

The Journey Towards Comprehensive School Health within an Aboriginal
Community

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ABSTRACT

The purpose of this research is to describe the journey towards Comprehensive School Health at two Aboriginal elementary schools. An advocate and a healthy schools committee were identified at both schools and were responsible for developing initiatives to create a healthy school community. A case study was used to gather an in-depth understanding of Comprehensive School Health for the two schools involved. As a researcher, I functioned within the role of a participant-observer, as I was actively involved in the programs and initiatives completed in both schools. The research process included: the pilot study, ethics clearance and distribution of letters of invitation and consent forms. Data collection included 16 semi-structured, guided interviews with principals, teachers, and students. Participant observations included sites of the gymnasium, classroom, playgrounds, school environments, bulletin boards as well as artifact analysis of documents such as school newsletters, physical education schedules and school handbooks. The interviews were transcribed and coded using an inductive approach which involves finding patterns, themes and categories from the data (Patton, 2002). Research questions guided the findings as physical activity, physical education, nutrition and transportation were discussed. Themes developed through coding were teacher-student interactions, cultural traditions, time constraints and professional development and were discussed using a Comprehensive School Health framework.

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CHAPTER ONE

INTRODUCTION

The issue of physical inactivity and obesity has dominated the media in recent years. There have been concerns with the increasing rates of inactivity and childhood obesity. Active Healthy Kids Canada (2008) stated that initiatives from the Federal, Provincial and Municipal governments are emerging and assistance at the National level will provide the needed leadership in this needed area.

The prevalence of overweight and obesity has been increasing over past decades for Canadian children (Lau, Douketis, Morrison, Hramiak, & Sharma, 2007). In fact, obesity rates among Canadian children aged 7-13 tripled from 5 to 15 percent between 1981 and 1996 (Tremblay & Willms, 2003). The participation of physical activity in children and youth are continuing to decrease. Four out of five Canadian youth are required to increase their physical activity levels in order to meet the recommended levels of physical activity. The decreasing levels of physical activity can affect the children's obesity rates. Obesity in children increases the risk of orthopaedic and sleep disorders, gallbladder disease, cardiovascular disease (CVD), type II diabetes, high blood pressure and high cholesterol levels (Davy, Harrell, Stewart & King, 2004; Evans et al., 2006).

According to Active Healthy Kids Canada (2009), physical activity should be included in every child's daily routine to ensure healthy growth and development, prevent disease and improve health. Children who engage in minimal levels of physical activity are more susceptible to the increasing rates of overweight or obesity

(Hills, King & Armstrong, 2007). Active Healthy Kids Canada (2008; 2009) released a report on the levels of physical activity for Canadian youth. In 2008 and 2009, Canadian children received an 'F' in both physical activity levels and screen time, indicating that children are not active enough to meet requirements. The report card has indicated that 90% of children are currently still not meeting recommendations for physical activity levels (Active Healthy Kids Canada, 2008). A study was completed in 2006 by the Canadian Fitness and Lifestyle Research Institute (CFLRI) on the physical activity levels of Canadian children. Results from that study indicated that 48% of children reported spending at least six hours a day participating in sedentary activities such as watching television, doing homework or playing on the computer (CFLRI, 2006). Active playtime was a new addition in the 2008 Physical Activity Report Card. Ridgers et al. (2006) indicated that playtime (recess, at home free play) provides children with the opportunity to be physically active to meet minimum requirements of physical activity.

Children have been engaged in increasing amounts of television watching, computer use and video game playing which is affecting rates of overweight and obesity (Tremblay & Willms, 2003). Active Healthy Kids Canada (2008) stated that when children are watching television they are more likely to eat foods that are high in fat and sugar. Despite the recommendations that are currently in the Report Card, children are still engaging in screen time levels that exceed hours of recommendation (Active Healthy Kids Canada, 2008).

