An Examination of the Association of Métis Youth's Recreation Participation and Academic Retention

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Aboriginal Peoples are an underrepresented population in the Canadian work force. This is partially due to barriers to educational attainment among Aboriginal Peoples. One way to enhance educational attainment is through recreation and leisure participation. The purpose of this study was to develop an understanding of how recreation and leisure participation is associated with academic retention among Métis youth. It is a secondary analysis of the 2006 Aboriginal Peoples Survey, Métis supplement. Using a sub-sample of 27,270 Métis youth (ages 15 – 17) who had not completed a high school diploma, high school retention was assessed and compared by participation in physical, sedentary, civic engagement, and traditional leisure activities.

Older Métis youth, those living in urban areas, and those who had moved more times in the previous five years, were more likely to be not currently attending school. However, when examining leisure activities, those who participated in more physical leisure activities and were members of a club were more likely to be attending school. The aim of this study was to determine if recreation and leisure activities are associated with Métis youth academic retention. The results showed that some forms of leisure participation were associated with staying in school, and it is recommended that policies should be put in place to encourage recreation and leisure participation as it is associated with academic retention, which may enhance Métis youths' employment prospects.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Aboriginal Peoples[1] (First Nation, Métis, and Inuit) are a unique population group within Canada who face challenges due to employment and education. They experience higher unemployment rates, lower education levels, and lower income levels; all of which contribute to lower socio-economic status (Hull, 2005). The Aboriginal Peoples population is increasing and represents a growing portion of Canada's labour force (Luffman & Sussman, 2007, Preston, 2008). It has grown six times (45%) faster than the rest of the Canadian population between 1996 and 2006 (Preston, 2008). In 2005, Statistics Canada predicted that by the year 2017, Aboriginal Peoples will represent 3.4% of the Canadian working-age population (Preston, 2008). However, Holmes 2006 (in Preston, 2008) suggests that the Aboriginal population is not represented in the labour force to its fullest potential.

In 2001 only 50% of Aboriginal Peoples between the ages of 15 and 64, without a high school diploma were employed, compared with 80% of those who did have a post-secondary education (Hull, 2008). Unemployment has a negative impact on the quality of life for Aboriginal youth and their broader communities (Barsh, 1994; Richmond, 2007). The education and employment levels of Aboriginal youth are lower when compared to the Canadian population (Hull, 2000; Hull 2008; Wilk, White & Guimond, 2009). Drawing on 2001 Canadian Census data, 34% of working-age Aboriginal People had less than a high school education compared with 15% in the Canadian population (Hull, 2008). When

[1] **Aboriginal Peoples** – those who report being a status Indian under the *Indian Act,* member of an Indian Band or First Nation, or self-identify or report an ancestry with one of the following groups: North American Indian, Métis, or Inuit (Statistics Canada, 2009).

specifically examining Métis[2], almost 35% of them have no degree, certificate or diploma, compared to 23% in the Canadian population (Wilk et al., 2009).

A significant amount of research has shown that involvement in recreation activities is beneficial to youth development, and is one way for academic retention and success (Bartko & Eccles, 2003; Lisella & Serwatka, 1996; McNeal, 1995). Participation in structured recreation activities for youth can bring a sense of belonging to peers and provide opportunities to strengthen one's skills (Bartko & Eccles, 2003). Being involved allows youth to be exposed to the norms and values of others and helps integrate them into society (Fredricks & Eccles, 2006). As well, there are psychological and behavioural benefits, such as increasing self-esteem while lowering depression levels (Eccles & Barber, 1999). Organized activities provide opportunities to develop relationships with peers, improve self-competency, and increase exposure to positive role models (Bartko & Eccles, 2003; Fredricks & Eccles, 2006). The environments in which organized activities take place help youth develop socially and emotionally, as well as help in developing their sense of civic duty (Eccles & Gootman, 2002; Mahoney, Larson, Eccles & Lord, 2005). Research (Bartko & Eccles, 2003; Fredricks & Eccles, 2006; Lisella & Serwatka, 1996; Mahoney & Cairns, 1997; McNeal, 1995) has also shown that participation in structured activities assists in the education of youth. Mahoney, Cairn and Farmer (2003) used the Carolina Longitudinal Study and found that the interpersonal skills developed through participation in youth programs helped create an interest in developing aspirations for future educational attainment. Other authors have written that participating in structured recreation activities will decrease the likelihood of dropping out of high school (Bartko & Eccles, 2003; Fredricks & Eccles, 2006; Mahoney & Cairns, 1997).

[2] **Métis –** According to Frideres & Gadacz (2007), Métis are distinct from Indian and Inuit, but are an Aboriginal People; and they are descendants from the Métis who came from Western Canada.

Social capital is one explanation for why recreation and leisure involvement is positively associated with education levels. One way of building social capital levels is through increasing one's social cohesion and trust, in particular, by participating in extracurricular activities (Putnam, 2000). Overall, recreation and leisure participation is one way of increasing one's academic retention and therefore will help increase the chances of employment prospects.

Most research on recreation, youth development and education has concentrated on white, suburban, middle-class youth and has ignored minority youth. There has been little research which specifically examines recreation and leisure participation by Aboriginal Peoples and its impact on them.

1.1 Study Rationale

There has been much research on the effects of recreation participation on academic status, and some research which specifically examines populations which are at risk of not completing high school. However, there is a lack of research which specifically examines Aboriginal Peoples. Although Aboriginal Peoples have the same developmental needs as youth in general, in several respects, they are a unique population with a unique history. While there has been research on Aboriginal Peoples and academic status, there has been very little on how recreation participation may be related to this. Participation in recreation activities may be an important resource for furthering the academic status of Aboriginal Peoples. While this research only studies the Métis and not all Aboriginal Peoples, the suggestions and recommendations from the findings may be able to be applied to all Aboriginal Peoples. Though each Aboriginal group is unique in their own way, the findings on the Métis may be the first step to further research on Aboriginal Peoples. Therefore, this research will be a beneficial addition to the current literature and will fill a gap in the literature between the

academic status of Aboriginal Peoples and recreation participation. This study also stems from the researcher's previous work experience with Aboriginal Peoples.[3]

1.2 Purpose Statement

The purpose of this research study is to examine the relationship between Métis youth's recreation participation and their academic success by analyzing the Aboriginal Peoples Survey (APS) 2006.

1.3 Research Objectives

The goal of this research is to further explore the educational attainment of Métis youth and the potential role of recreation participation plays in academic success. The research study describes the participation in recreation and leisure activities and the academic status of Métis youth. It also explores the relationship between recreation and leisure participation and academic status among Métis youth, with the hypothesis that those participating in recreation and leisure activities have a higher academic status. Finally, recommendations for policies concerning Métis youth will be made.

1.4 Research Questions

1. Does participation in traditional leisure activities among Métis youth increase enrolment in academic studies?

2. Does civic engagement among Métis youth increase enrolment in academic studies?

3. Does participation in physical and non-physical leisure activities among Métis youth increase enrolment in academic studies?

[3] The researcher worked on a northern Quebec Cree reserve, Wemindji, where she worked with children and youth in various extracurricular programs. She saw the positive influences the programs had on the youth who participated in them. In addition, she saw how local Cree businesses struggled to find employees due to the low high school completion rate in the community. However, please note that this study involves off-reserve participants only, and are not Cree, and therefore factors and circumstances may be different than the ones the researcher observed.

Chapter 2: Literature Review

A review of the literature on Aboriginal Peoples reveals they represent a significant portion of the potential working population (Luffman & Sussman, 2007), as there is a potential shortage in the Canadian labour force due to the population and labour force ageing. Aboriginal employees are a potential source of skilled workers during this period of change in the labour market (Luffman & Sussman, 2007). However, research shows that Aboriginal Peoples have high unemployment rates and low education levels compared to the Canadian population (Hull, 2005). The high school completion rate of Aboriginal Peoples is lower than the rest of the Canadian population, and increasingly a high school diploma is required for basic employment prospects (Preston, 2008). One way of encouraging academic retention can be through recreation and leisure participation. Research has suggested that participation in activities such as physical and sedentary leisure or civic engagement may enhance the likelihood of academic attainment (Bartko & Eccles, 2003; Mahoney & Cairns, 1997; McNeal, 1995).

This chapter is divided into two sections. Section One focuses on Aboriginal Peoples in general and Métis in particular. It discusses their employment levels, history, education levels, and factors which affect their education.

The second section focuses on the role recreation participation plays in academic success and retention. There is a gap in the literature because there has been no research that specifically examines Aboriginal Peoples and the relationship between their recreation participation and academic success. Current literature only discusses the general population, and includes research on youth at risk of dropping out of high school as well as other marginalized populations.

2.1 Aboriginal Peoples

Rates of employment among Aboriginal Peoples are lower than the general population in Canada. Their history of colonization and residential schools are potential root causes. Population growth, geographical location, family structure and health are additional factors important to education attainment, which in turn is important in obtaining employment.

2.1.1 Workforce

The employment levels of Aboriginal Peoples and Métis are discussed below. These groups are important stakeholders for the federal government as it tries to increase the number of people in the labour force.

There may be a shortage in the Canadian labour force (due to low birth rates and the aging population), and it is a concern for the government because it will have a negative impact on the economy (Hull, 2008). In response to the problem, there has been a focus on retaining older adults and drawing on immigrant workers with little attention to the growing Aboriginal population as potential workers (Hull, 2008). Though the growing Aboriginal population may help offset part of the economic, they have lower rates of labour force participation compared to the general population in Canada. This has been attributed, in part, to geographic location and the levels of education attained (Hull, 2008), which will be discussed later.

Even more than the general population, within the Aboriginal population, education is strongly linked to employment (Nicholson & MacMillian, 1986; Preston, 2008). Maxim and White (2006) found that Aboriginal Peoples receive a greater return from education compared to the rest of Canada. Statistics Canada found from the 2001 Census that Aboriginal Peoples who had no high school diploma, had a 36% employment rate, while non-Aboriginal populations without a high school diploma had a 41% employment rate (Luffman & Sussman,

2007). For those with a university degree, the 2001 Canadian Census showed Aboriginal Peoples had an 84% employment rate, while non-Aboriginal populations had a 77% employment rate (Luffman & Sussman, 2007). Education plays a key role in Aboriginal Peoples meeting the requirements of the labour market (Tait, 1999), as it has become more difficult to find employment if one does not have a diploma or degree from a high school, college or university (Luffman & Sussman, 2007; O'Donnell & Tait, 2004; Tait, 1999; Turcotte & Zhao, 2004).

The Aboriginal population represents a small portion of the entire Canadian labour force but they are a large proportion of the labour forces in specific provinces (Hull, 2008).In 2006, the provinces with the highest percentage of Aboriginal Peoples were Manitoba and Saskatchewan (Cloutier et al., 2008). It is projected that by the year 2026, the Aboriginal population will represent 28% of the labour force in Saskatchewan and 8% in Alberta (Hull, 2008). Western provinces will be heavily dependent upon the Aboriginal communities, which in turn puts pressure on the employment and educational success of Aboriginal Peoples (Holmes, 2006).

2.1.1.1 Métis Workforce

Nationally, the Métis population has higher unemployment rates than the non-Aboriginal population. In 2006, Métis adults aged 25 to 54 (the core working age) had unemployment rates that were higher (8.4%) than those in the non-Aboriginal population (5.2%), (Gionet, 2009). For employed Métis, the employment rates for the core working age were lower (74.6%) than that of the non-Aboriginal population (81.6%) (Gionet, 2009). However, Métis incomes are lower than the non-Aboriginal population. In 2005, the Métis had a median income of $5,000 less than the non-Aboriginal population ($25,955) (Gionet, 2009).

