“We Should be Listening to Our Elders”: Evaluation of Transfer of Indigenous Knowledge between Anishinabe Youth and Elders

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Graduate Program in Geography
A thesis submitted in partial fulfillment of the requirements for the degree in Master of Arts
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“WE SHOULD BE LISTENING TO OUR ELDERS”: EVALUATION OF TRANSFER OF INDIGENOUS KNOWLEDGE BETWEEN ANISHINABE YOUTH AND ELDERS

(Spine Title: Transfer of Indigenous Knowledge)

(Thesis Format: Monograph)

by

Kassandra Christina Kulmann

Graduate Program in Geography

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts

The School of Graduate and Postdoctoral Studies
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London, Ontario, Canada

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The thesis by

**Kassandra Christina Kulmann**

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Chair of the Thesis Examination Board
Abstract and Keywords

Indigenous knowledge (IK) (knowledge held by Indigenous peoples regarding local environments, ways of life and culture) can potentially improve health and environment conditions. This thesis examines IK transfer between Anishinabe Elders and youth. A knowledge translation intervention was applied to address community concerns regarding decline of IK transfer between Elders and youth.

Youth were hired to participate in a summer school and interview Elders regarding environment and health issues. Qualitative interviews were conducted with youth before and after their internships to evaluate their experiences and IK uptake. The summer school and internships were effective in facilitating IK transfer between Elders and youth. Based on the methods and findings of this thesis, a framework was developed that outlines structures and relationships necessary for IK transfer. This framework displays that the structures were not sufficient for IK transfer; relationships built between all involved in the research process were integral to knowledge transfer.

Keywords: Indigenous knowledge, youth, knowledge transfer, Anishinabe, health, environment, Elders, intervention
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CHAPTER 1
INTRODUCTION

1.1 Research Context: Indigenous Knowledge (IK) and the Connection between the Environment and Health

The knowledge held by Indigenous peoples is a valuable resource that can improve health (Mignone & O’Neil, 2005; Kirmayer et al., 2003; Hurst & Nader, 2006; Hallett et al., 2007; King et al., 2009; Mowbray, 2007; Nettleton et al., 2007; Makokis, 2007; Kirmayer et al., 2009; Parlee et al., 2005; Wilson, 2003; Wilson, 2005; Durie, 2004). Knowledge held by Indigenous peoples regarding their local environments, ways of life and culture can generally be referred to as Indigenous knowledge (IK)\(^1\) (Durie, 2004; Agrawal, 2004; Smith, 1999; Cochran et al., 2008; McGregor, 2004). IK takes several forms: that passed between generations, that acquired through experience, and that gained spiritually (McGregor, 2004). The Indigenous health literature has established links between IK and health (Parlee et al., 2005; Smith, 1999; Mignone & O’Neil, 2005; Kirmayer et al., 2003; Hurst & Nader, 2006; Hallett et al., 2007; Wilson, 2003). For example, traditional berry harvesting in the Northwest Territories is not only physically beneficial to health, it also improves social relationships, connects people to the land and promotes general wellbeing (Parlee et al., 2005). Mental health is also influenced by IK; Hallett et al. (2007) report that “Indigenous language use, as a marker of cultural persistence, is a strong predictor of health and wellbeing in Canada’s Aboriginal

\(^1\) This thesis uses the term Indigenous knowledge (IK) to refer to the knowledge held by Indigenous peoples. The term traditional knowledge is also often used to refer to the knowledge held by Indigenous peoples; however, IK will be used as traditional knowledge refers to knowledge from the past (Castellano, 2000; Steinhauer, 2002). This thesis deals with a broader conception of knowledge held by Indigenous peoples (i.e. contemporary knowledge), therefore IK is the most appropriate term.
communities” (398). This study examined suicide rates and their connection to the use of Indigenous languages; more use of Indigenous language was correlated with lower suicide rates (Hallett et al., 2007). In addition to potentially improving health, IK also has implications for environmental management (Stevenson, 1996). For example, the Dene in the Lac de Gras region (Northwest Territories) expressed a desire to protect caribou herds, which may have been affected by the BHP Diamond Inc. project to be introduced to the area (Stevenson, 1996). IK regarding caribou was included within the BHP Diamonds Inc. Environmental Impact Statement, with the intention of “managing the effects of mining activities on caribou” (Stevenson, 1996, 286). As caribou are an integral part of Dene life, it is important to keep track of the mine’s impact on the herds (Stevenson, 1996). Therefore, IK has the ability to improve the environment, in turn influencing Indigenous health.

IK has the potential to improve the environment and in turn Indigenous health, though in order to do so, IK must be transmitted from knowledge holders to younger generations. Unfortunately, the transmission of IK between Indigenous Elders and youth is in jeopardy, due to a variety of factors, including: residential and day schools; changes to traditional ways of life; introduction of new technologies (i.e. TV); colonization; loss of control over traditional territories; environmental degradation; assimilation; loss of language; and government policies (i.e. The Indian Act) (Ohmagari & Berkes, 1997; Simpson, 2004; Battiste, 2002; Tsuji, 1996). This Master’s thesis is part of a larger project that aimed to preserve IK and facilitate its transmission between Indigenous Elders and youth along the North shore of Lake Superior. The project took an innovative qualitative approach, which employed youth interns to interview their community Elders. For two months, youth in two communities conducted interviews with their community
Elders regarding local environment and health issues. I examined the youths’ knowledge of these issues both before and after their interviews with Elders, in order to analyze their uptake of IK. Through the project, valuable IK was successfully transferred from Indigenous Elders to youth. As Elders in communities pass on, younger community members will be able to apply IK learned from their Elders to potentially improve community health and environmental issues.

1.2 Research Problem

Upon the arrival of Europeans to North America, the health of Indigenous peoples began to steadily decline (Gracey & King, 2009; Waldrum et al., 2006). Environmental dispossession (ED), which refers to the loss of use of traditional lands for traditional activities, has negatively affected the health of Indigenous peoples (Richmond & Ross, 2009; Adelson, 2005). ED has occurred through several means, including the physical removal of Indigenous peoples from their lands, contamination from resource industries, and other processes of colonization (i.e. residential schools) which have worked to assimilate Indigenous peoples into the dominant society (Richmond & Ross, 2009; Luginaah et al., 2010; Gracey & King, 2009; King et al., 2009; Møller, 2010; Culhane, 2003; Smith et al., 2005).

ED has also contributed to the loss of IK, which refers to the knowledge held by Indigenous peoples regarding their local environments, worldviews and ways of life (McGregor, 2004; Durie, 2004; Stevenson, 1996; Smylie et al., 2003; Richmond & Ross, 2009). IK is connected to local environments, and as Indigenous peoples lose these lands, the knowledge connected to the land is also in jeopardy of being lost (Durie, 2004; McGregor, 2004). For example, the land provides foods and medicines which are linked
to physical and spiritual health (Wilson, 2003). Indigenous peoples also have a spiritual connection with the land, which in turn influences health (Wilson, 2003). Durie (2004) states that “the basis for knowledge creation is the dynamic relationships that arise from the interaction of people with the environment, generations with each other, and social and physical relationships” (1139). IK is integrally linked to the physical environment, and without a physical connection to the land, Indigenous peoples face the risk of losing elements of IK. Assimilating policies such as the residential school system suppressed IK and imposed a Western lifestyle on Indigenous peoples, causing a loss of different elements of IK, including language (Smylie et al., 2009; Durie, 2004; Richmond & Ross, 2009; Turner & Turner, 2008).

IK transmission occurs several different ways, including through oral transmission (i.e. between Elders and youth); the teaching of skills through demonstration (i.e. showing community members how to set a snare); and through experiencing and developing relationships with the natural environment (Ohmagari & Berkes, 1997; Simpson, 2004). However, these methods of IK transmission are threatened because youth do not always speak the language of their Elders (Turner et al., 2000). As well, many youth have become disconnected from their traditional ways of life due to outside influences, such as the internet (Richmond & Ross, 2009). As well, colonial forces which have damaged the environment and separated Indigenous peoples from their traditional territories threaten IK, as connection to the natural environment forms a significant part of IK (Simpson, 2004). IK is important because it has the potential to improve Indigenous health (Durie, 2004; Turner & Turner, 2008; Waldram et al., 2006). Indigenous peoples globally have expressed concern regarding the loss of IK, and a desire to preserve this knowledge within communities (Ohmagari & Berkes, 1997; Batchewana First Nation, personal
communications with Richmond, 2008; Pic River First Nation, personal communications with Richmond, 2008; McGregor, 2004; Ross & Pickering, 2002; Turner & Turner, 2008; Neegan, 2007).

This Master’s thesis is part of a larger, community-based participatory research (CBPR) project involving two First Nation communities along the North shore of Lake Superior. The communities involved are Batchewana First Nation (BFN) (located near Sault Ste. Marie, Ontario), and Pic River First Nation (PRFN) (located near Marathon, Ontario). Discussion with community members revealed concerns regarding the loss of IK, which has been negatively affected by ED. For example, the routing of the Trans Canada highway introduced traffic, pollution and resource industries to the traditional territories of Anishinabe peoples. This has influenced both their access to traditional lands and the quality of the environment, in turn negatively affecting health (Richmond, 2009; Davidson-Hunt, 2003). As well, changes to traditional ways of life have disconnected generations of Anishinabe peoples, causing a decline in the transfer of IK. Elders hope to transmit valuable IK to younger generations, in order to improve and preserve environmental conditions and community health.

The larger project involved interviewing Elders in Batchewana First Nation (BFN) and Pic River First Nation (PRFN) regarding key environmental and health issues in their communities. Elders hold valuable IK regarding their local environments as well as ways of maintaining and improving health. Youth from the two communities were hired as summer interns (July-August 2011) to interview their Elders, with the purpose of acquiring IK from their Elders. A PhD candidate, J. Tobias, has analyzed the Elder interviews. My part in the larger project was to document the IK that the youth learned during their internships from their Elders. I interviewed the youth both before and after
they conducted interviews with their Elders, and compared the changes in their knowledge of community health and environment issues. I also examined the youths’ experiences during their summer internships. The purpose of the internships was to connect local youth with Elders, in order to facilitate the transmission of IK. This thesis also comments on the effectiveness of the summer internships as a method of transferring IK between community Elders and youth.

1.3 Research Objectives

The research explored youth perceptions of community environmental and health changes, as well as how these perceptions changed after speaking with Elders regarding community environment and health changes. The research question addressed was, “What have Anishinabe youth learned about community environment and health changes from their Elders and how effective was the transfer of IK?” The hypothesis guiding this research was that IK transfer would occur between Elders and youth. As well, I thought that the youth would become empowered to work within their communities as a result of being involved in the project.

Specific objectives of the research included:

1. To facilitate the transmission of IK between Elders and youth;

2. To identify youth perceptions of community environment and health changes before and after speaking with their community Elders; and

3. To evaluate the effectiveness of internships as a method of transferring IK.
1.4 Community Profiles

This research took place in two communities, Batchewana First Nation (BFN) and Pic River First Nation (PRFN). BFN is located near Sault Ste. Marie, Ontario, and PRFN is located near Marathon, Ontario. The information provided for each of the community profiles below has been drawn from the websites of BFN and PRFN respectively.

![Map of Batchewana First Nation and Pic River First Nation](maps.google.ca)

**Figure 1.4: Map of Batchewana First Nation and Pic River First Nation**

Batchewana First Nation (BFN) Philosophy

“It is the aspiration of everyone that we will all work together for the good of the community and good community life. In order to have a healthy community, physically, mentally, and spiritually, it is recognized that we must respect one another. Moreover, it is agreed that religious tolerance is a principle of our community life for mutual respect and understanding.”

“No one is greater or lesser than anyone else.”
Batchewana First Nation (BFN) is located on the North shore of Lake Superior, by Sault Ste. Marie, Ontario. Residents of BFN are Ojibway, which means “puckered” (“puckered moccasin style”). Anishinabe, which means “original people”, is the traditional name of the Ojibway people. Four reserve areas comprise BFN: Goulais Bay 15A (645.5 hectares), Obadjiwan 15E (68 hectares), Rankin Location 15D (1510.7 hectares), and Whitefish Island (17.2 hectares), for a total of 2241.4 hectares of land. The registered population of BFN is 2479 people, with 709 residing on reserve and 1770 off reserve.

BFN has two treaties; the 1850 Huron Robinson Treaty and the 1859 Pennefather Treaty. The Huron Robinson Treaty has not been recognized in full. For example, BFN reports that “interference with rights as nations, denial of economic development and dispossession of treaty boundaries and land” has taken place. In discussion with research participants, some BFN members indicated that they felt their forefathers had been unduly influenced to sign the 1859 Pennefather Treaty, which greatly reduced the land base originally determined in the 1850 Huron Robinson Treaty. As well, discussions revealed that land traditionally occupied by BFN extends from Gros Cap along the north shore of Lake Superior to Pukaskwa National Park. BFN is currently involved in treaty negotiations, and is using the Vidal Anderson Commission Report of 1849 as a guideline for determining traditional land bases.

The current governmental body of BFN includes Band Chief and Council, elected in 2011. The Band Chief is Dean Sayers; the Top Councillor is Harvey Bell and councillors are Greg Agawa, Trudy R. Boyer, Dorothy Gingras, Robert (Gary) Gingras, Gary Roach Jr., Peter Sewell and Vernon Syrette. The BFN Governance Steering
Committee consists of Joy Agawa, Harvey Bell, Patricia Belleau, Mary Boyer-Finlayson and Arthur Carierre; the alternate is Linda Jordan and the Coordinator Amy Boyer.

BFN has several community resources. Resources include a Learning Centre, Natural Resources Department, Police Services, Economic Development Program, Health Centre, Language Program, Rankin Arena, Rankin Daycare Centre and Teen Centre. The Rankin reserve has water and sewer service (city of Sault Ste. Marie), and Goulais Bay and Obadjiwan have wells and septic systems. There are currently no residents on Whitefish Island.

The BFN philosophy clearly states health as a top priority of the community, as well as the importance of community unity. The community resources available, including the Natural Resources Department, Health Centre and Language Program also display the priorities of BFN. The larger research project and this thesis focus on the preservation and transfer of environment and health knowledge between Elders and youth, which will potentially improve community environment and health conditions. As well, the relationships that the youth developed over the summer with their community Elders will potentially improve community unity, which may also have implications for health. The research project goals align with those of BFN, making the project a worthwhile venture for this community.

Pic River First Nation (PRFN) Mission Statement

“Pic River First Nation will promote the development of a healthy, safe and self-sufficient community. Pic River First Nation will deliver fair and accountable services and programs which are reflective of its peoples’ needs, priorities and available resources.”

Pic River First Nation (PRFN) is located on the North shore of Lake Superior, near Marathon, Ontario. Residents of PRFN are Anishinabe. PRFN is comprised of one
reserve, which is 316.6 hectares. The registered population of PRFN is 1001 people, with 508 residing on reserve and 493 off reserve.

PRFN is a treaty reserve, but is not included in the Robinson Superior Treaty. PRFN’s traditional territory extends from the southern boundary of Pukaskwa National Park along the north shore of Lake Superior to Schreiber, and inland past the Trans Canada highway. Part of this territory is strictly that of PRFN; the outlying areas are shared with other First Nation communities.


PRFN has many community resources, including the Anishinabek Police Service, Capital Housing Program, a fire department, Children and Family Learning Centre (including a daycare), economic development programs, two schools including Pic River Elementary School and Pic River Private High School, Pic River Health Centre (as well as programs specific to diabetes, addictions, exercise and diet), a Lands and Resources department, a Language Revitalization Project and social services.

Similar to BFN, PRFN places high value on the quality of their community’s environment and health. As well, one of the PRFN value statements outlines “the potential of our youth as future leaders and developers of our community” as a community goal. The research project aimed to educate youth regarding IK, which may potentially lead to youth using this knowledge in leadership roles in their community. The significance PRFN places on the future of their youth made them good candidates to take part in this youth centred research project.
Though the two communities above are distinct, they also share many similarities. Environmental changes caused in part by economic development have brought about subsequent shifts to ways of life and health. For example, mining developments have led to concerns about local water quality in both communities. During preliminary talks with the communities, members stressed the importance of IK and its transmission to youth. BFN and PRFN are both concerned about and invested in the youth of their communities, and have been active participants in this research from its inception. As this project is unique in regards to the method of facilitating the transfer of IK, both BFN and PRFN will serve as leaders among First Nation communities throughout Canada.

### 1.5 Chapter Outline

This thesis is made up of six chapters in total (including the introduction). **Chapter 2** provides a review of the literature. The review begins with an overview of Indigenous health in Canada, including health issues and influences. Indigenous youth health is outlined, though literature in this field is sparse. This chapter also provides a description of environmental dispossession (ED), including how it occurs and how it affects Indigenous peoples. An overview of IK is provided, and includes Indigenous and non-Indigenous definitions of the concept. A review of the literature available regarding health interventions in Indigenous communities is included in the final section of the literature review.

**Chapter 3** describes the methods used in the research. The first section outlines the theoretical frameworks applied, including an introduction to the Community-Based Participatory Research (CBPR) approach (applied in the larger CIHR-funded project) and defines the Integrated Knowledge Translation (IKT) framework that has been
implemented within this project. The second section provides a more detailed explanation of CBPR. I reflect on my own position within the research, including the challenges and issues involved in CBPR (in particular working as an outsider to the communities). Indigenous methodologies are defined and their importance to research in Indigenous communities emphasized. Knowledge translation (KT) in Indigenous communities is described, and an overview of studies involving KT is included. The frameworks are tied together with an overview of the use of a KT framework within a CBPR approach. The participants and recruitment of the participants is outlined in the following section. The introductory summer school program is described, followed by overviews of the internships and end of summer school program.

Chapter 4 provides an overview of data collection and analysis. A description of the interview process is provided, including the use of film during the interviews. An overview of the internships and end of summer school is given, including the process of interviewing Elders. Thematic analysis is defined, followed by a description of how my interviews were analyzed. I conducted analysis for the documentary, which is also described.

Chapter 5 outlines the results of the research. The themes covered in this section include internships, transfer of IK, existing IK, and IK learned. Sub-themes of these main themes are included, as well as numerous quotes from both sets of interviews.

Chapter 6 includes the discussion and conclusion. A summary of results is provided, followed by a conceptual framework for the facilitation of IK transfer between Elders and youth; the framework is explained in detail. The theoretical, methodological and policy contributions of the research are outlined, as are the limitations of the project. Areas for further research are included, followed by the final conclusions of the research.
CHAPTER 2
LITERATURE REVIEW

2.0 Introduction

The following section will provide a summary of the literature relevant to this thesis. The first section will give an overview of Indigenous health in Canada, including health issues experienced by Indigenous peoples as well as some of the factors influencing these health outcomes. The second section will describe Indigenous youth health, though few studies exist on this topic. The third section will define environmental dispossession (ED) and its effects on Indigenous health. IK will be explained in the fourth section, including how it can be applied to Indigenous health research. The final section will provide an overview of health interventions that have taken place in Canada and globally, as this thesis project was designed as an intervention to transfer IK between Elders and youth, with the potential to improve health.

2.1 Indigenous Health in Canada

The Indigenous health literature has established the deep connections between the health of Indigenous peoples and that of their local environments (Durie, 2004; Gracey & King, 2009; King et al., 2009; Luginaah et al., 2010; Parlee et al., 2005; Richmond et al., 2005; Richmond & Ross, 2009; Wilson, 2003). Traditional sustenance activities, such as hunting, fishing and gathering berries, as well as spiritual activities, take place within the physical environment (Parlee et al., 2005; Gracey & King, 2009; King et al., 2009). These activities in turn affect Indigenous quality of life. For example, researchers have examined the positive effects of eating country foods on Indigenous health (Parlee et al.,
2005; King et al., 2009; Wilson, 2003; Richmond & Ross, 2009). The environment influences physical, emotional, mental and spiritual aspects of Indigenous health (Wilson & Rosenberg, 2002; King et al., 2009; Richmond & Ross, 2009; Wilson, 2003).

Though Indigenous health differs between populations throughout the world, several key health issues and determinants are commonly experienced by Indigenous peoples globally. Indigenous peoples experience high levels of infectious (i.e. tuberculosis) and non-infectious diseases (i.e. obesity, type II diabetes, cardiovascular disease, substance abuse, and mental health issues) (Gracey & King, 2009; Young et al., 2000; Grzybowski & Allen, 1999). As well, these poor levels of health can be attributed to several determinants and influencing factors, which include poverty, overcrowded housing, malnutrition and environmental degradation (Gracey & King, 2009). Many of the above living conditions have been impacted by several other factors affecting Indigenous populations, including colonization, migration, disconnection from traditional ways of life (i.e. culture and language), and displacement from traditional lands (King et al., 2009).

2.2 Indigenous Youth Health

The literature available on Indigenous youth health is quite sparse, and focuses primarily on suicide. Among Canadian Indigenous youth, suicide is the primary cause of death, with occurrences 3-6 times higher than non-Indigenous youth (though rates vary between communities) (Frohlich et al., 2006; Kirmayer et al., 2003; Hallett et al., 2007; Mignone & O’Neil, 2005; MacMillan et al., 1996). Similar patterns of suicide exist for Indigenous youth in the United States and Australia (Potthoff et al., 1998; Hurst & Nader, 2006; Thomas et al., 2010). These high rates of suicide are connected to colonization and
the damaging effects this process had on the mental health of Indigenous peoples (Kirmayer et al., 2003). For example, assimilation led to the disconnection of Indigenous peoples from traditional ways of life, including “loss of control over lands and living conditions, breakdown of cultural values and belief systems, loss of identity and self-esteem, and discrimination…” (Migneone & O’Neil, 2005, S52). This in turn led to “the sense of instability or hopelessness that particularly affects youth and leads to self-destructive behaviors” (Migneone & O’Neil, 2005, S52). As Indigenous youth represent the future of their communities, these high rates of suicide are rather disheartening.

