & Warnick, 2006).

Procedure

In attempting to articulate a conceptual bridge between Indigenous and sociocultural approaches in education, I gathered information on Indigenous and sociocultural theories of learning from various scholars and a wide literature base. The criteria that I used for selecting the Indigenous theories of learning were formed from talking to Indigenous scholars. I was given advice on who were the most credible sources to use in the field. These tended to be scholars who had published in peer reviewed journals and who self-identified as being Indigenous, or had experienced Indigenous learning within its traditional context. However, it is important to note that many of these sources lacked voice from actual Indigenous students, and therefore their validity may be lacking

in terms of their actual representation of school engagement issues for Indigenous youths. The lack of youths' voice in research reflects two wider methodological problems: 1) The lack of research conducted with youths, and Indigenous youths more specifically, and; 2) the difficulty of gathering and representing the voices of both youths and adults who are marginalized. These problems, as well as the issue of claiming validity of voices, remain ongoing trouble spots in research with Indigenous people and qualitative research as well. I then supplemented this with previous knowledge that I gained from my undergraduate courses on Indigenous knowledges, along with personal experience.

The criteria that I used for selecting the authoritative texts for sociocultural theory were based in part on my coursework experience as a graduate student. I used predominantly primary sources for my discussion of sociocultural theory and extended this literature with current extensions of sociocultural theory. In particular, the concept of power needed to be more explicitly theorized and to do this I reviewed sociocultural discussion of power and asymmetrical social relations and relationships, as well as critical perspectives on power.

Using this information, I elaborated on the existing information that I had constructed on the basic principles of Indigenous and sociocultural theory and methodology. In constructing my articulation of Indigenous theory and methodology for learning, I researched the work of various noted Indigenous scholars in the field such as Archibald, Marker, Cajete, Deloria, Castellano, Kuokkanen, Smith, Battiste, and others. In

constructing my articulation of sociocultural theory and methodology for learning, I grounded my work in Vygotsky's and Wertsch's ideas. In addition, I expanded sociocultural theory and methodology using Apple's work, a critical theorist, to foreground a more critical perspective. After constructing an Indigenous and sociocultural theory of learning and methodology, I sought to explore how concepts from Indigenous theories of learning and methods articulated with a sociocultural approach. Specifically, I looked at the ways in which they converged and diverged. Next, I proposed what an Indigenized sociocultural approach might look like, both in terms of theory and methodology. Finally, I articulated how an Indigenized sociocultural approach may be used to ground research into early school leaving with members of Indigenous communities. This application may be used for future empirical and qualitative research as a method of assessing the usefulness of the philosophical inquiry offered here.

Location of the researcher

When you inquire about an Indian, the first question is always, where do you come from? Followed by who are your relatives? In American society, you are asked where you come from and what do you do. (Deloria, 1998, p. 218)

Location identifies the researcher's context and includes information such as where they are from, their race, gender, who they are connected to, and the purpose of their research. The necessity for the researcher to locate herself or himself is one of the most fundamental principles of Indigenous research (Absolon & Willett, 2005). In fact, Absolon and Willett (2005) stated that it is impossible to conduct valid and ethical

research involving Indigenous peoples without location because location asserts the identity of the writer and how this affects the research. Indeed, for both qualitative and Indigenous research, the researcher's identity intertwines with her or his understanding of the research (Peshkin, 2000). More specifically, the researcher's orientation and the way they define the research should not have ramifications for the way that people are treated or thought of (Peshkin, 2000). Identifying the location from which the voice of the researcher emanates is an Indigenous way of ensuring that those who study, write, and participate in knowledge creation are accountable for their own influence on the research (Absolon & Willett, 2005). Thus, when researching Indigenous peoples, it is imperative that researchers locate themselves and the location from which they conduct research.

When introducing myself as an Indigenous researcher, I must clarify *who* I am and *where* I come from. As Absolon and Willett (2005) stated, objectivity is not a stance that I use in Indigenous research because all research is conducted and observed through epistemological lenses. Therefore, I must identify the location of my voice and ensure that I use an Indigenous way of presenting knowledge.

In locating myself in this research process with my Cree/Ojibway and Russian heritage, I am employing the Indigenous and sociocultural theoretical perspectives that are characteristic of my ethnic backgrounds. As someone with both Indigenous and non-Indigenous heritage, it is necessary that I harmonize these two worlds that make up my existence and find a balance between the opposing forces through finding congruency

in these two worldviews. According to Indigenous scholar Peter Cole (2007), although being of mixed descent often like living in a third space with no one concrete culture with which to identify, it is a gift to occupy a position in at least two worlds and to be able to see both perspectives (personal communication, August 2). In doing so, I am better equipped to communicate the needs of the Indigenous and Western communities in hopes of findings a balance between the two. Thus, in conducting this research, I drew upon the works of both Indigenous and sociocultural scholars to cautiously examine two bodies of literature that incorporate both worldviews and ways of addressing school engagement.

My goal in conducting this research is to learn more about how to combine the strengths of Indigenous and non-Indigenous theories of learning to improve the lives of Indigenous youths in schools. If this investigation is performed through an Indigenous lens, I may ensure that the power of the Indigenous peoples remains foregrounded in the generation of theory and practice. However, I hope to find the strengths of an Indigenized, culturally-sensitive Western perspective, to enable educators and youths to engage in practices that are intelligible by both Western and Indigenous worldviews. This is important to have, particularly within the multicultural context in which urban Indigenous youths live. In theorizing ways to increase school engagement with Indigenous youths, I hope to contribute to research that will help to increase the educational attainment of Indigenous peoples in Canada.

This research is important to me because as a child, I moved to a Nisga'a reserve in Northern British Columbia where I attended elementary school. I was struck by the disparities that existed between the reserve and the Vancouver community where I was raised. Such disparities included health care services, socioeconomic status, and quality of education. Although disparities in health and education have improved over time on my reserve and many others in British Columbia, they are still highly significant. One result of these disparate conditions that still exists today is the disproportionate secondary school early school leaving rate.

My experiences are well documented in the literature (Akan, 1999; Archibald, 1995; Ball, 2004; Battiste & Henderson, 2000; Bazylak, 2002; Brown et al., 2005; Bull & Alia, 2004; Chisholm, 1994; Machamer & Gruber, 1998; Marker, 2000, 2006; Smith, 1999; Statistics Canada, 2003). I assume at the outset of this study, based on my experience and the literature, that education may help to increase socioeconomic status, empowerment, and self-determination in Indigenous students. Further, I assume that there is a need for these factors to be increased for many Indigenous communities.

Summary

Chapter Three provided an overview of philosophical inquiry and explained the methodology I used to address my research questions. The procedure used in this study was also discussed, and I explained how articulating an Indigenous and sociocultural approach to theory and methodology may be applied to empirical research into Indigenous school engagement. Finally, the location of myself as the researcher

was described, with emphasis on the importance of this step in conducting Indigenous research.

CHAPTER 4: ARTICULATING INDIGENOUS AND SOCIOCULTURAL THEORIES AND METHODOLOGIES

In this chapter, I discuss how Indigenous and sociocultural theories and methodologies articulate. I refer specifically to how they converge, as well as diverge, and suggest what an Indigenized sociocultural theory and methodology might look like.

Indigenous and sociocultural theories of learning: Convergences

Indigenous and sociocultural theories of learning both appear to have several conceptual similarities. They both see learning as a situated and social process, and emphasize the importance of language. In addition, they both see learning involving ongoing experience and participation. Finally, both Indigenous and sociocultural theories of learning see learning as a transformative and holistic process.

Learning as a situated process

Indigenous and sociocultural theories of learning emphasize the importance of situated learning. Both theories see “context” as dynamic and consisting of the unique make-up of cultural practices, modes of communication, and physical and natural environment, including, for example, the landscape as well as cultural structures. Therefore, learning contexts are culturally specific and heterogeneous. For example, Indigenous cultures each have their own ways of learning and passing down their culture and practices, through unique meanings for cultural tools and symbols, such as the circle (Archibald, 2008). Language is also contextualized in Indigenous learning and intimately tied to the landscape, as a unique mode of communication for each Indigenous culture.

Furthermore, in an Indigenous theory of learning, descriptions of natural places figure predominantly where learning is dependent on the immediate and surrounding natural environment (Cajete, 2000). Indigenous epistemologies are uniquely rooted in a sacred connection to the land and ecosystem (Cajete, 2000). In this way, the immediate natural environment actually frames reality that forms learning experiences (Cajete, 2000). Consistent with this, sociocultural theory views development as occurring through of the unique, culturally-derived forms of cultural practices and semiotic systems as a result of mediation and internalization. Since language often varies cross-culturally, Vygotsky argued that cognition and affect varied cross-culturally as well given the primary role of language in the construction of cognition, affect, and reality (Wertsch, 1991). In addition, for sociocultural theory the physical environment plays an important role in terms of providing resources, like cultural tools, and physical affordances and constraints.

Another important part of situated learning is the unique history that each context carries with it, which can affect learning and development. For example, an important part of Indigenous learning is passing on the history of a people and to learn from the mistakes and successes of ancestors (Archibald, 2008; Loppie, 2007). Histories give learners information on how to survive and reproduce their culture in the context within which they reside. As a complement, Vygotsky emphasized the importance of history and its impact on current development. Following historical materialism, he stated that historical changes in society and material life produce changes in human consciousness and behaviour (Wertsch, 1991). The ability of cultures to communicate and build upon

cultural practices from one generation to the next is the result of the ability of individuals to create and use artifacts: aspects of the world that are taken up into human action as modes of coordinating with the physical and social environment (Cole, 1995).

Learning as a social process

Indigenous and sociocultural theories of learning both state that learning is a social process. In Indigenous education, the purpose and function of education is to serve the community, not individual interests (Hampton, 1995). Knowledge is a shared resource that is acquired cooperatively. Furthermore, group cohesion is necessary in order for learning to take place (Stairs, 1995). In support of this, Vygotsky proposed that a learner can actually perform at a higher level with the guidance of more capable adults or peers (Vygotsky, 1978). Further, he argued that learning and instruction drive development forward (Vygotsky, 1978). If this is the case, then social relationships are imperative for learning to occur. In support of this, Indigenous scholars argue that strong relationships within the community are necessary in order to pass on culture to the younger generations (Cajete, 2000). Social relationships are, thus, an *essential* aspect of learning in Indigenous and sociocultural theories of learning.

The role of elders in Indigenous learning parallels the requirement of a more experienced adult/peer who shapes learning in the ZPD. The relationship with elders is critical in sharing knowledge and in forming identity, as elders must be seen as having authority and respect in order for learners to value the information that they give to them (Archibald, 2008). Similarly, Vygotsky viewed development as depending on a child's

learning of the collective wisdom of more knowledgeable others (Bakhurst, 2007). In sociocultural theory, the effectiveness of the ZPD is dependent on the relationship between the learner and the teacher for optimal learning to occur (Vygotsky, 1978). The ZPD is thus a collective process that requires interaction with others in the context, as well as cooperation with more knowledgeable or experienced others. Subsequently, learning is founded upon relationships for both Indigenous and sociocultural theories, and involves learning through, with, and for others.

Learning through language

Indigenous and sociocultural theories of learning both foreground the importance of language in learning. Additionally, language is seen by both perspectives as perhaps the most invaluable asset of culture. For example, in Indigenous learning, culture is passed down through oral traditions shared through language (Archibald, 2008). Oral traditions are not only used as a teaching tool, but as a way of guiding socially appropriate behaviour and values (Loppie, 2007). Similar to this, Vygotsky argued that the primary cultural tool that facilitates the development of higher psychological processes is language, and, more specifically, speech (Wertsch, 1991). Through speech, he stated that children free themselves from the immediate constraints of the natural environment (Wertsch, 1991).

Another important part of Indigenous and sociocultural theories of learning is the use of semiotic or mediational means to construct meaning. In Indigenous learning, circles are often used to symbolize holism (Archibald, 2008). Frequently, symbols represent a

metaphor and meaning that is contextualized in myth, experience, or understanding (Cajete, 2000). In sociocultural theory, mediational means mediate all aspects of human development and learning, and are internalized over time. Together, speech, sign systems, and semiotic systems of meaning eventually become internalized and transform our cognition and affect (Wertsch, 1985).

Learning through experience and participation

Indigenous and sociocultural theories of learning appear to have similarities with regards to their emphasis on experience and participation. In Indigenous education, most learning is experiential, involving participation in real adult activities and subjective awareness (Cajete, 2000). In addition, it is believed that each person learns uniquely and at their own pace (Cajete, 2000). Learning occurs through repeated participation in cultural practices (Leavitt, 1995). For example, the process in which Indigenous children are taught skills and progressively gain responsibility from adults is similar to the sociocultural principles of scaffolding and aiming instruction within the ZPD beyond the actual level of development. This connection is strengthened by the fact that Indigenous students participate in meaningful cultural practices as they learn, giving them an immediate role in the community. This fits with the sociocultural view that people learn through repeated engagement in cultural practices, performing roles before they are fully competent given support from others in the ZPD (Cazden, 1981). Therefore, learners need to actively experience and participate in meaningful cultural activities in order for competence to develop.

Learning as a transformative process

Indigenous and sociocultural theories of learning theorize learning as a transformative process. For example, in Indigenous learning, the world is constantly in motion and undergoing transformation, along with people in it (Cajete, 2000). Some scholars even say that the essence of life for Indigenous peoples is movement (Witherspoon, 1977). Reflective of this principle, most Indigenous languages are verb-based as opposed to noun-based, which means that human experience is a process that is constantly changing and transforming, rather than being static (Cajete, 2000). Consistent with this, Vygotsky highlighted the fact that every phenomenon has its history marked by changes that are both qualitative and quantitative (Wertsch, 1985). He also stated, following Marx, “it is only in movement that a body shows that it is” (Vygotsky, 1978, p. 65). For example, the type of memory that a child employs transforms as she grows older (Vygotsky, 1978). Further in support of Indigenous learning, this process does not stop once the child reaches adolescence, but continues throughout the lifespan. With the use of tools and signs, people transform themselves as they engage in cultural activity (Vygotsky, 1978). Through internalization the reconstruction of psychological activity occurs, transforming an interpersonal process into an intrapersonal one (Wertsch, 1985).

Learning as a holistic process

Finally, Indigenous and sociocultural theories of learning see learning as a holistic process. In many Indigenous cultures, learning is a holistic experience that emphasizes interconnectedness between the intellectual, spiritual, emotional, and physical realms

(Archibald, 2008). Further, development of holism is influenced by one's family, community, band, and nation (Archibald, 2008). A classic example of holism in education is the use of the medicine wheel as a teaching tool to maintain awareness of the interrelatedness of all life in order to deepen our understanding by focusing on segments of the whole (Calliou, 1995). Language in many Indigenous cultures enables a holistic experience that not only engages each dimension of the person, but also maintains a continual engagement with nature (Cajete, 2000). Thus, learning is multi-modal as it can arise from many different experiences, such as song and dance, hunting, spirituality, or art. In support of this, Vygotsky's sociocultural theory attempts to provide a contextualized theory of human psychological processes that maintains the inseparability of cognition and affect, knowledge and identity, self and other, using multiple explanatory principles to develop a holistic picture of human development (Vygotsky, 1978; Wertsch, 1985). He stated that we must draw from multiple disciplines, such as psychology, sociology, anthropology, and history to explain human or mediated action (Wertsch, 1985). In arguing for interdisciplinary explanations of learning, he attempted to incorporate multiple lenses and perspectives on development in order to situate development. He argued that learning does not occur in a vacuum, but instead reflects the organization of cultural practices that exist in a community as a whole.