The increasing rates of screen time for children and youth contribute to the intake in high caloric foods. Evans et al. (2006) indicated that diets comprised of

fruits and vegetables assist in decreasing levels of overweight and obesity. The Canadian Food Guide recommends children between the ages of 2-13 consume four to six servings of fruits and vegetables each day (Health Canada, 2007). These recommendations are well documented; however, only 20% of children and youth are meeting National recommendations for fruit and vegetable consumption (French & Stables, 2003). The school has been recognized as an important setting where interventions can occur to decrease the rates of overweight and obesity within children. Since children spend more than 34 hours a week in school, the school setting has shown to have a powerful influence on students' eating behaviours (Sanigorski, Bell, Kremer & Swinburn, 2005).

Physical inactivity, overweight and obesity are particular concerns within the Aboriginal population in Canada. In the last half of the century, obesity has become more prevalent in children and youth of Aboriginal descent. Obesity in the Aboriginal population is more prevalent in the central regions of the body (abdominal and upper body) which can be associated with a high risk of developing diabetes (Young, Reading, Elias & O'Neil, 2000). The First Nations Regional Longitudinal Health Survey (2003/2003) and Active Healthy Kids Canada (2009) indicated that Canadians of Aboriginal descent have higher rates of being overweight and obese compared to the overall Canadian population.

In particular, the Aboriginal population has many concerns with the health of children and youth with the increasing rates of overweight, obesity, type II diabetes and cancers and have a particularly high risk of obesity, which raises concern since obesity is associated with many chronic health problems (First Nations Regional

Longitudinal Health Survey, 2002/2003). It was suggested in the First Nations Regional Longitudinal Health Survey (2002/2003) that there was a lack of understanding by Aboriginals of how to create a healthy diet which is problematic since there are many health concerns Aboriginals are facing. It was also noted that harmonized programs involving the school, community and family are important in developing healthy eating and physical activity behaviours among First Nations children (First Nations Regional Longitudinal Health Survey, 2002/2003).

Initiatives such as the Kahnawake Schools Diabetes Prevention Project (KSDPP) has influenced and significantly impacted health, nutrition and physical activity within schools in Kahnawake (First Nations and Inuit Health Committee, CPS, 2005). The Sandy Lake First Nation School Diabetes Prevention Program was formulated to educate grade three and four students in the prevention of type II diabetes (First Nations and Inuit Health Committee, CPS, 2005).

The declining levels of children's physical activity levels indicate that there is a need for further development in advocacy within the health and physical education profession (Watson & Hildebrand, 2000). Watson and Hildebrand (2000) define advocacy as "the process by which we inform others of the benefits of our profession, and it necessitates communication with a clear purpose, whether through media or letters to legislators" (p. 46). The Transtheoretical Model (TTM) "is a theoretical framework for understanding how people progress in adopting and maintaining health-behaviour change for optimal health" (Cheung et al., 2006, p.104). The model has been used to illuminate an individual's motivation to change behaviour (Watson & Hildebrand, 2000). The TTM postulates five stages of change (Cheung et al.,

2006) that individuals progress through in an attempt to change a behaviour (Watson & Hildebrand, 2000). The five stages of the TTM include precontemplation (not thinking about change), contemplation (thinking about change in the near future), preparation (preparing to make a change in the future), action (the first six months of behaviour change) and maintenance (sustaining behaviour change for longer than six months). In order for an individual to experience behaviour change, they must move through the various stages; therefore, behaviour change is a dynamic process rather than a situation (Watson and Hildebrand, 2000). The TTM can be used as a framework to discuss how teachers and students behaviours either changed or remained the same throughout the Active Schools process.

Comprehensive School Health (CSH) is used to describe school health in Canada (CAHPERD, n.d.). CSH can be defined as “a broad spectrum of program, policies, activities and services that take place in schools and their surrounding communities” (McCall, 1999, p. 4). The CSH approach is formulated to affect both individual health behaviours and improve the environments where children and youth live and learn (McCall, 1999). The Public Health Agency of Canada (2008) explains that CSH has an integrated approach to health promotion that provides students with opportunities to develop positive health behaviours. The CSH premise is that there are many factors that affect the health and well being of children and youth (Public Health Agency of Canada, 2008). These factors can include: physical condition of the home, school and community, availability to health services, economic conditions and the impact of health promotion (Public Health Agency of Canada, 2008).