Though Indigenous youth suffer from high rates of suicide, studies have displayed links between reduced instances of suicide and knowledge of traditional ways of life (Kirmayer et al., 2003; Migneone & O’Neil, 2005; Hallett et al., 2007; Cutcliffe, 2005; Frohlich et al., 2006). For example, “cultural continuity”, which includes “community control of health, education, child protection, policing, self-governance, secure access to traditional lands, [and] facilities to preserve cultural artifacts and traditions” is connected to lowered rates of suicide within communities (Hallett et al., 2007; Cutcliffe, 2005; Frohlich et al., 2006; Kirmayer et al., 2003; Migneone & O’Neil, 2005). As well, speaking Indigenous languages and having a sense of Indigenous identity are also connected to lower rates of youth suicide and general community health (Hallett et al., 2007; Kirmayer et al., 2003; Migneone & O’Neil, 2005). Research has displayed the significance and impact of traditional ways of life on Indigenous health, in particular youth suicide.

Other than suicide, very few health issues affecting Indigenous youth are documented in detail in the literature. HIV infection is a concern for Indigenous youth, as HIV risk increases among youth who take part in dangerous activities such as unsafe sex and intravenous drug use (Larkin et al., 2007); many Indigenous youth take part in risky
activities in response to the effects of assimilation, residential schools and colonization (Larkin et al., 2007). Indigenous youth also suffer from higher levels of STI infections than non-Indigenous youth (de Ravello et al., 2012). Indigenous teens have higher rates of pregnancy than non-Indigenous teens; 9% of Indigenous mothers are under age 18 versus 1% of non-Indigenous mothers (MacMillan et al., 1996; de Ravello et al., 2012). As well, Indigenous youth have higher rates of substance abuse than non-Indigenous youth (MacMillan et al., 1996; de Ravello et al., 2012).

More literature exists regarding Indigenous children’s health, though these studies focus on a few specific health outcomes. Otitis media is documented in the Indigenous children’s population of Canada at rates much higher than non-Indigenous children and Indigenous children living in southern Canada (Bowd, 2004; Baxter, 1999; Harris et al., 1998). In addition to otitis media, type II diabetes affects Indigenous children at much higher rates than non-Indigenous children (Rosenbloom et al., 1999; Dean, 1998; Young et al., 2000).

The literature available regarding Indigenous youth health focuses on suicide and only briefly touches upon other issues such as HIV and substance abuse. Slightly more studies exist which focus on Indigenous children, though only a few specific outcomes are present (otitis media and type II diabetes). A large gap exists regarding Indigenous youth health, in particular Canadian Indigenous youth health. Though studies regarding suicide partially address mental health, emotional, physical and spiritual elements of health need to be explored in more detail. As well, it is important to examine youth perceptions of their health and what they deem to be significant health issues within their communities.
2.3 Environmental Dispossession (ED)

Several factors have influenced the poor levels of health in Indigenous communities, including environmental dispossession (ED). ED refers to the loss of use of traditional lands for traditional activities (Richmond & Ross, 2009). Indigenous peoples have been physically separated from their lands due to colonial processes, for example, through the reservation system (Richmond & Ross, 2009). The residential school system also caused separation from the land, as the purpose of the schools was to assimilate Indigenous children into mainstream Canadian society (Richmond & Ross, 2009).

In addition to being physically separated from the land, Indigenous peoples have suffered from the degradation of their traditional territories in the form of environmental contamination. This means that traditional foods may become unfit to eat, or lands may no longer be accessible, even if communities reside on the land (Richmond & Ross, 2009). This impacts health because traditional foods have high nutritional value, as well as the potential to improve physical health (Richmond & Ross, 2009; Parlee et al., 2005). As well, the collection of traditional foods can have positive effects on mental and spiritual health. For example, berry harvesting in the Northwest Territories allowed women to “connect...to their mental, emotional, physical, and spiritual selves, to each other and the land” (Parlee et al., 2005, 132). Environmental contamination has negatively affected the health of Indigenous peoples.

2.4 Indigenous Knowledge (IK)

Though there is no singular definition of IK, it can generally be referred to as knowledge held by Indigenous peoples regarding the environment, ways of life and culture (Durie, 2004; Agrawal, 2004; Smith, 1999; Cochran et al., 2008; McGregor,
IK differs from scientific knowledge in that it is a part of being Indigenous and experiencing Indigenous ways of life (Durie, 2004; McGregor, 2004). For example, one cannot become an expert in IK by simply reading about it; it is a way of life. IK takes several forms: that passed between generations; that acquired through experience; and that gained spiritually (McGregor, 2004). In contrast, scientific knowledge examines physical evidence of phenomena and excludes knowledge that does not fit within the scientific method (Durie, 2004). Though Indigenous peoples hold valuable knowledge regarding their environments, science is still viewed as the most correct method of verifying phenomena (Durie, 2004). For example, in a study, scientific researchers counted whales visually, whereas Inuit where able to count whales by hearing breathing below the sea ice (Cochran et al., 2008). The Inuit counts and scientific counts were different, and the scientific counts were viewed as the most correct. The Inuit counts were ultimately verified by further aerial counts, which displayed the accuracy of the Inuit method compared to the scientific method (Cochran et al., 2008).

The definition of IK also differs between Indigenous and non-Indigenous peoples. In contrast to the Indigenous concept of IK (i.e. knowledge held by Indigenous peoples about ways of life), non-Indigenous views of IK typically consider it “the knowledge of Native people about their natural environment” (Nakashima, 1993, 99). IK is often referred to as Traditional Ecological Knowledge (TEK) by non-Indigenous scholars, and is viewed as something that can be separated from Indigenous peoples to be used for other purposes (Usher, 2000). For example, TEK may be implemented as a way to manage the natural environment, though this is problematic because this body of knowledge does not exist as a formal set of guidelines that can be applied by non-Indigenous peoples (Usher, 2000). Indigenous scholars often take issue with TEK, as it
does not represent the holistic nature of IK; it deems to separate IK into pieces that can be used for specific tangible purposes (McGregor, 2004).

Though there are disagreements as to what constitutes IK, the knowledge held by Indigenous peoples is a valuable resource that can be applied to improve health. For example, IK regarding traditional berry harvesting in the Northwest Territories is not only physically beneficial to health (i.e. berries are healthy), it also improves social relationships between community members, connects people to the land and improves general wellbeing (Parlee et al., 2005). As well, IK can be applied to research to increase the comfort of Indigenous peoples involved. For example, researchers working with Maori blood and urine samples were not trusted by community members unless the samples were handled according to Maori custom (i.e. samples were buried after researchers were finished with them) (Durie, 2004). Researchers working with Indigenous peoples can apply IK concepts, which have the potential to improve community and individual health.

2.5 Intervention Framework

The summer internship was intended to act as a knowledge translation (KT) intervention, with the intention of preserving valuable IK. This knowledge in turn may have the potential to improve community health and environment conditions. This means that the youth were involved in a process that explicitly aimed to facilitate the transfer of IK between Elders and youth. The intervention was therefore designed to facilitate the transfer of IK with the intention to improve health. The following section will provide a review of the literature regarding health interventions within First Nation communities in Canada and the United States.
Few health interventions have been initiated in Canada with First Nation peoples. The interventions have focused on type II diabetes, specifically the prevention of diabetes through changes to diet and physical activity, as well as diabetes awareness (Ho et al., 2006; Macaulay et al., 1997; Saksvig et al., 2005; Rosecrans et al., 2008; Potvin et al., 2003; Daniel et al., 1999). The Kahnawake Schools Diabetes Prevention Project (KSDPP) took place in a Mohawk community in Quebec, and involved teaching children in schools (grades 1 to 6) about healthy eating and physical activity, as well as diabetes (Potvin et al., 2003; Macaulay et al., 1997). The Sandy Lake school-based diabetes prevention intervention, part of the Sandy Lake Health and Diabetes Project (SLHDP) (located in Northwestern Ontario) similarly involved school lessons regarding diet, activity and diabetes, as well as radio shows, cooking club, “healthy school lunch program” and the removal of unhealthy foods from school cafeterias (Saksvig et al., 2005, 2393). Another diabetes prevention program, the Okanagan Diabetes Project, involved similar prevention tactics (improved diet and activity levels) but included those over the age of 18, in contrast to the KSDPP and the SLHDP, which focused on prevention of diabetes among children (Daniel et al., 1999). A fourth diabetes intervention entitled Zhiwiwaapenewin Akino’maagewin: Teaching to Prevent Diabetes (ZATPD), was based on the SLHDP and Apache Healthy Stores program (an intervention that targeted obesity within an American Indian population) and involved school lessons (diet, exercise and diabetes awareness) for grades 3 and 4, as well as the promotion of healthy foods within reserve stores (Rosecrans et al., 2008; Curran et al., 2005).

Similar to the diabetes interventions described above, reproductive health among American Indigenous youth has been addressed through the use of school curriculums. The Circle of Life HIV/AIDS Prevention Intervention involved two curriculums, one for
kindergarten to grade 6 and one for students in middle school that included culturally appropriate (the medicine wheel is used as a framework) lessons on HIV/AIDS prevention (Kaufman et al., 2012). Another study focused on female youth preconception (before pregnancy) health, and involved lessons on women’s health (Richards & Mousseau, 2012). This study took a more quantitative approach, as it included a group of women provided with the lessons, and a group that was not exposed to the same lessons (intervention and non-intervention groups) (Richards & Mousseau, 2012).

Though the above interventions focused specifically on diabetes prevention and reproductive health, several similarities, lessons and principles can be applied to this thesis project. For example, the SLHDP emphasized the importance of community involvement in all stages of the intervention, including community goals, intervention creation and continued input throughout the research process by community members (Ho et al., 2006; Kirmayer et al., 2003; Young et al., 2000). The larger CIHR project connected to this thesis follows a community-based participatory research (CBPR) approach, and has involved community members at all steps of the research process (i.e. initial planning, data collection, data analysis and dissemination of results). Similarly, Bartlett et al. (2007) advocate for the participation of communities in health research as a method of improving the effectiveness of interventions. Researchers implementing health interventions need to remember the importance of community involvement throughout the intervention process.

In addition to community input, the diabetes health interventions focus on the importance of including Indigenous ways of learning within intervention frameworks. The ZATPD program used storytelling, a traditional learning method, as a way of transmitting diet and exercise lessons to children (Rosecrans et al., 2008). The KSDPP
also used oral traditions within school lessons (Potvin et al., 2003). The significance of youth in First Nation communities was emphasized during planning of the KSDPP, as Elders wanted the project to involve children in the community (Potvin et al., 2003). The SLHDP used multiple traditional methods, including storytelling, traditional activities and speaking with Elders (Saksvig et al., 2005). Researchers also stressed the significance of maintaining cultural appropriateness within interventions (Daniel et al., 1999; Saksvig et al., 2005; Young et al., 2000; Kaufman et al., 2012; Richards & Mousseau, 2012). For example, the Circle of Life HIV/AIDS Prevention Intervention used the medicine wheel as a framework for the curriculum, to help ensure cultural appropriateness (Kaufman et al., 2012).

This thesis project attempted to maintain cultural appropriateness through several means, including providing semaa (tobacco) as an offering of respect when requesting Elder participation in interviews; by maintaining open communication with community members (including Local Advisory Committee members); and by hiring community youth to conduct interviews with Elders. The hiring of youth helped maintain cultural appropriateness as the youth were able to inform co-researchers and I about culturally appropriate nuances that we may otherwise have been ignorant to. For example, I initially wanted to call all Elders first to establish connections; the youth however thought that many Elders would be more comfortable meeting us in person versus speaking over the phone. The above researchers emphasize the importance of maintaining cultural appropriateness, which was applied in this thesis project.

In addition to attempting to maintain cultural appropriateness, oral traditions and storytelling were used in this thesis project. The youth spoke with their Elders in what were termed qualitative interviews, though many of the youth referred to the interviews in
less formal terms (i.e. talking with their Elders). The youth also reported that much of the IK came in the form of stories, pointed out as a traditional learning style by researchers involved in the SLHDP and ZATPD interventions (Rosecrans et al., 2008; Saksvig et al., 2005).

One of the most significant elements of the intervention in this thesis is the direct involvement of youth as active participants in the intervention process. Youth were hired for two-month summer internships to not only interview Elders, but to also take part in the development of interview questions, project planning and preliminary analysis. A project with the Western Athabaskan Tribe in New Mexico entitled the Natural Helpers Youth Program (NHYP) involved youth volunteers whose purpose was to act as mentors, or “natural leaders” to other students regarding substance abuse and suicide (DeBruyn et al., 2001, 96; May et al., 2005). The youth took part in training sessions and were supported by healthcare professionals (May et al., 2005). The NHYP showed positive results in the form of a reduction in “suicidal activity” (DeBruyn et al., 2001, 97). The NHYP displayed the effectiveness of involving youth as active contributors to the research and intervention process.

Another study, the Circumpolar Indigenous Pathways to Adulthood (CIPA) was a CBPR project regarding youth health (“life history interviews” were conducted with community youth) that actively included Yup’ik Eskimo (Alaska) youth within the research process (Ford et al., 2012, 2). Youth were included in a local steering committee, data analysis, dissemination of results and the development of results into “action activities, being useful by helping Elders and being proud of our village” (Ford et al., 2012, 4). This study also involved the transfer of IK between Elders and youth regarding community health (Ford et al., 2012). As a result of their involvement in the research,
youth took on leadership roles within their community (Ford et al., 2012). The above
described research shares several similarities to this thesis research, as it actively involves
youth within a CBPR project and also links youth with Elders.

A Canadian program implemented by the federal government, entitled Health
Canada’s Program for Climate Change and Health Adaption in Northern First Nation and
Inuit Communities, provides funding for Indigenous communities to initiate research
projects (Peace & Myers, 2012). Though the article does not focus on a specific research
project, the authors note that many of the research that has been initiated within
Indigenous communities has involved youth learning IK from Elders (Peace & Myers,
2012). For example, youth were able to take part in traditional activities on the land such
as hunting (Peace & Myers, 2012). The funded projects allowed for a great deal of
community agency over the research process, which is similar to the use of a CBPR
approach and IKT framework within the larger CIHR project connected to this thesis. As
well, several projects involved transfer of IK between Elders and youth, which is the
primary focus of this thesis.

Research examining smoking among Canadian Indigenous youth in the Northwest
Territories included youth researchers, whose task it was to interview other youth
regarding smoking and capture photo images of smoking (Photovoice) (Jardine & James,
2012). The youth were involved in data collection and analysis, and received research
method training beforehand (Jardine & James, 2012). In earlier studies with the
community, members expressed concerns regarding smoking among youth; therefore the
focus of the study came from within the community (Jardine & James, 2012). Youth
interns in this thesis project were provided with training and were involved in data
collection and analysis, similar to the study described above.
Though the above described interventions differ from the intervention applied within this thesis, they still offer much insight. Some of the interventions are focused on specific health issues; in contrast, this research aimed to identify health concerns from youth viewpoints. The intervention of this thesis is different from those in the academic literature, as it involved hiring youth as active agents in the research and intervention process for two-month internships, in contrast to the NHYP intervention which involved youth as volunteers. The CIPA project included the transfer of IK between Elders and youth, and the Photovoice project had youth interviewing other youth regarding smoking; this project involves active youth researchers interviewing Elders in order to learn IK (Ford et al., 2012; Jardine & James, 2012). This thesis involves a novel approach to KT of IK between youth and Elders, though valuable lessons can be taken from the above described interventions.
CHAPTER 3

METHODS

3.1 Theoretical Frameworks in the Research

The larger CIHR project took a community-based participatory research (CBPR) approach, which means that members from both BFN and PRFN have been and will continue to be involved in the organization of the project, including the goals, objectives, areas of concern, data collection, study design, data analysis and dissemination of results (Cochran et al., 2008; Minkler, 2005; Wallerstein & Duran, 2006). CBPR will be described in more detail below. For example, Local Advisory Committees (LACs) have been developed at BFN and PRFN, and include members of the community who have and will continue to provide the researchers with guidance during the research process. As well, I was and continue to be in contact with community members and the youth involved in the project, which has assisted me greatly in my data analysis. Though First Nation Elders from both communities shared IK regarding stories about traditional territories, the youth also contributed IK that they hold. For example, there is a rock wedged in a canyon in Lake Superior Provincial Park at the Agawa Pictographs which is part of both BFN and PRFN traditional territory. I learned that the canyon was viewed as a portal to the spirit world. Ancestors of BFN members did not want the portal to be accessible to Europeans, so they pushed a boulder into the canyon, thus blocking access to the spirit world by Europeans (personal communications with youth, August 2011). This story helped me understand the significance of traditional territories to First Nation peoples, as well as display some of the IK held by youth. The CBPR approach of the
project helps to ensure that the interests of the community are met and that community members are satisfied with the outcomes of the project.

This research applied an integrated knowledge translation (IKT) framework. CIHR (2009b) defines knowledge translation (KT) as “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system”. An IKT framework implies “stakeholders or potential research knowledge users are engaged in the entire research process” (CIHR, 2010). Throughout the research process, usable knowledge (as defined by the community) was and continues to be transferred between researchers, community partners, youth and Elders. This framework was applied in several ways. LACs were developed in each of the communities and included community members (i.e. CEO of the community, member of the lands and resources department) with vested interests in the project. Researchers met with the LACs to discuss project goals and developments. The Elder interviews involved the transfer of IK from Elders to both youth and researchers. The youth also shared their IK during the first and second sets of interviews conducted to examine their uptake of IK and internship experiences. Researchers transmitted knowledge about the project to youth and community members during an introductory summer school held in July 2011 (to be explained in greater detail below). An end of summer school was held in August 2011 to discuss preliminary research results. During the end of summer school, researchers, youth and community members discussed preliminary themes discovered during the interview process. Throughout the summer, researchers, community members, Elders and youth transferred knowledge about project goals, interview data and next steps, making full use of the IKT framework.
3.1.1 Community-Based Participatory Research (CBPR)

Community-based participatory research (CBPR) is defined as “[beginning] with an issue selected by, or of real importance to, the community, and involves community members and other stakeholders throughout the research process, including its culmination in education and action for social change” (Minkler & Wallerstein, 2008, 1-2). CBPR is a research approach that can be used in collaboration with a variety of methods (Minkler & Wallerstein, 2008; Cornwall & Jewkes, 1995). CBPR “emphasizes mutual respect and co-learning between partners, individual and community capacity building, systems change, and balancing research and action” (Minkler & Wallerstein, 2008, 2; Israel et al., 1998). The larger CIHR project follows a CBPR framework, as initial communications with the communities involved focused on the needs and priorities of these communities. Members expressed a desire to have the project take place within their communities, and have been involved in the research process from the beginning. As well, learning and KT took place between researchers, community partners, youth and Elders.

Youth involvement in CBPR can be beneficial both for youth research participants and their communities. CBPR can lead to empowerment among marginalized populations, including youth (Wallerstein & Duran, 2006). Involvement in CBPR may provide an opportunity for youth to become successful in their communities and “powerful agents of social change” (Nygren et al., 2006, 108). As well as empowering youth, CBPR allows youth to help guide research goals, interview questions and resources that are suited towards the needs of youth (Flicker, 2008). CBPR provides multiple benefits for youth involved in the process, including youth engagement and
empowerment, youth agency over the research process and the potential to become leaders in their communities.

Though ideally CBPR involves an equal partnership between all members of the research process, power imbalances will inevitably exist. Wallerstein and Duran (2006) discuss issues of power imbalances, goals, participation, community representation, racism and community distrust of research and researchers. They recommend self-reflection in an attempt to understand and work with the power imbalances that exist in research (Wallerstein & Duran, 2006). Taking my cues from Wallerstein and Duran (2006), I reflect on my position within this thesis research and the larger CIHR project.

3.1.2 Researcher Position

I am a white, middle class female who attends a university in southern Ontario. I grew up in what I considered Northern Ontario (Sudbury) before beginning this research. Through communications with community members from BFN and PRFN, I have learned that Sudbury is not necessarily considered the true North; it is a fairly large, relatively metropolitan city with many of the resources of a similar size city in southern Ontario, making it very different from Sault Ste. Marie and Marathon. I lived my teen years in a small town North of Toronto, which is again quite different from Northern Ontario. I have worked hard academically and financially to achieve my goals, but I also had much support from family, friends and monetary sources (loans, grants and bursaries). Though I have studied First Nation issues throughout my academic career, I am most definitely not an expert, and appear as an obvious outsider to First Nation community members (as I am white, blonde and of Canadian and European descent). I am genuinely invested in the issues of First Nation communities, and feel passionate about this thesis project and its
potential to make a difference. At the same time, I have academic goals connected to the project; I am pursuing a Master’s degree and hope to publish as a result of this research. Throughout this project, I needed to keep in mind that the community may have had different goals and priorities than co-researchers and I. Though conflicting interests may exist, CBPR is an effective approach that allows the pairing of university resources and connections with community goals and needs.

Several challenges have been discussed within the CBPR literature in relation to the outside researcher’s position. Minkler (2004) discussed historical trauma and the impact on research, in particular regarding relationships between insiders and outsiders involved in research (Duran et al., 1998; Brave Heart & DeBruyn, 1998). This means that “assaults visited on earlier generations (e.g., colonization and slavery) may have physical and mental health effects on subsequent generations, contributing to health disparities” (Minkler, 2004, 689). This in turn may lead to “a dialectic of resistance between outsider research partners and community participants with very real ethical dilemmas in speaking truth to power (Chavez et al., 2008, 87, as cited in Minkler, 2004, 689). This means that researchers who are considered outsiders to the communities may not be trusted, and may have difficulties building relationships with community members. As an outsider, I may have encountered these difficulties; however, several elements of this particular project helped me develop healthy relationships with the communities. One element that contributed to relationship building was the fact that the principal investigator on the larger CIHR project, Dr. Chantelle Richmond, is a member of PRFN. This may have helped legitimize the project in the communities’ eyes, as a member of their own community (in the case of PRFN) is involved. As well, Dr. Richmond could vouch for the
other researchers in the project; this may also have helped with community trust of researchers.