Overlaps between Indigenous and sociocultural methodologies

Indigenous and sociocultural methodologies in education both appear to have some similarities. First, they both appear to value subjectivity and qualitative research

methods. Second, they both appear to value the use of multiple explanatory principles in understanding phenomena.

Subjectivity and qualitative research methods

Sociocultural and Indigenous methodologies both foreground the importance of subjective knowledge using qualitative research methods. For example, an Indigenous way of conducting research is to abandon the stance of studying the “other,” and instead develop mutual, nurturing relationships between researchers and participants (Apffel-Marlin, 1998). The stance of the researcher must be made explicit in this process in order to understand their history, assumptions, biases, and investment in the research. Also within the Indigenous research paradigm, questions must be flexible to account for changes in the context and the needs of the community (Archibald, 2008). In support of this, sociocultural methodology views development as not a progressive or linear change but a complex dialectical process, characterized by qualitative transformations across multiple domains (Vygotsky, 1978; Wertsch, 1985). A sociocultural methodology is grounded in interpretivist or critical concepts, including, for example, the “active interview” (Holstein & Gubrium, 1995), which foregrounds the constructive role of language in interviews, as well as the complex relationship between interviewer and interviewee. According to Patton (2002), this type of qualitative interviewing assumes that the perspective of others is in fact meaningful, and it is the responsibility of the researcher to ensure that this perspective is reflected as accurately as possible, recognizing it as a social construction.

Multiple explanatory principles

Both Indigenous and sociocultural perspectives foreground the importance of surfacing multiple explanatory principles in arriving at the explanation for the subject of research. They hold that differing perspectives are neither right nor wrong, but the overextension of one view over the other is what can lead to the misinterpretation of reality. They ask research questions that have a wide scope, since the social, cultural, and historical context is always considered when looking at a research problem. Using this perspective, problems are seen more holistically than if seen through a positivist or objectivist lens. Problems are also approached in a way that is culturally sensitive, yielding results that are more valid and comprehensive. For example, Indigenous methodology does not usually use deductive reasoning in isolation, but instead arrives at new principles and new explanations for research problems based on the needs of the community (Barnhardt & Kawagley, 2005). Further, Indigenous research methodology must be flexible enough to explain phenomena in a way that is sensitive to traditional values, taking into account definitions and expectations of behaviours within the community and the myriad of factors that affect the research (Caldwell, 2005).

There are four different genetic domains in sociocultural theory that inform methodology — phylogenesis, sociocultural, ontogenesis, and microgenesis — all with different explanatory principles that the researcher should consider when studying phenomena (Wertsch, 1985). Sociocultural theory, therefore, uses a multi-level methodology that bridges micro and macro levels and draws from the disciplines of psychology, sociology, anthropology, and history (Vygotsky, 1978). In order to understand a child's

development, given the research question, a consideration should be made of all four of these domains in relation to each other, and to be conducted in a cross-disciplinary fashion (Vygotsky, 1978). However, Scribner (1985) notes that the sociocultural, ontogenetic, and microgenetic domains are more consistently applied in psychological and educational research. Therefore, there is flexibility in the extent to which each genetic domain is applied in research. Together, Indigenous and sociocultural methodologies address the critiques of positivism, objectivism, eurocentrism, and individualism by looking at research questions as inextricably situated within a social, cultural, and historical context.

Indigenous and sociocultural theories of learning: Divergences

Although Indigenous and sociocultural theories and methodologies have several congruencies, they also appear to have some divergences. They appear to diverge on the perspective taken on historical progress, human mastery over nature, the view of animals, and individual versus group mastery.

Historical progress

An Indigenous theory of learning emphasizes the maintenance and sustainability of cultural traditions, as opposed to linear progress and the development of more “advanced” societies (Cajete, 2000). However, Vygotsky’s views may not be congruent with an Indigenous theory of learning when it comes to historical progress (Bakhurst, 2007). Specifically, some theorists argue that Vygotsky’s view of cultural evolution

proceeds on a linear scale from primitive to scientific, and individual psychological development follows a similar progression:

Just as the spontaneous, untheoretical modes of conceptualization characteristic of “primitive” peoples gives way to the sophisticated cognitive and technological powers of scientific cultures, so a child’s psychological development moves from elementary forms of mental function to the full-blown rationality of a self-conscious subject of scientific knowledge. (Bakhurst, 2007, p. 62)

While different scholars would challenge Bakhurst’s interpretation of Vygotsky (Wertsch, 1985), Vygotsky appeared to believe in a Marxist notion of social progress, and the idea that humanity was on a path of intellectual, scientific, and social evolution. He appeared to subscribe to the idea that society was gaining more powerful knowledge and technology, which would lead to the emergence of ever more just forms of social organization (Bakhurst, 2007).

Although this connection to Marxism is, in many ways, better than having Vygotsky’s theory rooted in capitalism, it may be problematic if sociocultural theory is applied to an Indigenous context. For example, some scholars such as Churchill (1983) and Deloria (1983) do not believe that Marxism can be separated from the rest of the European intellectual traditions. Simply put, they have argued that Marx and Engels supported the colonialist powers, and believed that colonialism represented a state that non-Western countries necessarily had to pass through (Tabb, 1983). In contrast, rather than attempt to gain progress and evolve as a society in a linear fashion, Indigenous peoples have generally attempted to support traditions and customs, which have been tried and

tested to work by their ancestors for generations and generations. Further, Indigenous peoples did not historically seek wealth and material gain, but instead chose to give away wealth as it was perceived to provide a sense of false status (Churchill, 1983). However, it is important to note that Marx stated that the universal system that he attempted to build was not a useful analytic tool for studying non-Western societies. He understood the need to examine each particular cultural-historical setting and the futility of assuming that the researcher “discovers” an objective reality (Tabb, 1983). Marxism, as both a theory and ideology, has also been quite useful for arguing against the greater threat to Indigenous peoples worldwide: global capitalism (Churchill, 1983).

Mastery over nature

The emphasis of human “mastery over nature” that underlies sociocultural theory, based on its roots in Marxism, limits its applicability to Indigenous issues. For example, an Indigenous theory emphasizes learning from the land and respecting the earth as a sacred place (Cajete, 2000). Additionally, Indigenous cultural tools appear to be developed in order to live *with* nature as opposed to control it, as many Indigenous peoples are harvesters and not producers. Many Indigenous peoples believe that everything is whole and perfect in nature, and does not need to be changed or manipulated. In fact, many Indigenous peoples feel that we have destroyed the environment because humans have manipulated it (Orlowski, 2004).

In contrast, Vygotsky, following Marx, argued that the uniquely human development of higher psychological processes rests on the mastery of nature through the creation of

tools to control nature and signs to control our own psychological processes (Bakhurst, 2007). The task of mastering ourselves is one with the task of mastering nature (Bakhurst, 2007). Here, Vygotsky's commitment to Marxism is seen again. Marx stated that through labour, humans transform themselves into an appropriate medium for self-development; people must be working on and transforming nature to be developing (Deloria, 1983). However, some speculate that Marx took the land for granted because industrialism fouled the air, water, and soil (Tabb, 1983). Further, the destruction of the environment shows that nature cannot be controlled for our purposes (Orlowski, 2004). Though others argue that it is not Marxism, but is instead capitalism, that takes the land for granted, this continues to be an unresolved tension.

View of animals

Many Indigenous peoples see animals as being equal to, or more powerful than human beings. In fact, many Indigenous peoples believe that many spiritual lessons have been learned from animals such as Coyote or Raven (Archibald, 2008). Thus, animals have a way of communicating with humans and, further, have important lessons to teach humans. Further, many Indigenous groups use animals to symbolize families and clans. Animals even take on a mythical and interrelated property in that they can sometimes transform into humans and then back to animals (Cajete, 2000). In contrast, sociocultural theory differentiates between humans and primates as having qualitatively different levels of cognitive development, with humans being able to perform qualitatively different and more complex cognitive tasks with the introduction of cultural tools, language, and social practices (Vygotsky, 1978). Drawing on evolutionary theory,

sociocultural theory assumes that humans are different from primates and more “advanced” in an evolutionary hierarchy.

Individual vs. group mastery

Another discrepancy with the application of sociocultural theory to Indigenous issues in education is that Indigenous learning is a group process, rather than an individual one. According to Graham Smith (2008), “if one child fails in the class, the whole class fails” (personal communication, May 20). However, Vygotsky’s earlier work was based on observations of individual learners while emphasizing cultural, historical, and social factors in their development (Bakhurst, 2007). According to Wertsch (1991), he focused on individual learning as a result of dyads and small group interactions. Further, he tended to focus more on cognitive development over other aspects of development, such as social and physical development (Bakhurst, 2007), even though he stated that cognition and affect are inseparable. Thus, the individual was still treated as the ultimate focus of psychological inquiry. According to Wertsch (1991), “in order to formulate a more comprehensive sociocultural approach to psychological processes one should identify historically, culturally, and institutionally situated forms of mediated action and specify how their mastery leads to particular forms of mediated action on the intramental plane” (p. 48). While proponents of Vygotsky’s ideas have elaborated them in the areas of social and emotional development, the emphasis is still on individual development, though, theoretically, qualities of individuals may be extended to groups in sociocultural theory: individual cognition vs. distributed cognition (Hutchins, 1995), and individual mastery vs. shared mastery (Wertsch, 1985). Concepts like distributed

cognition, shared mastery, and guided participation (Rogoff, 1990) foreground the notion of formerly individualized attributes applied to groups and social relationships.

Tensions between Indigenous and sociocultural methodologies

Although Indigenous and sociocultural methodologies converge on several aspects, Indigenous and sociocultural methodologies appear to diverge in terms of cultural responsibility and the idea of evolutionary progress.

Cultural responsibility

One of the most important aspects of Indigenous research is giving back to the community (Archibald, 2008; Cole, 2002; Kuokkanen, 2007; Smith, 1999).

Consequently, members of most Indigenous communities require that research with Indigenous peoples benefit those communities. It should be carried out from inception to conclusion in collaboration with participating communities (Kuokkanen, 2007).

Sociocultural theory does not foreground the importance of giving back to communities, perhaps because it is a Western theory and, thus, was not created in response to the experience of colonization. Positivist researchers from Western societies have taken for granted the idea that the scientist always “does” something to nature to control or manipulate it, like the classic “independent variable.” However, even interpretivist researchers frequently forget the importance of critically looking at the impact of their interpretation or presence on communities and the land. And, perhaps even more important, researchers rarely consider how they could “give back” to the community of participants. Sociocultural methodology does not assume an objectivist stance;

however, since it stems from a eurocentric context, its methodology still has the potential to “rob” communities of their knowledge if it: 1) does not challenge the Western assumption of academic entitlement to all knowledge, and 2) does not explicitly include “giving back” as a characteristic of research relationships. Ensuring that links are made with methodologies that value cultural responsibility — such as critical participatory action research, with its emphasis on challenging justice and changing society — may address this limitation. In addition, ensuring a critical perspective is taken when other methodologies are employed may also address this.

Evolutionary progress

The phylogenetic domain that informs Vygotsky’s genetic method relies on evolution as an explanatory principle (Wertsch, 1985). This is problematic when applied to an Indigenous context because it focuses on the comparisons between primates and humans, with the assumption that humans are more “evolved” than animals. The metaphysical and spiritual ability of animals in Indigenous cultures suggests that animals could have capabilities that are similar to, or more advanced than, humans. Further, many Indigenous peoples would prefer to view themselves as living among or alongside animals and learning from them. Although this is merely one explanatory principle for sociocultural theory, and it is intended to be used in conjunction with other explanatory principles in understanding phenomena, it is important not to translate this into a power differential between humans and animals. In other words, genetic or phenotypic differences should be viewed as qualitatively different characteristics, as opposed to being compared with each other on a hierarchical scale.

Although sociocultural theory is a Western theory, its tenets may be compatible with Indigenous theory and methodology. For example, it foregrounds the importance of cultural practices and worldviews in a society as fundamental to learning and development (Vygotsky, 1978). In addition, despite some divergences between sociocultural and Indigenous theories and methodologies, together they provide a potentially culturally sensitive framework for looking at issues in Indigenous education. A benefit of employing a sociocultural perspective is that it is able to integrate levels of analysis from the macrolevel of culture to the microlevel of social interactions, individual thinking and speech (Panofsky, 2003). While Vygotsky's death at the early age of 37 limited his ability to provide a complete theory of mediated action, the challenge here is not to negate his ideas, but to understand their limitations and capacities, and to show how sociocultural theory may benefit Indigenous educational research. It is widely recognized that it is necessary to rely on the work of other scholars to elaborate and extend the work of Vygotsky, and to apply these theories to concrete human activities.

Theorizing an Indigenized sociocultural approach

Sociocultural theory may be elaborated to reflect a more holistic, culturally sensitive, and culturally empowering perspective to be used as an Indigenous sociocultural approach. In theorizing an Indigenous sociocultural approach to learning and development, I discuss four tenets of learning that include: 1) The role of power in social relations and relationships; 2) the necessity of a multi-level approach; 3) the recognition that learning is situated in social, historical, and political contexts; and 4) the recognition

that learning is a social process. Next, I discuss two tenets of the proposed Indigenous sociocultural approach to methodology that include: 1) the role of subjectivity and qualitative research methods; and 2) the importance of cultural responsibility.

Power in social relations and relationships

Due to the history and, more importantly, the *continued* implicit and explicit cultural oppression of Indigenous peoples worldwide, it is imperative that an Indigenized sociocultural approach to learning take into consideration the role of power in social relations and relationships. An analysis of power may be used, for example, to ensure that language and culture are maintained in an evolving cultural context. Therefore, although Indigenous and sociocultural theories of learning implicitly refer to notions of inequality and privilege, these concepts must be explicitly defined, and power asymmetry must be foregrounded.

An Indigenous sociocultural approach must be a critical approach that accounts for issues of power and hegemony: two central elements of issues in Indigenous education. According to Collins (2004):

We live in an era of globalized economic interconnectivity, increasing economic inequalities, coupled with fundamental cultural and political division, within and between nations — and a time in which debates about education have achieved an unparalleled public salience...we are in a time where general and reliable methodologies of the past no longer seem adequate to understanding our globalized, diversified circumstances. We need to endorse methods that address

questions of power, while also permitting study of particulars, situated activities, and events in which life occurs...when optimism to social problems is on the wane, it is easy to understand the search for critical perspectives — that is, views, concepts, and ways of inquiring that offer some purchase on broad questions of power while also permitting study of particulars, the situated activities and events in which life occurs. (pp. xxi-xxii)

Due to the importance of maintaining a critical approach in an era of globalization and cultural oppression, it is important to explicitly foreground a critical perspective in grounding an Indigenized sociocultural theory. In support of this, Smith (1999) claimed that Indigenous knowledges are the “local” theoretical positioning that is the modality through which the emancipatory goal of critical theory, in a specific historical, political, and social context, is practiced. Consequently, an Indigenized sociocultural theory should adopt a critical perspective so that Indigenous peoples may challenge power asymmetry in social relations and construct ways to take greater control over their lives.