2.1.2 Aboriginal Peoples' History

The colonization of Aboriginal Peoples and the residential school system are some of the factors contributing to Aboriginal Peoples' high unemployment levels. This next section discusses their history, which includes: the colonization of Canada by Europeans, the Day School Period, the Residential School Period, and the present day context. Also, there is a discussion of the history of the Métis people and their education. Key historical events that have defined Aboriginal Peoples have been highlighted as they relate to the research project. Events omitted have not been intentionally done so to devalue the event.

In the early 1600s, the French Jesuits settled in the Quebec area in what became one of the first missionary settlements, Sillery habitation. These Jesuits were missionaries to Aboriginal Peoples because they wanted to teach them to become self-sufficient farmers, to accustom them to the French language and culture and to teach them Christian education (White & Peters, 2009). When the British colonizers arrived, they used Aboriginal Peoples as military and fur trade partners in the War of 1812 (White & Peters, 2009). It was not until the 1830's that the British became interested in the education of Aboriginal Peoples and started building schools for them. The colonial government supported the schools financially while the missionary organizations ran them (White & Peters, 2009).

The *British North American Act* of 1867 marked the beginning of the Day School Period. At that time, Indian Affairs fell under the responsibility of the federal government. Day schools that served only those who lived on that reserve were federally controlled. These schools served both Aboriginal and non-Aboriginal children (e.g., children of teachers) (Frideres & Gadacz, 2007). These schools were not as effective as anticipated in assimilating Aboriginal Peoples (Bazylak, 2002; White & Peters, 2009), and therefore the government studied the United States' residential school system for parallels that would suit the Canadian

context (Chartrand, Logan & Daniels, 2006). In all this, even though Indians Affairs was the government's responsibility, the missionaries were still the actual education providers to Aboriginal Peoples. Note that during this period the government did not financially support the attendance of Métis students in the schools (White & Peters, 2009).

In the 1880s, the federal government adapted the model of the education system observed in the United States and established residential and industrial schools throughout Canada (Bazylak, 2002). The schools were still operated by missionary organizations, as both they and the federal government strived to assimilate Aboriginal Peoples (Chartrand et al., 2006). The missionaries were more concerned with converting the students to Christianity than in teaching them practical skills and knowledge. They viewed the Aboriginal language, beliefs and traditions as "heathen" and wanted to get rid of them (Fuchs, 1970 as in Frideres & Gadacz, 2007; Richmond & Ross, 2009). These residential schools were usually located in rural areas, limiting contact between children and their parents, and therefore minimized parental influence (Frideres & Gadacz, 2007).

The 1890s was an important time for the Métis as those who had signed a treaty earlier with the government were then requested to "take scrip." This would remove them and their descendants from the Indian roll (Frideres & Gadacz, 2007). In 1893, the government cut back funds for the schools, which applied more pressure on the missionary organizations. School conditions became worse due to the funding cuts and fewer Aboriginal Peoples wanted to attend the residential schools (White & Peters, 2009). In 1894, the *Indian Act* (originally created in 1876), was amended and it became mandatory for all Aboriginal children over the age of six to attend a day, boarding or industrial school for 10 months of the year (Grant, 1996 as in White & Peters, 2009).

Eventually, health and safety became a concern at the residential schools. There were high tuberculosis and mortality rates (White & Peters, 2009). In 1907, a report stated that half of the students did not benefit from the education (White & Peters, 2009). In order to cut down on costs, the students were used for manual labour. This was considered part of their "practical instruction" (White & Peters, 2009). In 1910, the schools changed their focus from integration to segregation by teaching them how to live on the reserves rather than learning the skills to live in a "white man's world" (White & Peters, 2009).

Aboriginal students in residential schools received minimal education. In the 1930s, only 3% passed grade six and 75% were in grades one through three (White & Peters, 2009). Later it became known that in addition to the poor education, it was also a time of emotional, physical and sexual abuse for many students (Chartrand et al., 2006; White & Peters, 2009). Physical abuse was prevalent, but was not stopped. The children were forced to be ashamed of their culture and to live in unsanitary conditions (White & Peters, 2009). It was not until 1946 that the federal government decided to rethink their education policy.

In 1951, the *Indian Act* was revised and Aboriginal students were allowed to attend provincial institutions. By 1960, 25% of Aboriginal students attended provincial schools. However, problems still persisted. The dropout rates for Aboriginal students were very high compared to non-Aboriginal, 94% and 12% respectively (White & Peters, 2009).

In 1967, the Hawthorn report was presented to the federal government. It strongly criticized the residential school system and recommended continuing to integrate Aboriginal students into the provincial schools (White & Peters, 2009). In 1969 the federal government finally cut their ties with the missionary organizations and all Aboriginal education was secularized (White &Peters, 2009).

In 1972, the federal government accepted the *Indian Control of Indian Education* paper as its policy statement for Aboriginal Peoples. They were permitted to self-govern their own education (White & Peters, 2009). The education of Aboriginal Peoples was no longer under the control of missionary organizations. In 2006, all parties involved in the *Indian Residential Schools Settlement Agreement* approved the agreement and former residential school students were provided monetary compensation (White & Peters, 2009). In 2008, the federal government gave a formal apology for their role in creating and operating the residential school system (White & Peters, 2009). However, there has continued to be a strain in the relationship between the federal government and Aboriginal Peoples. The agreements made have not changed the situation for current Aboriginal youth. Pelletier (1993, in Bazylak, 2002) supports this by stating there is still a lack of cultural relevance in today's education curriculum; plus Indian and Métis students are over represented in school dropout rates and age-grade deceleration. Though healing has begun, current Aboriginal youth still experience problems in the education system (Bazylak, 2002).

2.1.2.1 Who are the Métis?

The Métis are a constitutionally recognized Aboriginal group and are a distinct people and culture. They have a unique history compared to First Nations and Inuit peoples. As the current research focuses on Métis youth, the history of Métis peoples and their residential school experiences is discussed as well.

The term Métis refers to the "in-between people" who are neither Indian nor non-Indian (Frideres & Gadacz, 2007). In the French language, it is used as an adjective to mean "mixed." The Métis originated in the 1760s with children born to the intermarriages of the French fur traders and Aboriginal women in the Great Lakes regions and the intermarriages of the English and Scottish traders and Cree women in the Hudson's Bay Company territory

(Rupert's Land) (Brown, 1993). The Métis, as a nation, peaked in the late 1860s when the Red River Métis leader, Louis Riel, challenged the Canadian expansion into Rupert's Land which eventually brought Manitoba into the Canadian Confederation (Brown, 1993). However, it was not until the 1870 *Manitoba Act* that the government recognized the Métis people for the first time (Frideres & Gadacz, 2007).

During the late 1800s the federal government let Aboriginal Peoples decide if they wanted to be treated as Indians or non-Indians through self-identification (Frideres & Gadacz, 2007). The federal government gave Métis the choice of taking a treaty as an Indian or taking scrip (land or money) as a Métis. If they took scrip, they and their families would no longer be considered Indian (Frideres & Gadacz, 2007). However, soon after (in the 1890s), the federal government requested all Métis who chose to "take treaty" to then "take scrip" (Frideres & Gadacz, 2007).

Today, the Métis and government relationship varies from province to province. Though there is some federal funding for Métis, it is mostly a provincial responsibility (Frideres & Gadacz, 2007).

2.1.2.2 Métis and the Residential School System

In 1843, the Grey Nuns, a group of Catholic nuns, were the first to set up mission schools among the Métis communities in Red River (Chartrand et al., 2006). As with other mission schools, the missionaries controlled the education and curriculum and no parental input was allowed. The schools were meant to get rid of the Métis culture by teaching them the French Canadian language instead of their Michif language (Chartrand et al., 2006). Just like their Indian relatives, the Métis were also banned from practicing their language, culture and religious beliefs (Chartrand et al., 2006). However, the experiences of the Métis youth varied and depended upon their self-identification. Those who self-identified more with their

European family were negatively affected less by the residential schools than those who self-identified more with their Aboriginal family (Chartrand et al., 2006).

Though Métis children did not have Indian status, some still attended residential schools. They were often "drafted" by the schools so that the schools could continue receiving government funds because they claimed to have met the school quota (Chartrand et al., 2006). Though the government's official policy was to not allow Métis into residential schools because they were "civilized" enough, the missionaries did not always follow the policy and secretly admitted Métis children because they did not have enough resources (Chartrand et al., 2006). For the Métis children who attended the residential schools, sometimes their experiences were different than those who had Indian status in terms of the quality of education they received (Chartrand et al., 2006). However, Métis children did not receive preferential treatment in schools that had a culture of abuse (Chartrand et al., 2006).

2.1.3 Aboriginal Peoples' Education Levels

Aboriginal Peoples' history has also affected their education levels as. The memories of the residential schools are still with them and passed down through the generations. Discussed next are the differences in education levels from the non-Aboriginal population, among Aboriginal groups and the Métis education levels.

Aboriginal Peoples have a lower education attainment level compared to the non-Aboriginal population (Adelson, 2005; Hull, 2005; Luffman & Sussman, 2007; Maxim & White, 2006). Drawing on the 2001 Canadian Census data, Hull (2008) found that while 65% of Canadian youth (ages 15-29) had a high school certificate or higher, only 40% of Aboriginal youth were attaining the same level. When examining data between 2007 and 2010, Gilmore (2010) reported that the average dropout rate among 20 to 24 year olds for

Métis, Inuit, and First Nations people living off-reserve, was 22.6%, whereas it was 8.5% for non-Aboriginal people.

Though Aboriginal Peoples have lower levels of education, the statistics have been improving in recent years. From 2001 to 2005, the number of high school drop outs decreased from 41% to 31% (Luffman & Sussman, 2007). This decrease may be due to several factors. One may be that since Statistics Canada has changed the definition of Aboriginal Peoples to self-identifying as an Aboriginal person, those who have recently self-identified as being an Aboriginal person may well educated. Also, as more research is being conducted in this area, the education levels for Aboriginal Peoples are becoming a pressing matter, which in turn may influence both Canadian and Aboriginal government policies (Kroes, 2008). Although there are an increasing number of high school graduates among Aboriginal Peoples, when compared to the past, there is still a significant difference compared to non-Aboriginals (Luffman & Sussman, 2007).

2.1.3.1 Education Differences among Aboriginal Peoples

There is also a high school completion difference among Aboriginal Peoples. Those who live off-reserve have a higher percentage of high school graduates than those who live on reserves (Barsh, 1994; Luffman & Sussman, 2007). The Métis and Inuit youth have higher education levels than First Nations youth (Tait, 1999). In fact, Métis held the highest level of education among Aboriginal Peoples in 1996. Tait (1999) described that some of the reasons for this were that the Métis are less likely to live in Northern Canada, and therefore are not in remote communities. In addition, they have a longer history of formal education and are more familiar with educational institutions. Wilk et al., (2009) discuss that the reason may also include the fact that the Métis do not have their own schooling system and use the public and private school systems. And therefore implies that the education institutions provided by

Aboriginal Peoples do not provide as good of an education as the institutions operated by the provincial governments.

2.1.3.2 Métis Education Levels

As previously mentioned, the Métis hold the highest levels of education among Aboriginal Peoples. When examining the Labour Force Survey, Gilmore (2010), reported that between 2007 and 2010, those aged 20 to 24 and were off-reserve First Nations had a high school dropout rate of 25.8%, whereas the Métis had only 18.9%. Though the Métis have higher levels of education than other Aboriginal Peoples, it is still lower when compared to non-Aboriginal populations. From the 2006 Canadian Census, only 65% of Métis had a high school diploma, an equivalent, or a higher degree, compared to 77% of the non-Aboriginal population (Wilk et al., 2009). In the same survey, 35% of Métis did not have a degree, certificate or diploma, compared to only 23% among non-Aboriginals. The biggest gap though was those who had a post-secondary certificate or degree. Only 26% of Métis completed some form of post-secondary education, compared to 51% of the non-Aboriginal population. There is a gap between Métis people and the non-Aboriginal population, and it has continued to widen over the past years. Wilk et al., (2009) reported that the gap between Métis and non-Aboriginals in obtaining a university certificate or degree has increased from 1996 (9.6%) to 2001 (10.5%) and also to 2006 (11.5%).