My position as an outsider to the communities may also have affected my ability to access and interview Elders. The hiring of local youth aided greatly in gaining access to Elders. The Elders may have felt more comfortable with me as an outside researcher as a result of my partnership with youth who they may not have necessarily known, but who they knew were a part of their communities. They may have also felt more comfortable speaking in front of me, as the youth vouched for my intentions. This may have enhanced the quality and honesty of the interviews. Though the presence of the youth may have had a positive impact on the interviews, I (as an outsider) may have had unintentional negative effects on the interviews. Even if the youth were able to vouch for me as an outsider, some Elders may still have been wary of my intentions and may have therefore censored what they spoke about during their interviews. Similar issues may have been present during my interviews with the youth; they may not have been entirely comfortable speaking with me due to my position as an outsider to their communities. As well, the two youth that I worked with in BFN may have been much more comfortable with me than the youth from PRFN, as they spent more time and got to know me a lot better. Therefore, I may have been considered as more of an outsider to the PRFN youth versus the BFN youth, due to my differing levels of interaction with the two communities.

In addition to my impact on the research as an outsider, power imbalances between community partners and co-researchers and I also existed. Wallerstein and Duran (2006) discuss the issue of researchers being seen as “experts with scientific knowledge” (315). The powerful position as a university educated researcher may negatively affect relationships with communities, as the expert role may create a power imbalance in favor
of the researcher (Wallerstein & Duran, 2006). Though we attempted to consult and work with the community at every opportunity, a power imbalance may still have existed, which may have affected the results of the research. As well, a power imbalance existed between the youth and I (and J. Tobias). Though we were co-researchers with the youth, we also acted as their supervisors, providing direction, organizing work tasks and signing timesheets. This meant that we held a position of authority in regards to the research, which may have affected my interviews with the youth in particular. Due to my position as their boss, the youth may have felt pressure to answer questions or to answer in a particular way, even though I tried to emphasize my desire to hear their honest thoughts. This in turn may have affected the quality of my interviews, as the youth may have answered more honestly to someone who did not hold a position of authority.

CBPR emphasizes the importance of community involvement in the research process (Wallerstein & Duran, 2006; Minkler, 2004; Israel et al., 2005; Minkler & Wallerstein, 2008); throughout this project, we have attempted to involve and encourage active participation by community partners. We began by speaking with community members to see what issues were of concern, and subsequently developed LACs with whom we continued discussions throughout the research process. In addition to LAC members, the youth were heavily involved in the research process. During the introductory summer school, the youth and researchers co-developed Elder interview questions. Following the summer school, I took my cues from the youth regarding the best ways to contact Elders, as well as which Elders may be interested in taking part in an interview. The youth conducted the interviews with their Elders; rarely was it necessary for me to step in to add a prompt or clarifying question. During the end of summer school, the youth were involved in the preliminary analysis of Elder interview data, and
with researchers, co-developed codes that J. Tobias used for his N. Vivo analysis of the Elder interviews. I have continued to be in contact with the youth upon returning to southern Ontario; they have aided me greatly in explaining concepts, clarifying meanings and developing my analysis. The CBPR approach allowed for a high level of participation of both community partners and youth, who greatly enhanced the quality and understanding of community issues.

3.1.3 Indigenous Methodologies

Indigenous methodologies are defined as:

“alternative ways of thinking about research processes. They are fluid and dynamic approaches that emphasize circular and cyclical perspectives. Their main aim is to ensure that research on Indigenous issues is accomplished in a more sympathetic, respectful, and ethically correct fashion from an Indigenous perspective”

(Louis, 2007, 133; Akan, 1992; Cajete, 1994; Cajete, 2000; Ermine, 1995; Crazy Bull, 1997; Abdullah & Stringer, 1999; Bishop, 1999; Semali & Kincheloe, 1999; Smith 2000; Steinhauer, 2002; Atleo, 2004; Hodge & Lester, 2006). Louis (2007) speaks of four elements that are generally present in Indigenous methodologies, including: “relational accountability; respectful representation; reciprocal appropriation; and rights and regulation” (133). These four elements will be defined below.

Relational accountability means that “all parts of the research process are related, from inspiration to expiration, and that the researcher is not just responsible for nurturing and maintaining this relationship but also accountable to ‘all your relations’” (Louis, 2007, 133; Steinhauer, 2002). Reciprocal appropriation refers to the necessity for “adequate benefits for both the Indigenous people and the researcher[s]” involved in a project (Louis, 2007, 133; Momaday, 1976; Rundstrom & Deur, 1999). Respectful
representation means “displaying characteristics of humility, generosity, and patience with the process and accepting decisions of the Indigenous people in regard to the treatment of any knowledge shared” (Louis, 2007, 133; Absolon & Willett, 2004; Steinhauer, 2002). Finally, rights and regulation “refers to research that is driven by Indigenous protocols, contains explicitly outlined goals, and considers the impacts of the proposed research” (Louis, 2007, 133; Smith, 1999).

Indigenous methodologies are necessary in Indigenous research because for research to be useful for Indigenous peoples, it must be centred on Indigenous ways of viewing the world (Wilson, 2001). Traditional research regarding Indigenous peoples extracted information for the benefit of Western academia, with Indigenous peoples seeing little to no benefit and possibly even harm (Smith, 1999). Smith (1999) states that “the term ‘research’ is inextricably linked to European imperialism and colonialism” (1). Smith (1999) goes on to emphasize the negative view of research among Indigenous peoples: “The word itself, ‘research’, is probably one of the dirtiest words in the Indigenous world’s vocabulary” (1). Therefore, conducting research from an Indigenous point of view may help to create research that is more appropriate and useful for Indigenous communities.

3.1.4 Knowledge Translation (KT) in Indigenous Communities

The Canadian Institutes of Health Research (CIHR) Institute of Aboriginal Peoples’ Health defines knowledge translation (KT) in Indigenous communities as “sharing what we know about living a good life”, and has the ability to “improve Aboriginal health and wellbeing” (CIHR, 2009a). Communities are involved in KT- “engaging the community in KT also contributes to its effectiveness: it increases
relevancy, facilitates community support, increases community knowledge, builds capacity, and encourages sustainability” (CIHR, 2009a).

Hanson and Smylie (2006) have expanded on the CIHR definition of KT in Indigenous communities in their Policy Making Toolkit. These researchers have identified several criteria of KT as it pertains to Indigenous communities, including:

“individual and community collective benefit, diversity and ethical spaces, Indigenous identity, old, new and transformed knowledge, knowledge, sacred knowledge and wisdom, Indigenous languages and Indigenous language translation, Indigenous ways of being, knowing and doing, honesty and generosity, respect and trust, relevance, back and forth reciprocity, use of knowledge in a “good way”, knowledge sharing between relations, art and science of dialogue, safety, ownership and stewardship, ownership, control, access and possession, privacy, confidentiality and intellectual property, and partnerships with mutual respect and benefits” (Hanson & Smylie, 2006, 4-7).

The document also provides researchers with guidelines for applying KT to policy.

Few researchers have undertaken KT within Indigenous communities. The Need to Know Project examined practical ways of improving KT in Indigenous communities (Bowen et al., 2005). The researchers concluded that establishing trust between researchers and community members is integral to the success of KT (Bowen et al., 2005). The researchers also determined that “respecting time and resource limitations of community partners” was necessary in order to efficiently use the time and resources that are available (Bowen et al., 2005, 206).

Smylie et al. (2009) conducted a study that dealt specifically with KT as it pertains to Indigenous health. Smylie et al. (2009) recognized the impact KT can have on Indigenous health. For example, it was discovered that Inuit storytelling is an important method of transferring health knowledge between Elders and other community members (Smylie et al., 2009). Though KT is significant for health, it was also discovered that if
youth do not speak Inuktitut (the language of the Inuit Elders in the study), it is difficult
to translate IK between generations (Smylie et al., 2009). The researchers determined that
KT is a critical element of improving Indigenous health, as Elders hold valuable IK
regarding health and wellbeing (Smylie et al., 2009).

This thesis uses an innovative approach to KT in Indigenous communities, by
hiring youth as interns to interview their Elders. The hypothesis that guided the research
was that through participating in the internships, youth would learn valuable IK from their
Elders; KT would occur between Elders and youth during youth conducted interviews.
The interviews focused on community health and environment issues; it was reasonable
to hypothesize that the youth would increase their depth of knowledge regarding these
issues. As well, I predicted that through their involvement with their Elders, the youth
would become empowered to work in the future within their own communities. In
addition to gaining valuable skills (i.e. interview strategies, qualitative methods and
communication skills), the youth may be inspired to take on community leadership roles
in the future. The internships were also expected to encourage the youth to pursue further
education, which would potentially improve conditions for their communities.

3.1.5 Knowledge Translation (KT) Framework and Community-Based Participatory
Research (CBPR)

This research uses a KT framework within a CBPR approach. As KT refers to the
transfer of knowledge between researchers, community members and other collaborators
involved in the research process as well as emphasizes the importance of involvement by
all collaborators throughout this process (CIHR, 2009b; CIHR, 2010; Lencucha et al.,
2010), and CBPR also stresses the importance of community involvement in all aspects of
the research (Cochran et al., 2008; Minkler, 2005; Wallerstein & Duran, 2006), the two approaches work together well. Community members and researchers have been working together throughout the research project, and opportunities for the transfer of knowledge have occurred throughout the research process. For example, knowledge was transferred between community Elders, youth, researchers and community partners, and included technical information, IK, community goals, project goals, qualitative methods and Indigenous health and environment issues. The CBPR approach of the project helps to ensure that KT occurs between all of the stakeholders involved in the research process.

3.2 Participants and Recruitment

The research took place along the North shore of Lake Superior and included the communities of BFN and PRFN. The principal investigators of the larger project, Dr. Chantelle Richmond and Dr. Rob Stewart conducted a recruitment trip during summer 2008 to invite communities to participate in the project. All of the First Nation communities along the North shore of Lake Superior were contacted, and three agreed to participate. The project originally included Red Rock Indian Band (RRIB) as well as BFN and PRFN, though several factors prevented RRIB from continuing to participate in the research. During the research planning process, a band election took place at RRIB, resulting in a change in the Band Chief and Council members. Though the project was approved by the previous council, the new council and Chief were required to reapprove the project. Due to time constraints and other community issues, RRIB was not able to continue to participate. The band system in Canada requires elections to occur every two years, which can be troublesome for research projects lasting longer than this time frame, as new Chief and Council may need project briefing or to reapprove projects. Though
community time constraints were discovered to be an issue for RRIB, the research continued with BFN and PRFN.

Study participants included five youth, with two from BFN and three from PRFN (youth were defined as ages 18-30). There were three youth hired from BFN, but regretfully one of the youth had to withdraw after the introductory summer school (which will be explained in detail below). Youth were hired as summer interns for the months of July and August 2011, with the purpose of interviewing community Elders regarding health and environmental issues. Job advertisements were circulated to BFN and PRFN via the community websites during the months of May and June 2011, with the intention to hire mid-June 2011. Hiring the youth took different forms in the two communities, due to differences in summer employment policies. In PRFN, youth applied directly to their band office, with the final hiring decisions made by the band summer employment department. The summer employment department then notified J. Tobias and I regarding their hiring decisions, along with contact information for the youth. The job advertisement in BFN did not attract any applicants, which made it necessary for me to alter my recruitment tactics. I was provided with a list of eligible youth in the community by one of the LAC members, and I proceeded by calling each of the youth and providing them with a brief description of the internship as well as contact information for those interested. Due to this change in recruitment, the application deadline was extended to late June 2011. Applicants from BFN applied directly to J. Tobias and I, and we made the final hiring decisions. Hiring took place late June 2011.

Four of the youth hired were female; one was male. Lucy is from BFN and is 21 years old. She attends Algoma University and studies English and Anishinabe language. Lucy has a two-year old son and lives off-reserve in Sault Ste. Marie. Ryan, also from
BFN, is 22 years old. He is currently completing secondary school and would like to pursue forestry, fish and wildlife studies at Sault College. Ryan works part-time and lives on reserve (Rankin). Alice is from PRFN and is 23 years old. She attends Confederation College. Alice lives on reserve. Julie is from PRFN and is 26 years old. She also attends Confederation College. Julie has two daughters and lives on reserve. Marie is from PRFN and is 25 years old. She attends Lakehead University. Marie lives on reserve.

3.3 Introductory Summer School: July 2-7, 2011

The first component of the internship was an introductory summer school, which took place from July 2-7, 2011 at UWO. After hiring, arrangements were made to fly the youth, invited community partners and an Elder from Thunder Bay (those residing in PRFN) and Sault Ste. Marie (those residing in BFN) to Toronto; a shuttle service transported the youth and community members to London on July 2, 2011. Accommodations were provided on the university campus, in Elgin Hall (private dorm rooms for each participant). The first day of the summer school (July 3, 2011) included an introduction to the research and overview of Indigenous health issues by Dr. Richmond; the second day included a tour of the university campus, an introduction to qualitative research methods and the development of the Elder interview guide (co-developed by researchers, youth and community partners); the third day focused on interviewing techniques and practice with digital audio recorders; and the fourth day included discussions regarding the next steps to take upon return to the communities of PRFN and BFN. I also conducted my first set of interviews with the youth during the summer school; this will be explained in detail in the section on data collection.
In addition to learning about the project and gaining research skills, the youth were able to explore the university campus and city of London. All those involved in the project (youth, community members and researchers) were invited to have dinner together with researchers at a different location each night. The dinners were a great way to wind down from the days’ activities, as well as provided an opportunity for those involved to get to know each other in a less formal setting. The youth and community partners were also able to see what the city of London has to offer in the way of entertainment. The youth were allowed free time after dinner; some chose to rest, others chose to explore the city (which included visiting local malls, nightlife locations and Fanshawe College).

3.4 Internships: July 8- August 23, 2011

Upon completion of the summer school (July 7, 2011), the youth returned to their communities with J. Tobias and I to begin their paid summer internships. I traveled to BFN to assist two youth with their internships; J. Tobias traveled to PRFN to assist three youth. The first week of the internship involved planning and recruitment of Elders. The first step was for youth to make a list of community Elders; we proceeded with this list by calling Elders or visiting them at their homes, or both. The decision to call or visit an Elder involved several factors. For example, the youth felt that some Elders were busy and would prefer and phone call first, with the potential to set up a pre-interview visit at the Elder’s convenience. In other cases, youth felt that Elders would prefer a home visit to a phone call (i.e. they were hard of hearing, did not like talking on the phone, or wanted to see who was requesting they participate in an interview). During calls and visits, we provided Elders with a brief overview of the research project, and asked them if they would be interested in participating in an interview. If the Elder agreed, we presented
them with an offering of semaa (a traditional medicine) as a thank you for agreeing to participate and a display of our respect. If the Elder was able, we scheduled interviews during the initial conversation. In some cases we were required to call or visit Elders a second time in order to set up an interview time. The pre-interview Elder visits were found to be very beneficial in developing relationships with the Elders. The youth already knew many of the Elders involved, but the visits served as a reminder to the Elders as to who was requesting they participate, as well as an introduction to myself before the interview. This helped with rapport, as the Elders had the opportunity to get to know the youth and I before discussing sensitive topics. This also points to the importance of relationships, as the youths’ existing relationships with Elders meant they knew which Elders preferred home visits to phone calls.

The youth conducted the Elder interviews, and took turns taking the role of interviewer and note taker. Elder interviews included questions regarding community health and environment issues, as well as general questions about their family and background. I instructed the youth to take note of the surroundings (i.e. where the interview took place, the weather), who was present during the interview (i.e. if a spouse, family member or friend was also there), the general mood of the interviewee (i.e. were they enthusiastic, stressed), as well as their reflections of the interview process (i.e. how individual questions were answered, if there were interruptions). I encouraged them to also take note of anything else they deemed significant, as I wanted the youth to maintain a high level of agency over the interview process. I was present during all of the interviews as a way of maintaining quality control, as well as to provide the youth with assistance. For example, if a question needed to be reworded or a prompt added, I would interject. This helped maintain the quality of the interview as the youth were novice
interviewers. As well, I made sure that informed consent was clearly explained to all interview participants, as well as that the Elders were properly thanked for their participation. Fortunately, the youth were extremely respectful of their Elders and I did not have any issues with properly thanking the Elders.

For the first few interviews, the youth relied heavily on the interview guide; during later interviews this was not necessary as the youth remembered the interview questions without the guide. Elder interviews took place in a location of the Elder’s choice; popular locations included the Elders’ homes, outdoors on the land and at the band office. Informed consent was completed orally at the beginning of each interview. At the end of the interview, Elders were thanked for their participation, and provided with an honorarium. The Elders were also provided the flexibility to talk about any topics they wished to discuss that we did not bring up in our interview guide. Some interviews took an unstructured approach; for example, several Elders had topics in mind that they wished to discuss. This added to the richness of Elder data and IK learned by the youth, as significant topics were introduced that had not been brought up by researchers through the interview guide. The unstructured interview approach “help[ed] to ensure that the narrative [community environment and health] is from the participant’s perspective and not influenced by the interviewer” (Moyle, 2002, 267). For example, one Elder had prepared a list of topics he wished to discuss, as well as traditional locations on the land to visit. Another Elder wanted to discuss her views of the residential school system with her daughters and granddaughters present, which gave the interview an intergenerational element. In addition to providing the Elders with the flexibility to alter the interview topics, the youth were also able to add any questions they deemed relevant, or ask Elders anything they were interested in beyond the scope of the research project. For example,
one of the youth was very interested in language, and thus asked many of the Elders about their views on language and culture. The interviews ended either upon reaching the end of the interview guide, or whenever the Elder requested to end the interview (i.e. some Elders became tired part of the way through the interview guide). The Elder interviews are not a part of my own thesis data, but constitute data for another element of the larger CIHR project (Elder data analyzed by J. Tobias). Elder interviews ranged in length from 40 minutes to three hours; all were audio recorded and some were filmed.

The Elder interviews are an integral part of the documentary film component (to be explained in chapter 4), providing examples of the valuable IK Elders transmitted to youth throughout the summer. Not all of the Elder interviews were filmed; Elders were asked if they would like to take part in the film component, and if so, an interview was scheduled for a date when the film crew was present in the community. The film studies students made two trips to each community (one in July 2011, another in August 2011), consisting of several days each. The Elders involved in the film component chose the locations for their interviews, though lighting and sound conditions also had to be considered. The mobility of Elders was also taken into account; for example, one Elder was driven to several traditional areas to be discussed during the interview. In the case of BFN, a lot of travel between the three reserve locations took place, as interviews occurred in all three locations. Though the youth and I attempted to schedule only one or two interviews per day, and in the case of two, schedule interviews in the same reserve location, it was sometimes necessary to travel between reserves in the same day. This was an issue particularly during the film days, as several Elders wanted to participate and the film crew was limited as to how long they could spend in each community. Rankin is located in Sault Ste. Marie; Goulais Bay is located approximately 45 minutes away, with
a large portion of the drive taking place on an unpaved road. The furthest community was Obadjiwan, located one hour outside of Sault Ste. Marie along the Trans Canada highway in Batchawana Bay. As PRFN consists of one reserve, the travel to interview locations was not as extensive as that in BFN; however, interviews outside of the reserve land of PRFN did occur and required travel.

Elder recruitment took place throughout the summer, as well as the scheduling of interviews. Once interviews began, youth asked Elders if they knew other Elders who would be interested in participating, and contacted those interested. Most of the interviews ran smoothly and as scheduled. Several interviews were cancelled, often last minute and on multiple occasions. In cases of cancellations, we attempted to reschedule the interview. If the interview was cancelled a second time, no further attempt was made to reschedule. As well, most of the Elders recruited were receptive to participating in an interview; there were only a few outright refusals to participate.

3.5 End of Summer School: August 24-28, 2011

At the end of the summer, youth, Elders, researchers and community partners gathered in PRFN for an end of summer school, which took place August 24-28, 2011. This end of summer school included discussions regarding the main themes that emerged from the Elder interviews, including a comparison between PRFN and BFN data. Discussions regarding the next steps to take in the research process also took place. There were also more informal discussions regarding the experiences of youth, researchers and community partners during the summer. As well, less formal activities took place during the end of summer school, including a sweat lodge, a traditional meal prepared by a
PRFN community member, meals in Marathon, and hikes through Pukaskwa National Park.
CHAPTER 4
DATA COLLECTION AND ANALYSIS

4.1 Data Collection

My data was derived from two sets of in-depth, qualitative interviews conducted with youth. My first set of qualitative, in-depth interviews with the youth took place during the introductory summer school, on July 4, 5 and 6, 2011. These interviews examined youth perceptions of the relationships between environmental change and health within their communities, as well as the youth’s experiences during the introductory summer school. The interviews took place on the university campus, outdoors. The interviews began with informed oral consent and general opening questions in an attempt to relax the youth, followed by questions regarding their travels and experiences thus far in the summer school. These questions were followed by questions regarding community health and environment issues. The interviews were digital audio recorded and filmed; the film component will be described in detail below.