Although Vygotsky sought to develop a Marxist psychology and, therefore, a psychological approach capable of theorizing power, he did not explicate a definition of power or a process through which social stratification is constructed. Vygotsky did focus on forms of teacher-child interactions in a sociocultural context, rather than just focusing on children’s intramental functioning alone (Wertsch, 1991). In addition, Vygotsky’s theory contains references to cultural and political struggle, along with the “politics of development” (Burgess, 1993). Implicit in his theory are “qualifications about power and control and capitalism that challenge” the predominantly benevolent view of

culture” (p. 6), stressing the need for a politics of culture and critique. Thus, although the concept of power is undertheorized in Vygotsky’s theory, it was suggested. Indeed, Burgess (1993) argued that a reading of Vygotsky’s work as critical, rather than the acritical early translations of his work, returns his ideas to their intended potential.

Sociocultural theory has been extended to address power relations through Bourdieu by Wertsch (1991) and Panofsky (2003). According to Bourdieu (1991), the hierarchical ordering of cultural differences between Indigenous and Western non-Indigenous communities leads to inequality for members of some groups and privileges for others. Bourdieu’s (1991) notion of *habitus*, a set of dispositions defined as an inclination or tendency to act in a particular way within a social field is helpful here. These dispositions determine the behaviour and thoughts of individuals, and can be broken down into actions, perceptions, and attitudes. The characteristics of each person’s habitus are dependent and are shaped by the social conditions in which it is formed (Bourdieu, 1991). Thus, the habitus of individuals from one context is more similar than the habitus of individuals from another context. This occurs because the dispositions that make up the habitus are structured from the cultural norms of the context from which they originated. For example, social favouritism of certain forms of body language, dialects, and accents create inequalities in society, since the idealized language form is only available to a select number of people who are predisposed to that habitus (Bourdieu, 1991). According to Bourdieu (1998), this is what is known as the “logic of symbolic violence...according to which dominated lifestyles are almost always perceived, even by those who live them, from the destructive and reductive point

of view of the dominant aesthetic” (p. 9, cited in Panofsky, 2003, pp. 416-417).

Symbolic violence is used to naturalize differences in social opportunities through the objectification of evaluative practices in schools (Panofsky, 2003). In turn, the cultural practices of the dominant society become invisible, becoming part of the subconscious (Panofsky, 2003). In this way, the efficacy of one’s habitus is determined by its social rank in relation to the dispositions that are deemed most valuable by the dominant society. Therefore, the habitus is what produces the distribution of power in schools.

Here, I use Apple (2004) as well to make specific connections to schooling. Apple’s (2004) work is influenced by a history of theorists, starting with Marx’s notions of capital and social class relations, followed by the development of critical theory from the Frankfurt school. In addition, his work is influenced by Bourdieu (1991), who discusses concepts such as cultural capital, defined as “knowledge, skills and other cultural acquisitions, as exemplified by educational or technological qualifications” (p. 14). Cultural capital can be converted into other forms of capital. For example, cultural practices and credentials distinctive of a particular culture can be “cashed in” for lucrative jobs (Bourdieu, 1991). Apple (2004) extended this idea to schools and stated that schools reproduce the existing distribution of cultural capital that enables social control to be maintained in a concealed way, through a seemingly neutral process of selection and instruction. Thus, social concepts are fundamentally prefigured upon a pre-existing set of economic conditions that control cultural activity in schools (Apple, 2004). This is what Apple refers to as *hegemony*, which he defines as the dominant system of meanings, values, and practices that are lived by members of a society.

These meanings, values, and practices — as an ideological system — infiltrate our consciousness so that the educational, economic, and social world we see and interact with becomes naturalized as the “only world” (Apple, 2004).

The knowledge that finds its way into schools is usually based on ideological assumptions, such as individualism, and is usually accepted as given, natural, and neutral. This enables comparisons to be made for individuals’ mastery of this knowledge, as if the process of learning this knowledge is qualitatively similar among all students. The focus of research tends to be on determining the variables that have a major impact on an individual’s or group’s success or failure in school, such as the adolescent subculture, unequal distribution of educational resources, or the social background of the students. The social goal is maximizing academic productivity (Apple, 2004). In this way, hegemony creates the “hidden curriculum” in schools: “The tacit teaching to students of norms, values, and dispositions that goes on simply by their living in and coping with the institutional expectations and routines of schools day in and day out for a number of years” (Apple, 2004, p. 13). These norms, values, and dispositions are inculcated differently for different “kinds” of students and link students by “kind” to the capitalist social structure. The process of schooling performs a sorting function that tends to reproduce the distribution of cultural and economic capital.

Apple (2004) argued that the overemphasis on individuals in education divorces the individual from larger social movements. By focusing on individuals and assuming the objectivity of knowledge in schools, the dominant discourse has the ability to

disseminate labels to students who are “not up to par.” For example, by implementing “objective” selection procedures, in which the only qualification for personal advancement is “ability,” education is seen as being independent from other features in society (Apple, 2004). The labels that arise from this assumed meritocracy are dangerous because they govern nearly all of the conduct toward the person being labelled, and, more importantly, the definition ultimately governs the student’s conduct toward others (Apple, 2004). This often supports a self-fulfilling prophesy for those who are labelled.

These labels are both not objective and, as might be obvious, not applied equally to students across different social class, cultural, linguistic, gendered, and ethnic groups. The school is a system that serves to degrade those individuals and groups of people to whom these labels are given: children of poor and ethnic minorities more so than children of economically advantaged and politically powerful families. Diagnostic procedures in schools were developed almost totally from an ethnocentrist perspective, based on ethnocentric notions embedded in science, that inclined researchers and instrument developers to act as if their own group’s lifestyle, language, history, and value structure were the proper guidelines against which all other people’s activity should be measured (Apple, 2004). Coupled with an ideology that is founded in individualism and objectivism, society tends to perceive problems in education as stemming from the individual, rather than something that the institution lacks, and focuses on changing the individual through objective diagnostic interventions, rather than changing the institutional context (Apple, 2004). Apple’s critical approach to

problems in education, therefore, supports the Indigenous perspective's emphasis on the history of schooling and how it impacts Indigenous students specifically. It also enables an account of the current social and political marginalization of Indigenous students by extending sociocultural theory, consistent with its lineage from Vygotsky, drawing on Marx, through Wertsch. It enables an examination of how asymmetrical power in social relations and relationships is played out in education.

In summary, extending Vygotsky's (1978) ideas through Wertsch (1985, 1991) and Apple (2004) enables the construction of a sociocultural approach that retains a critical perspective, true to the original theory. This approach offers a new multidisciplinary way of looking at learning and development that challenges traditional psychological perspectives, as well as the assumptions of positivism. This approach calls for a cautious integration across disciplines and methodologies, and appears to address many of the identified gaps of sociocultural theory when applied to Indigenous populations. By acknowledging the role of the context and the influence of social and cultural experience on learning and development, these scholars have allowed us to look at learning and development holistically and critically. Informed by Indigenous theories and methodologies, this framework may be able to address some questions in educational research that have not yet been described and explained in a satisfactory and culturally responsible way.

Multi-level approach

An Indigenized sociocultural approach to research foregrounds the importance of looking at a problem holistically, using multiple explanatory principles in arriving at descriptions and explanations of development, learning, and, more specifically, psychological processes. For example, differing disciplinary perspectives that explain phenomena are neither right nor wrong, but provide one of multiple ways of looking at the whole problem. The four different genetic domains — phylogenesis, sociocultural, ontogenesis, and microgenesis — may be used as a framework for looking at different explanatory principles and methods of investigation of a problem in education. These tenets are artificially separated for discussion, and overlap to some extent. In their application, the boundary between the four is more fluid. Further, depending on the scope of the research problem, these domains may be foregrounded or backgrounded. This perspective could be a valuable addition to methodology in Indigenous education because it can help to draw from ways of investigation across multiple disciplines. Further, it is most important to keep in mind that in order to understand problems in Indigenous education, we need to understand all of these domains in relation to each other in an interrelated way. This approach counteracts the main critiques of positivism in that it uses a more holistic lens in looking at a problem. In doing so, it is able to consider important influences on Indigenous education, such as colonialism and current social inequalities.

Learning is situated in cultural, historical, and political contexts

An Indigenized sociocultural approach to learning emphasizes learning as a situated process. This approach views the learning context as always in the making, and consisting of the unique make-up of cultural practices, modes of communication, and physical environment, for a particular community. To begin, an Indigenized sociocultural approach views learning as situated within the sociocultural context that includes the unique cultural practices of a society, including its values and language. It acknowledges the idea that cultural practices reflect the values in a given community, and that these values are not static. Therefore, what was practiced in Indigenous cultures before colonization has transformed over time to reflect historical changes in the culture, and traditional practices are in the process of being reformed and reclaimed. Therefore, the current cultural practices and values that a community may possess are, thus, just as distinctive of their culture as they were in the past, and should not be undervalued. Indeed, reviewing and reforming traditional practices is part of decolonization. Furthermore, researchers should never ignore the impact that these cultural aspects have on the research questions.

Since interrelatedness and holism are important values of Indigenous education, it is important to see learning as being situated within these value systems in Indigenous communities. This means acknowledging such cultural practices and values that exist at present, and articulating their importance from the perspective of the community. For example, learning in Indigenous education must include not only cognitive development, but also physical, emotional, and spiritual development of the individual. Only when the

researcher considers learning as embedded and inseparable from these aspects can he/she fully understand and address a problem in education.

Further, since the physical environment is highly valued by many Indigenous peoples, an Indigenized sociocultural approach to learning must acknowledge the dependence of Indigenous learning on its situation in the immediate and surrounding environment.

This means approaching research in a way that values the importance of the earth and animals, and understanding its effect on communities by foregrounding its presence.

An Indigenized sociocultural approach would also be sensitized to the different cultural practices and understandings that different Indigenous communities hold for different aspects of the environment, including different animals. Once again, utilizing this approach will ensure greater validity of research findings and usefulness to the community.

Learning is a social process

An Indigenized sociocultural approach to learning focuses on learning with other people as a group, rather than as an individual process. This is important in order to allow the cultural practices of an Indigenous culture to continue. It prioritizes the learning process as the class interacts as a whole, not merely as individuals. In addition, the development of individual cognitive functions is situated within the context of the development of one's peers. Consequently, learning is not an isolated and individual process. It involves learning for, through, and with others.

Learning cultural traditions in many Indigenous societies involves strong relationships with elders and more competent adults or peers. This relationship is necessary for the learner to value and respect the knowledge that is being taught. The ZPD may be used as a concept for Indigenous education to further understand the process of learning as a product of the interaction between people. However, the definition of the ZPD must be explicitly extended to include learning with multiple learners at the same time. For example, a storyteller may choose to tell a story to one learner and scaffold the lesson based on his/her developmental level. Or, a storyteller may tell a story to a whole group of learners and scaffold the lesson based on the collective developmental level of the group. Or, a storyteller may foreground multiple ways of interpreting the story in order to engage multiple zones of proximal development. Regardless, since learning is a social process, it will be optimized if one can experience and participate in meaningful social activities with valued and respected teachers.

In an Indigenized sociocultural approach to learning, language plays a key role in development. Understanding oral traditions is critical for Indigenous learners in order to re-construct the values, morals, and practices in their society. Another important aspect of language is the use of symbols and the qualitative change in a learner's development with the onset of language comprehension. An Indigenized perspective shifts the emphasis from how language transforms humans as distinct from primates to how language transforms humans into specific cultural beings. This way, there is less of an oppositional distinction between animals and humans, and a way for animals to remain respected allies for humans.

Signs and symbols are an equally important aspect of language for an Indigenized sociocultural approach. Much of Indigenous learning occurs through the mediation and internalization of cultural symbols, such as circles and the medicine wheel. Mediation and internalization can be used within an Indigenous sociocultural approach to theorize how cultural symbols transform cognition and affect in learners. However, the role of meditational means, such as cultural tools, shifts from a way of mastering nature to a way of mastering living *with* nature. Therefore, signs and tools are used for the purpose of engaging in cultural practices, as opposed to being used to control nature. Living with nature, is important because the process of learning to live in harmony with nature transforms the learner into a culturally competent person. This requires repeated participation and experience in cultural practices in order for internalization to occur.

An Indigenized sociocultural approach theorizes learning and development as a form of social transformation, rather than social evolution. A goal for education is to maintain traditions and culture through the transformation of knowledge from one generation to the next. It does not view traditional cultural practices as something to be advanced into a more “developed” state, but instead sees learning cultural practices as continuously adapting to the learning context. Thus, social transformation occurs in response to changes in the physical and cultural environments, and does not reflect a hierarchy of one culture’s value or dominance over another. Culture is constructed within an ever-changing socio-historical context, not redirected into a single path of intellectual, scientific, and social evolution.

Within this approach, learning assessment takes place as a group as much as possible, as knowledge is a shared resource that is constructed cooperatively and collectively. Assessment does not merely involve the consideration of one way of attaining an outcome at expense of others, but rather embraces individual differences and ways of learning. Assessment also looks at the larger picture of development, as situated within a cultural, historical, and political context. For example, assessment would perhaps collect information on one's ability to successfully engage in a cultural practice, using cultural tools. Assessment, therefore, serves a cultural purpose: to find out where the learner needs more support, and to reorganize instruction to enable the development of the necessary skills to meaningfully participate in one's cultural practices.

Subjectivity and qualitative research methods

An Indigenized sociocultural approach to methodology makes note of the history of positivism, and how this history continues to influence researchers today. An Indigenized sociocultural approach also re-centres the importance of voice. Therefore, from an Indigenous sociocultural perspective, qualitative methods are a principal means of investigation in an attempt to ensure a place for the subjective experiences, voices, and stories of Indigenous participants.

Although there is still a need for quantitative research in Indigenous communities in order to address particular research questions, such as rates of diabetes or rates of high school graduation, qualitative methods are, in general, most appropriate for use in Indigenous learning contexts. Qualitative methods are more suitable for use in

Indigenous contexts because they focus on process rather than variance, use an inductive approach, focus on specific situations and people, and emphasize words rather than numbers (Maxwell, 2005). Qualitative research also tends to focus on three kinds of questions that are much better suited to process than variance: a) questions about the meaning of events and activities to the people involved in these; b) questions about the influence of the physical and social context on these events and activities, and; c) questions about the process by which those events and activities and their outcomes occurred (Maxwell, 2005). However, Cole (2002) cautions that in using qualitative methodology acritically and culturally insensitively we may continue to be caught up in questioning the participants, rather than empowering them and relying on their stories and expertise to convey the appropriate meaning. For example, many qualitative methods, such as grounded theory or objective observations, may not be culturally sensitive qualitative research methods. Despite this, qualitative research methods, in general, are less likely than quantitative research methods to claim the truth of “*what* the interviewee says” and focus, instead, on *how* they perceive their reality. This perception *is* real and creates a reality for each and every individual. Maxwell (2005) stated, “In many qualitative studies, the real interest is in how participants make sense of what happened and how this perspective informs their actions rather than in determining precisely what happened or what they did” (p. 74). Process is thus more important than results; a position consistent with Indigenous methodology.