Among the Métis population, women tend to have a higher level of educational attainment than men (Wilk et al., 2009). Gionet (2009) found from the 2006 Canadian Census that 51% of Métis women were likely to have a postsecondary education, compared to 48% of the men.

Wilk et al., (2009) also found that Saskatchewan had the highest percentage (38.93%) of Métis with no degree, certificate or diploma. When analyzing the 2006 Canadian Census,

they found that almost 40% of rural Métis, 35% of Métis living in urban non-CMA[4]'s and just over 30% of Métis living in an urban CMA[5] did not have a degree, certificate or a diploma. Therefore, those living in CMAs had the highest levels of education. The researchers reported that living in a larger community is positively correlated to having a high school diploma or any form of post-secondary education (Wilk et al., 2009). Therefore, geographical location is related to education attainment.

2.1.3.3 Reasons for Low Education Levels

There are several reasons for the low education levels. In the past, education has not been a positive experience for Aboriginal Peoples and therefore their families do not always place value in it. Aman (2009) reviewed that previous researchers have suggested high school dropouts are due to addictions (drug and alcohol), family, personal stresses, literacy skills, learning in an environment that is not culturally appropriate, pregnancy, lack of parental support, transportation problems, and a disconnection to school. Also, Beavon, Wingert & White (2009), discuss the literature of why Aboriginal youth have negative attitudes toward education. The authors said it is a result of the residential school era, a lacking economy in the community, geographical distance from education institutions, a disconnection between traditional culture and the education curriculum and teaching approach, and discrimination within the education system.

Racism also plays a role in Aboriginal youth having negative attitudes towards education and dropping out of school. Qualitative research (Fisher & Campbell, 2002), was conducted in northern Alberta about Aboriginal students' educational experience. The researchers found that some students felt out of place because of their race. And also, parents

[4] non-census metropolitan area; less than 100,000

[5] census metropolitan area; more than 100,000

reported that racism discouraged their children in school. While other research (Silver, Mallett, Greene, & Simard, 2002) discusses that racism exists within the education institution and therefore the education system needs to change. For example, some schools which Aboriginal students attend have few Aboriginal teachers and little Aboriginal content in the curriculum (Silver et al., 2002). Plevitz (2007) also discuss how systemic racism is hidden in the Australian education system and therefore is a barrier for Aboriginal students succeeding in school. As the education system is built for the dominant group, Aboriginal students have to conform to the norms of the system and therefore are at a disadvantage (Plevitz, 2007). These can all be barriers to Aboriginal youth staying in school.

Other researchers have said the low education levels are due to the lack of proficiency in the English language (Baydala et al., 2009), barriers to success in formal education (crowded housing conditions, unemployment and poverty) (Kroes, 2008), and the less noticeable barriers (low self-esteem, high mobility rates, frequent school transfers, and discrimination) (Kroes, 2008). Preston (2008) says another reason for the high percentage of incomplete high school diplomas among Aboriginal Peoples is that the teaching practices do not integrate Aboriginal cultural beliefs, values and practices into the curriculum. Preston (2008), encourages teaching programs to invest time and effort into creatively including Aboriginal cultural beliefs, values and practices into the teaching curriculum because this will help improve the education levels of Aboriginal Peoples.

In addition, there are also demographic factors which attribute to Métis education. They include population size, geographic location, family structure, cultural influence, and health.

The first factor affecting the education levels of Métis youth is the growing population size. Out of the 1,172,790 people who reported Aboriginal identity on the 2006 Canadian

Census, 389,785 self-identified as a Métis person (Cloutier et al., 2008). The Métis are the fastest growing Aboriginal group (from 1996-2006, the Métis population grew 91%, First Nations 29%, and Inuit 26% (Gionet, 2009)) and accounted for 33% of all Aboriginal Peoples (Cloutier et al., 2008). In general, the Aboriginal Peoples population grew 45% between 1996 and 2006; which is almost six times the amount of non-Aboriginal growth (which was 8%), (Preston, 2008).

There are many reasons for the population growth among Aboriginal Peoples. Guimond (2003) recognizes that it may be due to a natural increase (e.g. high birth rates) or ethnic mobility. Ethnic mobility reflects the changes in their ethnic affiliation and how they report their ethnicity in the censuses (Guimond, 2003; Wilk et al., 2009). With the increase of ethnically mixed children, they are able to choose their affiliation and self-identify with an ethnic group (Wilk et al., 2009). This self-identification may change over time, and will impact various population measurements. In particular, the Métis are affected by ethnic mobility as they have mixed roots. Therefore, future Métis population size can be attributed to one's choice of ethnic affiliation.

The second factor is that the Métis have a young population. The 2006 Canadian Census found that the Métis had a median age of 30 years and is younger than the non-Aboriginal population with a median age of 40 years (Gionet, 2009). The 2006 Aboriginal Peoples Survey found that those aged 14 and under represented 25% of the Métis population, compared to 17% in the non-Aboriginal population (Cloutier et al., 2008).

The growth in population size and the young population means that more Métis youth (and all Aboriginal Peoples) need to be provided with educational opportunities. This puts an emphasis on the quality of education which is being provided. By investing in the large number of Métis children and youth, one is investing in society as they will become some of

the future leaders (Preston, 2008). Aboriginal youth have the potential to bring new skills and ideas to their community as they replace the retiring workforce (Preston, 2008).

The third factor is that the majority of Métis live in western Canada. Of the entire Métis population (n=389,785), 22% (n=85,500) reported living in Alberta, 19% (n=73,605) in Ontario, 18% (n=71,805) in Manitoba, 15% (n=59,445) in British Columbia and 12% (n=48,115) in Saskatchewan (Cloutier et al., 2008).

Not only do the majority of Métis live in western Canada, but they are also reported as being the most urbanized Aboriginal Peoples group (Gionet, 2009). The 2006 Canadian Census reported that 69% of Métis persons lived in an urban area – a large city, census metropolitan area or smaller urban centre (Cloutier et al., 2008).

A fourth factor affecting the education levels of Métis youth is their family structure. From the 2006 Canadian Census, 31% of Métis children lived with a lone parent (Gionet, 2009). Gionet (2009) also found that four out of ten Métis children, living in a city where Métis were a large proportion of the population (e.g., Winnipeg, Regina and Edmonton), lived with a lone parent.

The fifth factor is Aboriginal language. Overall, very few Métis speak an Aboriginal language. In 2006, the Canadian Census reported that only 4% of Métis knew an Aboriginal language (Gionet, 2009). Though this is a small percentage, approximately 50% feel it is important to continue learning and re-learning their Aboriginal language (Gionet, 2009).

Finally, health is another factor affecting educational levels. Aboriginal Peoples have poorer health levels than the rest of the Canadian population (MacMillan, MacMillan, Offord & Dingle, 1996; Tjepkema, 2002). Their level of health is comparable to health levels in developing countries (Royal Commission on Aboriginal Peoples, 1996). According to results from the 2006 Aboriginal Peoples Survey, more than half of Métis who are age 15 and over

reported being diagnosed with a chronic condition (Janz, Seto and Turner, 2009). Kirmayer, Simpson and Cargo (2003) stated that Aboriginal Peoples' incarceration rates are five to six times higher than the Canadian average. Also, 39% of adults reported violence within their family; 25% reported sexual abuse and 15% reported rape. According to Haas and Fosse (2008)'s study on the 1997 cohort from the National Longitudinal Survey of Youth, youth who experience poor health are less likely to complete the transition from high school to postsecondary.

2.1.4 A National Issue

The future of the Canadian economy is closely related to the growing population of Aboriginal Peoples. Although their youth population represents a large segment of the Canadian labour force, Aboriginal Peoples face barriers to employment opportunities due to the lower levels of academic attainment (Preston, 2008). Therefore, there is a need to enhance educational opportunities for Aboriginal Peoples (Preston, 2008). By increasing these opportunities, there will be greater potential for equalizing the social conditions and employment prospects among Aboriginal Peoples and non-Aboriginal (Preston, 2008; Hull, 2008).

Unemployment and low education levels can deter people from social and financial benefits (Preston, 2008). Obtaining higher academic levels can benefit Aboriginal Peoples' lives through social development, higher income and positive life choices (Holmes, 2006; Hull, 2008; Maxim & White, 2006; Preston, 2008).

2.2 Recreation

Recreation and leisure participation can be one solution for the government to increase the academic levels of Aboriginal Peoples. Research on recreation and leisure participation has shown many benefits, including positive youth development and academic success.

The word "recreation" can take on many meanings. It can be an organized or structured activity, which can have many characteristics such as adult supervision and building one's skill (Mahoney et al., 2005). The opposite of that would be unorganized or unstructured activities. Examples of this include watching television, spending time with peers, and listening to music (Mahoney et al., 2005). While these types of recreational activities are enjoyable, they are not demanding and therefore require less effort. Eccles and Barber (1999) note that it is usually the structured activities which are more beneficial to youth as they allow opportunities to develop social, physical and intellectual skills, contribute to one's community, belong to a valued group, gain support networks, and face challenges.

A significant amount of literature on youth and education discusses recreation participation in terms of extracurricular activities which are associated with schools, but do not discuss community activities. While the literature below focuses mostly on school associated extracurricular activities, it should be noted that the variables which measure recreation participation in the study are not associated with school.

2.2.1 The Benefits of Recreation

There are many benefits to participating in recreation and leisure. Research has shown that it benefits youth's overall development. It can bring a sense of belonging among peers and can provide opportunities to strengthen one's skills (Bartko & Eccles, 2003). It allows youth to be exposed to the norms and values of others, and can also play a role integrating them into society (Fredricks & Eccles, 2006). Relationships with peers and positive role models can assist in improving the youth's self-competency too (Bartko & Eccles, 2003; Fredricks & Eccles, 2006). There are also psychological and behavioural benefits such as increasing one's self-esteem while lowering one's depression levels (Eccles & Barber, 1999) which therefore can help lead to a psychologically healthier person (Bartko & Eccles, 2003).

However, youth who are not engaged in organized, structured activities, often have poorer functioning skills (Bartko & Eccles, 2003), are more likely to be delinquent (Eccles & Barber, 1999) and more likely to partake in substance use (Youniss, Yates, & Su, 1997) than those who do participate. To help avoid these things, organized activities are important contexts to be involved with (Mahoney et al., 2005; Eccles & Gootman, 2002).

2.2.2 Recreation Participation and Academic Success

A second benefit to recreation and leisure participation is academic success. Research has shown it can increase one's grade point average (Bartko & Eccles, 2003) and increase high school retention (McNeal, 1995). Most studies have done cross-sectional research on the effects of recreation participation in terms of academic success (either completion of high school or achieving higher grades). Therefore, most research is unclear whether it is actually the recreation participation which increases academic success or whether it is people who are already successful in academics who participate in recreation activities (Fredricks & Eccles, 2006; Mahoney & Cairns, 1997). However, Mahoney, Cairns, and Farmer, (2003) completed a longitudinal research study showing that the interpersonal skills developed through participation in youth programs helped young adults gain aspiration for attaining future education. Participation in recreational activities could also raise one's status at school and therefore make school more meaningful through their social life, especially if they have been unsuccessful in their academics (Mahoney & Cairns, 1997).

While there has been research showing that recreation participation assists in academic success, and even employment attainment and income (Bartko & Eccles, 2003), there are those who disagree. Lisella and Serwatka (1996) note that recreation activities takes away from time spent on academic programs and therefore lowers one's academic success.

Mahoney & Cairns (1997) discuss the benefits of recreation participation among students who do not have a strong commitment to school by stating it can provide opportunities for positive experiences in social networking at school, while also stimulating students' interests and goals. The authors continue to note that the positive benefits may decrease the school dropout rate and increase the student's connection to school.