The larger CIHR project involved a documentary film component, with the purpose of chronicling the youths’ journeys and transformations throughout the summer. Two hired film studies students from Confederation College recorded the interviews with the youth, with direction from film maker James Fortier. Some interviews conducted during the summer with community Elders were also filmed. The youth and Elder interviews were edited to create a documentary of the youths’ part in the research process, as well as IK shared by Elders. As a result, the interviews needed to take place in locations conducive to filming (i.e. lighting and sound conditions had to be considered). This posed several issues, as the university campus was fairly noisy. For example, the
first interview location was chosen under a tree due to its ideal lighting and interesting film backdrop. Unfortunately, construction was occurring on a nearby building and could be heard on the microphones; traffic was also an issue. This meant that the interview was stopped several times to wait for the noise to cease, which interrupted the natural flow of the interview. Several questions were asked a second and third time. This may have had a negative impact on the interview, as the responses were not as spontaneous as I would have liked. As well, the interruptions made the interview process take far longer than it would have without interruptions. On the other hand, the interruptions led to joking, which relaxed the participants, film crew and I. The interviews ranged from about 20 minutes to over one hour. In the first set of interviews, the first interview had the most interruptions, and another interview involved several location changes. I encountered far fewer issues with the last few interviews, as technical issues had been sorted out, as well as quiet campus locations discovered. The time of day also impacted the interviews; those conducted during midday had the most interruptions due to higher levels of traffic and construction on campus. In contrast, those conducted in the late afternoon encountered far less interruptions and ran more smoothly.

During the end of summer school, I conducted my second set of in-depth, qualitative interviews with the youth. These interviews examined several of the same issues as the first set of interviews, as well as the youths’ thoughts and opinions regarding the summer’s events. The purpose of this set of interviews was to examine if and how the youths’ perceptions regarding community health and environmental issues had changed after talking to community Elders. These interviews were also filmed, and took place at Pukaskwa National Park and on PRFN reserve land. Similar to the first set of interviews, sound and lighting were issues for the interview locations, and it was not always possible
to conduct the interview in the first choice location of the participant. Informed written consent was obtained at the beginning of the interview. Interviews ranged from about 30 minutes to an hour. As most of the technical issues regarding recording and filming had been worked through during the first set of interviews, I encountered far fewer issues during the second set of interviews.

After the end of summer school, I returned to London. The interviews were sent to a third party for transcription, and were available for analysis in December 2011. Interviews were time-stamped, to make it easier to locate quotes in the film reels. Researchers continued to keep in contact with youth and community members, to update them on the progress of the project.

4.2 Thematic Analysis

The first and second sets of interviews were thematically analyzed. Thematic analysis is defined as “a search for themes that emerge as being important to the description of the phenomena” (Daly et al., 1997, as cited in Fereday & Muir-Cochrane, 2006, 82), and “is a form of pattern recognition within data, where emerging themes become the categories for analysis” (Fereday & Muir-Cochrane, 2006, 82). The data analysis process took various forms and I made use of several different methods to help ensure that I had a thorough understanding of my data. This process will be explained in detail below.

I began analyzing the interviews by printing hard copies of the 10 transcripts and reading through each document several times. On my final read-through, I highlighted what I felt were significant themes. I began my coding in a Microsoft Word document by typing out the initial themes I deemed significant through my transcript reading, and
attaching a quote example of the theme. I also developed sub-themes under the main themes; for example, one of my themes was health; a sub-theme of health was meaning of health; and a sub-theme of meaning of health was balance. Below is a quote example corresponding with the themes of Health - Meaning of Health - Balance:

We talked about it earlier, just being balanced. First Nations people talk about the four parts of health; spirituality, emotional health, physical health and mental health. To me, I think if one is out of wack it just throws them all out. If emotionally you’re not doing very well and you’re having trouble that could translate into a physical problem, the stress gets to your body you get sore or even if you lash out and do something. If you’re sore you’re not going to go around to ceremonies or anything. Ceremony is where you learn as much as you can and you take in a lot of things. If they’re not there you’re not keeping yourself mentally aware, you’re not learning anything; you’re not keeping yourself well. You need a good balance of all four in order to be healthy. (Ryan A)

I coded to a very fine level of analysis, which helped me understand and remember the data. I was also able to begin drawing connections between themes. The Word document helped me organize the main interview themes around which to develop my N. Vivo coding scheme.

After completing my coding in Word, I began coding using N. Vivo. I started by coding the interviews one at a time, and coding all of the quotes. This helped to ensure I would not miss any significant information, as I felt it would be more effective to go through my data later and delete unimportant information. Although I did not code to as fine of a level as in my Word coding, I still coded to a very detailed level. My initial N. Vivo document included 785 codes. I then conducted a second level of coding, which involved organizing all of my codes into one of four main themes: Health, The Land, Summer Internship and IK. All of the themes were placed into one of these four categories. I then began deleting codes that overlapped with other codes, as well as
deleted codes that only had one source and one quote. For example, for the section Summer Internship- Summer School Experience, only one participant on one occasion mentioned being frustrated; I therefore deleted this code as I did not find it to be significant. This method helped me reduce my codes from 785 to 193, and also provided me with a more organized view of my major themes. I was able to use this coding structure to organize my results section of this thesis.

The first objective I analyzed was the summer internship experience. For this section, I examined both sets of interviews as a continuous set of data. I looked at the experiences of the youth from the introductory summer school, through their Elder interviews, to the end of summer school. I examined how the youth felt throughout their internships (i.e. if they were excited, nervous), their experiences (i.e. both positive-interviews with Elders and negative- interview cancellations), internship influences on their life goals, potential improvements to the internship process, their vision for their communities, relationships with their Elders, personal growth throughout the summer and the significance of the larger project for their communities.

After examining the youths’ internship experiences, I looked at the effectiveness of the internships as a method of transferring IK between Elders and youth. I compared the first and second sets of interviews to see if the youth had learned anything. I also took into account whether or not the youth thought they had learned anything and what kind of IK they thought they had learned. I compared the depth and breadth of IK the youth had at the beginning of the summer compared to that they held after the internship. I also examined the types of examples the youth provided at the beginning of the summer compared to at the end.
The final objective of this thesis was to examine the particular elements of IK gained by the youth from their Elders. I looked at the IK the youth learned, which included community health issues, environmental concerns and changes, and traditional activities. I compared what IK the youth knew before and after their internships, as well as how the ways in which they discussed these topics may have changed.

In addition to coding on my own, I also received much guidance from Dr. Richmond, J. Tobias, the youth and community partners regarding analysis. For example, during the end of summer school, several days were spent drawing out the themes from the Elder interviews. During this time, the youth also described their experiences during the summer as well as what they learned in a more informal setting than their interviews. This provided me with preliminary concepts on which to base my coding and analysis.

4.3 Documentary Analysis

In addition to analyzing data for this thesis, I also provided analysis of the interviews for the documentary film. Although the documentary works from the same data set as my thesis (as well as the Elder interviews), the focus of the film is to capture the youths’ journeys throughout their internships, including self-development and their learning of IK. As the film makers did not work with N.Vivo, I needed to transfer my analysis into a usable format. I created two Microsoft Word documents with which the film makers could use to develop the documentary story. The first was a skeleton of my coding scheme, which outlined the main themes under which I organized data. This provided them with an overview of the significant issues that were raised during the interviews. The second document was created directly from N. Vivo; I copied and pasted all of my codes and corresponding quotes into a Word document so that the film makers
could decide what quotes to use in the documentary after determining the story of the film. I provided the film makers with all of the codes and all of the quotes because it would not have been practical for me to try to determine which quotes would be useful for the film. For example, I did not know exactly where the film makers wanted to go in terms of the documentary, therefore I was unsure of which quotes would be the best to translate the story. As well, I did not know which quotes would sound the best in the film. A good written quote may not be a good quote for the film; for example, the participant may have spoken too quietly, or mumbled, or there may have been background noise present. These factors may have made some of the quotes unsuitable for the film. After providing the film makers with the Word coding documents, I took part in a meeting with them to discuss the coding themes and directions for the documentary story.
CHAPTER 5
RESULTS

5.0 Introduction

The following chapter will describe the results from both sets of qualitative interviews conducted with the youth during summer 2011. The results have been organized according to themes that address the research objectives. The main themes include internships, transfer of IK, existing IK and IK learned. Sub-themes have been included within each of the main themes. The analysis of the internships includes youth experiences during the introductory summer school held in July 2011; youth experiences during their internships; the youths’ visions for their communities; personal growth experienced throughout the summer by the youth; and the significance of the project for the communities. The examination of IK transfer includes the effectiveness of IK transfer; specific methods of IK transfer; and youth viewpoints regarding IK held by Elders. The third and fourth main themes examine existing IK (that known by the youth before the summer internships) and IK learned (that gained during the internships). As it is impossible to determine all of the IK the youth may have held regarding community health and environment issues before their internships, several examples of the most prominent themes have been included. These themes are as follows: traditional activities on the land; significance of Elder knowledge; community health issues; and influences on community health. The fourth main theme outlines IK learned by the youth, and provides more detailed descriptions of specific topics. Some of the topics covered in this section also include information from the first set of interviews, as several topics were prominent throughout the summer (i.e. diabetes was an issue stressed by the youth both before and
after their internships). All youth names have been replaced by pseudonyms. Quotes marked “A” are from the first set of interviews; those marked “B” are from the second set of interviews.

5.1 Internships

Approximately half of the first and second interviews involved questions about the internships, including introductory summer school experiences, internship experiences, community vision, life goals, personal growth and the significance of the project for their communities. It is important to gather information regarding the youths’ experiences in order to potentially repeat or improve the internship process. I also wanted to compare the changes experienced by the youth throughout the summer, which meant examining their experiences both before and after the internships. The purpose of the internships was to facilitate the transmission of IK; however, the internships also provided the youth with summer employment, the opportunity to travel to London and visit UWO, an introduction to research and interviewing methods, and the opportunity to interact with community members. As I did not know how effective the internships would be in transferring IK between Elders and youth, any KT that did occur was viewed as a success of the internships. In summary, the youth viewed their internships as positive experiences. The following section will outline the youths’ experiences during the introductory summer school (first set of interviews).
5.1.1 Introductory Summer School: New Experiences

The summer internships began with long plane journeys for the youth; two traveled from Sault Ste. Marie and three from Thunder Bay. Three of the youth had never been on a plane before, and this signified a new experience for these youth. Initially those who had never flown felt nervous about their travels, which subsided once they were in the air:

*Oh my God, I was so scared, I was freaking out, I had never been on a plane. When I found out that we were going I was freaking out, I couldn’t sleep that night I’m like ‘Oh my God I am so scared’ I have never been up [in the] air, in a helicopter or anything, so I was really scared but I had the other two girls with me so it was comforting having them there and stuff like that. But once we were up in the air it wasn’t so bad, I kinda got used to it, but every little thing I was like oh my God what that! But it was okay, I really enjoyed, it was nice coming into Toronto and you could see everything. I sat at the window too, it was really nice.* (Alice A)

Lucy expressed similar initial fears of flying, which turned into a positive experience for both Lucy and her child, who traveled with her to London:

*It was my first time flying. I was really really nervous for about a week up until we got on the plane and it started going and I realized there is nothing nerve racking about this and it was really interesting. It was the baby’s first time flying too and we got a window seat so he was looking out the window the whole time. It was really exciting.* (Lucy A)

The travel to London provided the youth with an experience to take a plane, which three had not done before.
5.1.1 Introductory Summer School: Overwhelmed

Upon their arrival to UWO, the youth were provided with an overview of the research project, including the goals of the larger CIHR project, their roles for the summer, and the potential impacts of the project for their communities. At the beginning of the introductory summer school, three of the youth felt overwhelmed by the project, not realizing that it was a large research project that had been developed over several years. The youth thought that the project was simply a summer job interviewing Elders:

Yeah. The very first day that we were here it was overwhelming. I didn’t really have an idea what was going on, I just thought it was a summer job and it was interviews with the elders, but I didn’t know it was this big...it was very overwhelming. (Marie A)

The initial introduction to the project included a lot of information, which the youth did not have when they applied for the internship positions.

5.1.1 Introductory Summer School: Youth Excited About Project

Though some of the youth felt overwhelmed by the comprehensive nature of the project, overall they felt excited to be included. Three youth felt excited about different elements of the project, including interviewing their Elders;

I’m looking forward to actually interviewing the elders and listening to what they have to say. That’s the biggest thing I’m excited about. (Marie A)

as well as being a part of the project:

I think that the project itself is very impressive and I’m very excited to be a part of it and I really want to be a part of it. (Lucy A)
The youth expressed genuine excitement to be included in the project, in particular in regards to interviewing their Elders.

5.1.1 Introductory Summer School: Youth Loved UWO and London

In addition to providing the youth with an introduction to the project, research methods and interviewing skills, the introductory summer school also allowed the youth to explore the UWO campus as well as the city of London. The youth were taken on a campus tour during their visit, which included the recreation centre, libraries, University Community Centre and several other campus buildings. In the evenings, the youth, researchers and community partners went as a group to dinner; each night dinner took place in a different part of London. The youth were also given free time, during which they visited downtown, malls and Fanshawe College. These experiences were largely positive, as four youth reported loving the UWO campus and three the city of London.

For example, Ryan compared UWO to Northern universities:

*Well, I’m from Sault Ste. Marie and we have Algoma University and compared to Western it’s...well, Algoma has one maybe two big buildings whereas Western, I don’t even know how many buildings, there’s too many to count. It’s a big community and I’m pretty sure the campus itself is bigger than Rankin. It was really nice when we went on that tour yesterday. It’s really impressive all the features they have, like the recreation centre is top notch, it’s just amazing. A friend goes here and he used to brag a lot about the school and I can kind of see why now, it’s a very nice place. (Ryan A)*

The youth were also impressed with the grandeur of the UWO campus, as was expressed by Lucy:
Western is a beautiful school. It is beautiful here. It is gigantic, very impressive. It is beautiful here. (Lucy A)

The youth also liked London, noting the beauty, diversity and friendliness of the city:

The Saturday we were here we took a little tour and we went down to, I think they call it Victoria Park. They had a Latin Festival there. In the Sault there’s only a few cultures that are around so to see a Latin festival was pretty neat, the music and the people walking around and the food. It’s pretty amazing. It’s seems like it’s very diverse out here. We didn’t really cross into any slums. So far it looks like a really nice place. (Ryan A)

It’s nice. Friendly people, that’s what I noticed. It’s like really friendly people so that’s really impressive. You don’t want to go to a city where they’re stuck up because then you get the bad impression of the city, the wrong impression but London’s a beautiful place. (Julie A)

The youth were impressed with both the UWO campus and the city of London during the introductory summer school.

5.1.1 Introductory Summer School: Post Secondary Education

During the introductory summer school, the youth stated that they liked the UWO campus and the city of London. Three of the youth were so impressed with UWO that they expressed interest in attending the university for several reasons, including a Master’s program, teacher’s college and social work:

Yeah, well I am taking Anishinaabe so I can either go the teacher’s route and go to teacher’s college after and you said earlier that they have a really good teacher’s program here and you took it yourself so, maybe applying here would be one option for me. I don’t know if I would be able to do a master’s program here, in the Ojibwa language but that would be something to look into too. (Lucy A)

I fell in love here. I’m going to take Social Work. (Marie A)
All of the youth were either in post-secondary education or had plans to attend post-secondary education before attending the introductory summer school, though the exposure to UWO inspired three of the youth to pursue further education at Western.

5.1.1 Introductory Summer School: Youth Looking Forward to Interviewing Elders

During the first set of interviews, I asked the youth what they were most excited to do during their internships. Four of the youth were looking forward to interviewing their Elders and listening to them:

It will be nice to go around to the different reserves and interview the elders. I don’t have a car right now; my car broke down. Before I’d travel to Goulais and Batchewanna to visit people and I haven’t been able to do that for a while. This will be a nice way to interact with them and get to know them. There’s a lot of friendly people out there. You can just knock on their door and they’ll invite you in and you can talk for hours. They’re very open and friendly so it will be nice to do that again. It will be nice to have a purpose with this one like this will be going toward something. (Ryan A)

I’m really looking forward to talking with my elders. It is something I have been wanting to do for a while but I just haven’t had the time and now it’s an actual project that I am supposed to be doing so it is really exciting for me. I think that they have a lot of knowledge and it will be good for personal information for my studies to help the project itself. I’m looking forward to it. (Lucy A)

The youth expressed an interest in speaking with their Elders; some even stated that they had wanted to talk with their Elders before being introduced to the internship. The first set of interviews displayed that the youth would be beginning their internships with an enthusiasm to listen to and learn from their Elders.
5.1.1 Introductory Summer School: Significance of Project for Communities

The youth were asked if they felt that the project would be significant for their communities, and if so, how it would be significant. Three of the youth felt confident that the project would have a positive effect on their community:

With the list of data we can probably continue to try and make our own community like healthier and the environment better. I know that some of our reserves, we don’t have clean drinking water and stuff. We can’t use it at our community center, where I live anyways. So maybe with the information we can find ways to fix that and fix other things that shouldn’t be the way they are right now. (Lucy A)

I think it will have a good impact on it. We don’t have very many... there’s not much interest in our community apart from our people so to have other people come in and research it and study and to try and figure out where we could improve it will definitely be a good thing for the community. (Ryan A)

The youth were not sure exactly how the project would benefit their communities, but did have concrete ideas for how the information could be used. For example, Lucy noted that perhaps information gathered through the project could improve water quality in her community.

At the beginning of the introductory summer school, some of the youth felt nervous in regards to flying, and some were overwhelmed by the magnitude of the project. After a few days, these feelings were replaced by excitement to be included in the project as well as a genuine interest in interviewing their Elders. The youth enjoyed touring the UWO campus and London, and felt that the project would be beneficial to their communities.
5.1.2 Internships

After the internships, an end of summer school was held in PRFN to discuss the youths’ experiences and preliminary results from the Elder interviews. During this time, I conducted my second set of interviews with the youth. Similar to the first set of interviews, approximately half of the interview guide consisted of questions about the internship. The following section will include the key findings regarding the internships (second set of interviews).

5.1.2 Internships: Youth Enjoyed their Internships

The youth unanimously reported that they enjoyed their internships. The youth also stated that they were happy to have been a part of the research process and to have held the internship positions:

*I’m really glad I got to be a participant in this and I’m really glad I got to work with the elders and learn their knowledge. It was good. I had a great summer and I’m sad it’s over. (Marie B)*

*I really enjoyed the summer. I had a lot fun with you and with Ryan. I’m really excited to see the results and I hope that your thesis goes really well and that you get a lot of information. I just hope that the themes that do come out will be beneficial to our community. I was really excited to be a part of this project and I’m excited to see the outcome from it. (Lucy B)*

*It was awesome. It was very good; it was busy and it was fast but the work part of it was very rewarding. I loved it. (Julie B)*

The youth enjoyed speaking with their Elders and working with fellow youth and researchers. The internship was a positive experience for all of the youth involved.
5.1.2 Internships: Youth felt they Learned Indigenous Knowledge (IK)

Though I have completed an analysis regarding what IK the youth learned from their Elders throughout their internships, I was also interested in the youths’ perceptions of their own learning. I asked the youth whether or not they thought they had learned IK from their Elders; all five of the youth felt that they had:

*I really liked it when we would go and visit our elders and when we finished they’d say ‘oh, come back’. They really enjoyed sharing their knowledge. I learned a lot and I think it has helped me grow with a lot of things going on in my life and it was nice to get those questions answered that I wanted to get answered.* (Alice B)

*I’ve learned a lot from the elders and I’m going to take that with me in the future.* (Marie B)

Though the youth did not name specific examples of what they had learned when asked if they had learned IK from their Elders, their perception was that they had indeed gained knowledge. According to the youth, the interviews were an effective method of learning IK from their Elders.

5.1.2 Internships: Youth were Glad to Have Been Part of Project

At the beginning of the summer during the introductory summer school, several youth expressed that they were happy to be a part of the project. As all of the youth enjoyed their internships, it was not surprising to learn that they were also glad to have been part of the project come the end of the summer (stated explicitly by three youth):

*I think it’s doing a pretty good job and I would totally like to thank Chantelle and everybody and I am honoured to be a part of this project. I think everything is good.* (Alice B)
In addition to being glad to have been part of the project, Alice also stated that she was happy with the format of the summer internship.

**5.1.2 Internships: Youth were Nervous to Conduct Elder Interviews**

Three of the youth felt nervous to conduct interviews with their Elders; this nervousness disappeared after the first few interviews took place:

*It was easy. I was nervous because I thought I am not a researcher, I am not going to be able to do this but once we got there and started doing it, it just came natural and it was easy and I enjoyed it.* (Marie B)

*My experience was very, very good. At first I was a little nervous going to ask the elders and seeing if they want to participate but after you get through the first two you know that it’s just gets easier to talk to them and I’m really grateful that I had respect from my elders prior to this and that relationship there because that made it easier to go there. My experience was just really good. Everyone had something different to say but yet they all said the same thing. I learned a lot from them. It was good.* (Julie B)

Marie and Alice were initially not confident regarding conducting the interviews and asking Elders to participate. However, after the youth experienced speaking with their first few Elders, they were no longer nervous.

**5.1.2 Internships: Youth Enjoyed Conducting Elder Interviews**

Though some of the youth felt nervous to conduct interview with their Elders at first, this feeling subsided as their internships progressed. Overall, four of the youth expressed that the interviews went well and were a positive experience:
Just being able to connect with some of the elders was really good I wasn’t sure if some of them would be open to talking but they were comfortable with us and very happy to do it. It was a good experience. (Ryan B)

I didn’t want to think of it as an interview but think of it more as a visit. Just visiting my elders. At the end of every interview, I was just like “wow”. It just felt really good. It felt really good listening to them. I could feel all the knowledge soaked up in my brain. It just felt so good visiting them. Some of the interviews were hard because in the middle of the interview you just wanted to get up and give them a big hug because of some of the stuff that was brought up. It needs to be brought up. They need to be heard. I don’t think the elders are being heard as much as they should be. If they were heard and the leadership in the community would hear them out then maybe this certain issue wouldn’t be going on in the community. (Julie B)

The youth enjoyed simply spending time with their Elders, as was communicated by both Ryan and Julie. As well, Julie noted that difficult subjects were brought up by the Elders; though this may be seen as a negative aspect of the interviews, Julie also stressed the importance of the issues that were brought up.