In addition, the purpose of qualitative research is to learn how people view their world, to learn their terminology and judgments, and to capture the complexities of their

individual perceptions and experiences (Patton, 2002). This openness distinguishes qualitative research from quantitative research. Closed instruments, such as likert scales and forced choice surveys, require respondents to fit their knowledge, experiences, and feelings into the researcher's categories; the concern raised by Cole (2002). Open-ended methods tend to give people a voice. This is critical for ensuring cultural sensitivity and community engagement. Analysis of the data should be carefully performed in accordance with the needs of the community. For example, coding involving artificial categorization has been criticized by some Indigenous scholars because it destroys the essence of the whole of what is being researched, jeopardizing the validity of the findings and the actual needs of the community. Certain means of coding data, therefore, may not be an appropriate method of analysis in all communities and with all research questions (Cole, 2002). One can address this problem by working with the community to ensure cultural sensitivity and respect for the cultural significance of the type of data that is collected.

A shift towards qualitative research seems like an appropriate answer to the problems with quantitative research in Indigenous education, but it does not remedy these problems completely because much qualitative research has also maintained a colonizing discourse of the other by seeking to hide the researcher under a veil of neutrality or objectivity (Bishop, 1998). For instance, trying to manage subjectivity is just as problematic for qualitative research as managing objectivity is for positivists because "distance" is still valued by some in the research relationship. This creates a separation between the researcher and the participants that could be harmful to

Indigenous communities and could result in invalid findings. In addition, most qualitative *and* quantitative researchers seek to find resolutions or findings, and that is not always the desired outcome in Indigenous culture (King, 1993). In Indigenous cultures, realities are often unique and diverse, and expression of these realities leads to multiple outcomes for different people (Absolon & Willett, 2005).

Consequently, an Indigenized sociocultural approach to methodology addresses these issues by foregrounding the importance of subjective knowledge using qualitative research methods. It also employs an “insider” perspective, allowing room for the subjective voice. Finally, an Indigenized sociocultural approach to methodology requires the position of the researcher to be made explicit in order to understand their history, assumptions, biases, and investment in the research.

Cultural responsibility

An Indigenized sociocultural approach to methodology ensures that the needs of the community are met in all Indigenous research endeavours. More specifically, research is collaborative, driven, and controlled by communities in order to restore justice to communities who have been robbed of their cultural knowledge with Western research methods. So Indigenous research methods extend sociocultural methods by requiring the researcher to first consider their cultural sensitivity before engaging in research with communities, and to continue considering this issue during the research process and after the data have been collected. An integral part of this process should be to continually refer to Kirkness and Barnhardt’s (1991) Four R’s: Respect, Responsibility,

Reciprocity, and Reverence. This allows Indigenous community members to answer questions that they feel need to be asked in Indigenous education, and in a way that is appropriate with their own methodology for conducting research. The responsibility of the researcher also may involve a long-term commitment or relationship with a community, so that he or she remains accountable for the knowledge that is generated from the research. Therefore, cultural responsibility increases the scope of issues and concerns that a sociocultural researcher must consider before, during, and after research with Indigenous communities. This means being accountable for the ultimate use of the research, and being responsible in its dissemination.

Summary

In this chapter, I discussed the ways in which Indigenous and sociocultural theories of learning converge and diverge. Second, I discussed the ways in which Indigenous and sociocultural methodologies converge and diverge. Based on these findings, I articulated an Indigenized sociocultural approach to theory and methodology. As the issue of power was an implicit concept among both Indigenous and sociocultural theories of learning, I incorporated the work of Apple (2004), a noted critical theorist, to complement the work of Vygotsky (1978), Wertsch (1985, 1991), and traditional Indigenous theories of learning, in order to make the critical aspect of an Indigenized sociocultural theory more explicit. Finally, I articulated an Indigenized sociocultural approach to methodology, which included the importance of subjectivity and qualitative research methods, along with the importance of cultural responsibility in educational research.

CHAPTER 5: THEORETICAL APPLICATION TO INDIGENOUS EARLY SCHOOLING LEAVING AND DISENGAGEMENT

Indigenous students have significantly higher early school leaving rates compared to non-Indigenous students, despite plentiful research efforts to alleviate this problem (British Columbia Ministry of Education, 2004; Hodgson-Smith, 2000). This gap remains, in part, due to prevailing eurocentrism in research, curriculum, policy, and practice (Archibald, 1995; Battiste & Henderson, 2000; Cole, 2002; Marker, 2000, 2006; Smith, 1999). In order to address this problem, researchers and community members need to challenge current eurocentric oppressions where they exist, such as dominant cultural assumptions embedded in language, culture, and epistemology. An Indigenized sociocultural approach and methodology may better equip researchers to find ways to address such problems in education, and conduct research with communities in ways that are culturally sensitive.

This approach is consistent with Burbules and Warnick's (2006) notion that "the purposes and methods of education [are] inseparable from reflection on morality, knowledge, or the nature of a just society" (p. 489). Researching Indigenous early school leaving and disengagement has a moral component, since it requires the commitment and accountability of the researcher to the needs of the youths and the community. It has a knowledge component, since it involves an exploration of both access to and production of the dominant cultural practices that exist in schooling. Finally, researching Indigenous early school leaving and disengagement has a social

justice component, since it seeks to redress existing power asymmetries in macrolevel social relations, as well as in microlevel social relationships.

This chapter applies an Indigenized sociocultural approach as a lens through which to consider the literature on Indigenous early school leaving and disengagement. Using the four tenets of an Indigenized sociocultural approach, first I address the problem of early school leaving and disengagement through the role of power in social relations and relationships. Although it was necessary to explicitly foreground the role of power earlier, and this was identified as the first tenet, for this application, I weave the role of power in social relations and relationships into the other three tenets. Power is evident across all aspects of an Indigenized sociocultural approach. Second, while an Indigenized sociocultural approach may use multiple explanatory principles across four genetic domains to situate learning and development holistically, following Scribner (1985), this research problem lies between the sociocultural, ontogenetic, and microgenetic domains. These domains surface in the analysis of the following two tenets: an Indigenized sociocultural approach recognizes that learning is situated in social, historical, and political contexts, and that learning is a social process. In this chapter, a description of Indigenous early school leaving and disengagement is framed by three theoretical tenets.

Learning is situated in social, historical, and political contexts

The following section discusses Indigenous early school leaving as situated in social, historical, and political contexts, and with a specific focus on power asymmetry.

Specifically, it discusses Indigenous early school leaving and disengagement as it relates to globalization, the hidden curriculum, “multiculturalism,” identity, self-fulfilling prophecy, similarities with other minority groups, and, in particular, how it affects urban Indigenous youths.

Indigenous early school leaving and disengagement and globalization

Features of globalization, defined here as the tendency for economic, social, political, and cultural processes to take place on a global scale, rather than within the confines of particular nation states or regions (Fairclough, 2000), tend to undermine a collective Indigenous society. For example, Indigenous cultures are threatened by social, historical, and political forces that work to standardize, homogenize, and marginalize Indigenous members of society (McCarty, 2005). Globalization is, thus, both a social and economic process in its attempts to universalize social and discursive practices. The pressure to conform to the ideology of globalization, with its commodification of diversity at a distance and its erasure of local diversity, creates a sense of disorientation and distress for many Indigenous peoples because they feel pressure to choose between traditional values and the values of this particular dominant Western ideology in order to survive in the economic world (Waller et al., 2002). In this way, a dominant Western ideology identifies and upholds values in society, and globalization and capitalism operate, in part, to sustain these values.

Since the end of the Cold War, society has leaned away from an interventionist, welfare state toward economic rationalism, privatization, and a movement toward making

schools operate according to a capitalist agenda as they play a critical role in determining students' life opportunities (The New London Group, 2000). Capitalism replicates corporate culture, which demands that people assimilate to mainstream norms, and schooling is a central part of the transformation of this new order (Marker, 2006; The New London Group, 2000). This creates a tension between Indigenous local and sacred knowledge and the scientific universalization of knowledge, because Indigenous peoples are forced to assimilate with Western culture (Berger et al., 2006; Marker, 2006).

Globalization is transmitted to schools through *de-localization*, defined as “the tendency for any territorially defined population to become increasingly dependent on resources, information flow and socioeconomic linkages with systems of energy and resources outside their particular area” (Barnhardt, 1982, p. 26). This isolates students from engaging with the community and the local ecosystem because it disregards the cultural and physical environment in which the school is situated (Barnhardt, 1982; Gruenwald, 2003). Consequently, with its emphasis on scientific approaches to nature and human behaviour, schooling has specifically promoted a disinterest in the local land (Marker, 2006). This is problematic for Indigenous students, since their way of understanding the world has historically been inseparable from the web of relationships in the natural world, a need largely misunderstood by the dominant society (Marker, 2006). Over time, the assumptions and values embedded in de-localization become internalized, and Indigenous students may feel that there is a classroom context of hostility toward Indigenous perspectives on land and identity (Marker, 2006; Waller et al., 2002), though

having a connection to the land in education has been necessary for survival for many Indigenous communities. As Cajete (2000) stated, “Traditional forms of education expressed in Indigenous communities transferred the recipe for making a living in a given environment” (cited in Marker, 2006, p. 165). Indigenous scholars, such as Grande (2000), have noted how placelessness occurs in schooling that denies an Indigenous transcendence that remains rooted in historical place and sacred connection to the land. Thus, without the acknowledgement of the ecological context in schools, Indigenous students may be faced with the dilemma of internalizing Western education and traditional ways of knowing.

In addition to delocalization, the effects of globalization leverage the modern narrative of meritocracy: embedded in schooling is a façade of equal access to prosperity and social mobility through sustained academic effort and meritorious work (Apple, 2004; Kalantzis & Cope, 2000; Kuokkanen, 2007; Orlowski, 2004). Education promises greater access to material resources through an assumption that hard work and an educational credential lead to a good job, and that knowledge through education is power (Apple, 2004). To Indigenous communities, it offers access to the offerings of the global market. Kalantzis and Cope (2000) state education’s promise as: “If you have faith in the promise of education, you are quintessentially a modern person” (p. 121). But this statement is based on the false premise that education grants all students an equal opportunity to become that “modern person.”

Instead, schools contribute to the reproduction of inequity by supporting the culture of dominant classes — defined as those with the majority of power and capital in society — and at the same time, devaluing the culture of the lower classes (Apple, 2004; Kuokkanen, 2007; Purcell-Gates et al., 2004; Walkerdine, 1984). For instance, mass compulsory schooling was initially constructed to remove children from the streets and to prevent crime in order to produce “better citizens” (Walkerdine, 1984). From then on, it has been used as an apparatus of regulation and classification (Walkerdine, 1984). For the dominant society, formal schooling continues to be seen as one way of “helping” Indigenous peoples to become more civilized, according to the standards of the dominant classes (Waller et al., 2002). According to Smith (1999), “Schools accomplish this by habituating students to specific forms of social organization and behaviour patterns” (p. 48). Such patterns are embedded in a hidden curriculum, an implicit agenda masked by what appears on the surface that initiates children to the formal and impersonal relations associated with market societies (Smith, 1999).

Indigenous early school leaving and disengagement and the hidden curriculum

A dominant message of the hidden curriculum tends to associate white middle class students with progress while other cultures are considered to be “backwards” (Apple, 2004; Orlowski, 2004). Despite education’s promise to equal access to prosperity and social mobility, access to the promise of education, in reality, is easier if you are wealthier, speak the national language, belong to the most powerful ethnic group, and live in the right neighbourhood and nation state (Apple, 2004; Kalantzis & Cope, 2000). Consequently, Indigenous peoples are traditionally represented as if they do not have

their own history to tell. For instance, the school curricula do not always note significant acts of colonialism, such as the banning of potlatches or ceremonial dances (Orlowski, 2004). Freire (1993) explains this: “For the oppressors, it is always the oppressed that are referred to as ‘those people’...who are disaffected, violent, barbaric, wicked, or ferocious when they react to the violence of the oppressors” (p. 50). This “violence of oppression” reproduces itself because it is perpetuated from generation to generation (Freire, 1993). Therefore, schools can maintain the power of the white middle class because the underlying assumptions behind texts, curricula, and information in schools consistently privilege this perspective and mediate students’ experiences as learners.

For example, the current B.C. curriculum focuses too much on the white middle class value of the individual and does not encourage students to recognize the benefits of the collective or community, or their own collective responsibility (Orlowski, 2004).

Frequently, curricula in mainstream schooling does not allow Indigenous students to participate in their cultural practices. In order for Indigenous students to become successful at Western education, they have to establish a compromise between their own values and those of the dominant society (Peshkin, 1997). According to Freire (1993),

The conflict lies in the choice between being wholly themselves or being divided; between ejecting the oppressor within or not ejecting them; between human solidarity or alienation; between following prescriptions or having choices; between spectators and actors; between acting or having the illusion of acting through the action of the oppressors; between speaking out or being silent,

castrated in their power to create and re-create, in their power to transform the world. This is the tragic dilemma of the oppressed which their education must take into account. (p. 29)

Thus, one of the barriers of their success is their perception that it will drive them further away from their culture. Parents who are residential school survivors may vilify, abandon, or try to change schools that they perceive as leading their children away from their cultural values (Peshkin, 1997). According to Kuokkanen (2007), “Students have to learn at some level to conform to the unstated discursive and epistemic norms and rules of the academy, whether they want to or not” (p. 53). This may involve a negation of their identities, cultural backgrounds, desires, or aspirations (Kuokkanen, 2007).

For many students, their academic ability is dependent on their ability to integrate with the academic standards of the school. Since their culture is often not adequately part of curricula, the practices that Indigenous students engage in at school may seem irrelevant to their lives. This can act as a disincentive for students to go to school, leading to boredom, frustration, and/or disruptive behaviour (Berger et al., 2006; Hickey & Granade, 2004). Thus, early school leaving and disengagement may be a result of: “the wilful ignorance that is embedded in this mainstream middle-class culture, and the logic of European rationalism, which denies the existence of intellectual conventions and perceptions of the world other than those rooted in the Enlightenment” (Kuokkanen, 2007, p. 54).

Indigenous early school leaving and disengagement and “multiculturalism”

In addition, schools mention minority people’s contributions through “multiculturalism,” rather than see the world through the eyes of an oppressed people. This upholds the status quo while putting on the façade that school curricula are being sensitive or responsive to alternative experiences and perspectives. Multiculturalism is frequently, therefore, an add-on to school curricula and multicultural education advocates tend to inadequately design their programs to focus on cultural differences, as told by the dominant group (Apple, 2004; Ogbu, 1992). In stating these differences, they fail to account for the fact that many minorities whose cultural frames of reference are oppositional to the cultural frame of reference of the mainstream culture — as a secondary cultural characteristic after colonization — have greater difficulty crossing cultural boundaries at school to learn (Apple, 2004; Ogbu, 1992). Or, they fail to account for the fact that many students from different cultural backgrounds may come to school without experience with certain concepts necessary to learn math and science, perhaps because their cultural worldview does not engage in such concepts (Ogbu, 1992). Influenced by meritocratic assumptions, multicultural education, thus, assumes that academic achievement is primarily the result of the transaction between the specific skills and abilities of the students and the teaching of the curriculum (Ogbu, 1992). However, it fails to recognize that the meaning and value that students from different cultural groups associate with the process of formal education is a result of a complex negotiation between their ethnic communities and the dominant cultural groups (Apple, 2004).