2.2.2.1 Grade Point Average

There has been much research on the effects recreation participation has on academic success in terms of grades (e.g., grade point average). Bartko and Eccles (2003) showed that uninvolved students had low academic success and high behavioural problems. Marsh and Kleitman (2002) performed regression analyses on the 1988 National Education Longitudinal and found that among students who participated in recreation activities, there were beneficial effects on 12th grade and postsecondary grades. In general, participation in recreation activities are associated with higher grade point averages (Cooper, Valentine, Nye, & Lindsay, 1999; Lisella & Serwatka, 1996).

However, as noted above, there are some researchers who believe that participation in recreation decreases one's academic success. Cooper et al., (1999) make note of an inverted-U relationship between recreation activities and academic success. This shows that there will come a point when participation in recreation activities too much and one's academic success will begin to decrease. However, until they reach this peak of the inverted-U, their academic success will increase with the amount of time spent participating in recreation.

2.2.2.2 High School Retention

While academic success has been measured by one's grades, it has also been measured by whether or not one completes their high school diploma (McNeal, 1995; Mahoney & Cairns, 1997). Participation in structured recreation activities has shown that it will decrease

the likelihood of one dropping out of high school (Bartko & Eccles, 2003; Fredricks & Eccles, 2006; Mahoney & Cairns, 1997; McNeal, 1995). Although structured participation can include many activities, McNeal (1995), notes that participation in sports showed a significant effect in reducing one's likelihood of dropping out of high school. However, academic and vocational activity did not significantly reduce one's likelihood of dropping out.

2.2.3 Recreation Participation and Academic Success Among Marginalized Populations

Research has also shown academic benefits from recreation and leisure participation among marginalized populations. As Aboriginal Peoples are a marginalized group, it is important to examine how recreation and academics are associated with one another, especially as education is very important to marginalized populations.

2.2.3.1 Ethnic Minority Groups

While most of the research on recreation participation and its effects on education has been on studying the average, Caucasian, middle-class student, there has been little research on recreation participation and its effects on the education of ethnic minorities. Some of the research has shown that there are no significant differences between the dominant and minority students in terms of their academic success when studying recreation participation (Bartko & Eccles, 2006; Lisella & Serwatka, 1996; Mahoney & Cairns, 1997;). However, McNeal (1995) states that certain marginalized groups are more likely to drop out of high school. These groups include students with low academic skills, racial minorities and those from lower social-economic classes (McNeal, 1995). Therefore, programs should include a focus on ethnic minority groups to keep them in school as there is a difference in academic status between ethnic minorities and Caucasian students (Cooper et al., 1999).

Research has also shown that minority students who participate in structured recreation activities have a higher grade point average, than those who do not participate (Lisella & Serwatka, 1996).

2.2.3.2 Youth at-risk of Dropping out of School

Many studies (Lisella & Serwatka, 1996; Mahoney & Cairns, 1997; Peck et al., 2008) have shown that the impact of recreation participation among youth at risk of dropping out of school is crucial. Peck et al., (2008) explains that youth who are at-risk of dropping out of school permanently are those who have a history of educational failure, have low motivation for school, have feelings of distress, live in poverty, have parents with low education levels, attend schools that do not encompass ability and race, and are alienated at school from their peers. These factors affect academic achievement for youth, and therefore, recreation participation can have some potential benefits.

Mahoney and Cairns (1997) show that there was a large reduction in the number of students who dropped out of high school when they were more involved in structured recreation activities. Lisella and Serwatka (1996) had the same results when at-risk students participated in varsity sports or dance. Peck et al., (2008) found that when at-risk youth were participating in structured recreation activities more than once a week in the eleventh grade, they were more likely to graduate from high school and continue with postsecondary education. These studies show that structured recreation activities can help retain interest in school and change a youth's life for the better (Mahoney & Cairns, 1997).

2.2.3.3 Importance of Education

There is a consensus that recreation programs can assist marginalized populations in their academic success (Lisella & Serwatka, 1996; Mahoney & Cairns, 1997; Peck et al., 2008). However, there are many challenges marginalized populations experience that affect

youths' academic levels. At a personal level, challenges could include having a history of educational failure, low school motivation, and emotional distress (Peck et al., 2008). At a social level, challenges could include living in poverty, low education levels of parents, and school environments which do not encourage ability and race (Peck et al., 2008).

By participating in recreation programs and increasing their likelihood of academic status (whether by increasing their grades or by completing high school), youth will have more opportunities in the future (Peck et al., 2008). It has been shown that school and community recreation activities need to be restructured, so they may take into account the important role they play in academics (Lisella & Serwatka, 1996). It is a critical issue that the barriers to academic success be removed for marginalized people (Peck et al., 2008).

2.2.4 Social Capital as an Explanatory Factor

While there are several explanations to why recreation and leisure is associated with higher levels of academic attainment, one explanation is social capital. Discussed below is the definition of social capital, how it is important to education and how recreation and leisure participation can help build it. Also, the social capital levels of Aboriginal Peoples are discussed, in addition to discussing an initiative in British Columbia.

Warde, Tampubolon, and Savage (2005), discuss Putnam's (2000) idea about building social capital by stating that participation in recreational activities helps develop social identities and interactions. Those interactions can then benefit youth development, specifically in their academics (White, Spence & Maxim, 2005).

Mignone, Longclaws, O'Neil & Mustard (2002) defines social capital as a community that has a culture of trust, has inclusive and diverse networks, collective action and participation, and norms of reciprocity. Social capital can be assessed through the aspects of within group relations (bonding), ties between communities (bridging) and relations with

formal institutions (linkage) (Mignone et al., 2002). White et al., (2005), reiterate this definition by saying it is a network of social relations which have behaviours and norms that allow people to gain access to resources.

Social capital has been used in past studies (Furstenberg & Hughes, 1995; Mignone et al., 2002; White et al., 2005) to assess how it benefits an individual or a group and how it increases their available resources. White et al., (2005) state that social capital networks that are associated with school networks help assist in overall academic success. Their study showed that those with strong social networks had greater academic success and therefore social capital is important when promoting academic attainment (White et al., 2005).

Chataway (2002), states that a community is more productive when people are involved with multiple communities and have a higher level of trust. Chataway (2002) also comments that when people are meaningfully involved in group decision processes, it increases their social cohesion. In other words, being involved with others helps build trust and social cohesion, which are both components of social capital.

Some ways to become meaningfully involved are extracurricular activities; whether it is through civic engagement or recreation and leisure participation. Putnam (2000) discusses how a child's extracurricular participation affects their participation as an adult. Specifically, Putnam (2000), states that adult leisure participation is strongly predicted by one's participation during high school. Not only will extracurricular activities affect one's participation as an adult, it will also assist in their academic success. Putnam (2000) affirms this by saying that dropping out of college can be predicted by one's social networks and extracurricular activities.

In examining the social capital of Aboriginal Peoples, Chataway (2002) suggests that social cohesion, a component of social capital, is low in many Aboriginal communities and

may be due to the distrust that has grown from colonization. However, Aboriginal communities with high social capital, or a cohesive social system, are more successful economically and politically than those communities with low social capital (Chataway, 2002).

A case study discussed by White et al., (2005), reviews a 2001-2006 initiative in British Columbia, Canada (Cowichan Valley Aboriginal Education Improvement Agreement) that included Aboriginal culture in their education curriculum. The initiative was successful as there was an overall improvement in Aboriginal students' academics, including an increase in the number of diplomas received. The researchers expect that the high levels of development in the children and youth is due to the high level of social capital in that community.

By participating in recreational activities, a participant has the opportunity to increase their social networks and build trust. It can help facilitate bonding, bridging and linkages, which are all key components to building social capital. A recreational environment (whether sports, civic engagement, etcetera) allows for an increase of networks and relationships, which is important for positive youth development. This can be connected with staying in school and higher academic levels.

2.3 Summary

In conclusion, Aboriginal Peoples have lower rates of educational attainment compared to the general population (Hull, 2005). This situation has important economic implications at the provincial and national level as Aboriginal Peoples are a growing proportion of the labour force (Preston, 2008). Research has shown there are several benefits to participating in recreational activities, including school retention and achieving higher grades (Bartko & Eccles, 2003; McNeal, 1995). Social capital may be one explanation for why recreation participation increases academic success (Putnam, 2000).

Past researchers have strongly emphasized the importance of incorporating Aboriginal culture into policies and involving Aboriginal Peoples when doing research on their communities (Anderson, 2005). Therefore, this research study will be using and analyzing data from the Aboriginal Peoples Survey 2006, which was created by Statistics Canada alongside various key stakeholders in Aboriginal communities.

Chapter 3: Method

This chapter discusses the methods that were used to assess Métis youths' participation in recreational activities and the association to their academic levels. This study is a secondary analysis of the 2006 Aboriginal Peoples Survey (APS), which is a nationally representative survey that allows for cross-sectional examination of associations between Métis youths' participation in recreational activities, background characteristics, and high school retention. First, the methodological framework is reviewed, followed by a discussion of the APS, the sample of respondents, and method of data collection. Then the analysis plan is presented.

3.1 Method

The benefits of recreation participation have been well studied, in particular the benefits on one's academic levels. In previous studies (Lisella & Serwatka, 1996; Bartko & Eccles, 2003; McNeal, 1995) concerning academic status and recreation participation, the majority have been completed using quantitative methods and has measured the level of recreation participation and student's marks, grade completion or high school dropout rates.

Lisella and Serwatka (1996) conducted a secondary data analysis of minority youth using the National Education Longitudinal Study of American secondary-school students. Using data from the survey, they measured recreation participation by student's self-reported levels of participation in school sponsored activities and community-based extracurricular activities. Participation levels were measured by participating or not participating in each activity. Academic status was measured by student's self-reported scores on achievement tests in various academic subjects. Their study found that there were differences in academic status between minority students who do and do not participate in traditional extracurricular activities. In general, they found that students who participated, achieved higher on one or more of the achievement tests.

Bartko and Eccles (2003) researched teen recreation participation by using data from the Maryland Adolescent Development in Context study, which was collected from in-home interviews. The researchers used a six-point Likert-type scale for the participants to self-rate their frequency of participation in the past year for 11 activities (e.g., sports, school clubs, community clubs, volunteering). To measure academic performance, they used the students' grade point averages for four core subjects. Their results showed that students who were uninvolved (did not participate in activities) had low academic performance.

McNeal (1995) researched the association of extracurricular activities and high school dropouts. His secondary data was from the National Center for Educational Statistics. Some of his statistically significant findings were that students who participated in athletic activities were 1.7 times less likely to drop out of high school than those who did not participate. Also, students who participated in fine arts activities were 1.2 times less likely to drop out of high school than those who did not participate.

This research follows preceding studies that have used secondary data in order to examine the association between participation in recreation and leisure activities and academic retention levels of Métis youth. The above mentioned studies have deemed to be successful in contributing to the recreation and leisure literature and the current research strives to contribute as well.

3.2 Aboriginal Peoples Survey

The 2006 Aboriginal Peoples Survey (APS) is a Canadian survey that has been conducted three times: 1991, 2001, and 2006. The collected data provide information on the living conditions and lifestyles of Aboriginal Peoples (Statistics Canada, 2009). These surveys were created to examine their social and economic conditions; such as health, income, housing, language, mobility, schooling and employment (Statistics Canada, 2009). The 2006

APS consists of four questionnaires: adult core, children and youth, a Métis supplement and an Inuit supplement. The respondents were asked to complete either the adult core survey (ages 15 and older) or the children and youth survey (ages 6 through 14). The Métis and Inuit supplements were sub-surveys of the Adult core survey. They were only completed by those who self-identified as Métis or Inuit on the Adult core survey.