5.1.2 Internships: Youth felt Internships Influenced their Life Goals

The internships served as summer employment and a way to connect with Elders, as well as provided travel opportunities for the youth. I was interested in learning whether the youth felt that the internships influenced their lives in any other way. Four of the youth expressed ways in which their internships had impacted their life goals. For example, Alice talked about wanting to return to her community after finishing her post-secondary education:

Like I always wanted to just go to school and then I’m done with this place, I’m going to leave and I’m never coming back. Then it made me think I if I do that and everybody does that, then this beautiful place
isn’t going to be this beautiful place and I love it here. I want to be able to raise children here, if I ever have children; it’s a beautiful place to raise kids. I want to be able to come back to our reserve and bring my knowledge back to the reserve so I think that doing this interview, it made me realize that there are so many issues with our community, like we’re losing our culture and language. I think I want to do something along those lines. (Alice B)

Alice expressed a desire to become involved with her community after her schooling, which was similar to Ryan’s future goals:

My interest is to go into Natural Environment, Natural Resources. My idea is to take Fish and Wildlife and then Forestry. Part of it is focused on land. What I took from these interviews is that our young people aren’t on the land like they should be. Our elders were always using the land. They were out there doing the work doing what they had to do to survive. Our young people today are just at home playing video games. Technology has kind of taken over. It would be cool to try and bring the youth in the community out to the land and get them more involved. Maybe if I get that experience through my Natural Environment courses and continue to talk with my elders about the land to learn how to use it and respect it, then maybe down the road I could help out by working in part with the band to create a program to get the youth out on the land. That’s definitely an idea in the back of my head. (Ryan B)

Lucy stated that her experiences during the internship inspired her even more to learn about language and culture:

I’ve always been interested in language and culture and in making a difference for our people and just hearing about the past and the way things used to be it makes me want to get there that much quicker. I feel more determined to learn the language and more determined to learn about the history. It seemed like all the elders talked about berry picking and gathering water and out on the land setting snares and stuff I almost want to go and learn all that stuff. I want to go and learn how to set a snare so I can say I can do it. Right now I don’t pick berries. Well I do every once in a while but I don’t do it the proper way. I think that that has changed; my view on what we should be doing. I feel like I want to be more like that. (Lucy B)
Along with the goals of the larger research project, the youth reported that the internships influenced their life goals.

5.1.2 Internships: Youth were Satisfied with Format of Internship

In addition to evaluating the effectiveness of the internships in terms of KT and youth enjoyment, I was also interested in determining if any changes were necessary to make the whole process more successful. I asked the youth directly if they had any suggestions regarding the format of the internships. Three of the youth were happy with the setup of the internships, and did not offer any suggestions for changes:

*I think it's been effective and I don't think there's a way to improve it. I think it is very good. I'm not going to go home and just continue on with my life. I am going to go back and continue to see those elders and talk with them so that's definitely great.* (Ryan B)

Ryan was satisfied with the internship, and even noted the positive effects it had on his own goals. Similarly, Lucy liked that her opinion was included throughout the internship process:

*I believe it was set up really well. We were included in it we were asked our opinions and we were asked what questions we thought were important. We were asked what we thought was important to us throughout the whole project and when we did ask the questions we were always allowed at the end to ask whatever we wanted so I think that yes, you did need us for your studies but you also gave us the opportunity to make it a project for ourselves as well. I think that was really great, it wasn’t like you said ‘you’re doing this for us because I want to pass school and I want to be done graduating’. We were a big part of it and I feel like it became our project too. It was really good. I can’t really say that it changed anything about how everything works.* (Lucy B)

Two of the youth offered suggestions for improvement, including more preparation:
A lot of the time it seemed as if there weren’t enough people being prepared. Sometimes there was a lot of confusion. (Marie B)

In addition to more preparation, the inclusion of more youth opinions was also brought up:

*Maybe just asking the interns a little more for their opinions and how they feel about some things. And if you guys need something done and you guys have a certain way, maybe ask your internship how they feel about it. This is how I feel too for some situations, is that we can take on a little bit more responsibility and we could do a bit more. I think we have a good opinion too and some decisions can be made and our opinion is just as important as yours. We can help with decisions and I’m not saying all decisions or really big decisions but our voice can be very beneficial for you too.* (Julie B)

Overall, the youth were satisfied with the way the internships were carried out.

### 5.1.2 Internships: Youth Contributed through Existing Relationships with Elders

The internships involved working as a team with the other youth and researchers. For example, for each interview, all of the youth were present yet took on different roles (i.e. interviewer, note taker). I, as the researcher in BFN and J. Tobias in PRFN supervised the interviews but allowed the youth a large degree of agency over the process. Though the interviews involved teamwork, I was interested in finding out what each of the youth thought that they personally contributed to the interview process. Four of the youth felt that they had contributed something special, including a positive attitude:

*...well, we would have hard times when we were doing interviews and some days were hard days and everyone was having a hard day and I was happy and bubbly and I think I helped keep our spirits up. I also think I brought a lot of knowledge in the culture perspective because I’m traditional and know about traditional things like we needed tobacco and the smudging and stuff like that.* (Alice B)
Another contribution was existing connections with community Elders. Two of the youth felt that their pre-existing relationships with Elders helped facilitate successful interviews, as the Elders felt more comfortable with youth they already knew:

*I grew up in Rankin. Batchewana First Nation has a few communities and I grew up in Rankin which is the more central one because we’re connected to the city. But I have been around the different communities for a couple of years now so I’ve gotten to know a lot of people. I never just kept myself in Rankin. I went out to Goulais; I went out to Gros Cap. I already knew some of the elders so the recruitment project wasn’t that difficult. I guess with the elders if they know you a little bit or they know who your parents are then they are a little more comfortable with you. I found that being from the family I did and being as involved as I was that it helped with having those elders be comfortable with me and the whole interview process.* (Ryan B)

Though the youth worked as teams during their internships, they were individually able to contribute something distinctive to the interview process.

### 5.1.3 Community Vision

I asked the youth about what they would like to see for the future of their communities (termed “community vision”) during the first and second sets of interviews. Three of the youth had clear visions before the internships; after the internships, all of the youth had ideas regarding what they wanted for their communities. It is the hope of the researchers, youth and community partners that the research project will have positive impacts on the communities involved. Before the internships, the youth wanted to see community problems solved; awareness regarding community health and environment issues (including improvements to water quality); and more community pride. Ryan elaborated on the concept of community pride:
What I would like to see is more pride. We’re a first nations people and we’re supposed to be proud people and we are but some people they just go up and do their own thing. I was like that when I was little I didn’t really pay much attention to my community or my culture so with this project with us bring light and attention to it I think people will notice it and maybe the people in the community will get involved so that they can help. That’s what I’m looking forward to. (Ryan A)

After the internships, the youth had many more visions for their communities, including community strength; speak Ojibwa; overcome substance abuse; be self-governing; improve education levels; creation of a First Nation centred curriculum; community unity; improved health; use of traditional territories; more community participation in traditional activities; and more communication with Elders. Lucy expressed the significance of language to her community:

I think language is a big thing that needs to happen. I think that in order to define ourselves as a nation we need to have a culture and the foundation of any culture is language. If you have language, that gives you the pride in your community; to be able to speak among your people. It gives you your sense of self-identity and self-respect. Language is a big thing that needs to happen in order for any of the cultural things to be done correctly because a lot of our elders said that ‘Nana bijou’ gave us that language to do our ceremonies and we don’t know the language anymore so how effective are our ceremonies anymore. I think language is really important. (Lucy B)

Though the youth had goals for their communities before the internships, after the internships they had many more and much clearer goals for what they want to see in their communities in the future.

5.1.4 Personal Growth

The internship involved many new experiences for the youth, including travel to a new city, exposure to a large university, introduction to research and interview methods
and collaboration with Elders, community partners and researchers. I was interested to determine if these experiences had any significant impacts on the youth’s personal growth.

5.1.4 Personal Growth: Youth Gained Respect for Elders

In addition to examining the uptake of Elder knowledge by the youth, I also wanted to see if the internship had affected the youth in any other ways. For example, three of the youth noted that they gained more respect for their Elders through conducting interviews with them during the internships:

For me, myself...I've just grown as a better person because just hearing my elders knowledge and to have that perspective and how I see things has made me a better person overall and it’s developed an even greater respect for the elders and even just for myself too by hearing how I should be living my life. (Julie B)

Though the youth held great respect for their Elders before their internships, the time they spent with their Elders throughout the summer deepened their respect.

5.1.4 Personal Growth: Youth became More Open Minded

Along with gaining respect for their Elders, three of the youth also stated that the interviews had caused them to become more open-minded. For example, Alice described her feelings regarding medicine men and how her views changed after speaking with her Elders:
Also, medicine men and stuff, I never really believed in them. My Mamom, she used to go to medicine men and I was like, she still died. In the end, she still died and I said, I don’t believe in that and I think it gave her false hope. But after hearing their stories...they gave my Mamom three months to live and she lived a year and the doctors were like ‘I don’t know how you’re still alive. I don’t have a clue’. And they used her like guinea pig because they didn’t know why she was still alive. I’m thinking that’s why, those medicines; because her spirits were high and she used to drink medicines and she used to take ____ pills. After hearing the stories from the elders and hearing what they went through, it made me think, well, maybe it does work. I think that they gave me more of an open mind. (Alice B)

Alice’s statement displays her change in viewpoint regarding medicine men, which came about as a result of speaking with her Elders.

5.1.5 Significance of Project for Community

Elders hold valuable IK regarding community health, the local environment and traditional activities. The purpose of the project was to transfer IK from Elders to youth, in turn preserving IK. The significance of the project to researchers is that it has the potential to protect and transmit IK; I was also interested to see if and how the youth thought the project might be significant for their communities.

5.1.5 Significance of Project for Community: Will be Significant

During both summer schools, I asked the youth if they felt that the project would be significant for their communities. I was interested in learning how they felt after they had conducted interviews with their Elders, to see whether or not their views had changed or remained the same. The first set of interviews revealed that three of the youth felt the
project would be significant for their communities; after the internships, all of the youth were confident that the project would be important for their communities. Alice felt strongly that the project would be significant for her community, and hoped that it would improve relations with the neighboring town of Marathon:

*I really think this is going to be significant because through the summer we had five communities brought to our reserve, well, not to our reserve but brought to Marathon and Marathon, we’re like the same pretty much. Hearing those stories about how Marathon acted towards those people it was so heartbreaking, and we live next door to them. I’ve had trouble with racism in Marathon before but I didn’t know it is as bad as it is. With this documentary I’m hoping it will give them an understanding of how life is for us. It’s like our reserve is feeling effects still from residential schools in everything and also Marathon tried to put their dump in our waters, right beside our water they want to put their dump there. Hopefully, that won’t happen.* (Alice B)

At the end of their internships, the youth expressed that the project would be important for their communities; the following section will outline the specific outcomes the youth would like to see as a result of the project.

### 5.1.5 Significance of Project for Community: Youth Goals

The goal of the internships was to transfer IK between Elders and youth; though as the youth were provided with a significant amount of ownership over the project, I wanted to know if they had any desired outcomes from their internships. All five youth had specific goals for what they wanted to see come about as a result of the project, including improved relations with Marathon; community strength; more use of the land by youth; more care given to the land; positive response to the project from their communities; programs for language, land and health; community-wide viewing of the
documentary; improved conditions for future generations; creation of a cultural camp; more health services; progression of land claims; and for community leadership to become even more involved in the project. Alice emphasized the importance of the project for future generations:

Mostly, for our community to grow, I want to see our community to grow and become a stronger community and to fix our issues that we have right now, especially for the little ones. I don’t want them to have to face the same things we had to face growing up. I’m really thinking about the little ones; they are going to be our next generation so I’m hoping with this documentary, even if it helps just one person, that one person is going to make a big difference; even if it is just one person that changes, that is going to make a difference. I think that it has changed myself, so that’s already one person. I just hope that it will help somebody else. (Alice B)

Julie stressed the importance of the documentary to the community and its potential impact on youth-Elder relations:

If I can get all the youth to watch this film I’m hoping it would make them have a greater respect for their elders. I want all of our youth to see this film. This is what our elders think about youth and we have to do something about this, so that they can understand the importance of having a relationship with the elders. I would be happy with that too. (Julie B)

By the end of the summer, all of the youth had developed concrete ideas regarding what they wanted to see come out of the project.

5.2 Transfer of Indigenous Knowledge (IK)

The purpose of the internships was to transfer valuable IK between Elders and youth. Analysis of the youths’ internship experiences revealed that the youth felt they had learned knowledge from their Elders. In order to evaluate how much and what knowledge
the youth learned from their Elders, I asked the youth about community health and environment issues as well as traditional activities both before and after their internships. I compared what the youth knew before the internships with what they knew at the end of the summer. I also asked the youth questions related to their perceptions of KT, as I wanted to know if the youth thought they had learned IK. The following section outlines the transfer of IK between Elders and youth, and the effectiveness of the internships as a method of facilitating this transfer.

5.2.1 Internships were an Effective Method of Knowledge Transfer between Elders and Youth

During the summer internships, the youth learned IK regarding community health and environment issues, and traditional activities. Though I compared the knowledge the youth knew at the beginning of the summer to that they knew at the end of the summer, I also asked several questions pertaining to what the youth thought they learned. I asked the youth what they learned because I was interested in examining what the youth remembered the most from their Elder interviews; the IK that first came to their minds when thinking of Elder knowledge. The IK learned by the youth included a wide range of topics, such as past traditions; language; ceremonies; traditional rights; community health; hunting; and development of the land. The youth also shared their views regarding their learning processes. For example, Alice learned about the significance of Tobacco Mountain in PRFN:

*When they did the story telling we learned about Tobacco Mountain and why it was called Tobacco Mountain, like legends and it was really
awesome to hear those kinds of things because I never really had anybody in my family really tell me about legends and stuff like that. I always only heard my Mamom. She would teach me things but she didn’t really know many legends so it was really cool hearing about that. I lived here my whole life and I have never even heard about that stuff and I never knew why it was called Tobacco Mountain and I now I know why. I think it taught me a lot. (Alice B)

In addition to learning about her traditional territory, Alice also described the ways in which learning IK inspired her to learn Ojibwa:

I’ve always wanted to know my language and I’ve always seen other people, like I have friends who can speak our language fluently and I was always ‘I really want to do it’ but now I’m hearing what the elders are saying about our language and it really wants me to do it that much more. This summer, they have a dictionary, like Ojibwa words, so I’ve been looking through that. (Alice B)

Ryan learned about traditional rights on the land regarding the Ontario provincial park system:

One thing I learned was that when we go to a Provincial Park or a park that’s in our traditional territory we don’t have to pay to use it because we have that right to use it. We’re always allowed to do what we’re in the habit of doing since we began. I learned a little more about our rights on our land as far as hunting and fishing goes. Before, I always had that mindset where I would have to be careful because I didn’t want to offend the MNR or the Conservation Officer whereas now I realize with my band I have the right to do what I want to do on the land that is original to my people. That was actually a good teaching. (Ryan B)

In addition to learning about traditional land rights, Ryan also gained a newfound respect for his Elders:

I think I have a deeper understanding of the elders and the knowledge that they have. I have always respected my elders but like I said I always thought they were hard of hearing and old but our elders are still pretty powerful people and they have a lot of knowledge to share and all you have to do is ask them and be respectful. They really appreciate the ahsayma, the tobacco. That’s always a good thing to
have on you. A lot of our elders talked about if you came out to an area like this or any part of our land even we’re not doing something traditional, we should always carry ahsayma with us. I don’t usually do that but I’m trying to do that now. (Ryan B)

The youth not only learned specific elements of IK from their Elders, but the process of speaking with their Elders also fundamentally changed their perceptions of both their Elders and IK. The above section served to provide an introduction to the IK learned by the youth; more specific elements of the IK learned will be detailed in sections below.

5.2.2 Knowledge Transfer Came in the Form of Stories

Three of the youth were surprised that the IK they learned from their Elders came in the form of stories; they did not expect to learn via this method. Julie elaborated on her experience regarding the transfer of IK, including how she expected to learn and how her learning actually took place:

*It’s not what I thought it was going to be in the beginning. In the beginning, I thought it was going to be like “here’s your teaching; here’s your teaching; here’s your teaching”. It wasn’t really like that. I learned traditional knowledge through their stories; their singing and hearing about their daily life, how it was back then and how it is now. I got it in between the lines; it wasn’t directly. A lot of the traditional stories we heard we started out by just asking them to talk about themselves and the days when they were younger and their family and that really got the ball rolling. It got them to open up a lot. think that was my favourite question because I got to hear about how Pic River was fifty or so years ago. It was pretty amazing. Hard workers, very hard workers; we have it so easy.* (Julie B)

Julie explained that much of the IK she learned needed to be derived from the stories told by her Elders; it was not as explicit as she thought it would be. She also described how
allowing the Elders to speak freely (through the introductory interview question) created new opportunities for learning.

5.2.3 Youth Viewed their Elders as Indigenous Knowledge (IK) Holders

The summer internships showed the youth that their Elders are the holders of significant IK. Before the summer school, two of the youth spoke of their Elders as IK holders, and recognized the issue of the loss of IK from Elders passing away. As well, Lucy understood the importance of consulting Elders regarding community issues:

> Well, I think that in any community that health and environmental issues should be made aware of and they should be talked about. I think that getting the opinions of our elders will help the community as a whole and maybe understand what we should do as far as changing what’s going on. Who knows better than the people who are our knowledge keepers, but I think that maybe if we get a copy of it and we get the results back from the project itself we could utilize the information and the data that is collected and perhaps move forward in making changes in our community and it could be very useful for us and beneficial. (Lucy A)

Two of the youth at the beginning of the summer recognized the importance of Elders as IK holders; at the summer’s end, four of the youth spoke of their Elders as IK holders, and indentified that they had learned significant IK:

> I’ve learned a lot from the elders and I’m going to take that with me in the future. (Marie B)

Marie emphasized the IK she learned from her Elders as well as its role in her future. Through the internships, the youth were able to experience KT from their Elders, and realized that Elders are significant holders of IK.
5.3 Existing Indigenous Knowledge (IK)

I asked the youth during the first interviews about traditional activities, community health and changes to the land to assess what IK they held before speaking with their Elders. Below I will outline examples of IK the youth had before their internships.

5.3.1 Traditional Activities on the Land

I asked the youth about what types of traditional activities take place on the land before their internships. The youth held a fairly wide range of IK regarding traditional activities. Three of the youth talked about fishing and hunting on the land:

*I recently got into fishing. I’m not very good at it. I go fishing and I really enjoy it. It’s peaceful. It can get a little boring but it’s nice to be there and clear your thoughts and be with friends and have a good time. I haven’t hunted yet but I’m hoping to go hunting this fall for the first time. We’ll see how that goes.* (Ryan A)

Spiritual activities were mentioned by all of the youth; Alice described the different spiritual activities that take place within her community:

*Yeah, we have our pow-wow, I think it’s our 28th pow-wow, annual pow-wow, maybe the 27th. We also have sweat lodges, pipe ceremonies, and you know we just have the basic drumming. They just actually built, umm, my uncle had a dream about a lodge and they just made a lodge, and people just go in there and the fire was lit from the beginning that it was made until...well it’s suppose to be forever I guess, but the fire did go out but people will light it and people go in there and drum you know and just enjoy themselves and stuff like that and of course there is hunting and that kind of thing.* (Alice A)

The youth knew about fishing, hunting and spiritual activities that took place within their communities before their internships.
5.3.2 Significance of Indigenous Knowledge (IK) Held by Elders

Though the youth were able to provide me with examples of IK they knew before their internships, three also recognized the opportunity to learn much more from their Elders. For example, Alice spoke about her inability to hunt, as she was never taught this skill:

*I’d have to say, like, I don’t want to be like... for sure like our land, but it’s a lot different, we can’t just live off the land anymore, we don’t know how. I was never taught how to go hunting, my brothers, they don’t know how. So I think that to improve our health would...to know how to do things, to live off the land, stuff like that...you know maybe more, I’m not sure...I think that’s like... it.* (Alice A)

Before their internships, the youth recognized gaps in their IK and the importance of learning more IK from their Elders.