The Canadian Association for School Health (CASH) stated that a

comprehensive school health approach has an influence on health related knowledge and behaviours of students (CASH, 2006). CASH (2006) has developed four goals for a comprehensive approach. They include: promoting health and wellness, preventing specific diseases, disorders and injury, intervening and assisting children and youth who are in need or at risk and to help support those who are already experiencing poor health. CSH has a four part framework that combines the elements of instruction, services, social support and physical environment (Public Health Agency of Canada, 2008; CASH, 2006).

Countries are beginning to address the concern of physical inactivity through the Active School initiatives (Mandigo, 2002). An Active School uses a comprehensive approach that promotes physical activity and places physical activity as a priority among the school community and is a safe and inclusive program (Mandigo, 2002). The Ontario Physical and Health Education created the Active Schools program (OPHEA, 2008) and uses the CSH framework as a foundation for the program. The program targets schools, community members and teachers to work together to create a healthy environment for children and the school community. The school community has a responsibility to provide support and encouragement for teachers and students to live a healthy, active lifestyle (Mandigo, 2002).

There have been CSH and Active School programs implemented in many schools across around the world. Elementary schools in Nova Scotia have been working on increasing the health of students in elementary schools. PHE Canada (2005) states that elementary schools in Nova Scotia that implemented a comprehensive healthy living program demonstrated lower rates of overweight and

obese students than schools without a program. “We know that reaching children during critical periods of growth is key to long-term good health and helps lower the risks of chronic diseases in adulthood” (PHE Canada, 2005, p.1). A Children’s Lifestyle and School Performance Study (CLASS) was completed in 2003 which surveyed fifth grade students in Nova Scotia. It was found that students participating in CHS programs were less than half as likely to be overweight or obese, consumed more fruits and vegetables and achieved a higher quality diet than those students in the other schools (PHE Canada, 2005).

In Australia, there are numerous schools that are involved in the Australian Council for Health Physical Education and Recreation (ACHPER) National Active Australia Schools network initiative (Mandigo, 2002). The purpose of the initiative is to encourage children to become more active. Schools complete a registration form indicating their current situation and plans to implement initiatives in the areas of curriculum, school environment and school community. The schools receive a membership kit that provides them with resources to help implement and motivate physical activity programs within their school (Mandigo, 2002).

England is another country that has created an Active Schools program. Sport England’s Active School program is a whole school approach that unites the schools and school communities to decrease physical inactivity levels (Mandigo, 2002). The goal of their program is to provide resources, support and training so that children are provided the opportunity to engage in physical activity for at least two hours per week during school and outside school curriculum (Mandigo, 2002).

The Purpose of the Research and Research Questions

There has been a significant amount of research conducted on Canadians and Americans regarding physical inactivity and unhealthy eating; however, there is a lack of research completed on the Aboriginal population in both subject areas. Active School initiatives have created effective programs for elementary school aged students to increase their levels of physical activity and increase knowledge on making healthy choices. From the suggestions of the First Nations Regional Longitudinal Health Survey (2002/2003), a program such as Active Schools would be appropriate and beneficial in Aboriginal Schools and communities because of its collaborative and individualized approach. The program includes parents, teachers, students and the community, which would be an effective strategy to help increase physical activity and nutritional levels within the Aboriginal population.

The purpose of this research is to describe the journey towards Comprehensive School Health at two Aboriginal elementary schools. The research questions that will be examined are:

- How has the school environment changed (if any) regarding children's health?
- How has the evolution of the advocate and school health committee contributed to the process of developing a healthy school environment?
- How have the students changed/adopted health behaviours (if occurred) since the initiation of the Active Schools program? (in the following areas):
 - a. School transportation
 - b. Physical activity
 - c. Physical education

d. Nutrition

- How have the students' views about health, physical education, physical activity and nutrition changed since the beginning of the study?

CHAPTER TWO: LITERATURE REVIEW

The purpose of this chapter is to review the current and relevant literature on children's health and Aboriginal research impacted by physical activity and nutrition. In addition, literature on the importance of a Comprehensive School Health and the Active School program will be discussed as it is a framework used for the research.