Multiculturalism in schools also does not take into account the historical events or processes that work to privilege some groups at the expense of others (Apple, 2004; Kuokkanen, 2007; Orlowski, 2004). It focuses instead on cultural festivities such as dress, dance, food, or music while selectively ignoring issues of power and social class differences. According to Orlowski (2004), “A prevailing assumption in our time is that class awareness is a thing of the past, that anyone who engages with it is either misguided, revels in mischief-making, or mistakenly blames others for their own ineptitude or low station in life” (p. 195). Consequently, people perceive inequalities as a consequence of support from adequate role models or effort, or the opposite, and they rarely attribute the inequalities to the school system itself (Kuokkanen, 2007; Orlowski, 2004). In this way, multiculturalism ensures ignorance by reducing knowledge about other cultures to a superficial level of liberal diversity, rather than making visible the connections between cultural, political or economic oppression (Kuokkanen, 2007). According to Schafer (1982):

Once [Indigenous] cultural activities are carried out in a non-[Indigenous] institutional setting, they can never hope for an equal footing within that setting. By the very nature of the relationship, they are contained and judged by non-native institutional values within the formal school system, [Indigenous] cultural forms will always play a subordinate role to the overt and covert structure of the institution. (p. 99)

Some may argue that multiculturalism in education will not attain its promise, because it is mediated by social and political ideologies that are embedded in the institution of schooling and society more generally.

Indigenous early school leaving and disengagement and identity

A Indigenous student's identity may be marginalized in a classroom where Indigenous youths may avoid certain valued behaviours, such as speaking aloud in class, maintaining eye contact, or asking questions of authority figures, because these actions are considered to be unacceptable in many Indigenous cultures (Waller et al., 2002). For example, teachers often favour children who are from the dominant social class. Since teachers tend to come from the academically successful middle-class, they tend to favour children who have a similar background as themselves (Panofsky, 2003). They favour children who reflect similar cultural and economic capital, including wealth and assets; for example, those students who dress in newer and cleaner clothing and speak in a dialect that is similar to the school standard (Panofsky, 2003). This differential treatment mediates the way students perceive their social field and relationships, and they internalize this ongoing experience of differential treatment, which affects the way they ultimately view themselves and others. In response to differential treatment, privileged children are more likely to conform to the teacher and school values; whereas stigmatized children may enact either an active or a passive resistance (Panofsky, 2003).

Indigenous early school leaving and disengagement as a self-fulfilling prophecy

Indigenous early school leaving and disengagement is affected by the beliefs of teachers of their expectations for performance. For example, teachers may interpret resistance to learn by Indigenous students as merely uncooperative or, worse, attribute it to low intelligence (Machamer & Gruber, 1998). In addition, Orlowski (2004) found

that several department heads of B.C. secondary schools stated that Indigenous students are marginalized because of their own genetics and alcoholic behaviours. This rationalization for why many Indigenous students are resisting and/or failing takes the blame away from the social structure of schools and society. However, over time Indigenous students begin to internalize their failures, as noted by the dominant society, and this contributes to the reproduction of their marginalization. The process of schooling results in an ongoing selective cultural disfavour for Indigenous students that in a way acts like a self-fulfilling prophecy. Once students do not perform well, and teachers develop low expectations for their performance, which affects both student and teacher expectations about future performances, this in turn, affects the overall performance outcome.

Indigenous early school leaving and disengagement and similarities with other minority groups

Interestingly, this process of early school leaving and disengagement is not unique to Indigenous students. In fact, many other minority groups, as well as students from working class families, share the same feelings of alienation from the educational system, internalize these feelings, and over time disengage from schools (Ogbu, 1992). In addition, Weis (2008) argued about minority students that “the high proportion of failures among minorities is both a reaction and adaptation to the limited opportunity available to them to benefit from their education” (p. 246). This may also explain the resistance and disengagement of Indigenous students.

For example, Barnhardt and Kawagley (2005) summarized an effect of the social, historical, and political context of Indigenous education. They noted that the 2003 U.S. Commission on Civil Rights issued a comprehensive report entitled *A quiet crisis: Federal funding and unmet needs in Indian country*, which drew the following conclusion with regards to the education of Native American students:

As a group, Native American students are not afforded educational opportunities equal to other American students. They routinely face deteriorating school facilities, underpaid teachers, weak curricula, discriminatory treatment, and outdated learning tools. In addition, the cultural histories and practices of Native students are rarely incorporated in the learning environment. As a result, achievement gaps persist with Native American students scoring lower than any other racial/ethnic group in basic levels of reading, math, and history. Native American students are also less likely to graduate from high school and more likely to drop out in earlier grades. (U.S. Commission on Civil Rights, 2003, xi)

Thus, Indigenous students in the United States (U.S.) are not granted an equal opportunity to earn an education, because they are not provided with as many educational resources as other students, and their cultural histories and practices are devalued. These conditions — from a lack of resources to discrimination — contribute to their identity in schools and, over time, are internalized. The circumstances of Indigenous students in the U.S. are significant for research with Canadian Indigenous students, given their shared history of colonization and continued oppression.

Indigenous early school leaving and disengagement and urban Indigenous youths

In addition to Indigenous youths living on reserve, urban Indigenous youths experience unique contextual circumstances that render them also at risk for school disengagement. Currently, the high school completion rate for registered First Nations students in B.C. is only 48.8% in urban areas and 43% in rural areas (Statistics Canada, 2003). Another concern is the fact that only 6,000 First Nations students live on reserve, whereas 11,000 First Nations students live off-reserve. These youths face unique challenges to maintaining engagement in school that may make resilience in education even more difficult than on reserve. For example, while there is a great deal of diversity among urban Indigenous youths, statistics show that as a group they experience higher rates of poverty, health problems, poorer educational attainment, higher unemployment rates, lower salaries than the non-Indigenous urban population (Brown et al., 2005; Hanselmann, 2000). Urban Indigenous youths live complex lives: they may or may not be living with family, have experience or interest in traditional or western values and practices, or both. In addition, residential mobility for urban Indigenous youths is high. Youths who move to the cities move frequently within and between urban settings, as well as to rural and reserve communities (Brown et al., 2005).

Living away from the tribe and extended family may also create stress on Indigenous students, and may foster risk taking behaviour, as well as decrease educational commitment and nuclear family connectedness (Brown et al., 2005; Machamer &

Gruber, 1998; Waller et al., 2002). Many of the roles of the mainstream culture fit with the nuclear family model of socialization that affects students' language, morality, values, and ethics (Brown et al., 2005). In Indigenous cultures, when the tribe is absent from the lives of youths, the nuclear family may not fully take over these functions. Thus, Indigenous youths may become more vulnerable to the negative effects of mainstream culture that Western nuclear families have evolved over time to buffer (Brown et al., 2005). As a result, these students may feel alienated not only from their school environments, but from themselves as well. Thus, urban Indigenous youths appear to face unique problems with regards to education that students living on reserve may not face.

Learning is a social process

For many Indigenous students, literacy, the most important social and discursive practice in schools, pedagogy, and assessment are based on a worldview that does not appreciate Indigenous notions of an interdependent universe and the importance of context, place, or collective action (Barnhardt & Kawagley, 2005; Kelly & Brandes, 2008). Instead, schools operate from an anthropocentric universe that is an individually centred way of understanding intelligence, creativity, and moral reasoning (Neegan, 2005), in addition to being an institution that reflects the power asymmetry extant in the wider society.

Indigenous early school leaving and disengagement and literacy

Issues involved in literacy, defined as the practice of reading and writing text, as both a social and discursive practice, may be related to early school leaving and disengagement (Street, 1984). Ideological assumptions affect literacy practices in schools because reading and writing have been the most foundational aspects of education (Kalantzis & Cope, 2000). As Kalantzis and Cope stated, “Literacy is the first major function of formal education both historically in the origins of modern, institutionalized education and in the life history of every child or adult learner as they enter into the modern education process” (p. 121). It is a social practice that is constituted through interactions between teachers and students, and a discursive practice as well, or one that is inherently linked to language and semiosis.

However, traditional Indigenous societies stored knowledge in human memory and artistic expressions such as totem poles (Battiste, 2000). Through oral language, Indigenous peoples were able to share knowledge in how the world works and what constitutes proper action through the maintenance of community relationships (Smith, 1999). Thus, sharing this knowledge from human memory created the collective cognitive experience of Indigenous societies. However, with the imposition of text on Indigenous societies, people no longer were required to store knowledge in human memory or iconic art form and maintain community relations in order to survive. Thus, the dominance of literacy in classrooms changed the collective nature of cognition, ways of learning, meaning making, and expectations for many Indigenous students.

Literacy originally functioned in schools to develop a moral basis of behaviour and social control (Street, 1984; Walkerdine, 1984). For example, approved forms of literacy were employed by the dominant social class as socializing agents for particular oppressed groups, such as the Indigenous peoples of Canada, and as a means of imparting to them a specific moral code (Street, 1984). Once “primitive” individuals became literate, it was believed that they turned from savages into civilized members of society. Therefore, the mediation and internalization of Western social practices into Indigenous students’ lives was intended as a means of social control.

Street (1984) noted that the dominant theories of semiosis, which he refers to collectively as the *autonomous model* of literacy, rest upon the assumption that literacy is neutral or objective and can be extracted from its context. It assumes that literacy can be homogenized and standardized. In addition, the autonomous model of literacy associates Western conceptions of literacy with progress, civilization, individualism, social mobility, economic prosperity, and cognitive skills (Street, 1984). As a result, all context-specific literacy practices are subject to the hegemonic practices that exist within a society, and that determine whether a literacy practice is “legitimate” or not (Street, 1984). Autonomous practices, which legitimize a homogenous concept of literacy, exist to maintain the power and control of dominant, Westernized groups and societies.

An example of a dominant literacy practice is the scientific discourse. In Western society, science belongs to a dominant discourse that deems it objectively and

universally true (Waller et al., 2002). Using scientific discourse, Indigenous peoples have been classified as a whole despite the fact that every Indigenous nation has its own teachings and methods for educating their youths (Waller et al., 2002). In addition, the Indigenous emphasis on oral culture has been deemed “less valuable” in relation to cultures that place more emphasis on literacy, even though Street (1984) claimed that there is always a mix of literacy and orality in every culture. The dominant society simply selects the more valued combination of literacy and orality and imposes this value onto other social and cultural groups. This imposition does not simply operate at the broader social level; it infiltrates pedagogical practices that have a normalizing perspective on literacy, and favour the written word. The favouritism of the written word at the social level is thus transmitted down to the school context level, where literacy is viewed as being more appropriate and efficacious than orality (Bakhtin, 1986; Wertsch, 1991). The devaluing of oral forms of communication may lead Indigenous students to disengage from school, as their traditional oral forms of communication are not valued in the classroom.

In Western society, the homogenized concept of the written word is also viewed as having more “truth” than the oral word, due to its supposed objectivity and attempted removal of the interpersonal space (Street, 1984). Indigenous cultures and histories have always been passed down through oral tradition, which involves intimate and endless listening to stories and dialogue with elders, parents, and community members (Loppie, 2007). Further, Indigenous oral traditions are a form of spiritual identity, and they allow access to this spiritual identity through participation in the oral discourse as

either the speaker or the listener (Loppie, 2007). Because storytelling takes place in a group, the validity of stories is upheld with the presence of a “witness” or an elder (Battiste & Henderson, 2000). Thus, in many traditional Indigenous societies, there is less need for the written word to communicate or to validate knowledge; rather, the authority of the elder or witness is more important as a source of validation. Therefore, despite the fact that books can have a use for preserving knowledge, the foundation for learning to tell stories must be passed on from personal interaction with a storyteller (Archibald, 2008). This is problematic for Indigenous students, who are forced to participate in an education environment where the traditions ways of living rely so heavily on the use of certain kinds of literacy.

Accordingly, if an Indigenous student is forced to go to school where he/she is expected to read and write text, but it serves little or no function in his/her home, it is understandable why this student may become disengaged in school. Children become socialized to the meaning and function of literacy at an early age in societies where it performs some cultural function. However, in societies where it does not have a cultural function, children are less likely to understand the concept of the intentionality of literacy. This notion is related to the concept of *emergent literacy*, which proposes that literate abilities emerge developmentally as children observe and engage in experiences that are mediated by the written word in their daily lives (Teale & Sulzby, 1986). This demonstrates the importance of having access to relevant cultural literacy practices as a method for increasing Indigenous school engagement.

Literacy is one example of how schools select and appropriate certain sets of knowledge that are valued by the dominant Western culture. The homogenization and dominance of literacy over other modes of communication has contributed to stratifications in social power structures. However, literacy as the basis for cultural and intellectual superiority of Western cultures is nothing more than a manifestation of differences in cultural practices (Street, 1984). By engaging in the same processes uncritically and unquestionably, we reinforce the validity of the imposition of the dominant society's literacy practices on Indigenous students (Smith, 1999).

Besides the perceived lack of function of text in Indigenous societies, the imposition of text on Indigenous cultures also acts as a form of colonization since Indigenous peoples, knowledges, and languages are not adequately represented in text (Smith, 1999). Indigenous peoples struggle to gain voice in text and to have their stories heard. For example, Smith (1999) stated, "When I read texts, I have to frequently orientate myself to a text world in which the centre of academic knowledge is either in Britain, the United States, or Western Europe; in which words such as 'we', 'us', 'our' 'I' actually exclude me" (p. 35). The problem is that in learning to read this way over many years of academic study, Indigenous peoples may adopt uncritically similar patterns of writing and begin to see themselves as the "other."

Indigenous early school leaving and disengagement and pedagogy

One of the main reasons why literacy is such a fundamental aspect of schooling is because not only do we learn to read and write, but we learn through reading and writing. In each of the different content and subject areas, we use literacy related

activities to learn. For example, prior to school some children learn “initiation-reply-evaluation” (IRE) sequences with their parents that simulate the IRE sequences that are used later on in school by teachers in authority positions (Mehan, 1979). From a young age, they begin to have their world shaped through answering these IRE questions in relation to the pictures and stories that they see in books (Heath, 1983; Street, 1984). Further, Westernized children are rewarded for “book talk” and for relating to the world through information presented in books (Heath, 1983; Street, 1984). Consequently, children continue to use this book knowledge even when they are not around books, due to the behavioural shaping that parents enforce around book knowledge, and this continues to shape their ongoing experiences (Street, 1984). Thus, children in Westernized homes learn how to incorporate book knowledge into their daily experiences and they attribute a function to it very early on in life. These features of literacy practice are derived from the ideology of the children’s’ parents, which is congruent with school literacy practices, and it is based on their cultural compatibility to prepare their children for school culture (Street, 1984).