5.3.3 Community Health Issues

Before the internships, I asked the youth about health issues that affected their communities. All of the youth had an understanding of the issues that were significant to their communities, including obesity, diabetes, loss of community members, spiritual health issues and the influence of residential schools. For example, Alice spoke about the impact losing several Elders had on her community:

*Emotionally, the reserve went through a lot this year, we lost a lot of people from, like a lot, maybe, probably like seven people in the span of like two months. So, emotionally our reserve is going through a lot and you know we are all in it together though, and we’re being supportive, you know, holding certain things like we have a counselor coming from Thunder Bay down to help out just to give guidance I guess.* (Alice A)
Alice pointed to the emotional and mental health of her community regarding the loss of Elders. Physical health was also mentioned by the youth; Ryan spoke about diet as well as some of the influences on community health:

*I guess it’s just the way people grew up. With the elders, if they went to residential schools, they weren’t taken care of and they weren’t taught how to eat properly. Their parents couldn’t raise them and show them they should be eating this and not this. You grow up and you develop that habit of eating whatever you want and what’s available to you. We’re connected right to the city so we can just go to grocery store and the convenience store and buy all this junk food so I think that can be a big part of it. Diabetes is big in a lot of First Nations communities and I’m sure there are different reasons as well.* (Ryan A)

Julie also spoke about the ill effects of the residential school system on community health:

*My grandfather attended residential school his whole life and that played effects. That played effects to us still today, like he was stuck in residential school and then so he was tooken (sic) away from his parents and then he wasn’t being loved and all that so when showmie had my dad he wasn’t able to be a parent because he didn’t know how to be a parent and when my dad had kids it was just passed on and passed on like, you know, so that’s a negative effect of the health and then like my dad’s an alcoholic, my showmie was an alcoholic, you know, so we have that addiction in us and we have that risk in us, too. My showmie didn’t feel the love. He wasn’t with his family so he didn’t even know what he was doing. He didn’t know how to be a family with my granny and my dad and same with my dad and it was just passed on and passed on so that’s a negative thing and that affected us spiritually, physically, mentally, and emotionally, too, again, you know. It wasn’t till, I don’t know, 25 years ago or something that my showmie, my showmie – people look up to him on my reserve as a strong leader because he’s like, he sobered up our community and, I don’t know. It’s a positive outcome out of it I guess for the community, not for us though. He didn’t fix his family. He fixed the community but he didn’t fix his family. So he fixed the community and then he left – he left us and he hasn’t been back since.* (Julie A)

Addictions were also an issue brought up by the youth:

*I see a lot of a lot of obesity, a lot of unhealthy eating, addiction.* (Marie A)
In addition to addictions, diabetes was a prominent health issue:

*I know that diabetes is really quite big in our community and in our ethnic group in general, I know it is a really big problem and I’m not really sure how diabetes awareness is being taken care of but I think there is a diabetes specialist at the health centre and so I think they have been using that a lot lately.* (Lucy A)

Before the internships, the youth were able to speak about community health issues as well as some of the possible influences on community health.

### 5.3.4 Influences on Community Health

The youth had several ideas regarding what was affecting their communities’ health before they spoke to their Elders during their internships. Four of the youth spoke about poor water quality as an influence on health. Specifically, the BFN youth focused on the effects poor water quality may have had on fishing within their community:

*I guess for the Rankin section it did because you can’t really fish down there now because the river water isn’t the greatest. It’s been tested and it’s not as well as city water or Lake Superior so even if you do catch fish you have to be careful with it. A lot of people would rather be safe and they throw the fish back that they catch rather than bring it home and eat it.* (Ryan B)

*I think that it’s affected our fisherman. I know in my community fishing is a really big way that our people work, they go out every day and they go fishing to sell it and I know with water levels dropping the fish are probably losing their lake so the population of fish is dropping and it is really hurting them which is unfortunate, not to mention that Goulais Bay attaches right into Lake Superior which is one of our largest bodies of fresh water and with water levels dropping it is going to affect everybody. Water is the basis of everyone’s lives, like not just the indigenous people but everybody. And I think that through just the disrespect that everyone has for the land and the disrespect that we have for the water we are only hurting ourselves in the end and when it’s gone then may everyone will realize...that’s a scary thought that we are not going to have any drinking water anymore.* (Lucy A)
Before the internships, the youth thought that poor water quality might have been affecting community health.

In addition to physical influences on health, the youth also talked about social impacts. For example, four of the youth spoke about the influence of relationships on health. Alice described how her Moma impacted her own health:

*I’d have to say... I think that like in January I lost pretty much the most important person in my life and that really affected my health a lot. I starting losing weight and stuff, which I guess is a good thing, but umm I wouldn’t, I guess I could say that I kinda became depressed and stuff like that. My life starting going down hill drastically and stuff like that, so I would have to say that that influenced my health a lot every way possible like health, physically, emotionally like everything.* (Alice A)

Before the internships, the youth recognized the influence of social relationships on health.

The youth noted that the physical environment impacts health. Alice spoke about water quality as well as the change in land quality over time:

*I think the land affects your health like from like our drinking water, I said before, also the land isn’t as healthy as it used to be like back when my great great great grandparents were living.* (Alice A)

### 5.4 Indigenous Knowledge (IK) Learned

Through the summer internships, the youth learned IK from their Elders. During interviews with Elders, community health, the land and traditional activities were discussed. Some of the IK Elders talked about was already known by the youth; some was new; and some of the IK increased the youths’ understanding of community issues. The following section will outline how and if the youths’ views of the above issues changed, as well as specific examples of IK learned by the youth.
5.4.1 Health: Meanings of Health Focused on Multi-Dimensionality and Balance

I asked the youth both before and after their internships what health meant to them. The youths’ basic definitions of health did not change throughout the course of the summer; both before and after their internships, health was defined as being multi-dimensional (encompassing physical, mental, emotional and spiritual health). Balance was also a common theme; the four elements of health need to be in balance in order for an individual to be deemed healthy. Lucy explained the importance of balance before the internship:

*I think that health means your own personal well being, spiritually, physically mentally. You have to make sure that all of those components are balanced and well taken care of.* (Lucy A)

After the internship, Marie described health in similar terms to Lucy:

*To be healthy you have to have four aspects of your life in balance: the physical, emotional, mental and spiritual. If any one of those is out of balance then you’re not walking in the path that you should be. It’s more than just walking down the beach or going to the gym every week. You have to make sure that relationships are good and you have to make sure that you’re going out to the ceremonies and that kind of stuff.* (Marie B)

All of the youth noted multi-dimensionality and balance as significant to achieving health before the internships; their views did not change after their internships.

5.4.1 Health: Elders Increased Youth Understanding of Health

Though the youths’ fundamental meanings of health remained unchanged after their internships, they did report an increased understanding of health gained from their Elders. For example, Lucy learned about the connection between health and the land:
I would say yes. It’s not in a huge sense because I always felt that mental, spiritual, physical health was important and there has to be a balance in your life. I think that the way they talked about health and their own opinions made it that much more important to me the way I want to raise my son and make sure that he is growing up healthy and taking care of all the aspects of life that need to be taken care of. Also, the way that we live is also part of our health. The way that we treat the land is going to affect us. I forget which elder said it but he said if Mother Earth is sick then so are we because she can’t produce anything healthy for us to live on if she is sick herself. I think that’s something that I really opened my eyes to this summer. (Lucy B)

All of the youth reported that although their meanings of health were essentially the same after speaking with their Elders, the Elders did increase their understanding of health.

5.4.1 Health: Elders Emphasized Physical Health

All of the youth defined health in terms of multi-dimensionality as well as the importance of maintaining balance between physical, mental, emotional and spiritual health. Three of the youth were therefore surprised when their Elders emphasized physical health as the most significant element of health. Ryan described the Elders’ views regarding physical health:

A lot of them focused on physical health and for me physical health wasn’t that big to me so to see how important they see physical health was an eye-opener. (Ryan B)

Ryan elaborated further on why physical health may have been emphasized by his Elders more than the other elements of health:

I guess I take it for granted that I can run around and do the things I do without getting sore or tired or running out of breath whereas they have to stay active so that they can get up in the morning and do what they have to do. I definitely learned to appreciate my physical health. Traditionally the whole ahsayma thing is a good way to keep yourself in check. You should always appreciate the things you get and the things
around you. I have to learn not to take things for granted. From what I have learned from them I have changed a little bit. (Ryan B)

Though the youth still viewed the four elements of health as being equally important, they also realized the significance of physical health for their Elders.

5.4.1 Health: Youth Felt They Knew Community Health Issues before Speaking with Elders

I asked the youth after their internships if they had learned about any new community health issues from their Elders. The youth concluded that they knew the issues before speaking with their Elders; though in some cases their Elders added to what they already knew about health issues. Lucy explained that although she knew about the major health issues in her community, her Elders helped with her understanding of these issues:

*I think that I always had a simple understanding of most of the health issues that they talked about. I just have a deeper knowledge about it now and it means more now that, yes, those health issues are there and they are a really big deal and we really need to do something for our people and help them feel better. I think it just ‘bolded’ how the issues are affecting our people.* (Lucy B)

Though the youth expressed that they already knew the significant health issues within their communities, two of the youth stated that they did learn about tuberculosis (TB) and how it affected their community in the past. Alice explained how TB affected one of her Elders in the past:

*I didn’t know that TB was such a - that it struck our community and a lot of kids died. One of the elders said that her dad used to make coffins and there would be seven people a week he would be making coffins for. I didn’t know that it was even around. I pretty much knew everything*
else with our surrounding areas, like pollution. It was just the TB I didn’t know about. (Alice B)

The youth perceived that they did not learn any new health issues from their Elders, other than the two youth who mentioned TB.

5.4.1 Health: Youth Developed Stronger Views of Community Health after Internships

I asked the youth both before and after their internships whether they thought their communities were healthy. Before the internships, the youth were somewhat uncertain regarding community health and whether or not their communities were healthy. The answers provided by the youth were vague regarding their grasp of community health, and the youth seemed unsure of the reasons for community health issues. The youth did have some ideas regarding community health, but were not very confident in their responses. For example, Alice thought that community health might be connected to traditional activities, but was not certain:

I’m not like really too sure but I’m sure it’s different from the old ways where they used to live off the land and you know it’s harder to do that now, you know. The area’s not the same, of course traditions are being lost you know, the old trapping trails and stuff like that because like, those elders have passed on. So, from our elders that have passed on they like the traditions lost that wasn’t passed on to the next generation so I think that’s why our community is having trouble with the obesity – we’re eating a lot of junk you know we’re not eating the fresh things, everyone has vehicles now and there’s no source of exercise you know and especially living on a small reserve I mean it’s not as accessible to go...they don’t have as much things to help with that and stuff like that. (Alice A)
In contrast, at the end of the summer, the youth had much clearer views regarding the health of their communities, and were also much more confident when describing these views. In addition to being more confident, each of the youth also had clear opinions regarding whether or not their community was healthy. Four of the youth thought their communities’ health was generally all right, but that there was room for improvement; one of the youth did not think their community was healthy. Ryan described the health in his community, including the issues that need to be dealt with:

_I’d say they’re doing all right. Every community has its issues and it’s problems and my community is no exception. Batchewanna First Nation have some issues and problems with drugs and alcohol and diabetes but we’re coming along. We have our health center there and we always have options open for people if they want to go to ceremonies or sweat lodges. It’s up to the individual to take those opportunities and use them. I’d say our people are doing pretty good. I see a lot of people going out to ceremony and keeping their spirit in good shape. I see people jogging in the morning and at nighttime around Rankin so they’re getting their body in check too. The ones that aren’t; it’s up to them what they do and maybe eventually they will get into the habit of keeping themselves healthy all around. I’d say the communities are doing pretty good._ (Ryan B)

After the internships, the youth had a better understanding of health in their communities, as well as the reasons connected to health issues.

### 5.4.1 Health: Diabetes

I asked the youth about significant health issues within their communities before and after their internships. Diabetes was one of the issues that was brought up by the youth before (three youth) and after (four youth) the internships, pointing to its significance within both communities. Lucy spoke about the diabetes issue for her community and the wider First Nation population:
I know that diabetes is really quite big in our community and in our ethnic group in general, I know it is a really big problem and I’m not really sure how diabetes awareness is being taken care of but I think there is a diabetes specialist at the health centre and so I think they have been using that a lot lately. (Lucy A)

Ryan also brought up the issue of diabetes after the internship:

I’d say they’re doing all right. Every community has its issues and it’s problems and my community is no exception. Batchewanna First Nation have some issues and problems with drugs and alcohol and diabetes but we’re coming along. (Ryan B)

Diabetes was an issue that the youth spoke both before and after the internships, which points to the importance of the issue within the communities.

5.4.1 Health: Addictions

In addition to diabetes, addictions were also mentioned by the youth before (two youth) and after (three youth) their internships. Julie talked about addictions in her community before her internship:

Right now – right now I see the addictions. The addictions are slowly – like every reserve has their addictions, right? Like alcohol, drugs is gonna be there. It’s gonna be there but now with Heron Bay the addictions are getting more serious and it’s slowly going to more people. (Julie A)

Julie spoke of addictions again after her internship, but referred to the issue in terms of what she learned from an Elder:

Physically healthy? No. One elder made a really good point. She said no people are physically healthy because the one’s who are drinking and drugging she says well they have those addictions but the ones who aren’t drinking and drugging, well, those are the overeaters, so if it’s not one addiction it’s another. (Julie B)
Though Julie was aware that addictions were an issue in her community before her internship, after the summer she was able to draw upon IK learned from her Elders to explain the situation of community addictions.

5.4.1 Health: Significance of Batchewana First Nation (BFN) Health Centre

Although the issues of diabetes and addictions were brought up by youth from both PRFN and BFN, differences between the two communities exist regarding health issues. The youth from BFN talked about the new health centre in their community both before and after their internships. Lucy spoke of the ways in which the health centre and other community health resources had the potential to improve health:

*I think that with the new health centre a lot more people are able to access medical attention and that kind of stuff. Our community is always putting on like fasts and sweat lodges and healing ceremonies so that’s always good. I would have to say that our overall health is alright, but we’re not really as healthy as we should be considering the rest of the population I guess and how the standards are for every else but I think that for how we have been, with this new health centre we are doing a lot better.* (Lucy A)

After the internships, Ryan also pointed to the importance of the health centre:

*We have our health center there and we always have options open for people if they want to go to ceremonies or sweat lodges. It’s up to the individual to take those opportunities and use them. I’d say our people are doing pretty good. I see a lot of people going out to ceremony and keeping their spirit in good shape. I see people jogging in the morning and at nighttime around Rankin so they’re getting their body in check too. The ones that aren’t; it’s up to them what they do and maybe eventually they will get into the habit of keeping themselves healthy all around. I’d say the communities are doing pretty good.* (Ryan B)

The youth from BFN emphasized the importance of the health centre both before and after their internships.
5.4.1 Health: Influences on Health

After the internships, four of the youth felt that the land affected health. The land’s influence on health was explained in terms of its negative influence, including environmental degradation. For example, Lucy described the state of the air, land and water:

*The air is no good. Half the waters we can’t drink out of. We can’t grow anything out of the land anymore because we don’t know if that soil is infected with anything or unhealthy. We can’t do that anymore because we don’t know. This place is beautiful but would we be able to grow here? That’s another thing a lot of people just build where ever, they don’t take the time to think if that land is a good place for growing food and maybe we should preserve that land so that maybe we can do something with it? No, they just plop a big shopping mall in it; hey, we’re rolling in money, it’s okay. In the grocery stores, there’s a lot of baked potatoes there; well, there’s going to come a day we’ll go there and we’ll be fighting over the baked potatoes because there’s not going to be any left. That affects our health because we need food to live. (Lucy B)*

In addition to the land, three youth recognized the impact of the people around them as an influence on their health. Ryan described the positive effects of having a social network on health:

*I have a part time job and any spare time I have I try to go to community events and go our to ceremony and that definitely affects my health. You go out there and you know there’s going to be a good group of people there and there aren’t any problems or issues. It keeps you healthy to be around good people and it definitely feels good to be there. I like staying busy with those things. (Ryan B)*

5.4.1 Health: Fast Food a Negative Health Influence

I asked the youth before and after their internships about influences on health. A significant theme that emerged was the negative influence of fast food and grocery store
foods on health. All of the youth spoke about poor dietary choices before the internships; three spoke in detail about it after their internships. Alice talked about how the convenience of unhealthy foods has had a negative impact on community health:

For us to eat healthier, so much junk all the time, it’s so convenient to go to Marathon and eat A@W than to cook a meal or something. So we need to eat more healthier and be more positive with ourselves and to have more faith in our youth and stuff like that, you know, I think that living on a reserve is like, you can’t like a lot of people talk, you know, it’s like, you can’t even just do something...you something good and there’s always both sides...someone is like oh my God and the other one is so proud of you...it’s always like that on our reserve so I think we need to be more positive, that would help our health a lot. (Alice A)

After the internships, Ryan also spoke of the negative influences of convenience foods:

Where you are and what you’re doing. I live in town so I have easy access to fast food places and junk food so it’s physically the place I eat so that affects my diet and where I’m going to eat. If I lived out in the country I wouldn’t have access to all that and I would be eating better. (Ryan B)

The negative influence of fast food on health was brought up by the youth both before and after the internships.

5.4.2 Connection between Land and Health: Emphasized during Internships

Before the internships, two of the youth spoke about the connection between the land and health. Lucy talked about this connection in terms of food quality:

I think the land does affect our health but we don’t eat food from the ground, we buy most of it, but where the food is being grown, perhaps it is not up to the standards that it should be and it’s being shipped to us and we’re eating it ..... but definitely we used to live off the land, we wouldn’t be able to live off the land now, not with pollution and everything I don’t think we’d be able to live off the land now, not the way it is. (Lucy A)

Only two of the youth talked about the connection between land and health before the internships; in contrast, four of the youth mentioned this connection after their
internships. Though more youth noted this connection, Alice spoke of it in similar terms to Lucy:

*Our animals that we catch aren’t as pure as it used to be back in the day. One of my friends dad, he hunts all the time. I used to wonder why he can’t just kill rabbits. You see rabbits all the time and he told me there is only a certain time you can hunt for rabbits but back in the day you could hunt anytime. I think that health has a lot to do with the land.*

(Alice B)

The connection between land and health was not an entirely new concept for the youth, but more youth talked about this topic after their internships.

### 5.4.3 The Land: Land became more Significant after Internships

I asked the youth what the land meant to them both before and after their internships. Before the internships, three of the youth elaborated on the significance of the land; their focus was on the land’s utility for traditional activities such as ceremonies, hunting and resources. For example, Ryan described the importance of the land for the collection of traditional foods:

*Our traditional lands, that’s where we do what we’ve always done like go hunt and if we don’t continue to exert our rights, to be able to hunt and trap and set snares; to hunt for moose then our physical health will go down. We do go to the grocery store and buy meat from there but it’s nice to stay connected to our roots. A lot of our people, when they go hunting, they don’t just hunt for themselves. A moose is huge and they’ll have it gutted and they share it with community members. They’ll give to family and friends and that creates a positive friendly relationship with the community members and everybody’s sharing and nobody is being selfish and I guess physically and emotionally that helps with the health as well.* (Ryan A)

After the internships, all of the youth expressed a much more profound significance of the land. Alice described the land and its connection to Anishinabe identity:

*I guess without it we wouldn’t be Anishnawbe. It means a lot to me because I do my ceremony on the land. I dance at powwows. You’re*
supposed to be very soft, and you get a different connection with the land. When you’re dancing you dance softly on the powwow ground because it’s like Mother Earth. I don’t really know how to explain it. It’s a different connection that you get. That’s the only kind of ceremony I do is with powwows and stuff. (Alice B)

Alice not only explained the significance of the land in terms of its use for traditional activities, but also the personal connection she feels with the land when dancing. Lucy explained the significance of the land in terms of its necessity for life:

_The land means everything to me. It always has but now I can actually say that and I can actually say why. We live off the land; we build on the land; we do everything on the land. If the land wasn’t here we wouldn’t be here. We’re buried in the land. Everything we use comes from the land; our food, the medicines whether they are pharmaceuticals or our traditional medicines they come from the land. No matter where you go you have to walk to get there; you play on the land; you breathe the air, which is part of the land. Land is everything; without the land we wouldn’t be here._ (Lucy B)

All of the youth felt strongly about the significance of the land after their internships, and were much clearer regarding why it was so significant.

### 5.4.3 The Land: Youth Learned About Changes to the Land

I asked the youth about specific examples of changes to the land that they may have learned from their Elders during their internships; four of the youth were able to provide specific examples. The topics the youth spoke of ranged widely, including water quality; the river; blueberry picking; forest clearing; creation of roads; development; and the mining industry. Lucy talked about how development had impacted the way her Elders went about their daily life:

_Yes and when you first asked that question at the beginning of the summer was thinking I hadn’t seen any changes in the land, things have always been like this but to hear about how things were when they were small is quite mind blowing to think how much things have changed_
over the last fifty or sixty years. I was in Goulais Bay and there wasn’t even a road to town then, there was a little trail. There’s always been a paved road there and we don’t cross the bay to get to town; we take the road around and we don’t use dogsleds anymore and we don’t have to worry about trapping for our food because we can just go buy it. Little things like that, I knew things were different back then but to the extent that I know now, I would never have thought it. There have been lots of changes. (Lucy B)

Lucy recognized that she was unsure of the changes before her internship; speaking with her Elders had clearly informed her of the changes that had taken place within her reserve.

5.4.4 History of Pic River First Nation (PRFN)

Similar to the significance of the community health centre to BFN, the youth from PRFN also discussed issues unique to their community. All three of the PRFN youth learned about the history of their community, including ceremonies and the ways in which the community used to interact. Marie and Julie shared their experiences learning about their community:

There’s so much. I’ve learned about the ceremonies; I’ve learned more about the history of Pic River; I’ve learned more about our people as a community. (Marie B)

I don’t know that it’s really negative, but it was a little disappointing to me because I thought we were pretty close-knit but after hearing my elders tell their stories of what they did in the past, it makes me feel bad because we’re not that tight anymore. Back in the day when the hunter would go get the moose everyone would meet and everyone would meet there with their pails and everyone would get their piece of meat. Everyone shared the meat. (Julie B)

The Elders from PRFN shared valuable IK with the youth regarding the history of their community.
CHAPTER 6

DISCUSSION AND CONCLUSION

6.1 Introduction and Summary of Results

This chapter summarizes the results of the research as they relate to the original research objectives and hypotheses, and evaluates the effectiveness of the internships as a means of IK transfer.