The surveys were created by Statistics Canada working closely with Aboriginal Peoples and creating the Aboriginal Peoples Survey Implementation Committee (IC). This committee included representatives from multiple Aboriginal organizations (e.g. the Congress of Aboriginal Peoples, the Inuit Tapiriit Kanatami, the Métis National Council, the National Association of Friendship Centres and the Native Women's Association of Canada (Statistics Canada, 2009)).

3.2.1 Data Collection

The APS is a post-censal survey. The sample was selected from four screening questions from the 2B and 2D Census long form versions (Statistics Canada, 2009). They include: "What were the ethnic or cultural origins of this person's ancestors?" "Is this person an Aboriginal person, that is, North American Indian, Métis or Inuit?" "Is this person a member of an Indian Band/First Nation?" "Is this person a Treaty Indian or a Registered Indian as defined by the *Indian Act* of Canada?"

After identifying Aboriginal Peoples through the screening questions, the sample population was created using a two-phase sample design. This was completed first by selecting a sample of households and then by selecting a sample of individuals (Statistics Canada, 2009).

In order to avoid respondent burden, which is when a household could potentially be asked to complete other post-censal surveys - such as the Aboriginal Children's Survey, the

Participation and Activity Limitation Survey, the Survey on the Vitality of Official-Language Minorities, and the Maternity Experience Survey, a procedure was put in place to restrict each household to completing two surveys and three interviews (Statistics Canada, 2009).

In the 2006 APS, all survey participants are Aboriginal Peoples age six years and older. It includes First Nations people living off reserve, Inuit and Métis. However, all First Nations people, Métis and Inuit living in the territories are included, while those living on reserve in the provinces were not included (Statistics Canada, 2009).

The researcher gained access to the confidential 2006 APS data through the South Western Ontario Research Data Centre (SWORDC), a Statistics Canada Research Data Centre which is located on the campus of the University of Waterloo. When permission was granted to use the 2006 APS, the researcher signed a contract to abide with Statistics Canada. All output files of statistical tests were vetted by a Statistics Canada analyst in order to ensure that participants' confidentiality would not be compromised before being released to the researcher.

3.2.2 The Sample

Of the 465,470 participants who completed the 2006 APS Métis supplement survey, 27,270 self-identified as being Métis, were of the ages 15 through 17 and had not completed any form of a high school diploma. This age range is typically when youth should be attending school. The APS adult core survey and Métis supplement is completed by those aged 15 and older. Youth who were less than 15 years old completed the children and youth survey which consisted of different questions relating to recreation participation. Those who had already completed high school or a GED were excluded from the study. Only those who had not completed high school, are Métis and of the ages 15 through 17 are included. This is a nationally representative survey and consists of participants across Canada.

3.3 Research Questions

The following questions guided the research:

1. Does participation in traditional leisure activities among Métis youth increase enrolment in academic studies?

2. Does civic engagement among Métis youth increase enrolment in academic studies?

3. Does participation in physical and non-physical leisure activities among Métis youth increase enrolment in academic studies?

3.4 Operationalization

The components of the study were attendance in school, demographic characteristics, and leisure activities. This section outlines the operationalization of these concepts.

3.4.1 Academic Level

There are several ways to measure one's academic level. The variable available from the 2006 APS which most closely measured this was whether or not one was currently attending school. This question was asked only of those who responded "no" to the question, "Have you completed high school?" and "Have you completed a high school equivalency program?" This determined who had not completed high school, and those who were currently attending high school. A variable was created to determine if one should be attending high school by their age. Those who were of the ages 15 through 17 should have been in school if they had not already completed it. If they answered "no" to the question of whether or not they were currently attending school, then they had dropped out. This variable was recoded into a binary code. The response "yes" meant they were currently attending school (1) and "no" meant they were not attending school and had also not completed their high school diploma (0). In conjunction with this, the data was limited to only those who responded "yes" to being a Métis and those of ages 15, 16, and 17.

3.4.2 Demographic Characteristics

There were several demographic variables used to help analyze the relationship between recreation participation and academic level. *Gender* was recoded into female (1) and male (0). *Age* responses were any value from 15 to 17. The *income (HHINC), household members* (*NUNITS;* denotes the number of people in one's household), *times moved* (*G02;* denotes the number of times moved in the past five years) all have values of zero and above. The *family structure (CFSTRUCT)* is recoded into two variables. The *common law parent* variable denotes those who live in a common law family (1) and those who do not (0). The *single parent variable* denotes those whose household has a single parent family structure (1) and those who do not (0). One's *urban living (DURBRUR)* status was denoted with those who live in an *urban area* of a population greater than 100,000 (1) and those who live in a *rural area* of a population less than 100,000 (0). The variable *teen parent* denotes those youth who are a parent (1) and those who are not (0).

3.4.3 Recreation and Leisure Participation

Recreation and leisure participation was measured in various ways. *Physical leisure* was measured by how many activities the participant had participated in the past year. It is measured on a scale of 0 to 19. Four sedentary leisure activities were measured. *Computer usage*, *video game usage*, *television usage*, and *reading* were all denoted of whether they spent at least one hour per week (1) doing that activity, or whether they spent zero hours per week (0). *Civic engagement* was measured with two variables. The first variable, *club member*, denoted if they were a member of an organization or club (1) or if they were not a member (0). The second variable, *Métis organization*, denoted if they were a member of a Métis organization (1) or if they were not a member (0). Whether the participant had ever *hunted*,

fished or *gathered wild plants or berries* (1) or not (0) measured one's participation in traditional activities.

3.5 Data analysis

The analysis began by calculating descriptive statistics for the main study variables. Then Pearson correlation analyses were run to determine how the variables were correlated with one another. With those variables, I added a scaled weight and ran various logistic regression models to determine the association between attending high school and participating in leisure activities. The first regression model included control variables *of gender, age, household income, household members, times moved, urban living,* and *teen parent* and also included the testing variable *physical leisure* participation. This pattern of models was used on testing the associations of attending high school and participating in sedentary leisure, civic engagement, and traditional leisure activities. The data was fairly complete. However, a few variables had 1 – 4% missing data. All missing data was accounted for by listwise deletion.

Chapter 4: Results

This chapter discusses the characteristics of the sample as described earlier, followed by the analysis findings which address the research question of how Métis youth leisure participation is associated with attending high school. All analyses used bootstrapped weights according to the 2006 APS guidelines.

4.1 Descriptive Characteristics

Table 1 shows the descriptive statistics for the sample demographics. After weighting the data, *gender* was almost split in half. There were 49.4% males and 50.6% females. The *ages* were evenly split among each category. There were 32.2% 15 year olds, 33% 16 years old, and 34.8% 17 years old. The reported *household income* had a mean of $75,510 (*SD* = 63,430). Of the sample, 10.7% reported they were not currently attending school, leaving 89.3% currently attending school. In terms of *family status*, 14.5% of the sample was living in a home with a common law relationship, 33.3% single status, and 52.2% married relationship. 1.90% was a teen parent, leaving the majority (98.1%) not a teen parent. There was an average of 4.12 (*SD* = 1.06) persons living in the participant's household. The majority (70.4%) of the youth lived in urban geographical areas, in which their city or town population was greater than 100,000. This left 29.6% of the youth living in rural areas (in which the population size was less than 100,000). The average number of times one had moved in the past five years was 1.06 times (*SD* = 1.31).

Table 1: Means and Frequencies for Demographics of Métis Youth

	Métis Youth		
Variable	*M/Percent*	*SD*	*N*
Gender			
Male	49.40%	--	13,460
Female	50.60%	--	13,810
Total			27,270
Age			
15	32.20%	--	8,770
16	33.00%	--	9,010
17	34.80%	--	9,490
Total			27,270
Currently Attending School			
Yes	89.30%	--	23,040
No	10.70%	--	2,770
Total			25,820
Family Structure			
Common Law	14.50%	--	3,770
Single	33.30%	--	8,660
Other	52.20%	--	13,560
Total			25,990
Urban Living			
Urban Area	70.40%	--	19,190
Rural Area	29.60%	--	8,080
Total			27,270
Teen Parent			
Yes	1.90%	--	440
No	98.10%	--	22,480
Total			22,920
Income	75,510	63,430	27,270
Times Moved	1.06	1.31	26,540
Household Members	4.12	1.06	27,270

4.2 Correlation Analyses

When examining the correlations between the various demographic variables and attending high school (Table 2), several conclusions can be made. The greater the household income was, the more likely they were to be attending school (r = .11, p < .001). However, the older the participant was, the less likely they were to be attending school (r = -.18, p < .001). If their family status was reported as single, they were less likely to be attending school (r = -.10, p = .001). Those who lived in urban areas were less likely to be attending school (r = -.14, p < .001). The more times one moved in the past five years, the less likely they were to be attending school (r = -.22, p < .001). And those who were a teen parent were less likely to be attending school (r = -.18, p < .001).

When examining the correlations between attending high school and physical and sedentary leisure activities (Table 3), those who participated in more physical leisure activities were more likely to be attending school (r = .12, p < .001). Also, those who spent time on the computer were more likely to be attending school (r = .08, p < .001), those who watched television were more likely to be attending school (r = .03, p < .001), and those who spent time reading (r = .05, p <.001) were more likely to be attending school.

Table 4, shows that those who were a member of a voluntary club were more likely to be attending school (r = .10, p < .001). And, those who had fished before were more likely to be attending school (r = .06, p <.001). Those who gathered wild plants were more likely to be attending school (r = .06, p <.001). However, those who had hunted before, were less likely to be attending school (r = -.07, p <.001).

Table 2: Correlation Matrix and Descriptive Statistics for Métis Youth

	1.		2.		3.		4.		5.		6.		7.		8.		9.		10
1. Attending School	--																		
2. Age	-.18	***	--																
3. Gender	.05	***	.08	***	--														
4. Income	.11	***	.12	***	-.03	***	--												
5. Household members	-.02	*	.02	**	-.05	***	.22	***	--										
6. Common law parent	.04	***	.01		-.00		.01		.02	***	--								
7. Single parent	-.10	***	-	***	.02	**	-.35	***	-.34	***	-.29	***	---						
8. Urban Living	-.14	***	.05	***	.03	***	-.05	***	-.11	***	-.06	***	.22	***	---				
9. Times moved	-.22	***	.07	***	.01		-.12	***	-.07	***	.06	***	.22	***	.15	***	---		
10. Teen Parent	-.18	***	.05	***	.08	***	-.04	***	.04	***	-.04	***	.15	***	.00		.11	***	-
M/Percent	89.3		16		50.6		75,510		4.1		14.5		33.		70.4		1.0		1.9
SD	--		--		--		63,430		1.0		--		--		--		1.3		--

n = 2,560; † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3: Correlation Matrix and Descriptive Statistics for Physical and Sedentary Leisure Variables

	1.		2.		3.		4.		5.	6.
1. Attending School	--									
2. Physical Leisure	.12	***	--							
3. Computer Leisure	.08	***	.11	***	--					
4. Video Game Leisure	.02	**	.21	***	.03	***	--			
5. Television Leisure	.03	***	-		-.02	*	.08	***	--	
6. Reading Leisure	.05	***	.11	***	.04	***	-.01	†	.01	--
M/Percent	89.		8.4		94.1		57.8		97.3	73.9
SD	--		3.8		--		--		--	--

n = 2,560; † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4: Correlation Matrix and Descriptive Statistics for Civic Engagement and Traditional Leisure Variables

	1.		2.		3.		4.		5.		6.
1. Attending School	--										
2. Club member	.10	***	--								
3. Métis Organization member	.06	***	.08	***	--						
4. Hunted	-.07	***	-.05	***	.03	***	--				
5. Fished	.06	***	-.02	**	.04	***	.21	***	--		
6. Gathered wild plants	.06	***	.08	***	.08	***	.16	***	.06	***	--
M/Percent	89.3		24.4		5.20		32.0		86.1		50.60
SD	--		--		--		--		--		--

n = 2,560; † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

4.3 Logistic Regression Analyses

The next step in the analysis consisted of running several logistic regression models. Table 5 shows several statistically significant findings. Older youth were 0.47 times less likely to attend high school. Those who lived in an urban area (as opposed to a non-CMA area) were 0.23 times less likely to be attending high school. And those who moved more times within the five years before 2006 were 0.73 times less likely to be attending high school. Those who were a teen parent were 0.13 times less likely to be attending high school. Those who participated in more physical leisure activities were 1.13 times more likely to be attending high school.