However, children from Indigenous communities may not be able to decontextualize or fictionalize as easily if they are used to operating in more concrete terms (Battiste, 2000). Instead, children from Indigenous communities are socialized into different worldviews by means in which literacy is taught and in which certain practices are reinforced or discouraged (Street, 1984). According to Nakata (2000), the traditional school method of literacy instruction leaves Indigenous peoples “Doing it’ but not understanding what we were doing. We learnt to decode but didn’t comprehend much”

(p. 117). Consequently, if Indigenous students attempt to engage in the literacy practices of the school and are unsuccessful, their cultural differences, in terms of their home and school literacy practices, may actually be interpreted as deficiencies due to the authority of the literacy practices of the school (Purcell-Gates, 1995). These interpretations that are carried out by teachers and other students can easily turn into social stereotypes which, in many cases, turn into unquestioned assumptions about people. After hearing these negative social stereotypes in the media and in the dominant discourse over time, Indigenous students may start to internalize this stigma.

Finally, the homogenization and dominance of Western pedagogical practices in schools acts as a form of colonization for Indigenous peoples, because it restricts students' cognitive realities. According to Kress (2000), human bodies have a wide range of means in which they can engage and perceive the world. We can see, hear, smell, taste, and feel, for example, and none of these senses function in isolation of each other (Kress, 2000). Further, there is evidence to suggest from psychological research that combining a greater number of senses improves memory (Cytowic, 1995). Indigenous societies, in the past, took advantage of this by relying on multiple senses to engage in learning (Battiste, 2000). However, the dominant Western culture determines the degree of involvement of each sense, and dictates the semiotic modes that are available through privileged and habituated uses (Cope & Kalantzis, 2000).

Consequently, Western societies have selected sight and hearing as the dominant senses in school emphasized in literacy practices that require decoding letters on flat pieces of paper and listening to lectures (Cope & Kalantzis, 2000). Further, schools in

Western society value the written word over art or music, which are considered to be aesthetic rather than necessary to the development of the individual (Cope & Kalantzis, 2000).

Unfortunately, art and music are primary forms of cultural and semiotic expression for Indigenous peoples (Battiste, 2000). This dominance not only affects the communication landscape, but it also affects the cognitive and affective potentials of Indigenous students (Cope & Kalantzis, 2000). The danger of this is that ongoing participation in any semiotic system leads to the internalization of the meaning of words or symbols (Vygotsky, 1978). Since language is the way in which we make sense of the world, the dominant members of society are able to construct social reality through the imposition of dominant forms of language and literacy (Vygotsky, 1978).

Indigenous early school leaving and disengagement and assessment

Testing is a Western concept that epitomizes the colonial individualist mindset (Berger et al., 2006). Frequently, standardized assessments have a eurocentric bias, although the same could be said for district-level, and even classroom assessments, if educators are not diligent about the way that they construct assessments. In addition, because students are individually assessed, and ranked on the basis of assessments, they are taught to be competitive rather than work as a team; this often silences their traditional values (Kuokkanen, 2007; Marker, 2006; Peshkin, 1997). While some educators have worked to develop group assessments, for example, science projects and group presentations, these assessments are not typically weighted as heavily as assessments

of individual student work. The fact that these assessments are given less weight communicates that they are valued less than what individuals students can do independently. Ideally, from an Indigenized sociocultural perspective, all assessments would be used formatively, rather than summatively, which means that assessments — whether individual or group — would be undertaken as a means of improving instruction in the zone of proximal development, rather than as an activity in and of themselves. Thus, it is not surprising that many Indigenous students worldwide have demonstrated a lack of enthusiasm in Western education. Disengagement may be a reaction to an alien institutional culture, rather than a lack of intelligence, ingenuity, problem-solving skills, or a desire to learn (Barnhardt & Kawagley, 2005; Hickey & Granade, 2004).

Summary

This chapter applies a theoretical Indigenized sociocultural approach to literature to develop an explanation for why many Indigenous students may become early school leavers. I drew upon three tenets of an Indigenized sociocultural approach, while maintaining Burbules and Warnick's (2006) emphasis on morality, knowledge, and social justice. While power within social relations and relationships was interwoven throughout the discussion, the scope of the discussion was mainly limited to the sociocultural, ontogenetic, and microgenetic domains of the multi-level approach. These domains surfaced in the analysis of the following two tenets: an Indigenized sociocultural approach recognizes that learning is situated in social, historical, and political contexts, and that learning is a social process.

In order to construct the previous application of an Indigenized sociocultural approach to early school leaving and disengagement, I needed to draw upon existing literature, the majority of which does not reflect an Indigenized sociocultural approach to research methods. Therefore, while the previous two sections lend themselves to the development of a reasonable illustration, what they also do is highlight the need for research that is conducted specifically using an Indigenized sociocultural approach to methodology with Indigenous students. Although more research on Indigenous early school leaving needs to be conducted using an Indigenized sociocultural approach, some recommendations for increasing Indigenous school engagement have surfaced through the literature, which will be discussed in Chapter Six. Future research will hopefully fill this gap, and provide more recommendations for increasing Indigenous school engagement.

CHAPTER 6: AN INDIGENIZED SOCIOCULTURAL APPROACH TO INDIGENOUS SCHOOL ENGAGEMENT, FUTURE RESEARCH AND LIMITATIONS

This chapter identifies recommendations for school engagement for Indigenous students, gathered from current literature. These recommendations may be used to guide future research conducted with an Indigenized sociocultural approach. It also discusses limitations of an Indigenized sociocultural approach, both in terms of theory and methodology. Finally, limitations of this thesis are discussed.

An Indigenized sociocultural approach to Indigenous school engagement: Recommendations and future research

In accordance with the four tenets of an Indigenized sociocultural approach to theory, and the two tenets of an Indigenized sociocultural approach to methodology, seven recommendations are made as a guide for future research into increasing school engagement with Indigenous youths.

Indigenous education as controlled by Indigenous peoples

According to Freire (1993), a pedagogy of the oppressed must be forged with, not for, the oppressed. Consistent with this, he stated, “The oppressor is solitary with the oppressed only when he stops regarding the oppressed as an abstract category and sees them as persons who have been unjustly dealt with, [and] deprived of their voice...” (Freire, 1993, p. 50). In order to find Indigenous voices, we need to call for

more information to be produced by Indigenous peoples and for more peoples to listen to Indigenous peoples (Kuokkanen, 2007). In addition, we need to start seeing through the Indigenous lens, and hear their stories and voice through their experience in order to understand their culture (Cajete, 2000). The problem is that non-Indigenous peoples are used to their own ways of understanding, and the status quo. A history of colonial relations has denied Indigenous peoples of their sovereign right to exercise their own political autonomy, while the dominant society has become accustomed to this existence (Shouls, 2003). As a result, we need to reconstitute the relationship between Indigenous peoples and the immigrant societies in which they are embedded (Barnhardt & Kawagley, 2005).

In order to do this, Indigenous peoples need equality of resources to remedy their oppression and to assume more control over their individual and collective identities through self-government (Shouls, 2003). Further, Indigenous peoples need to have the ability to self-govern in order to safeguard their cultural and national community identity (Shouls, 2003). Therefore, Indigenous-run academic institutions may be a step toward sovereignty and self-determination, where Indigenous peoples do not have to fight for a space for their culture and ways of knowing to be properly represented in schools. These Indigenous self-governed institutions may provide avenues for meaningful jobs, strengthen cultural identities, and build the capacity of their communities (Shouls, 2003).

Based on the historical disregard for Indigenous education rights, representatives from Indigenous communities have argued that Indigenous jurisdiction over formal education

would grant communities control over education on reserves, to which they have long been entitled (First Nations Education Steering Committee [FNESC], 2008). However, Indigenous jurisdiction over education requires that the Federal and Provincial governments in Canada acknowledge Indigenous peoples' right to make decisions about the education of their children, allows them to develop culturally-relevant, community-based education programs, and grants them the right to have education law-making authority on reserve land (FNESC, 2008).

Interestingly, on November 23, 2006, Bill C-34: *First Nations Jurisdiction over Education Act*, was introduced in the House of Commons by the Honourable Jim Prentice, Minister of Indian Affairs and Northern Development. Since then, it has been passed by both the House of Commons and the Senate, and it received Royal Assent on December 12, 2006. The passage of Bill C-34 enabled the Government of Canada to negotiate individual *Canada-First Nation Education Jurisdiction Agreements* with interested First Nations. Participating First Nations communities will have jurisdiction over all aspects of K-12 education on reserve, including curriculum, teacher certification, standards, competencies, school certification, school standards, school operation, class size, school calendar, testing, and assessments (FNESC, 2008). Further, as requested initially by the FNESC in 2003, this agreement states that each Participating First Nation may create a Community Education Authority, which acts much like a Provincial school board, to help operate the education system. Participating First Nations will also be able to set out the powers, duties, composition, and membership of the Community Education Authority, as well as have the ability to establish a Community Education

Authority with other First Nations. In addition, Participating First Nations will be able to designate a First Nations Language Authority, which will be able to create a second language program equivalent to the second language credit in the current B.C. graduation requirements. Finally, Participating First Nations have the option of delegating all or any part of their jurisdiction to the First Nations Education Authority: a legal entity made up of representatives from each Participating First Nation in the Province. The First Nations Education Authority is similar in function to the B.C. Ministry of Education for public schools, and it will assist communities in making the transition to having jurisdiction over education. It will also have the powers to certify teachers, certify schools, and to establish curricular and examination education standards for Participating First Nations schools (INAC, 2006). These jurisdictional powers were made available to communities in hopes of incorporating more culturally sensitive learning philosophies, teaching methods, and education goals in First Nations communities.

The *First Nations Jurisdiction over Education Act* will benefit communities because it will allow them to control their school calendar. This is necessary to allow for contextualized learning processes through participation in traditional activities. These activities typically follow the rhythm of the seasons, because certain stories, legends, and ceremonies can only be told or performed at certain times of the year (Tsuji, 2000). This greater sense of cultural integration and community control over education could potentially improve school engagement. Other nation states that have supported this initiative have seen great results. For example, Peshkin (1997) stated that Indigenous-

run high schools that are controlled and administered by Indigenous peoples in the United States tend to have exceptionally low drop-out rates. Thus, Indigenous self-government in education may be seen as a way of remedying the impact of colonization and cultural oppression that contributes to early school leaving and disengagement. Future Indigenized sociocultural research should look at the impact of this *Act* on Indigenous school engagement with youths in communities, particularly since some research has shown that Indigenous self-government has not always been a positive experience for community members (Berger et al., 2006).

Indigenous control over education research

Indigenous methods are needed in education research in order to support the capacity-building goals of Indigenous communities (Ball, 2004). However, one cannot interpret Indigenous thought without an appreciation of a holistic-inclusive worldview (Akan 1999). Smith (1999) asserted that Indigenous peoples must use their own research methodologies and address issues from a frame of reference that derives from within their own cultural traditions and communities. Indigenous peoples should be the ones who conduct research as much as possible, because there are not enough Indigenous researchers in Canada that can advocate for the appropriate and accurate representation of their knowledge among the majority of researchers with eurocentric epistemologies.

Currently, we need more Indigenous researchers with an expertise in both Indigenous and Western research methodology to balance the Indigenous knowledges and

Western science research enterprise (Barnhardt & Kawagley, 2005). Also, Indigenous peoples are the qualified experts on their own knowledge and culture, not those who are outsiders with a different worldview. Most importantly, each community has its own unique methods for conducting research that researchers should embrace and respect; they should not attempt to assume that what worked in one community will work in another. Researchers should have the flexibility to accommodate the unique needs of each community that is approached.

An Indigenized sociocultural approach suggests that researchers need to employ more subjective and qualitative methods operating out of a sociocultural perspective, using multiple explanatory principles. In the past, empiricism has particularly affected how we conduct research and teaching and assess learning in a standardized, generalized fashion (Vygotsky, 1978). However, due to the wide diversity of developmental backgrounds of children and their range of historical experiences, we need to be careful not to rely on one explanatory principle when looking at children's' cognitive functions. Currently, qualitative studies in school engagement are lacking due to the focus on traditional psychological perspectives on motivation that have favoured standardized assessments, laboratory experiments, and surveys (Maehr & Meyer, 1997). Thus, the dominance of objectivism in educational research needs to be remedied by an increase in interpretivist and critical qualitative research methodologies.

One method for overcoming the historical power imbalance in research is the development of collaborative research endeavours specifically focusing on Indigenous

knowledge systems, with primary direction coming from Indigenous people so they are able to move from a passive role that is subject to someone else's agenda, to an active leadership position with explicit authority in the construction and implementation of the research initiatives (Barnhardt & Kawagley, 2005). By documenting the integrity of locally situated cultural knowledge and skills, and critiquing the learning process by which such knowledge is transmitted, acquired, and utilized, Indigenous peoples engage in a form of self-determination that will not only benefit themselves, but will also open up more opportunities to better understand learning for other ethnic minority students (Barnhardt & Kawagley, 2005). Future research should look at whether Indigenous control over educational research yields more culturally valid and meaningful data that enables communities to address engagement.

Indigenous education as multi-modal to reflect the diversity of different cultural contexts

Educators and school administrators need to improve school environments to be more supportive of learning for students from a diverse range of cultural backgrounds and contexts. Rather than create a “cookie-cutter” or “one-size-fits-all” model for curriculum and classroom practices, schools need to acknowledge the uniqueness of each individual's learning needs in a way that is sensitive to their cultural background. Decolonizing strategies in education begin with the recognition of the importance of each Indigenous group's epistemologies that grant them place and direction in this world (Manuelito, 2005). For example, educators also need to ensure that education for Indigenous youths complements their traditional culture, rather than attempts to replace

it, in order to increase home-school cultural fit (Akan, 1999). Indigenous students should, therefore, have access to a more culturally relevant pedagogy that increases hands-on activities, participation, and being actively involved, rather than sitting at a desk doing worksheets (Berger et al., 2006).

In addition, schoolwork needs to be paced properly, and teachers need to teach through relevant themes, create relationships with students by sharing food, for example (Berger et al., 2006). Some of these pedagogical changes may counter the effectiveness of the many “anti-academic” practices that lead to an outward trajectory and, in turn, make such communities seem less enticing (Hickey & Granade, 2004). According to this view, schools need to set up collectively supportive learning environments that are non-evaluative and non-threatening to those students who are engaging in peripheral or marginal nonparticipation activities, to allow more students to follow the inbound trajectory and engage in legitimate participation (Hickey & Granade, 2004). Future research should look at the effects of implementing multi-modal ways of learning in schools on Indigenous school engagement.

Indigenous education as grounded in relevant curriculum

For most students, engagement in learning requires a curriculum that is relevant and personally meaningful and that affirms the student’s identity and experiences. If the curriculum was in fact meaningful, education would be a strong priority for students because it could provide them with an avenue in life to acquire what they want or need (Hickey & Granade, 2004; Peshkin, 1997). In order for this to happen, teachers need to

connect what is known about Western science, for example, to what local people know and value (Barnhardt & Kawagley, 2005). Schools could accomplish this task by teaching Indigenous curriculum from Indigenous writers, not from white middle class writers (Orlowski, 2004). Learning a more equitable representation of Indigenous history and culture in schools is just one example of an area in curriculum where more effort could be placed in providing some protection against the hegemonic discourses that are present in schools for Indigenous youths (Kelly & Brandes, 2008).