The findings of this thesis are then used to develop a conceptual framework that has been designed as a result of this research to explain the transfer of IK between Elders and youth. The framework is comprised of two parts: the structures, which are the introductory summer school and internships; and the relationships necessary between researchers and communities. These relationships are dependent on the four Rs discussed throughout the Indigenous methodologies literature: relational accountability, respectful representation, reciprocal appropriation, and rights and regulation (Louis, 2007; Steinhauer, 2002; Absolon & Willett, 2004; Momaday, 1976; Rundstrom & Deur, 1999; Smith, 1999). The framework is described as it relates to the results of this research project, as well as why these elements (both structures and relationships) are necessary to successfully facilitate the transfer of IK between Elders and youth. Though the structures provide the youth with the skills they need to carry out interviews, the relationships are the most critical element of the framework; without the relationships, transmission of IK may not occur successfully.
6.1.1 Introductory Summer School

The introductory summer school was an integral part of the internship and research process, as it prepared the youth for their internships. I also conducted my first set of interviews during this time. Overall, the introductory summer school was a positive experience for the youth. The introductory summer school offered the youth an introduction to research and the process of interviewing. The introductory summer school also provided the youth with a valuable set of skills that can be applied to future endeavors, as well as the opportunity to visit a large city and university campus in Southern Ontario. Through their introduction to the research, the youth gained confidence and realized the impact this research could have on their communities, which may have begun the process of inspiring them to take on future leadership roles.

6.1.2 Internships

During their internships, the youth assisted in the design of interview guides, recruited Elders for interviews, conducted interviews with Elders, took notes during interviews and co-analyzed the interviews. The interviews allowed valuable data to be collected for a PhD dissertation, provided summer employment for five youth and facilitated the transfer of IK. Overall, the youth enjoyed their internships; they enjoyed conducting interviews and liked having the opportunity to simply spend time with and listen to their Elders. It is important that the youth liked spending time with their Elders, and did not think of the process as just a summer job. This enjoyment may encourage the
youth to visit with their Elders in the future, in turn developing further relationships and potentially learning more valuable IK.

One of the themes that emerged was the youth felt that the existing relationships they held with their Elders assisted in the interview process. This means that the Elders were more comfortable conducting interviews with youth that they knew, or whose family they knew. For example, some of the Elders did not know the youth, but knew their parents or grandparents and were therefore more comfortable than if the youth had been complete strangers. As well, these existing connections most likely made the Elders more comfortable allowing me into their homes to listen to them. The Elders may have felt more comfortable with me being present during the interviews due to the fact that the youth were working in partnership with me and trusted my intentions. I highly doubt I would have had the same response rate for interview requests had I been working alone, or with co-researchers/youth who were not part of the community. This points to the importance of relationships (both existing relationships and the building of new, healthy relationships) to the collection of data.

Some of the youth reported a desire to become more involved in their communities after post-secondary school, and others expressed interest in learning more about their community. This finding is significant because these youth may become future leaders and role models within their communities. The youth involved in the internship are all pursuing post secondary education; by returning to their communities after completion of their education, they have the potential to positively improve conditions within their communities. Without the internship experience, the youth may have decided to leave their communities to work in other locations. Through learning
more about their communities from their Elders, the youth have expressed a desire to return to their communities after post-secondary as well as learn even more about their heritage.

A major theme that emerged was that the youth gained more respect for their Elders. Though they always held their Elders in high regard, spending so much time with them and developing relationships caused the youth to respect their Elders even more than before their internships. This respect may encourage the youth to seek out their Elders in the future not only to learn IK but also for guidance in life.

After their internships and after speaking with their Elders, the youth had much clearer visions for what they wanted to see in their communities. I presume that learning about community issues from their Elders gave the youth a much better idea of what needs to be done to improve conditions. As well, the youth were much more confident in their ideas at the end of the summer, which may have also emerged as a result of their internship positions. The internships not only allowed the youth to interview community Elders, but also to be involved in a community-based research project, which in turn made their voices visible within their communities. The internships allowed the youth to learn more fully about the issues that affect their communities, in turn causing them to develop their own viewpoints on what they wanted to see in their communities.

### 6.1.3 Transfer of Indigenous Knowledge (IK) between Elders and Youth

The hypothesis guiding this research was that youth would learn IK from their Elders. The youth did learn IK from their Elders. Though the youth knew about many of
the environment and health issues within their communities before conducting Elder interviews, their communications with Elders enhanced this knowledge and added both depth and breadth. As well, the youth learned new elements of IK from their Elders.

The internships were an effective method of IK transfer between Elders and youth. I asked the youth if they thought they had learned IK, to which they reported they had. I also examined the IK the youth knew before and after their internships; although some of the differences were not significant, overall, the youth had a greater understanding of community issues after their internships. As well, the youth were able to provide me with specific examples of things they had learned from their Elders. I think the format of the internships assisted in the transfer of IK. The Elders were able to speak for as long as they wanted, and the youth were allowed to ask Elders questions outside of the interview guide. Though the interview guide did serve to restrict the discussion topics, it also kept the discussions focused on community health and environment issues and IK. The youth were also in charge of approaching any Elders they wished, or any Elders they thought may be interested in taking part in an interview. All of the youth were also present for most of the interviews conducted with their community Elders, which allowed for them to gain as much IK as they could firsthand through their internships. Though the internship model could benefit from improvements (which will be discussed in the limitations), it was an effective method of IK transfer between youth and Elders.

The internships and interviews were an effective method of IK transfer, though the youth and I were surprised as to how the IK was transmitted. A great deal of the IK came from the Elders as stories, requiring the youth to pick out messages and specific elements of IK; the transfer of IK was not as explicit as we originally thought it would be.
This required the youth and I to think critically about what the Elders were saying, as one story may have offered many different elements of IK. The interviews certainly introduced me (and possibly the youth) to a new form of learning, as I am accustomed to learning specific lessons in an explicit manner. Through their internships, the youth discovered the importance of Elder storytelling in regards to IK.

One of the most significant findings relating to KT was that the youth came to realize how important their Elders are as holders of IK. This is important because the youth may feel encouraged to approach their Elders in the future to learn about traditional ways of life or community issues. As well, the youth expressed interest in becoming involved in their communities after completing post-secondary education, potentially in leadership roles. As community role models and leaders, the youth may be able to provide a voice for the Elders and inform other community members of the valuable IK Elders hold. The youths’ revelation regarding the importance of Elders as IK holders may very well be the first step in community wide recognition of the significance of Elders’ IK.

The youth had a fairly substantial knowledge of community health issues before their internships, though their Elders did add to this knowledge. Though the youth felt they knew most of the health issues and influences before speaking with their Elders, they did increase their understanding of these issues and add some IK throughout their internships. Speaking with their Elders provided the youth with a deeper understanding of community health, which in turn allowed them to develop more confident viewpoints on the subject.
In addition to health, I asked the youth what they learned about the land from their Elders. The youth had a good understanding of the types of traditional activities that take place on the land, including hunting, fishing and spiritual activities (i.e. fasts, sweat lodges and ceremonies). They learned about a variety of changes, including water quality; the river; blueberry picking; forest clearing; the creation of roads; development; and the mining industry. Though the youth knew about some of the ways in which the land was used for traditional activities, by speaking with their Elders, they learned about what kinds of changes had occurred over time. By learning about how the land has changed (often in a negative manner), the youth now have the potential to lobby for improvements to the land.

I wanted to know what the land meant to the youth both before and after their internships. At the beginning of the summer, the youth knew that the land was significant, but were somewhat vague regarding why it was so important. In contrast, at the end of the summer all of the youth had very strong feelings towards the land; they emphasized how profoundly significant the land is to everything in life. As well, they were much clearer as to why the land was so important, and felt more strongly regarding the importance of the land.

The internships not only facilitated the transfer of IK, but also provided the opportunity for youth to bond and build relationships with their Elders. Even if the youth had the desire to connect with their Elders before their internships, they may not have known how to approach their Elders, or may have felt hesitant. The internships offered them a specific purpose with which to approach their Elders, as well as a safe environment in which to do so. The youth reported that they not only enjoyed their
internships, but liked listening to, learning from and visiting with their Elders. They also expressed interest in speaking again with their Elders in the future. The internships allowed the youth to develop the initial relationships with their Elders (though relationships with Elders also existed before the internships), and it is hoped that these relationships will continue to grow, and that the youth will learn even more IK from their Elders. As well, approaching Elders for interviews may have given the youth the confidence to ask other (or the same) Elders for knowledge, assistance, or to simply spend time with them.

### 6.1.4 Indigenous Knowledge (IK) Translation Framework

The results of this thesis have been used to develop a framework to conceptualize the transfer of IK:

![Diagram of Indigenous Knowledge (IK) Translation Framework](image)

**Figure 6.1: Indigenous Knowledge (IK) Translation Framework**
The framework outlines the structures necessary for the transfer of IK between youth and Elders, as well as the relationships that must be developed in order for the structures to work effectively.

6.1.4.1 Structures

The first part of the framework consists of two structures which are necessary to begin the IK transfer process; the introductory summer school and the internships. These structures will be explained in more detail below.

6.1.4.1 Structure: Introductory Summer School Provides Skills and Knowledge

The first structure necessary is the introductory summer school. During the introductory summer school, youth gain skills and introductory knowledge related to the research. For example, the youth in this project were provided with a background to the research, Aboriginal health in Canada and qualitative research methods. As well, practical skills were taught, such as how to conduct an interview and how to use recording equipment. This structure provides youth with the tools they need to begin their internships.

6.1.4.1 Structure: Internships Provide Practical Learning and Skill Building Experiences

The second structure, the internships, provide the youth with hands-on, practical learning experiences. The youth now have the opportunity to transfer the skills learned
during the introductory summer school to their internships, which include recruitment of Elders, setting up interviews and conducting the interviews. Through the interviews, the youth further gain skills such as relationship building (with each other, researchers, Elders and community partners); how to communicate effectively; how to manage their time; and how to deal with sensitive issues in a compassionate manner. During this time, the youth have the opportunity to actively learn from their Elders. Through this process, the youth gain self-confidence, self-esteem and leadership skills through positive interactions with their Elders.

6.1.4.2 Relationships: The Four Rs

In theory the two structures (introductory summer school and internships) in this framework should allow for the effective transfer of IK between Elders and youth; however, without the second part of the framework (relationships), the structures may fail to facilitate the transfer of IK. In addition to the structures, the transfer of IK between Elders and youth must also involve the development of relationships between researchers and communities, and in turn between Elders, youth, researchers and community partners. I have drawn from the four elements of Indigenous methodologies (Louis, 2007) to describe the significance of relationship building.
6.1.4.2 Relationships: Respectful Representation - Respect

The first element is respectful representation (Louis, 2007; Absolon & Willett, 2004; Steinhauer, 2002). This means that researchers must enter communities with a humble, respectful and patient attitude (Louis, 2007). This attitude must continue throughout the research process; community partners who reciprocate these values will also aid in the development of healthy relationships with researchers. In particular, outsiders from the community must keep in mind their position, and act with the utmost respect at all times.

This principle must also be applied regarding interactions with Elders. Youth and researchers are fortunate to have the opportunity to speak with Elders and have valuable IK shared, and must therefore display an attitude of gratitude and respect. This principle was applied in this research project; we offered semaa to Elders before they began their interviews as a way of thanking them for their participation, as well as a display of respect. We were also sure to try to make the process as convenient as possible for the Elders; upon first contact (preliminary phone call or home visit), we were sure to thank the Elder for their time even if they were not interested in conducting an interview. We provided a wide range of times for interviews to occur, and conducted the interview wherever the Elder wished. For example, many of the interviews took place in the Elders’ homes, as some Elders have mobility issues. Though the opportunity to go out on the land to learn about specific places, medicines and animals would have provided another level of learning, we also had to keep in mind the Elders’ needs and health issues.
6.1.4.2 Relationships: Respectful Representation- Patience

In addition to respect, we needed to exercise patience during our interactions with Elders (Louis, 2007). Some of the interviews were quite long, upwards of three hours. Though all of the interviews were interesting and provided valuable learning opportunities for both the youth and researchers, they were also at times exhausting. Interviews require active listening, and both the youth and I needed to be sure to ask prompting questions when necessary. Patience in this respect was very important, as we never wanted the Elders to feel as though they were being rushed through their interview; the interviews ended when the Elders wanted them to end. To ensure that we did not need to rush through interviews, we usually scheduled only one interview per day; in some cases we needed to schedule two (as we did not want to miss out on an Elder interview), but were sure to schedule one for early morning and one for later in the afternoon. Though patience was a virtue we needed to apply from the beginning of the research process, it is also a trait that was developed throughout the interview process.

6.1.4.2 Relationships: Respectful Representation- Generosity

Generosity was displayed reciprocally between researchers, community partners, Elders and youth. Elders who participated in interviews were provided with an honorarium at the end of their interview, as a way of thanking them for their knowledge, time and kindness. The honorariums were not meant to coerce participation in an interview; rather, they were a way of thanking Elders and letting them know how much we appreciated them sharing with us, as well as taking time to accommodate researchers.
and youth with an interview. We also asked Elders before their interviews if there was anything we could bring (i.e. coffee or tea) to make them comfortable during their interview. Generosity was also displayed by the Elders involved. The youth and I were welcomed into the Elders’ homes; I never once felt as though they did not want me in their home. We were offered food and drink on countless occasions, and one Elder gave me a gift as a way of welcoming me into the community. The generous attitude displayed by all those involved in the research process helped build healthy relationships between researchers, Elders, youth and community partners (Louis, 2007).

6.1.4.2 Relationships: Respectful Representation- Humility

It was critical for us to display humility when entering the communities and Elders’ homes (Louis, 2007). As an outsider to the communities and First Nation culture, I needed to be careful not to display an “expert” attitude when dealing with community members and Elders. Though I have an academic background in Indigenous health issues, I am most definitely not an expert, and there are many cultural nuances that I am unaware of. I needed to be sure to act humble and gracious regarding my interactions with Elders and community members, and to be open to listening and learning. The youth were very helpful with informing me of how to interact with Elders, as well as informing me of anything that may have been culturally inappropriate. As well, if a topic was introduced either by community members, youth or Elders that I did not know about, I was sure to (respectfully) ask for an explanation. By doing so, I developed trust between myself and community members; it is better to admit not knowing something and learn than to
pretend to know. I was very comfortable to admit when I did not know something, as the research process is also a learning exercise for me.

6.1.4.2 Relationships: Respectful Representation- Knowledge Ownership

Discussions regarding knowledge ownership are also critical (Louis, 2007). As much of the research conducted with Indigenous peoples has involved researchers going to communities, extracting information and leaving, many communities are wary of developing relationships with researchers for fear that their knowledge will be stolen without benefit to their community (Smith, 1999). In this research, the knowledge belongs to the communities and researchers jointly. We must proceed with caution regarding the use of information, for example in publications. We do not want to publish something that will bring harm to the community, or misinterpret information. Therefore, we have been sure to have open and honest communications with community partners regarding the information collected during this project. Elder and youth transcripts will be disseminated to their owners, and we will disseminate the results of this research in August 2012 to community members. As well, I have respected the youths’ wishes regarding what they may have said during their interviews. Before both the first and second interviews with the youth, I stressed that they could contact me at any time to change or remove anything they wished from their interviews. I did have one youth request I remove several quotes from their interview, which I was more than happy to do. Decisions regarding knowledge ownership must be reached through open and honest communication between community partners, researchers, Elders and youth.
6.1.4.2 Relationships: Relational Accountability- Relationship Building

The second element necessary for successful KT is relational accountability (Louis, 2007; Steinhauer, 2002). This means that the research process must be treated as a whole, and that the relationships built throughout need to be maintained continuously.

Relationships must be built and maintained between researchers, community members, Elders and youth throughout the research process (Louis, 2007). Preliminary visits by Dr. Richmond and Dr. Stewart in summer 2008 began the relationship building process by asking communities what they wanted to see in regards to research. The next few years involved regular communication between the communities and researchers to keep everyone informed about project goals, logistics and the status of funding applications. In spring 2011, J. Tobias and I traveled to the communities on two occasions to conduct meetings with community members, as the project would get off the ground in summer 2011. For the introductory summer school, community partners were invited to participate along with the youth, in order to provide them with a first-hand experience of the introductory summer school. After the internships were finished and J. Tobias and I returned to UWO, we continued to keep in contact with community partners and youth to keep them informed about project progress. We will be making two trips in summer 2012 to disseminate the results of the research, take part in community meetings and have Elders’ gatherings. It is crucial to maintain relationships throughout the research process to keep all those involved informed, to ensure that research and community goals are being met and to maintain trust between parties.
6.1.4.2 Relationships: Relational Accountability- Communication

Maintaining relationships is integrally connected to communication. Communication must not only be constant, but must be clear and honest. Researchers and community partners must be able to communicate what they would like to see in terms of research, keeping in mind goals that are realistic in regards to funding and time commitments. As well, communication between Elders and youth is made possible through both the structures and relationships of the framework. Though communication between Elders and youth was opened during the internships, it is hoped that the respectful relationships built during this process will continue the communication between Elders and youth, in turn continuing the transfer of IK.

6.1.4.2 Relationships: Relational Accountability- Integrated Knowledge Translation (IKT)

The IKT framework used in this project fits within the element of relational accountability, as IKT refers to the transfer of knowledge between all members of the research project throughout the research process. The IKT framework helps to ensure that relational accountability takes place, as in order for knowledge to be transferred, communication between community partners and researchers must continue throughout the research process, and those involved must be informed about all elements of the research.
6.1.4.2 Relationships: Reciprocal Appropriation - Benefits

Reciprocal appropriation, which means that benefits exist for researchers and communities, must be enforced throughout the research process (Louis, 2007; Momaday, 1976; Rundstrom & Deur, 1999). Researchers and community partners must be able to come to agreements and compromise regarding project goals, though community needs should take precedence over what researchers want to see come out of the project. Lots of research has taken place that has come strictly from academic points of view, and may not have anything to do with community needs and concerns. For example, the questions asked of the youth and Elders were fairly open-ended regarding health and the environment; we wanted to know what issues were important to the communities, and not simply assume we knew what would be important. Though some of the interventions that have taken place in the past have addressed significant issues, these issues may not have been top priority for the communities involved in the research.

6.1.4.2 Relationships: Reciprocal Appropriation - Communication

Communication is critical in order for reciprocal appropriation to take place. This project helped to ensure that mutual benefits were kept in mind through communication with all members of the research process. Meetings with community members, phone and email communications, introductory and end of summer schools and interviews with Elders and youth helped to communicate what everyone wanted to see as a result of the research.
6.1.4.2 Relationships: Rights and Regulation- Shared Goals, Communication and CBPR

The final element of the framework, rights and regulation, means that research follows Indigenous methods, goals and clearly states how the research may affect communities (Louis, 2007; Smith, 1999). By communicating with community partners and youth, we were able to approach and conduct interviews with Elders using appropriate methods. As well, goals have been discussed throughout the research process, in order to accommodate researcher and community needs. Though it is difficult to predict the impact that research may have on a community, by maintaining open lines of communication, we may be able to prevent negative impacts coming out of the research. We have tried to ensure that throughout the research process, community opinions and ideas have been an integral part of project goals and decisions. Open communication has helped to ensure this has taken place.

6.2 Conclusions

The goal of this research was to facilitate the transfer of IK between First Nation Elders and youth; to determine youth perceptions of community health and environment changes within their communities; and to evaluate the effectiveness of the internships as a method of KT. The internship framework was an effective method of KT, with the youth learning both specific elements of IK as well as gaining a more full understanding of issues they already knew about. A conceptual framework was designed as a result of the research, and outlines the structures and relationships necessary for the successful transfer of IK. Though the structures of the framework (introductory summer school and
internships) provide youth with the skills and experience necessary for the transfer of IK, the building of healthy relationships between researchers, community partners, Elders and youth must also be included. The relationships work within the elements of Indigenous methodologies (respectful representation, relational accountability, reciprocal appropriation, and rights and regulation) to foster relationships between communities and researchers. The application of the framework to research with Indigenous communities has the potential to improve the research process for Indigenous peoples, as this framework helps ensure that community, and not only researcher, goals are met.

6.3 Research Contributions

This research aimed to facilitate the transmission of IK between youth and Elders, which will in turn help to preserve this knowledge. The project contributes to the Indigenous health, CBPR and KT literatures. Community ownership of the research results will facilitate the use of the findings as a resource which the communities can use to help in reaching their environment and health goals (i.e. use resources as tools to address policymakers).

This project is noteworthy in the sense that it is the first KT intervention to take place with Northern Ontario First Nation youth hired as interns and equal partners in a large, multi-community environment and health study. In addition to providing First Nation youth with summer employment and the opportunity to connect with Elders, as well as highlighting significant community health and environment issues, this study provides significant academic contributions as well. The following section will outline the theoretical, methodological and policy contributions of this project.
6.3.1 Theoretical Contributions

This project involved the transfer of IK between Indigenous youth and Elders regarding community health and environment issues, as well as traditional activities. The study adds to the discipline of KT, and provides a unique example of how KT can take place within Indigenous communities. KT in Indigenous communities involves the transfer of knowledge (i.e. knowledge regarding health), and an IKT framework means that this transfer occurs between researchers, community partners, Elders and youth throughout the research process (CIHR, 2009b; CIHR, 2010; CIHR, 2009a). This framework was successfully applied within this research, as communication remained steady between all of those involved in the research process. As well, this study adds to the sparse literature available on KT within an Indigenous health context. Smylie et al. (2009) noted the significance of Inuit Elder storytelling to community health; this study facilitated the transfer of health IK between Elders and youth, in turn highlighting several significant community health issues and influences. The building of relationships between Elders and youth was integral to the transfer of health IK, which was successfully demonstrated within this thesis research.

In addition to KT, the research adds to the literature on health and environment issues within Indigenous communities. Though First Nations are distinct and may face issues particular to their communities, some of the issues may translate to other communities. For example, ED affects many Indigenous communities around the world, and industries such as mining and hydroelectric projects have negatively impacted the health of First Nation peoples (Richmond & Ross, 2009; Windsor & McVey, 2005; Stephens et al., 2006). This study highlighted the significant health and environment issues for BFN and PRFN, which may apply to other First Nation communities along the
North shore of Lake Superior. By bringing these issues to attention, the communities can potentially move forward in regards to improving health and environment conditions.