The level of physical leisure participation by gender interaction was statistically significant (B= -.23, SE= .09, p< .01). Probabilities of attending school at high (M + 1 SD) or low (M - 1 SD) levels of physical leisure participation and being female and male were calculated to help interpret the interaction (Jaccard, 2001; see Figure 1). Males who participated in physical leisure activities were more likely to be attending school (p = .99) than males who did not participate in physical leisure activities (p = .95). Among females, participation in physical leisure activities had no bearing on likelihood of attending school (p = .99 for both conditions).

When examining the association between Métis youth participating in sedentary leisure and attending high school (Table 6), there were no significant associations found.

Table 7 shows Métis youth engagement in civic activities. Those who were a member of a voluntary club were 2.61 times more likely to attend high school. However, being a member of a Métis organization was not associated with attending school.

Finally, Table 8 shows the association between participating in traditional leisure activities and attending high school. Those who had hunted were 0.49 times less likely to

attend high school. Fishing and gathering wild plants and berries were not associated with attending school.

However, the level of gathering wild plants by gender interaction was statistically significant (B= -1.94, SE= .72, p< .01). Probabilities of attending school at levels of participating or not participating in gathering plants and berries and being female and male were calculated to help interpret the interaction (Jaccard, 2001; see Figure 2). Males who gathered wild plants were slightly more likely to be attending school (p = 1.00) than males who did not gather wild plants (p = .99). Among females, those who gathered wild plants were slightly less likely to be attending school (p = .98) compared to females who were not gathering wild plants (p = .99).

Table 9 is the logistic regression model which includes all leisure activities. The model before model 1 in Table 9 is the same as model 1 in Table 5, and therefore is not repeated. There were no new significant findings which arose from examining all the leisure activities in the same model (Table 9). However, when all leisure activities are in the same model (model 3 in Table 9), physical leisure is still positively associated with attending school and hunting is negatively associated with attending school.

Table 5: Logistic Regression Coefficients for Association of Métis Youth with Demographics and Physical Leisure Participation for Attending School

	Model 1			Model 2			Model 3		
Predictor Variables	B	SE	Wald	B	SE	Wald	B	SE	Wald
Constant	3.61***	.52	49.33	3.51**	.52	46.05	3.75**	.54	47.64
Demographics									
Gender	.49	.32	2.40	.86*	.35	5.93	.57	.34	2.73
Age	-.75**	.23	10.22	-.71**	.34	8.91	-.72**	.24	9.01
Income	.00*	.00	5.07	.00*	.00	5.19	.00*	.00	5.98
Times Moved	-.31**	.10	8.58	-.29**	.11	7.54	-.32**	.11	8.88
Household Members	-.32*	.15	4.35	-.33*	.15	4.72	-.36*	.15	5.42
Common Law	.10	.50	.04	.24	.50	.23	.30	.52	.35
Lone Parent	-.07	.41	.03	.12	.42	.08	.03	.42	.00
Urban Living	-1.45**	.50	8.29	-1.55**	.52	9.03	-1.75**	.53	10.81
Teen Parent	-2.04**	.76	7.70	-2.35**	.76	9.54	-2.17**	.74	8.53
Leisure Activity									
Physical Leisure	--			.12**	.05		.23**	.07	12.39
Interactions									
PhysicalXGender	--			--			-.23**	0.9	6.68
Nagelkerke R^2	.23			.25			.28		

* p <.05, ** p <.01

Table 6: Logistic Regression Coefficients for Association of Métis Youth with Demographics and Sedentary Leisure Participation for Attending School

	Model 1			Model 2			Model 3		
Predictor Variables	B	SE	Wald	B	SE	Wald	B	SE	Wald
Constant	3.97 **	.59	44.71	3.00**	1.14	6.99	2.08	1.36	2.34
Demographics									
Gender	.37	.33	1.29	.18	.40	.20	1.76	2.00	.78
Age	-.71**	.24	8.83	-.77**	.25	9.75	-.85**	.26	11.09
Income	.00	.00	3.81	.00	.00	3.62	.00*	.00	4.49
Times Moved	-.27*	.11	5.84	-.28*	.12	5.77	-.26*	.12	4.82
Household Members	-.30	.16	3.61	-.31	.16	3.73	-.30	.17	3.39
Common Law	-.08	.51	.03	-.07	.51	.02	-.02	.52	.00
Lone Parent	-.27	.43	.41	-.28	.43	.42	-.29	.44	.44
Urban Living	-1.73**	.58	8.85	-1.76**	.59	8.90	-1.84**	.61	9.19
Teen Parent	-2.01*	.76	6.00	-1.78*	.78	5.21	-1.78*	.78	5.23
Leisure Activity									
Computer	--			-.02	.66	.00	.89	.82	1.16
Video Game	--			-.33	.40	.68	-.53	.69	.59
Television	--			1.20	.80	2.24	1.94	1.08	3.24
Reading	--			.23	.37	.37	-.32	.52	.38
Interactions									
CompXGender	--			--			-1.70	1.28	1.77
VideoXGender	--			--			.32	.87	.14
TvXGender	--			--			-1.15	1.63	.50
ReadingXGender	--			--			1.27	.74	2.94
Nagelkerke R^2	.23			.24			.26		

* $p < .05$, ** $p < .01$

Table 7: Logistic Regression Coefficients for Association of Métis Youth with Demographics and Civic Engagement for Attending School

	Model 1			Model 2			Model 3		
Predictor Variables	B	SE	Wald	B	SE	Wald	B	SE	Wald
Constant	3.68 **	.53	47.39	3.51 **	.55	41.24	3.49 **	.55	40.25
Demographics									
Gender	..40	.32	1.58	.37	.32	1.31	.48	.35	1.87
Age	-.75**	.24	9.94	-.70 **	.24	8.31	-.66 **	.24	7.57
Income	.00*	.00	4.78	.00 *	.00	5.48	.00 *	.00	5.00
Times Moved	-.34**	.11	10.01	-.36 **	.11	10.99	-.37 **	.11	11.16
Household Members	-.35*	.15	5.18	-.37 *	.16	5.80	-3.8 *	.16	5.93
Common Law	.16	.50	.10	.18	.50	.13	.18	.50	.13
Lone Parent	-.09	.41	.05	.01	.42	.00	-.04	.42	.01
Urban Living	-1.49**	.52	8.25	-1.55 **	.53	8.59	-1.57 **	.53	8.73
Teen Parent	-1.96**	.75	6.89	-2.22 **	.76	8.44	-2.20 **	.76	8.44
Leisure Activity									
Club Member	--			.96 *	.44	4.70	1.23	.65	3.56
Organization	--			.56	1.09	.26	18.24	11259.94	.00
Interactions									
ClubXGender	--			--			-.53	.88	.36
OrgXGender	--			--			-18.22	11259.84	.00
Nagelkerke R^2	.24			.26			.27		

* $p < .05$, ** $p < .01$

Table 8: Logistic Regression Coefficients for Association of Métis Youth with Demographics and Traditional Aboriginal Leisure for Attending School

	Model 1			Model 2			Model 3		
Predictor Variables	B	SE	Wald	B	SE	Wald	B	SE	Wald
Constant	3.62**	.51	49.76	3.97**	.75	27.75	4.22**	1.00	17.82
Demographics									
Gender	.47	.32	2.16	.25	.34	.56	.62	1.05	.35
Age	-.74**	.23	10.16	-.70**	.23	8.88	-.63**	.34	7.08
Income	.00*	.00	5.08	.00*	.00	5.19	.00*	.00	4.26
Times Moved	-.29**	.10	8.08	-.30**	.11	7.76	-.32**	.11	8.75
Household Members	-.32*	.15	4.58	-.35*	.16	5.15	-.37*	.16	5.43
Common Law	.10	.49	.04	.11	.51	.04	-.04	.51	.01
Lone Parent	-.11	.41	.07	-.16	.41	.16	-.20	.42	.22
Urban Living	-1.45**	.50	8.38	-1.62**	.52	9.54	-1.67**	.54	9.72
Teen Parent	-2.01**	.74	7.45	-2.09**	.73	8.27	-2.11**	.75	7.90
Leisure Activity									
Hunting	--			-.72*	.36	4.01	-.51	.45	1.26
Fishing	--			-.67	.49	.02	-.71	.88	.65
Gathering	--			.40	.32	1.55	1.41**	.51	7.60
Interactions	--								
HuntingXGender	--			--			-.40	.74	.29
FishingXGender	--			--			.63	1.06	.36
GatherXGender	--			--			-1.94**	.72	7.30
Nagelkerke R^2	.23			.25			.28		

* $p < .05$, ** $p < .01$

Table 9: Logistic Regression Coefficients for Association of Métis Youths' Demographics, Participation in all Leisure Activities and Attending School

	Model 1			Model 2			Model 3		
Predictor Variables	B	SE	Wald	B	SE	Wald	B	SE	Wald
Constant	3.15**	1.16	7.33	3.07*	1.20	6.49	3.81**	1.38	7.68
Demographics									
Gender	.45	.42	1.13	.35	.43	.65	.14	.45	.10
Age	-.72**	.25	8.24	-.70**	.25	7.59	-.68**	.25	7.09
Income	.00*	.00	4.12	.00*	.00	4.70	.00*	.00	4.38
Times Moved	-.28*	.12	5.73	-.30*	.12	6.58	-.28*	.12	5.56
Household Members	-.36*	.17	4.86	-.38*	.17	5.22	-.41*	.17	5.91
Common Law	.12	.52	.06	.13	.53	.06	.23	.54	.17
Lone Parent	-.11	.44	.06	-.05	.45	.01	-.16	.46	.12
Urban Living	-1.79**	.60	9.05	-1.82**	.60	9.11	-1.93**	.61	9.96
Teen Parent	-2.03*	.81	6.33	-2.25**	.82	7.43	-2.38**	.82	8.50
Leisure Activity									
Physical	.12*	.05	6.37	.10*	.05	4.33	.12*	.05	5.27
Computer	-.08	.98	.02	-.18	.68	.07	-.25	.66	.14
Video Game	-.51	.42	1.48	-.57	.42	1.79	-.53	.43	1.52
TV	1.12	.82		1.28	.83	2.38	1.21	.85	2.05
Reading	.15	.37	.15	.06	.38	.03	.00	.38	.00
Club Member	--			.77	.46	2.84	.51	.47	1.15
Organization	--			.61	1.15	.28	.72	1.16	.38
Hunting	--			--			-.84*	.40	4.41
Fishing	--			--			-.19	.53	.13
Gathering	--			--			.24	.36	.43
Nagelkerke R^2	.26			.27			.29		

* $p < .05$, ** $p < .01$

Figure 1: Association of Physical Leisure Participation with Probability of Attending School by Gender