The school curriculum also needs to reflect issues of social justice in response to society's push towards globalization. According to Orlowski (2004), "there is a desperate need to teach social justice in schools now as Canada becomes more integrated with American values and economics, more and more Canadians also buy into rhetoric that accessibility to the market system is available to all" (p. 197). Therefore, the implicit eurocentric assumptions that exist in the hidden curriculum need to be recognized and replaced with a curriculum that has less power asymmetry, and a greater reflection of the diversity of cultural values and practices in society. Future research should look at the role of culturally relevant curriculum on Indigenous school engagement.

Indigenous education as grounded in multiliteracies

Language and literacy practices must be considered in relation to their effectiveness in varying contexts (Purcell-Gates et al., 2004). We need to incorporate the multiple uses of the various modes of communication that exist, validating the existence of both oral

and written forms of literacy and the constant mix between oral and written forms of communication (Street, 1984). Further, instead of separating oral and written forms for communication, we need to look at overlaps between them.

Due to the predominance of the autonomous model of literacy in the school curriculum, there has been a lack of consideration of other literacy perspectives (Street, 1984). In response to this, The New London Group (2000) has articulated a pedagogy of multiliteracies to accommodate a need for social pluralism and diversification. A pedagogy of multiliteracies focuses on modes of representation that include, but are not limited to, language expression. Indeed, any semiotic meaning making activity may be used as a literacy practice, such as interpreting a painting, understanding music, or reading the weather (The New London Group, 2000). These activities differ according to culture, context, and they have specific cognitive, cultural, and social effects (The New London Group, 2000).

In Indigenous contexts, for example, a visual mode of representation may be much more powerful and closely related to speech than print literacy would have allowed (The New London Group, 2000). Further, Indigenous semiotic text is found in art, carvings, and the information that we read from the earth (Battiste, 2000). Each symbol, picture, or carving tells a story and holds meaning (Vygotsky, 1978). However, multiliteracies allow for the inclusion of Indigenous semiotic texts by creating a new kind of pedagogy in which language and other modes of meaning are dynamic representational resources, constantly being remade by their users as they work to achieve their various

cultural purposes (The New London Group, 2000). Thus, it is possible that meaning can be made in the classroom in ways that are multi-modal and reflect the diverse cultural practices of the students. Future research should look at the role of multiliteracies on Indigenous school engagement.

Indigenous education as bicultural

While urban Indigenous youths, in particular, must participate in the modern economy to survive, they must also sustain their cultures and identities (Shouls, 2003). Thus, Indigenous education needs to provide an opportunity for students to participate in both their traditional culture and the Western culture (Pavilla, 1982). Students should be encouraged to participate in different cultures for different purposes without losing their own cultural and language identity or undermining their loyalty to their community (Ogbu, 1992). Therefore, schools need to establish a balance between both Indigenous and Western cultures, and to nurture Indigenous values as a basis of making fulfilling life choices in the Indigenous and non-Indigenous world. Students should not have to choose between living in one world or the other, but should instead feel that their school is a place where their people's values are privileged (Peshkin, 1997). A way to do this is to incorporate traditional knowledge into a modern context (Akan, 1999).

In order for this to happen, school districts need to state a bicultural mission and recognize the legitimacy of a modern Indigenous culture (Medenhall, 1982). For example, a bicultural curriculum would see Indigenous views on education as *equal* to Western education, instead of being an "elective." Society can help to reorient

Indigenous youths toward obtaining credentials for future employment by creating more jobs in general, eliminating the job ceiling against minorities, and providing better employment opportunities for Indigenous youths (Ogbu, 1992). Future research should look at the effect of bicultural education on Indigenous school engagement.

Indigenous education as linked with support from families and communities

Many Indigenous families, which expand the nuclear family to include friends, elders, and extended family, feel alienated from mainstream educational systems. Frequently, it is difficult for them to take an active role in their children's education (Waller et al., 2002). Consequently, the disconnections between the worlds of school and family life for urban Indigenous youths are major risk factors undermining educational resilience, since family connectedness has been found to have a positive association with greater educational attainment. In addition, positive educational outcomes are more likely when families, communities, and schools cooperate in supporting students' efforts to meet their learning objectives (Waller et al., 2002). Due to the impact of the family on Indigenous students' success, it has even been suggested that Indigenous-run schools with direct family involvement may reduce cultural conflicts in the classroom (Waller et al., 2002). Thus, involving families in Indigenous education may increase the effectiveness of educational programs and increase school engagement (Machamer & Gruber, 1998; Waller et al., 2002).

Further, community involvement of cultural experts in the classroom is necessary because they know better how to recruit the learners' previous and current experiences,

as well as their extra-school communities and discourses, than teachers who are not experts in their students' culture (The New London Group, 2000). Thus, Indigenous parents need to be included in the curriculum and educational design (Hodgson-Smith, 2000). This needs to happen not just at the national level, but especially at the local level, since every community must be allowed to assert its own unique values and practices in education (Manuelito, 2005). This means that instruction must provide individuals from each unique sociocultural context with the ability to engage in educational practices that they value. Thus, it allows Indigenous peoples to be at the centre of their own lives and history, and to give primacy to that position (Nakata, 2000).

Limitations

This section discusses the limitations of an Indigenized sociocultural approach in terms of theory and methodology. Finally, limitations of this thesis are discussed.

Limitations of an Indigenized sociocultural approach

An Indigenized sociocultural approach to why Indigenous students may not be engaging in school has the potential to provide a more holistic and accurate account of this problem compared to more traditional psychological and/or positivistic frameworks.

However, it is still important to note three qualifications. First, an Indigenized sociocultural approach incorporates a Western theory, and it is based on the assumption that several Indigenous communities share similar learning and research methodologies. Therefore, it must not be directly applied to issues in Indigenous education without modification for use in each context (Grande, 2000; Newfield & Stein,

2000). This is important because unfortunately, even today, when programs are being developed around traditional cultural perspectives on education, they are often framed in the realities of the economic and political power of the dominant society (Archibald, 1995). In order to establish an Indigenous standpoint, we need to give primacy to Indigenous experiences in Indigenous life worlds to articulate this position in relation to the mainstream (Nakata, 2000). Without an Indigenous standpoint for each community, the dialogue concerning the Indigenous position will continue between those who construct Indigenous peoples as the “other” and the Indigenous subject that has been constructed by them, even when Indigenous peoples are participants in that dialogue (Nakata, 2000; Smith, 1999). And, the experiences of Indigenous peoples in their life worlds will continue to be submerged, misrepresented, or omitted in the process (Grace, 1985; Nakata, 2000).

Second, at present an Indigenized sociocultural approach is theoretical and it is not grounded in empirical research. In actual practice, many or all of these tenets may be hard to achieve. As noted by Wertsch (1991), a sociocultural approach requires interdisciplinary expertise, frequently in the form of a research team, to address complex real-world issues. Indigenizing this approach adds to the expertise required and, perhaps, to the number of researchers required in the team.

Third, though interpretivist and critical perspectives are evaluated from a logical positivist perspective, the same qualities that form the basis of that critique, it may be argued, are the strengths of an Indigenized sociocultural approach. However, in

practice, an Indigenized sociocultural approach to methodology may be difficult to achieve. For example, although accountability of the researcher may be an objective of the research methodology, the extent to which it is actualized in reality may differ in terms of one's definition of accountability. Therefore, it is critical that researchers and communities have a "meeting of the minds" in terms of a contractual research agreement, regardless of whether the researcher is from the community or not.

Limitations of this thesis

A limitation of this thesis is that it only draws from a selected body of literature and sources to articulate an Indigenous and sociocultural theory of learning, which formed the basis of an Indigenized sociocultural approach. Further, its application to Indigenous early school leaving and disengagement is also based on a body of research selected according to a specific research question articulated from an Indigenized sociocultural perspective: Indigenized sociocultural theories of learning and development as grounded in social, economic, and political contexts, and as a social process.

Summary

This thesis was a philosophical inquiry that addressed the articulation of Indigenous theories of learning with Vygotsky's sociocultural theory. In addition, Indigenous methodologies were articulated with methodologies that are consistent with a sociocultural approach. The resulting Indigenized sociocultural approach to theory and methodology was used as the basis for an application to Indigenous early school

leaving and disengagement in order to cautiously illustrate the potential of this approach. Based on the extant literature, some recommendations were used as guidelines for future research that explores the possibility of increasing school engagement with Indigenous youths. Finally, the limitations of the theory and methodology generated were discussed, along with the limitations of the thesis itself.

The current process of schooling pushes a disproportionate number of Indigenous youths out of the mainstream school system. The affects of current early school leaving rates for Indigenous students in B.C. warrants an immediate need for researchers to better understand this problem. An Indigenized sociocultural approach may better enable researchers to both understand and work toward alleviating the problem in the future. Far from being an “irrelevant” or “impractical” approach to educational research, as critics of philosophical inquiry have claimed, this approach has allowed me to advance both theory and methodology that may more appropriately address injustice and inequity for Indigenous youths.

References

- Absolon, K., & Willett, C. (2005). Putting ourselves forward: Location in Aboriginal research. In L. Brown & S. Strega (Eds.), *Research as resistance: Critical, Indigenous, and anti-oppressive approaches* (pp. 97-126). Toronto, ON: Canadian Scholars Press.
- Akan, L. (1999). Pimostamowin Siaw Kakeequaywin: Walking and talking, A Salteaux elder's view of Native education. *Canadian Journal of Native Education*, 23(1), 16-136.
- Apffel-Marglin, F. (1998). Introduction. In F. Apffel-Marglin (Ed.) *The spirit of regeneration: Andean culture confronting Western notions of development* (pp. 1-50). London, UK: St. Martin's Press.
- Apple, M. (1996). *Cultural politics and education*. New York, NY: Teachers College Press.
- Apple, M. (2004). *Ideology and curriculum* (3rd ed.). New York, NY: Routledge.
- Archibald, J. (1995). Locally developed Native studies curriculum: An historical and philosophical rationale. In M. Battiste, & J. Barman (Eds.) *First Nations education in Canada: The circle unfolds* (pp. 288-312). Vancouver, BC: University of British Columbia Press.
- Archibald, J. (1995). To keep the fire going: The challenge for First Nations education in the year 2000. In R. Ghosh, & D. Ray (Eds.), *Social change and education in Canada* (3rd ed.) (pp. 342-357). Toronto, ON: Harcourt Brace Canada.
- Archibald, J. (2008). *Indigenous storywork: Educating the heart, mind, body, and spirit*. Vancouver, BC: University of British Columbia Press.

- Assembly of First Nations. (1992). *Turning the page: Forging new partnerships between museums and First peoples*. Task Force Report on Museums and First Peoples. Ottawa, ON: Assembly of First Nations and Canadian Museums Association.
- Association of Canadian Community Colleges. (2005). *Meeting the needs of Aboriginal learners: An overview of current programs and services, challenges, opportunities and lessons learned: final report*. Ottawa, ON: Association of Canadian Community Colleges.
- Bakhtin, M. M. (1986). *Speech genres and other late essays*. Austin, TX: University of Texas Press.
- Bakhurst, D. (2007). Vygotsky's demons. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 50-76). New York, NY: Cambridge University Press.
- Ball, J. (2004). As if Indigenous knowledge and communities mattered. *American Indian Quarterly*, 28(3-4), 454-479.
- Barnhardt, R. (1982). *Cross-cultural issues in Alaskan Education, Vol. 2*. Fairbanks, AK: The University of Alaska Press.
- Barnhardt, R., & Kawagley, A. O. (2005). Indigenous knowledge system and Alaska Native ways of knowing. *Anthropology and Education Quarterly*, 36(1), 8-23.
- Battiste, M. (2000). Introduction. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds*. Saskatoon, SK: Purich Publishing, Ltd.
- Battiste, M. & Henderson, J. Y. (2000). *Protecting Indigenous knowledge and heritage*. Saskatoon, SK: Purich Publishing Ltd.

- Bazylak, D. (2002). Journeys to success: Perceptions of five female Aboriginal high school graduates. *Canadian Journal of Native Education*, 26(2), 134-151.
- Berger, P., Ross, E., & Moller, H. (2006). The predictable influences of culture clash, current practice, and colonialism on punctuality, attendance, and achievement in Nunavut schools. *Canadian Journal of Native Education*, 29(2), 182-205.
- Bishop, R. (1998). Freeing ourselves from neo-colonial domination in research: A Maori approach to creating knowledge. *Qualitative Studies in Education* 1(2), 199-219.
- Bourdieu, P. (1991). *Language and symbolic power*. Cambridge, MA: Harvard University Press.
- Bourdieu, P. (1998). *Practical reason*. Cambridge, UK: Polity Press
- British Columbia Ministry of Education. (2008). *Aboriginal education enhancements*. Retrieved August 15th, 2008 from: <http://www.bced.gov.bc.ca/abed/>.
- British Columbia Provincial Health Officer. (2002). *Report on the health of British Columbians: Provincial health officer's annual report 2001: The health and well-being of Aboriginal People in British Columbia*. Victoria, BC: Ministry of Health Planning.
- Brown, J., Higgitt, N., Wingert, S., & Miller, C. (2005). Challenges faced by Aboriginal youth in the inner city. *Canadian Journal of Urban Research*, 14(1), 81-106.
- Browne, A. J., & Smye, V. (2002). A post-colonial analysis of healthcare discourses addressing Aboriginal women. *Nursing Research*, 9, 28-41.
- Bull, S., & Alia, V. (2004). Unequaled acts of justice: Pan-Indigenous encounters with colonial school systems. *Contemporary Justice Review*, 7(2), 171-182.

- Burbules, N. C., & Warnick, B. R. (2006). Philosophical inquiry. In J. L. Green, G. Camilli, & P. B. Elmore (Eds.), *Handbook of complementary methods in education research* (pp. 489-502). Mahwah, NJ: Lawrence Erlbaum.
- Burgess, T. (1993). Reading Vygotsky. In H. Daniels (Ed.), *Charting the agenda: Educational activity after Vygotsky* (pp. 1-29). New York, NY: Routledge.
- Cajete, G. (2000). *Native science: Natural laws of interdependence*. Santa Fe, NM: Clear Light Publishers.
- Caldwell, N. (2005). One foot in the canoe and one foot in the rushing stream: Indigenous property rights and intellectual freedom. In K. Webster (Ed.), *American Indian collections and resources*. Chicago, IL: OLOS American Library Association.
- Calliou, S. (1995). Peacekeeping actions at home: A medicine wheel model for a peacekeeping pedagogy. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 47-72). Vancouver, BC: University of British Columbia Press.
- Canadian Policy Research Networks Conference. (2002). Access to post-secondary education in Canada: Facts and gaps. *Canadian Millennium Scholarships Foundation*. Ottawa, ON: Sussex Circle Inc.
- Carr-Stewart, S. (2007). Treaty 6 education: In search of Her Majesty's bounty and benevolence. *Canadian Journal of Native Education*, 30(2), 231-247.
- Castellano, M. B., Davis, L., & Lahache, L. (2000). Introduction. In M. B. Castellano, L. Davis, & L. Lahache (Eds.), *Aboriginal education: Fulfilling the promise* (pp. 3-24). Vancouver, BC: University of British Columbia Press.