More specifically than Indigenous health, this research helps address the gaps in the literature regarding Indigenous youth health. The literature available on Indigenous youth health is sparse and generally focused on specific health issues, such as suicide (Cutcliffe, 2005; Hallett et al., 2007; Larkin et al., 2007; Mignone & O’Neil, 2005; Potthoff et al., 1998; Thomas et al., 2010). More literature is available regarding Indigenous children versus youth, but again focuses on specific health outcomes, such as otitis media and diabetes (Baxter, 1999; Bowd, 2004; Dean, 1998; Harris et al., 1998; Rosenbloom et al., 1999; Saksvig et al., 2005). This thesis research did not focus on a specific health issue; rather, the health perceptions of youth themselves were explored. This is significant because it highlights those issues and influences of importance to the youth and their communities. As well, the youth spoke about health in more holistic terms than within the Indigenous youth health literature. For example, balance and the multi-dimensionality of health were significant themes within this research. The youth in BFN and PRFN displayed views of health that went beyond specific diseases; these viewpoints may be evident amongst other First Nation youth.

6.3.2 Methodological Contributions

The method used in this research is a unique approach that has not been used before in the context of KT among Canadian First Nation youth and Elders. The project applied a CBPR approach, which actively involved youth in the planning, data collection, analysis and dissemination phases of the research. Essentially, the youth were equal partners in the research process. As well, the IKT framework ensured youth were
involved during all steps of the research process. The research framework itself (internship) was a KT intervention; youth were hired as interns and provided the opportunity to interview Elders, with the purpose of gaining significant IK. This method was an effective way to transfer IK between Elders and youth. Therefore, this method can be applied to other research as a successful way to transfer IK.

The conceptual framework that was designed as a result of this research is in itself a methodological contribution. It combines the structures (introductory summer school and internships) and the relationships (between communities and researchers) necessary to facilitate the transfer of IK between Elders and youth. As well, the framework combines the four elements of Indigenous methodologies (respectful representation, relational accountability, reciprocal appropriation, and rights and regulation) to facilitate the development of healthy relationships between researchers and communities. The importance of using Indigenous methodologies when conducting research in Indigenous communities has been stressed in the literature (Smith, 1999; Wilson, 2001). The framework designed in this research can be applied to research within Indigenous communities, with the same or modified structures, to either facilitate the transfer of knowledge or to build successful relationships between communities and researchers.

Though the health intervention literature includes studies with Indigenous youth, none have applied the same framework as that used in this research. A large proportion of the studies focused on very specific health issues, such as diabetes and reproductive health, which were addressed through school curriculums (Potvin et al., 2003; Macaulay et al., 1997; Saksvig et al., 2005; Daniel et al., 1999; Rosecrans et al., 2008; Curran et al., 2005; Kaufman et al., 2012; Richards & Mousseau, 2012). Though these interventions may have been effective, they did not involve youth as active participants in the research
process. A few studies do exist that involve youth as researchers in the health intervention process, and include them within the collection, analysis and dissemination of research (DeBruyn et al., 2001; May et al., 2005; Ford et al., 2012; Jardine & James, 2012). As well, the transfer of IK between Elders and youth has been evident in several intervention studies (Saksvig et al., 2005; Ford et al., 2012; Peace & Myers, 2012). This thesis offers an innovative methodological approach to a health intervention, as it involves youth as active and equal participants within the research process, gaining IK regarding health from community Elders through interviews conducted by the youth themselves. This particular method has not been done before, and offers a groundbreaking method of not only including youth within the research process, but also transferring valuable health IK between Elders and youth.

### 6.3.3 Policy Contributions

This research has the potential to impact both health and environment policy within First Nation communities. Several significant health issues were brought up by both youth and Elders, including diabetes and addictions. Connected to these issues were the negative influence of fast foods on health (diabetes) and the detrimental intergenerational effects of the residential school system (addictions). Both communities may benefit from programs that target diabetes, such as healthy eating initiatives or diabetes awareness campaigns. As well, programs that assist Elders in dealing with the pain and trauma caused by the residential school system may contribute to community wide healing, in turn reducing addictions. The BFN Health Centre was brought up by both BFN youth before and after their internships, pointing to the significant positive influence of this resource on their community. In contrast, the PRFN youth did not
mention their community health centre; this does not mean it is not significant, but perhaps more funding or the addition of resources would make it more of a focal point in regards to community health. Policies should be designed to target the specific community health needs, which were highlighted within this study.

In addition to health policies, both First Nations may benefit from the creation of policies to improve environmental conditions. For example, water quality was an issue that emerged in both communities; water system cleanup initiatives or tighter controls on industries (i.e. mining) may improve water quality in BFN and PRFN. Policies designed to improve environmental conditions would be valuable for both communities.

The significance of Elder IK is also an area for which policy could be developed. This project was funded by a CIHR grant, and was jointly initiated by researchers at UWO, Lakehead University, BFN and PRFN. Internship programs similar to the one in this project could be created as regular summer employment positions (initiated by the bands or the government), which could facilitate the transfer of IK to younger generations of youth, in turn developing even more connections between community Elders and youth. This kind of policy (in particular if initiated by the communities) would give the communities full agency over the design of the internships as well as the knowledge generated from the research.

Communities without the opportunity for funded projects or internships can also benefit from policies related to this research. Providing youth with more opportunities to get out on the land will help facilitate both relationships with Elders and the potential transfer of IK. Communities could initiate cultural camp programs to give youth the opportunity to learn traditional activities from Elders. As well, mentorship programs could be developed, linking youth with Elders. Food collection and cooking classes could
also be made available within communities. The goal of these policies would be two-fold: to link youth with Elders and other community members, and to provide opportunities for active learning of IK.

Educational policy is an area that could benefit significantly from the results of this research. Several youth involved in this project expressed a desire to attend UWO after visiting the campus to take part in the introductory summer school. Opportunities to visit southern post-secondary institutions may be far and few between for First Nation youth in Northern or isolated communities. Educational recruiters visiting Northern communities also may not be enough of a draw for youth; this research displayed the importance of youth seeing and experiencing university for themselves. In order to increase First Nation attendance at universities (in particular those far from Northern communities), university recruitment should be expanded to provide trips for First Nation students to see university campuses. These programs could be similar to the introductory summer school in this research; youth could take part in classes and tours of the campus and city. The significance of post-secondary education was also a focus within this research; policies aimed at increasing First Nation attendance within university could positively impact communities by improving their overall educational attainment levels.

6.4 Limitations

Though the research allowed for the transfer of valuable IK between Elders and youth, the project is not without limitations. One limitation was the inclusion of five youth. Five youth were hired due to a variety of factors. As the youth were hired as interns (as opposed to acting as volunteers), their salaries had to come out of the research grant. As well, travel, accommodation and food costs were involved in both the
introductory and end of summer schools, which also limited the budget for the project. Only two researchers (J. Tobias and I) were present in the study communities, and acted as mentors to the youth; any more than two or three youth may have become unmanageable for us (i.e. we may not have been able to attend all of the interviews with more youth conducting them). The fact that only five youth were hired places limitations on my results. Five youth is a small sample size, which means that my research may not be reliably transferred to other communities or study areas. Though only five youth were involved, their individual viewpoints are still valuable and provide representation for their communities. As well, the small sample size allowed me to get to know the youth well, which helped with rapport and relationship building. For example, the youth were much more comfortable speaking with me during their second interviews in contrast to their first interviews. As well, the purpose of this study was to gain an in-depth view of knowledge transfer, in which case five participants is a suitable sample size (Sandelowski, 1995). This project did not aim to provide general information that could be transferred to other communities. The five youth involved also have become empowered through the research process, and may take on leadership roles within their communities, as well as motivate other youth to become involved with Elders.

The internships were limited to two months, which restricted the number of Elders we were able to visit. This restriction once again came about due to budgetary demands; the grant allowed for two-month paid internships. As well, J. Tobias and I experienced living costs (covered through the grant) living in Marathon and Sault Ste. Marie. Though we were able to conduct quite a few interviews with Elders, more time within the communities would have allowed us to not only take part in more interviews, but also build deeper relationships with community members. This in turn may have led to
interviews with more Elders, or interviews with Elders who were less comfortable with the research process. Longer internships (perhaps four months of the summer if the youth hired are post secondary students) would allow for more Elder interviews to take place, in turn providing more opportunities for KT.

The geography of Northern Ontario was another limiting factor. I was stationed in Sault Ste. Marie with two youth, and J. Tobias stayed in Marathon, a five-hour drive away, with the other three youth. This meant that while I developed great relationships with the youth in BFN, I was less familiar with those from PRFN. This may have affected the youths’ responses in their second interviews, as the PRFN youth may not have been as comfortable speaking with me as the BFN youth. It would have been beneficial to spend more time with the PRFN youth; unfortunately, time and cost restrictions prevented me from doing so. Therefore, differences in comfort level and interview responses may exist between the BFN and the PRFN youth. This is connected to the length of time of the internships as well; longer internships would have provided me with more opportunities to travel to PRFN to spend time with the other youth.

The filming of the interviews for the documentary may also have limited the responses I received from the youth during their interviews. Both the first and second sets of interviews were filmed, which meant that in addition to me and the youth, two or three film crew members were also present during the interviews. This may have caused the youth to censor or hold back some of their interview responses as they may not have been as comfortable with so many people present during their interviews, or with the film crew in general. Though at the beginning of the summer the youth had just met all of the researchers and film crew, they spent much more time with J. Tobias and I than with the film crew. Some of the topics covered were quite sensitive, and even if they felt
comfortable by the end of the summer with me, they may not have felt as comfortable with the film crew (as they had limited interaction with the film crew throughout the summer). As well, the simple addition of extra people to the interview setting made it much less intimate, and this may also have prevented the youth from fully opening up during their interviews. The film element of the interviews also took away the anonymity that would exist had they only been audio recorded. This may have served to further limit the youths’ answers, as they may have felt more accountable knowing that their faces would be attached to their words. Therefore, although the film provides a record of the youths’ responses to significant community health and environment issues, it may also have served to limit the youths’ answers.

My position as a researcher may also have limited the youths’ responses. In addition to interviewing the youth, I also acted as their mentor and boss throughout their internships. For example, I was present during all of the Elder interviews (to help ensure quality control); I determined work that needed to be done (i.e. I made decisions regarding how our time would be spent); and signed off on work hours for the youth. My position of authority over the youth may have affected the ways in which they responded to my questions. For example, they may have felt obligated to answer questions during the first set of interviews as they knew they would be working with me for the summer, and may not have wanted to create any conflicts. As well, they may not have felt entirely comfortable answering some of my questions as I am an outsider to their community, and they still may have felt they did not know me enough by the end of the summer in order to open up fully about certain topics. None of the youth voiced concerns to me regarding their comfort level answering questions; I am simply addressing this issue as a possible limitation.
The Elders and youth involved in the research brought up many significant health and environment issues that affect their communities, as well as possible solutions to these issues. Though other communities may face similar challenges, it must be kept in mind that First Nation communities are heterogeneous, and the problems that are present in one community may not necessarily be top priority for other communities. I think that the Indigenous Knowledge (IK) Translation Framework (Figure 6.1) can be used in other communities or research projects, but the specific information gained about environment and health issues can only be transferred with caution. For example, some of the issues brought up affecting BFN and PRFN may be present in other communities, but it is important that researchers ask the community members first regarding their priorities, and not simply assume that they are the same as the communities in this study. The internship model can potentially have widespread use within other communities, but the issues that emerged may be specific to the two communities involved in this project.

After analyzing my data, I realize that my interview guide may have served to limit my results. For example, some of the questions I asked the youth in their first interviews I did not ask in the second interviews, and vice versa. This meant that I had somewhat superfluous information to deal with during my analysis, as I did not have anything to compare it to. Though from an analysis standpoint this serves as a limitation, I think overall having slightly different interview guides for the two interviews had positive outcomes. For example, asking the youth about traditional activities and their educational backgrounds helped them open up to me and become more comfortable with the interview process. The difference in questions also added some interest and unpredictability to the second interviews; the youth were not entirely sure what to expect, therefore I may have received more honest, unplanned answers. As well, I had determined
throughout the summer what topics were of primary interest for the second interviews, which differed slightly from the first interviews. Though I was unable to compare some of the data from the first interviews to the second interviews due to different interview guides, I think that the different interviews provided me with positive outcomes.

After analyzing my data, I thought of new questions that I wished I had asked of the youth during their internships. For example, the Elders were asked about solutions for moving forward after the research project; it would have been interesting to have the youth perspective on this topic as well. Also, I would have liked to include more open ended questions about daily life, family and the community in the youth interviews. This was one of the opening questions asked during the Elder interviews (“Can you tell me a bit about yourself”), and proved to be one of the most effective questions in making the Elders comfortable with the interview process and opening up to the researchers and youth. For example, the Elders often spent a large proportion of their interview (sometimes over half of the interview time) speaking about daily life. This enabled them to bring up topics that were of interest to them, which may not have been included within our interview guide. I think this question would have been beneficial for the youth interviews as well, as it may have increased their comfort and allowed them to talk about issues of importance to their lives.

6.5 Areas for Further Research

As many of the issues brought up by the youth during their interviews were not explored in depth, future research could involve more focused examinations of these topics. Future research could explore specific health issues that emerged during the youth interviews (i.e. diabetes, addictions), or the reasons behind such health issues. As well,
the environmental problems that were brought up could be more fully examined (i.e. changes to wildlife populations). These future studies could use qualitative or quantitative approaches. For example, though both youth and Elders reported changes to the quality of fish over time, it would be useful to see how the fish were negatively affected in order to target potential pollutants or causes of ailing fish health. As well, more qualitative interviews with community members who are not Elders or youth could shed light on different health and environment issues.

In addition to further research regarding health and environment issues within the communities, I think it would be important to repeat this particular study within other communities. KT of IK was demonstrated within this study, pointing to the effectiveness of the research framework; the significance of Elder IK means that other communities could benefit from a study similar to this one. Future research would benefit from keeping in mind the limitations of this study and altering their methods to address these limitations.

The significance of relationships between researchers, community partners, Elders and youth has been emphasized throughout this thesis; relationship building was an integral part of the success of KT between Elders and youth. Researchers working with Indigenous communities must keep in mind the importance of relationship building and apply the four Rs to their own frameworks, regardless of the study topic. Further research could modify the structures in the conceptual framework designed within this research to suit their own needs, though still working with the relationships outlined in the framework.
6.6 Final Conclusions

This research provided First Nation youth with summer employment, transferrable skills and new experiences. The youth will be able to apply the skills learned during their internships (communication, time management, interviewing methods) to future endeavors. As well, the youth were able to experience traveling to a new city and visiting a large research university. These experiences may inspire future attendance at UWO, or other post-secondary institutions.

In addition to the transfer of IK between Elders and youth, the internships also helped establish relationships between Elders and youth, and inspired the youth to become more involved within their communities. The internships caused the youth to grow and develop more confident views regarding the issues in their communities. Several youth expressed a desire to continue working within their communities, taking on future leadership roles. The relationships the youth built with Elders, researchers and community partners have made impacts on their future goals, which will in turn have positive impacts for their communities.
Bibliography


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Appendices
Appendix A: Interview Guide- Interview 1

Introduction

1. How are you doing today?
2. How was your day yesterday? How did you find everything?
3. What did you do this morning?
4. Tell me a bit about yourself. What do you do in your spare time?
5. How did you find the whole traveling process and flying on the plane?
6. Before we get right into the interview, is there anything you want to ask about or anything you’re unsure about?

Introductory Summer School and Internship

1. Is there anything in particular that you’re looking forward to this summer?
2. Is there anything you’re kind of nervous about?
3. Tell me about your impressions of campus and London.
4. Now that you have this intern position and you know a little bit more about the major goals of the research, how do you feel you’ll be able to contribute to the whole process?
5. What do you think is the best way to go about recruiting Elders for this project?
6. Do you think this project will be important for your community?
7. What do you think the next step should be after the summer school?
8. What do you want to see come out of the project?

Health, Environment and Traditional Activities

1. We know that health can be thought of in lots of different ways. Can you tell me what health means to you?
2. What does it mean to you to be healthy?
3. What kinds of things do you think influence health?
4. Can you describe the health in your community?

5. Do you notice any issues or health problems that affect your community?

6. We know that different environments, like physical and social environments and the conditions you live in can affect your health. Do you think the land affects your health?

7. Can you think of any potential threat(s) to your community’s health?

8. We talked about some of the changes with the gold mine and lots of other changes have happened in the North like the trans-Canada highway was routed through a lot of traditional territories of different First Nations. Have you noticed any changes to the land within your community?

9. What are some of the traditional activities that take place in your community?

10. What are some traditional activities that take place on the land?

11. Have you participated in any traditional activities on the land?

12. Can you think of any ways to maintain or improve your health?

13. What are some ways your community can maintain or improve its health?

14. Are there any other ways or things that you want to do yourself to maintain or improve health that you’re not already doing?

15. Do you think there are any things that are preventing you or acting like a barrier to improving or maintaining your health right now?

16. That’s all the questions I have for today, thank you for your time and thank you for participating in the interview. Is there anything you want to add or anything we didn’t cover?
Appendix B: Interview Guide- Interview 2

Introduction

1. How was your summer?

Internship

1. Was there anything specific that you did or didn’t like about this summer?
2. What were some of your positive experiences during the summer?
3. What were some of your negative experiences during the summer?
4. What was it like interviewing the Elders?
5. What contribution do you think you made this summer to the broader project?
6. Has this experience influenced what you want to do in the future?
7. Did you learn any traditional knowledge from your Elders this summer and can you tell me a bit about that?
8. Do you think this project will be significant for your community?
9. What would you like to see come out of this project?
10. How have you grown as an individual this summer?
11. Do you think there is anything we could do to make the internships more effective?

Health, Environment and Traditional Activities

1. One of the objectives of the project was to see how or if your knowledge has changed over the summer. Some of the following questions you may have already heard or already answered. I just want you to answer with whatever comes to mind. What does health mean to you?
2. Do you think your concept of health has changed since talking to your Elders?
3. What are some things that you think influence your health?
4. Do you think people in your community are healthy?
5. Are there any health issues that you learned about this summer that you didn’t know about before?

6. As an Anishinabe youth, what does the land mean to you?

7. What are some things you would like to start doing on the land?

8. Have you learned about any changes to the land over time?

9. Do you think the land affects your health?

10. Did you learn about any traditional activities that take place on the land?

11. What are some things that you think you can do to improve or maintain health?

12. What is your vision for your community?

13. That’s all the questions I have for today, thank you for your time and thank you for participating in the interview. Is there anything you would like to add or anything we didn’t cover?
Appendix C: The University of Western Ontario Ethics Approval

Use of Human Participants - Ethics Approval Notice

Principal Investigator: Chantelle Richmond
Review Number: 125113
Review Level: Delegated
Approved Local Adult Participants: 36
Approved Local Minor Participants: 0
Protocol Title: Anishinabe narratives about health and environment: A participatory approach
knowledge and promoting positive experiences for youth
Department & Institution: Geography, University of Western Ontario
Sponsor: Canadian Institutes of Health Research

Ethics Approval Date: June 08, 2011 Expiry Date: August 31, 2012

Documents Reviewed & Approved & Documents Received for Information:

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Addition of Co-Investigator</td>
<td>Revised study team, Jordan Tobias, Kassandra Kullman and Amanda Lino be added to the study team.</td>
</tr>
</tbody>
</table>

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Re Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research involving Human Subjects (T-CPS) and the applicable laws and regulations of Ontario has granted approval to the above amendment(s) on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable receipt of periodic reports for monitoring and reporting information. If you require an updated approval notice, you must request it using the UWO Updated Approval Request Form.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presenined to the

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health Services under the IRB registration number IRB 00000941.

Ethics Officer to Contact for Further Information:

Gwene Kelly
Office of Research Ethics

The University of Western Ontario
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P: 519-661-3036 • F: 519-850-2466 • ethics@uwo.ca • www.uwo.ca/research/ethics

This is an official document. Please retain the original in your files.
Appendix D: Curriculum Vitae

Name: Kassandra C. Kulmann

Post-Secondary Education and Degrees:
- The University of Western Ontario, London, Ontario, Canada
  2005-2009 Hons. B.A.
- The University of Western Ontario, London, Ontario, Canada
  2009-2010 B.Ed.
- The University of Western Ontario, London, Ontario, Canada
  2010-2012 M.A.

Honours and Awards:
- The University of Western Ontario Entrance Scholarship
  2005
- The University of Western Ontario Grad Pact Award
  2009
- The University of Western Ontario Gold Medal for Major in Geography and Major in History
  2009
- The University of Western Ontario OSOTF 2 Award
  2009
- The University of Western Ontario Edwin A. Goodman Award in History
  2009
- The University of Western Ontario Western Graduate Research Scholarship
  2010-2012
- Indigenous Health Research Development Program (IHRDP) Master’s Scholarship
  2011
**Related Work Experience:**

Teaching Assistant
The University of Western Ontario
2010-2012

**Publications:**


**Presentations:**

Association of American Geographers Annual Meeting (New York City, New York, United States)
Master’s Research
February 2012

Schulich School of Medicine and Dentistry World Tuberculosis Day, The University of Western Ontario (London, Ontario, Canada)
Tuberculosis in the Canadian Inuit Population and the Social Determinants of Health
March 2012

National Gathering of Graduate Students, Indigenous Health Research Development Program (IHRDP) (Montreal, Quebec, Canada)
Master’s Research
June 2012