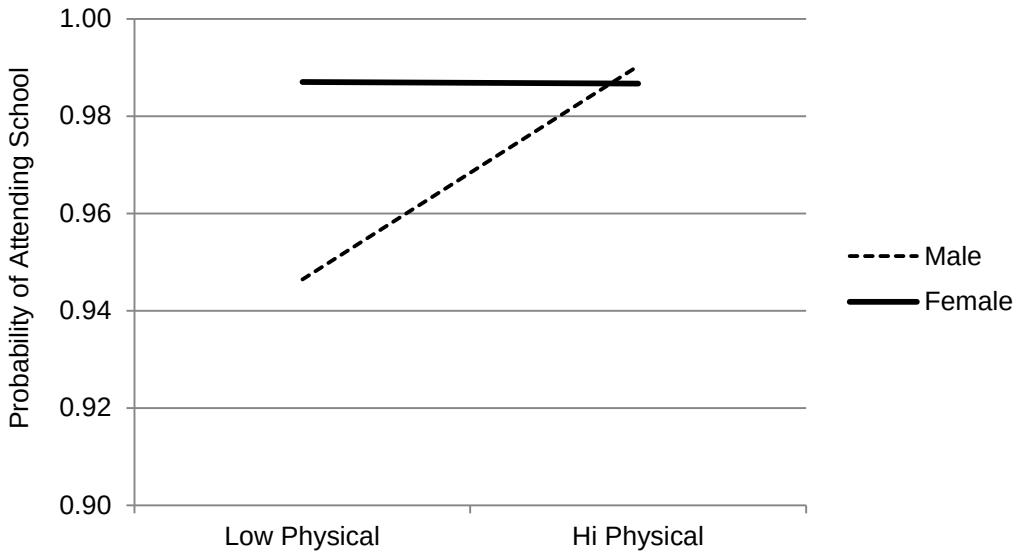
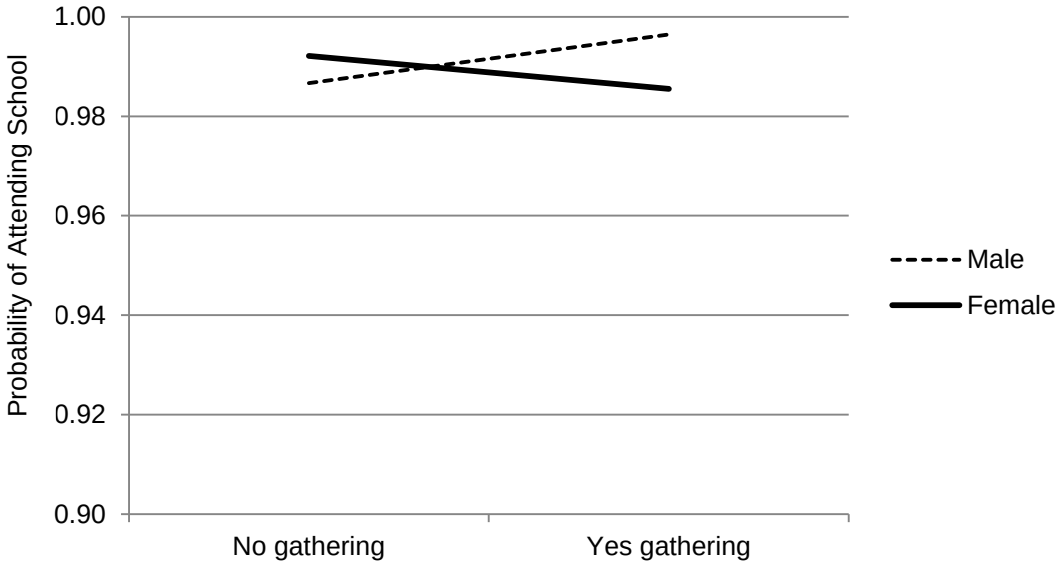


Figure 2: Association of Gathering Wild Plants with the Probability of Attending School by Gender



Chapter 5: Discussion and Conclusion

This chapter discusses the significant findings from the analyses and explores how they answer the purpose of the study: to explore the association between leisure participation and attending high school.

Previous research (Wilk et al., 2009) shows that Métis youth education levels are lower compared to the Canadian population. The reasons for it varies, but research suggests it may be due to a combination of negative attitudes towards education because of the residential schools (Beavon, Wingert, & White, 2009), racism (Fisher & Campbell, 2002), proficiency in the English language (Baydala, Rasmussen, Birch, Sherman, Wilman, Charchun, Kennedy & Bisanz, 2009), barriers to succeeding in formal education (e.g., poverty and unemployment) (Kroes, 2008), and the lack of integrating Aboriginal culture into the curriculum (Preston, 2008). Though the gap between the Canadian population and Aboriginal Peoples has recently been getting smaller, the education levels are still a concern (Luffman & Sussman, 2007).

The 2006 APS showed that of those who were 15 to 17 years old (and therefore of typical high school attendance age), 89.3% of them were currently attending school, while 10.7% were not attending school. Being a teen parent was also negatively correlated to attending school. Income was positively correlated to currently attending school, which means that those who had higher incomes are positively correlated to attending school. These findings are consistent with previous literature in that those who were a teen parent and those with lower total household incomes are more likely to be part of the poverty population, and are less likely to be attending school (Findlay & Kohen, 2007). Being a teen parent requires a lot of time focusing on raising a child, rather than concentrating on their education. Also, people with lower incomes may be trying to work extra hours to ensure they can make ends meet. A teen working a lot of hours at a part-time job, while attending school, can be

distracting and possibly lead to dropping out of school. Therefore, income and family structure can both be factors to attending school.

Previous research in both the recreation and education fields has focused on the benefits of recreation participation among youth. Participation in recreation has been shown to help youth develop socially (Bartko & Eccles, 2003; Fredericks & Eccles, 2006; Statistics Canada, 2001), and is also associated with staying in school, not dropping out (Mahoney & Cairns, 1997; McNeal, 1995), and achieving higher grade point averages (Cooper et al., 1999; Lisella & Serwatka, 1996; Mahoney et al., 2003).

Though there are multiple benefits to participating in leisure activities, there are still barriers to participating in those activities and therefore certain groups are not able to receive the benefits (Findlay & Kohen, 2007). Research using the NLSCY (National Longitudinal Study of Children and Youth) in 1998/1999 found that children faced multiple barriers to participating in activities. Specifically, children from low income families, single-parent families, those whose parents had less than a high school education, and those with young parents, were less likely to participate in organized activities (Statistics Canada, 2001).

Though some research has been conducted on the leisure of Aboriginal Peoples, it has focused mostly on how leisure is a form of stress release and cultural expression (Iwasaki, MacKay, MacTavish, Ristock, & Bartlett, 2009; Lashua & Fox, 2007). In recent years, more research (Findlay & Kohen, 2007; Turcotte & Zhao, 2004) has focused on the benefits of recreation participation for Aboriginal youth (Lashua & Fox, 2007), but it has not focused specifically on Métis youth.

Research using the 2001 APS (children's survey) on Aboriginal Peoples' participation in recreational activities found that Métis and Inuit children (ages 0-14) participated in sports more than First Nations (Findlay & Kohen, 2007). This may be because there might be less

recreation programming available on First Nation reserves. Off-reserve communities may have more opportunities to participate in recreation activities (e.g. sports) because they are more providers available. Turcotte and Zhao (2004) also studied the 2001 APS. They studied off-reserve Aboriginal children (ages 6 to 14) and found that 71% of the children were participating in sports at least once a week. However, other activities such as drum and dance groups (30%) and volunteering in community or school activities (21%) had lower participation rates. Guevremont (2010) used the 2006 Census to research Métis children (age 2-5) who were from low income families, and found they were more likely to partake in cultural activities such as singing, drumming, and dancing than those children who were from higher income families. However, they were less likely to go hunting, fishing or camping. This may be because singing, drumming and dancing do not necessarily require money to participate in. Whereas, hunting, fishing and camping require money to buy the supplies needed. This is interesting to take note of because it shows that income is a factor to the types of activities Métis children participate in, even at a young age.

In taking the information of Aboriginal children's participation in recreation one step further, Turcotte and Zhao (2004) found several associations with school. 47% of children who spent four or more times per week with Elders were doing very well in school, whereas only 38% of those who hardly spent any time with Elders were doing well in school. Elders are respected adults in one's community and can be positive role models for children and youth. Therefore, they may influence children to do well in school. Turcotte and Zhao's results also show that participation in cultural activities is associated with doing well in school. Also, 45% of children who spent four or more times a week playing sports were doing very well in school; whereas only 36% of those who hardly spent any time playing sports did very well in school. Participation in sports can lead to positive learning environments that

allow children and youth to learn and develop various skills and interests (Fredricks & Eccles, 2006). This could then transfer over to their academics (Mahoney & Cairns, 1997).

Though these past studies have examined young children, the results complement the current research on the association of Métis youth participation in leisure activities and attending school. Among the main findings in the current study were the following: (1) Métis youth who participated in physical leisure activities were more likely to be attending school; (2) Métis youth who read were more likely to be attending school; (3) Métis youth who were members of a club were more likely to be attending school; and (4) Métis youth who have hunted were less likely to be attending school.

When examining all five logistic regression models, the following variables consistently showed statistically significant effects: age, living in an urban area, the number of times moved within the previous five years, and being a teen parent. This is important to note because these characteristics are associated with attending school, no matter which leisure activities youth participates in.

In terms of age, it is logical that older youth are less likely to be attending school. Quite often things interfere with school, whether it is a job, pregnancy, or lack of interest (boredom) (Cormier, 2010; Freudenberg & Ruglis, 2007). As one gets older, they may lose focus and stop attending school. Since the Métis has a young population and is growing fast, a large number of Métis should be attending school. These cohorts can benefit their communities in the future by becoming educated and bringing new skill sets to the workforce (Preston, 2008). If the growing number of Métis youth does not become educated, they will become a problem to society instead of a solution. It is important that these youth stay in school because it is an opportunity for them to benefit from education, and complete high school rather than drop out.

When examining geographic location, the findings show that youth who live in urban areas were less likely than rural youth to be attending school. This contradicts previous research as authors have said those who live in rural areas are less likely to be doing well in school than those living in urban areas (Wilk et al., 2009). Also, Findlay and Kohen (2007) reported that non-reserve children's living location, whether rural, urban or Arctic, did not influence their participation in physical activities, as they were at all similar levels. However, they do recognize that proximity to community facilities is a factor in participating in leisure too. It may be the case that those in rural areas are more likely to live farther away from these facilities that provide opportunities to participate in leisure. However, considering the current finding that youth living in urban areas are less likely to be attending school, it may be because there can be more distractions in an urban area than a rural one. For example, in an urban area, there are more opportunities to have a part-time job. Working while attending school can be a distraction if it is not balanced well, and therefore can lead to dropping out of school. However, this is only a speculation and was not actually tested in this analysis.

Beavon et al., (2009) discuss the impacts of mobility among Métis peoples. In their research, they found that among Métis adults who had moved zero times in the past five years, when compared to those who have moved three or more times, they were 225% more likely to be a non-graduate (not finished high school, but has not dropped out) and 154% more likely to be in post-secondary, than being a dropout. With frequent mobility comes discontinuity of social ties (Beavon et al., 2009), which may lead to youth not wanting to attend school and to drop out. White and Maxim (2003) point out that migration can depreciate social capital, and is therefore a potential measure of it. The authors state that when people migrate more, they are less likely to engage in community events such as joining associations or clubs, or sport clubs. Therefore, their civic engagement levels would be low (White & Maxim, 2003). The

results in the current study support this finding as there is a negative association with attending school. The results show that those who have moved more times within the past five years are more likely to be not attending school.

Also, Métis youth who are parents were less likely to be attending school. As earlier mentioned, caring for children takes a lot of responsibility and can deter from completing high school.

While Findlay and Kohen (2007) did not necessarily report on the association with school, they did find that non-reserve children were more likely to participate in sports when they had parents with higher levels of education, were living with two parents (compared to one), had fewer siblings, and had parental support (which included transporting, watching and encouraging the child). These results were not shown in the current study. However, it is important to take note of how a child's home is associated with their participation in leisure activities.