- Cazden, C. (1981). Performance before competence: Assistance to child discourse in the zone of proximal development. *Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, 3, 5-8.
- Chalifoux, T., & J. G. Johnson. (2003). *Urban Aboriginal youth: An action plan for change*. Ottawa, ON: Standing Senate Committee on Aboriginal Peoples.
- Chisholm, S. (1994). Assimilation and oppression, the northern experience: Education and the Aboriginal adolescent. *Education Canada*, 34(4), 28-33.
- Churchill, W. (1983). Marxism and the Native American. In W. Churchill (Ed.), *Marxism and Native Americans* (pp. 183-203). Boston, MA: South End Press.
- Cole, P. (2002). Aboriginalizing methodology: Considering the canoe. *Qualitative Studies in Education*, 15(4), 447-459.
- Collins, J. (2004). Foreword. In R. Rogers (Ed.), *An introduction to critical discourse analysis in education* (pp. xxi-xxv). Mahwah, NJ: Lawrence Erlbaum Associates.
- Cope, B., & Kalantzis, M. (2000). Introduction: Multiliteracies: The beginnings of an idea. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 3-8). London, UK: Routledge.
- Cytowic, R. E. (1995). Synesthesia: Phenomenology and neuropsychology: A review of current knowledge. *Psyche: An Interdisciplinary Journal of Research on Consciousness*, Vol 2(10), available online at:
<http://psyche.cs.monash.edu.au/v2/psyche-2-10-cytowic.html>.
- Deloria, V. Jr. (1998). Anthros, Indian, and planetary reality. In T. Biolosi & L. Aimmerman (Eds.), *Indians and anthropologists: Vine Deloria Jr. and the critique of anthropology* (pp. 209-221). Tucson, AZ: University of Arizona Press.

- Deloria, V., Jr. (1978). The Indian student amid American inconsistencies. In T. Thompson (Ed.), *The schooling of Native America* (pp. 9-26). Washington, DC: American Association of Colleges for Teacher Education.
- Deloria, V., Jr. (1991). *Indian education in America: Eight essays*. Boulder, CO: American Indian Science and Engineering Society.
- Deyhle, D. (2008). Navajo youth and Anglo racism: Cultural integrity and resistance. In J. Ogbu (Ed.), *Minority status, oppositional culture, and schooling* (pp. 433-480). New York, NY: Routledge.
- Fairclough, N. (2000). Multiliteracies and language: Orders of discourse and intertextuality. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 162-181). London, UK: Routledge.
- First Nations Education Steering Committee. (2008). *First Nations jurisdiction over education*. Retrieved August 15, 2008 from: <http://www.fnesc.ca/jurisdiction/index.php>.
- First Nations Jurisdiction over Education in British Columbia Act, S.C. c. 10 (2006).
- Freire, P. (1993). *Pedagogy of the oppressed*. New York, NY: Continuum International Publishing Group.
- Grace, P. (1985). *Books are dangerous*. Paper presented at the Fourth Early Childhood Convention, Wellington, New Zealand.
- Grande, S. (2000). American Indian geographies of identity and power: At the crossroads of Indígena and Mestizaje. *Harvard Educational Review*, 7(4), 467-498.

- Graveline, F. J. (2000). Circle as methodology: Enacting an Aboriginal paradigm. *Qualitative Studies in Education*, 12(4), 361-370.
- Greeno, J. G., Collins, A. M., & Resnick, L. B. (1996). Cognition and learning. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 15-46). New York, NY: Macmillan.
- Gruenwald, D. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40(3), 619-654.
- Hampton, E. (1995). Towards a redefinition of Indian Education. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 5-46). Vancouver, BC: University of British Columbia Press.
- Hanselmann, C. (2000). *Urban Aboriginal people in western Canada: Realities and policies*. Calgary, AB: Canada West Foundation.
- Heath, S. B. (1983). *Ways with words*. New York, NY: Cambridge University Press.
- Hébert, Y. (2000). The state of Aboriginal literacy and language in education. In M. B. Castellano, L. Davis, & L. Lahache (Eds.), *Aboriginal education: Fulfilling the promise* (pp. 55-75). Vancouver, BC: University of British Columbia Press.
- Henderson, J. Y. (1995). Mi'kmaw tenure in atlantic Canada. *Dalhousie Law Journal* 18(2), 196-216.
- Henderson, J. Y. (1995). Treaties and Indian education. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 245-261). Vancouver, BC: University of British Columbia Press.
- Hickey, D. T. & Granade, J. B. (2004). The influence of sociocultural theory on our theories of engagement and motivation. In D. M. McInerney, & S. Van Etten

- (Eds.), *Research on sociocultural influences on motivation and learning, Vol 4* (pp. 223-247). Greenwich, CT: Information Age Publishing.
- Hodgson-Smith, K. L. (2000). Issues of pedagogy in Aboriginal education. In M. B. Castellano, L. Davis, & L. Lahache (Eds.), *Aboriginal education: Fulfilling the promise* (pp. 156-170). Vancouver, BC: University of British Columbia Press.
- Holstein, J. A., & Gubrium, J. A. (1995). *The active interview*. Thousand Oaks, CA: Sage.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: MIT Press.
- Indian Act, R.S.C. c. 1-5 (1985).
- Indian and Northern Affairs Canada. (1995). *Basic departmental data*. Ottawa, ON: Queens Printer.
- Kalantzis, M., & Cope, B. (2000). A multiliteracies pedagogy: A pedagogical supplement. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 239-248). London, UK: Routledge.
- Kalantzis, M., & Cope, B. (2000). Changing the role of schools. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 121-148). London, UK: Routledge.
- Keeshig-Tobias, L. (2003). Of hating, hurting, and coming to terms with the English language. *Canadian Journal of Native Education*, 27(1), 89-100.
- Kelly, D. M., & Brandes, G. M. (2008). Equitable classroom assessment: Promoting self-development and self-determination. *Interchange*, 39(1), 49-76.
- King, T. (1993). A coyote columbus story. In T. King (Ed.), *One good story, that one* (pp.121-127). Toronto, ON: Harper Perennial.

- Kirmayer, L. J., Brass, G. M., & Tait, C. L. (2000). The mental health of Aboriginal peoples: Transformations of identity and community. *Canadian Journal of Psychiatry, 45*, 706-737.
- Kirkness, V., & Barnhardt, R. (1991). First Nations and higher education: The four R's – respect, relevance, reciprocity, responsibility. *Journal of American Indian Education, 30*(3), 1-15.
- Kress, G. (2000). Design and transformation: New theories of meaning. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 106-120). London, UK: Routledge.
- Kuokkanen, R. (2007). *Reshaping the university: Responsibility, Indigenous epistemes, and the logic of the gift*. Vancouver, BC: University of British Columbia Press.
- Leavitt, R. (1995). Language and cultural content in Native education. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 124-138). Vancouver, BC: University of British Columbia Press.
- Loppie, C. (2007). Learning from the grandmothers: Incorporating Indigenous principles into qualitative research. *Qualitative Health Research, 17*(2), 276-284.
- Loyie, B. A. (1992). *The impact of Indian Affairs bureaucracy: A study of two First Nations organizations and communities in northwestern Ontario*. Unpublished Master's of Education Thesis, University of British Columbia, BC.
- Machamer, A. M., & Gruber, E. (1998). Secondary school, family, and education risk: Comparing American Indian adolescents and their peers. *The Journal of Educational Research, 91*(6), 357-369.

- MacIvor, M. (1995). Redefining science education for Aboriginal students. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 73-100). Vancouver, BC: University of British Columbia Press.
- Macklem, P. (2001). *Indigenous difference and the Constitution of Canada*. Toronto, ON: University of Toronto Press.
- Maehr, M. L., & Meyer, H. A. (1997). Understanding motivation and schooling: Where we've been, where we are, and where we need to go. *Educational Psychology Review*, 9(4), 371-409.
- Manuelito, K. (2005). The role of education in American Indian self-determination: Lessons from the Ramah Navajo Community School. *Anthropology and Education Quarterly*, 36(1), 73-87.
- Marker, M. (2000). Economics and local self-determination: Describing the clash zone in First Nations education. *Canadian Journal of Native Education*, 24(1), 30-44.
- Marker, M. (2006). After the Makah Whale Hunt: Indigenous knowledge and limits to multicultural discourse. *Urban Education*, 41(5), 1-24.
- Maudie, M. (2004). Canadians rate Native issues a low priority. *Alberta Sweetgrass: The Aboriginal Newspaper of Alberta*, 12(1), 1.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- McCarty, T. L. (2005). Indigenous epistemologies and education: Self-determination, anthropology, and human rights. *Anthropology and Education Quarterly*, 36(1), 1-7.

- Medenhall, P. T. (1982). Bicultural school organization and curriculum. In R. Barnhardt (Ed.), *Cross-cultural issues in Alaskan Education, Vol. 2* (pp. 83-92). Fairbanks, AK: The University of Alaska Press.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.
- Midgley, C. (1993). Motivation and middle level schools. In P. Pintrich & M. L. Maehr (Eds.), *Advances in motivation and achievement, Vol 8: Motivation in the adolescent years* (pp. 219-276). Greenwich, CT: JAI Press.
- Nakata, M. (2000). History, cultural diversity and English language teaching. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 153-161). London, UK: Routledge.
- Neegan, E. (2005). A historical analysis of Aboriginal education in Canada then and now. *International Journal of Inclusive Education*, 9(1), 3-15.
- Newfield, D., & Stein, P. (2000). The multiliteracies project: South African teachers respond. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 292-310). London, UK: Routledge.
- Ogbu, J. (1992). Understanding cultural diversity and learning. *Educational Researcher*, 21(8), 5-24.
- O'Riley, P. (2004). Shapeshifting research on Aboriginal Peoples: Toward self-determination. *Native Studies Review* 15(2), 75-94.
- Orlowski, P. M. (2004). *What's ideology got to do with it? Race and class discourses in social studies education*. Unpublished doctoral dissertation, University of British Columbia, BC.

- Panofsky, C. P. (2003). The relations of learning and student social class: Toward re-
 “socializing” sociocultural learning theory. In A. Kozulin, B. Gindis, V. S. Ageyev,
 & S. M. Miller (Eds.), *Vygotsky’s educational theory in cultural context* (pp. 411-
 431). New York, NY: Cambridge University Press.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand
 Oaks, CA: Sage.
- Pavilla, P. (1982). A Native philosophy of education. In R. Barnhardt (Ed.), *Cross-
 cultural issues in Alaskan education, Vol. 2* (pp.3-6). Fairbanks, AK: The
 University of Alaska Press.
- Peshkin, A. (1997). *Places of memory: Whiteman’s schools and Native American
 communities*. Mahwah, NJ: Lawrence Erlbaum.
- Peshkin, A. (2000). The nature of interpretation in qualitative research. *Educational
 Researcher*, 29(9), 5-9.
- Prentice, J. (Hon.). (2006). First Nations jurisdiction over education in British Columbia
 Bill, Second Reading. *Legislative Debates*, 58, December 7, 2006. Ottawa, ON.
- Provincial Residential School Project. (2001). *Provincial residential school project
 receives support from Aboriginal Healing Foundation*. Retrieved August 15th,
 2008 from: <http://www.prsp.bc.ca>.
- Purcell-Gates, V. (1995). *Other people’s words: The cycle of low literacy*. Cambridge,
 MA: Harvard University Press.
- Purcell-Gates, V., Erikson, J., & Degener, S. (2004). *Print literacy development: Uniting
 cognitive and social practice theories*. Cambridge, MA: Harvard University Press.

- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. Oxford, UK: Oxford University Press.
- Schafer, L. (1982). Native cultural contexts and formal education. In R. Barnhardt (Ed.), *Cross-cultural issues in Alaskan education, Vol. 2* (pp. 93-105). Fairbanks, AK: University of Alaska Press.
- School Act, R.S.B.C. c. 412 (1996).
- Scribner, S. (1985). Vygotsky's uses of history. In J. V. Wertsch (Ed.), *Culture, communication and cognition: Vygotskian perspectives* (pp. 119-145). Cambridge, UK: Cambridge University Press.
- Shouls, T. (2003). *Shifting boundaries: Aboriginal identity, pluralist theory, and the politics of self-government*. Vancouver, BC: University of British Columbia Press.
- Smith, L. T. (1999). *Decolonizing methodologies: Research and Indigenous peoples*. Dunedin, NZ: University of Otago Press.
- Spivak, G. C. (1999). *A critique of postcolonial reason: Toward a history of the vanishing present*. Cambridge, MA: Harvard University Press.
- Stairs, A. (1995). Learning processes and teaching roles in Native education: Cultural base and cultural brokerage. In M. Battiste & J. Barman (Eds.), *First Nations education in Canada: The circle unfolds* (pp. 139-156). Vancouver, BC: University of British Columbia Press.
- Statistics Canada. (2003). 2001 Census: Analysis series Aboriginal Peoples of Canada: A demographic profile. *The Daily*. Retrieved September 1, 2007 from: <http://www.stacan.ca/Daily>.

- Street, B. (1984). *Literacy in theory and practice*. Cambridge, UK: Cambridge University Press.
- Sutherland, D. (2005). Resiliency and collateral learning in science in some students of Cree ancestry. *Science Education*, 89(4), 595-613.
- Tabb, B. (1983). Marx versus Marxism. In W. Churchill (Ed.), *Marxism and Native Americans* (pp. 157-176). Boston, MA: South End Press.
- Teale, W., & Sulzby, E. (1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.
- The New London Group. (2000). A pedagogy of multiliteracies designing social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 9-37). London, UK: Routledge.
- Thomas, J. (1994). *Teachings from the longhouse*. Wilsonville, ON: Jake Thomas Learning Centre.
- Tsuji, L. S. (2000). Modified school years: An important issue of local control of education. *Canadian Journal of Native Education*, 24(2), 158-168.
- U.S. Commission on Civil Rights. (2003). *A quiet crisis: Federal funding and unmet needs in Indian country*. Washington, DC: U.S. Commission on Civil Rights.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1987). Thinking and speech. In R. W. Rieber & A. S. Carton (Eds.), *The collected works of L. S. Vygotsky, Vol. 1: Problems of general psychology* (pp. 37-285). New York, NY: Plenum Press.

- Walkerdine, V. (1984). Developmental psychology and the child-centered pedagogy: The insertion of Piaget into early education. In J. Henriques, W. Hollway, K. Urwin, C. Venn, & V. Walkerdine, *Changing the subject: Psychology, social regulation, and subjectivity* (pp. 153-202). New York, NY: Methuen.
- Waller, M., Okamoto, S. K., & Hankerson, A. A. (2002). The hoop of learning: A holistic, multisystemic model for facilitating educational resilience among Indigenous students. *Journal of Sociology and Social Welfare*, 29(1), 97-116.
- Weis, L. (2008). "Excellence" and student class, race, and gender cultures. In J. Ogbu (Ed.), *Minority status, oppositional culture, and schooling* (pp. 240-256). New York, NY: Routledge.
- Wertsch, J. V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (1991). *Voices of the mind: A Sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.
- Wigfield, A., & Eccles, J. S. (2002). Expectancy-value. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 91-120). New York, NY: Academic Press.
- Witherspoon, G. (1977). *Language and art in the Navajo universe*. Flint, MI: University of Michigan Press.
- Wood, P. B., & Clay, W. C. (1996). Perceived structural barriers and academic performance among American Indian high school students. *Youth and Society*, 28(1), 40-61.