5.1 The Association of Physical Leisure Activities

One of the main findings from this research study is that Métis youth who participated in more physical leisure activities within the year before 2006 were 1.13 times more likely to be attending school than those who participated less. This supports past research which has studied the benefits of recreation participation (Bartko & Eccles, 2003; Fredericks & Eccles, 2006), and specifically the academic benefits (Cooper et al., 1999; Lisella & Serwatka, 1996; McNeal, 1995).

When examining gender differences, males who participated in physical leisure activities were more likely to be attending school. However, for females it did not matter if they were or were not participating in physical leisure activities, they were both likely to be attending school. This may be due to the gender effect in that males benefit more from

structured activities, where they are less exposed to problematic peers, than females (Fredricks & Eccles, 2006).

Past research on non-reserve Aboriginal children's participation in sports found that 65% of them were participating at least once per week (Findlay & Kohen, 2007). These children came from families with higher incomes, parents with higher levels of education, lived with both parents, and had fewer siblings (Findlay & Kohen, 2007).

There are several reasons to why these children may have participated in sports. Findlay and Kohen (2007) suggest that it could be due to multiple factors, such as: their parents being financially supportive; having gross motor skills for playing sports; having an extroverted personality; living in communities with organized sport leagues, programs and community centres; and having emotionally supportive parents.

Participating in more physical leisure activities (such as team sports, winter sports and general exercise) may also be associated with attending school because participation can provide opportunities to develop various skills which can then transfer to their academics (Mahoney & Cairns, 1997). Also, being physically active is a way of relieving stress (Aldana, Sutton, Jacobson, & Quirk, 1996), and this too could help youth stay focused on their academics and stay in school. In addition, physical leisure activities can be participated with peers, and having peers encouraging one to stay in school can be helpful.

While there are factors which may help children and youth participate in sports, there are some that hinder participation. Findlay and Kohen (2007) also recognize that the barriers to participating in leisure activities could include: coming from a low-income family; having an introverted personality; living in a community that does not have direct access to community centres or programs; or one's cultural background. More research needs to be

conducted on the barriers to participating in leisure activities, and how those barriers can be overcome.

5.2 The Association of Sedentary Leisure Activities

When sedentary leisure activities were examined to determine the association between the amount of times participating in them per week and whether or not one was currently attending school, there were no statistically significantly associations with attending school. However, previous research by Guevremont (2010) found that 81% of Métis children (ages 2-5) who had parents with high school diplomas were being read to or looked at books compared to 72% of those with parents who did not have a high school diploma. Other research (Findlay & Kohen, 2007) has explained that parents who have completed high school are more likely to have youth who participate in leisure activities and are more likely to complete high school. Therefore, one may conclude that youth who have parents with a high school diploma are the ones who read more and participate in leisure activities, and also completing high school.

A previous study by Janz et al., (2009), using the 2006 APS found that one in five Métis adults (age 15+) played video games, 74% of Métis adults used computers in their free time, and older Métis children (ages 11 -14) are more likely to watch more television per day than younger children (ages 6 to 10). Though there is participation in these sedentary activities, the current study found that Métis youth (ages 15-17) participation in television, playing video games, using the computer, or reading is not statistically associated with attending school. This may be because these activities are usually done individually, rather than in a social setting. Participation in social settings can help youth develop their skills and is associated with staying in school (McNeal, 1995).

5.3 The Association of Civic Engagement

The current research project showed that those who were a member of a voluntary club were 2.61 times more likely to be currently attending school. Previous research supports this as Turcotte and Zhao's (2004) study of the 2001 APS children's survey found that when parents reported on behalf of their children, 64% of non-reserve Aboriginal children (ages 6-14) who volunteered in their community or school reported doing very well in school; whereas 38% of those who hardly helped out were doing very well in school. While the current study cannot explain exactly why only being a member of a voluntary club is statistically significant in attending school, and being a member of a Métis organization is not, it is still important to note that volunteering in a community can benefit youth.

Civic engagement in a community can be beneficial for several reasons. It can help broaden one's social network and therefore can provide more support for them. It can provide them with opportunities for leadership roles and enhance their skills. Youth can also interact with positive role models, who may influence them to stay in school. Overall, social capital is increased when one helps others, gives of their time, and is involved in the community (Putnam). This in turn increases the likelihood of staying in school (Putnam, 2000).

5.4 The Association of Traditional Leisure Activities

The age group of 15 through 17 has not been researched before in terms of their participation in traditional leisure activities. However, Métis children have been. While the two age groups are not comparable, it may be important to note that Métis children start participating in cultural leisure at a young age. In 2006, more than half (53%) of Métis children, under the age of six, had hunted, fished, trapped or gone camping (O'Donnell, 2008).

When considering that Métis children partake in traditional leisure at a young age, it is important to examine how those activities may play a part in attending school at a later age.

The research question in the current study asked how Métis youth participation in traditional leisure activities is associated to attending high school. The analyses showed that Métis youth who had participated in hunting were 0.49 times less likely to be currently attending school. This current study was unable to identify exactly why hunting is negatively associated with attending school, but it is speculated that this is the case because hunting normally requires students to miss a few days of school at a time, and therefore can cause a student to get behind in their school work. Potentially, they could fail a grade, or become discouraged and drop out. If this is the case, then policies should be implemented into the education system to accommodate children and youth who are absent because of hunting. However, more research needs to be conducted in this area.

The other traditional leisure activities (fishing and gathering wild plants) were not statistically significantly associated with attending school. However, females who gathered plants were less likely to be attending school than those who did not. This may be because women who gather plants may be doing so to help their families. Which may mean they may be responsible for more duties at home than the "average" youth. If a child is in more of a parental role than a child role in their home, they may be more likely to have dropped out of school. When examining males, those who gathered plants were more likely to be attending school than those who did not. This may be because male teens who gather wild plants have less time to partake in activities that distract them from their school work.

5.5 Strengths and Limitations

The strengths and limitations are related to all aspects of the research, including the methodology, data analysis and the interpretation of the results. This section identifies some of the strengths and limitations before making recommendations for future research.

The significance of this research is that it studies Métis youth, which is an under-researched population. The study examines their leisure participation and finds that it is associated with attending school. This research brings to light areas of leisure which are potentially beneficial for the development of Métis youth. It also continues to support the literature on how family life and living conditions are factors for participating in leisure and for attending school. The main strength of this study was that the analysis used a national data set. Therefore, the analyses are generalizable to all Métis youth in Canada.

The limitations of this study are listed below. A significant limitation to this study is that it is a cross-sectional study rather than longitudinal. The findings can only show an association between the variables rather than make a conclusive statement that one is directly related to the other. Also, the results are limited to a particular population group at a certain point of time. Whereas, a longitudinal study is better for measuring social trends (such as recreation participation effects on attending school). A recommendation for the APS would be to make it into a longitudinal survey in order to monitor any behavioural changes. Turcotte & Zhao (2004) also had this problem. They also found positive correlations between participation in leisure activities and academic performance. However the APS does not allow for causal relationships.

A second limitation to this study is that physical leisure is not measured as well as it could be. The variables used in the study asked if they had participated in a specific activity within the past year, and they could respond with ‘yes’ or ‘no’. Therefore, it is hard to determine within those who do participate in those activities, whether or not the frequency of their participation is associated with attending school. This study measured the number of activities the participant said they participated in within the past year to determine the amount of leisure participation they partook in.

The term "extracurricular activity," "sports" and "clubs" is defined differently for Aboriginal Peoples than for non-Aboriginals. Though the 2006 APS was created with various Aboriginal Peoples and organizations, the terms used may still reflect a "westernized" world view. Several researchers (Findlay & Kohen, 2007; Iwasaki et al., 2009) have noted this challenge in research and have warned others to not impose terms when conducting research. However, with secondary data, the researcher was unable to stop the "westernized" definitions, and therefore responses were restricted to the survey questions and the imposed definitions, rather than how various Aboriginal groups may interpret them.

Social capital (or social networks) levels were unable to be used in the logistic regression models as a moderator because there was a restriction on the values which measured social networks. When answering the support network questions which included questions such as how often they received support, and if they had somebody to depend on, there was a response bias and most participants said they almost always had somebody they could count on. Therefore, there was a positive response bias and the social network measurement was not used. While it would have been beneficial to show whether social capital helps explain the findings on leisure participation and academic retention, the researcher was unable to do so.

While the sample size of the 2006 APS was sufficient for analysis, there were times when variables could not be used due to the low number of responses. Or sometimes the quality of the variable would be lost due to having to condense response categories in order to meet the minimum cell count.

5.6 Recommendations and Implications for Policy Development & Research

This research concentrated on the association between Métis youth's leisure participation and their attendance in school. Based on what has been learned, there are several recommendations for future research and for government policy development.

Future research needs to be done in the area of Métis youth's (or a broader population of Aboriginal youth) leisure participation. While there have been a select number of authors (Findlay & Kohen, 2007; Guevremont, 2010; Janz, Seto, & Turner, 2009; Kickett-Tucker, 1999; Kumar & Janz, 2010; Small, 2007; Smith, Findlay & Crompton, 2010; Turcotte & Zhao, 2004), who have researched leisure participation among Aboriginal groups, there has been an emphasis on the quantitative results in terms of how many people are participating and in what activities. There have only been a few authors (Iwasaki, Bartlett, Gottlieb & Hall, 2009; Iwasaki et al., 2006; Lashua & Fox, 2007) who have researched leisure participation from a qualitative perspective. However, these have dealt with leisure benefits in stress-relieving and not necessarily in other youth development areas. Findlay and Kohen (2007) note that the differences in definitions of "sport", "recreation", and "leisure" vary across cultural groups and therefore in a quantitative study, a participant may answer a question according to their definition and not the definition of the researcher. They suggest that qualitative research could potentially take a closer look at the differences between the definitions and examine what each participant actually partakes in during their leisure time. More qualitative research needs to be conducted in this area.

In finding that recreation and leisure participation is positively associated with high school retention, there should be more opportunities for youth to participate. Therefore, there needs to be more programs available. When considering future programming of recreation

programs or academic curriculum by the government, organizations, or Aboriginal groups, there are a few recommendations.

Research has shown that participation in physical leisure (particularly sports-related) is beneficial to youth staying in school. Though the current research does not specifically examine the amount of leisure available to youth, previous research has shown that more needs to be accessible. Past research has supported recreational programs for youth development, such as the Urban Multipurpose Aboriginal Youth Centres (UMAYC) initiative which helps address social issues for urban Aboriginal youth (Dinsdale, 2008). The UMAYC programs provide positive outcomes for Aboriginal youth, such as not being involved in negative activities. Their goal is to improve the overall quality of life for those who participate in their programs. They hope their program leads to youth graduating from high school, which would then lead to better employment, income, housing and health (Dinsdale, 2008).

While this is a goal they hope to obtain, they realize that besides their program, there are no other programs similar to it. After the age of six, there are only programs for youth that deal with justice, alcohol and drug problems (Dinsdale, 2008). Therefore, there needs to be more programs put into place which have the same goals of UMAYC: to enhance the quality of life for Aboriginal youth.

While recreational programs can be very beneficial for youth, such as UMAYC, programs can also be damaging if they are not culturally sensitive. Small (2007) discusses how the city of Calgary values the importance of cultural activities and therefore is trying to provide recreation and leisure programs which reflect the urban Aboriginal communities. The city of Calgary believes that by incorporating Aboriginal values in their recreational services then it will provide opportunities for families to be part of the development of children and youth (Small, 2007).

Not only do recreational programs need to be culturally sensitive, but also academic curriculums. The education system is also important for youth development and is a critical environment for incorporating Aboriginal culture (Baydala et al., 2009). Baydala et al., found that by incorporating language and cultural beliefs, there were more opportunities for youth friendships to flourish, and in turn enhanced academic achievement.

In closing, this study adds to the body of literature on the recreation participation of Aboriginal youth (specifically Métis youth) and their education levels. Particularly, it shows how leisure involvement can be beneficial to Métis in their youth development as they finish their high school diploma and carry on to post-secondary education and employment.

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