Children and Youth

The following section will discuss health issues related to children and youth such as overweight and obesity, physical activity, physical education screen time and nutrition. In addition, this section will also discuss Comprehensive School Health and various school based health initiatives.

Overweight/obesity. Physical activity and dietary intake decisions can be influential for children and adolescence due to its affect on the growth and development of body tissues, such as body fat, skeletal muscle, bone and tissue (Hills et al., 2007). Children who neglect regular physical activity and nutritious meals throughout the growing years could develop patterns of physical malnutrition (Hills, et al., 2007). The prevalence of overweight and obesity in Canadian children has been on a drastic increase in recent years (Perez, 2003). Therefore, in efforts to decrease trends in obesity, promotion of physical activity for children and adolescents has been named a key focus in efforts to increase the promotion of health (van Sluijs, McMinn & Griffin, 2007).

Lifestyle behaviours such as physical activity and diet influence the risk of developing major diseases that are life threatening (Plotnikoff, Bercovitz & Loucaides, 2004). Lau et al. (2007) indicated that in 2004, one in four (26%) of

Canadian children and adolescents between the ages of 2-17 years old were overweight. This has been a substantial increase in the last 15 years where the rates have increased from 2% to 10% among boys and 2% to 9% among girls (Lau et al., 2007). The increase in childhood obesity raises concerns because there is a tendency for obese children to remain obese into adulthood (Biddle, Gorely & Stensel, 2004; Haerens et al., 2006; Lau et al., 2007). Conversely, children who develop desirable physical activity patterns in early childhood years have the opportunity to sustain these behaviours to impact mortality and longevity (Hills et al., 2007). Biddle et al. (2004) indicate that there is evidence that supports physical inactivity with the development of obesity. The development of a cardiovascular disease can begin as early as childhood or adolescence (Biddle et al., 2004). Children who are overweight or obese have a higher risk of developing physical and psychological health problems such as type II diabetes, hypertension, coronary heart disease, stroke, osteoarthritis, certain forms of cancers, orthopaedic abnormalities, neurological and gastroenterological problems, asthma and sleep apnea (Active Healthy Kids Canada, 2008; Lau et al., 2007; Perez, 2003; van Sluijs, McMinn & Griffin, 2007; Veugelers & Fitzgerald, 2005). Children and youth who experience weight gain over a two year period (beyond the weight gain that is expected with normal growth) can experience an unhealthy rise in blood pressure (Active Healthy Kids Canada, 2008). One major risk of being overweight or obese is type II diabetes which has been predominately an adult concern; however, recently more cases have been reported in children and adolescence (Biddle et al., 2004).

Increases in children's weight can be explained by the principle of energy

balance. When a child's energy intake is higher than the expended energy a positive energy balance occurs which can lead to weight gain (Hills et al., 2007). There are many factors that can contribute to a child's weight gain. Some examples consist of: environmental pressures, technological factors and the transitions from childhood to adolescence. These factors can lead children to a sedentary lifestyle ultimately leading to weight gain (Hills, et al., 2007). The increase in overweight and obesity in children has been attributed to changes in eating habits as well as physical activity levels (Perez, 2003; Veugelers & Fitzgerald, 2005). Children and adolescents are becoming more susceptible to health conditions due to increasing levels of overweight and obesity. The overweight and obesity percentages will continue to increase unless children become more active and partake in healthy behaviours.

Physical Activity. Physical activity is an important aspect for the physical health of young children and should be included in daily activities for normal growth and development. For example, physical activity should include weight bearing activities to develop a healthy musculoskeletal system, maintain body composition and prevent and help with reducing high blood pressure levels (Hills et al., 2007). Hills et al. (2007) discuss the importance of physical activity for the social and mental development of children. Psychosocial benefits of physical activity include a reduction in symptoms of depression, stress and anxiety, improvements in self-confidence, self-esteem, energy levels, ability to concentrate, sleep patterns (Hills et al., 2007) as well as mood and cognitive functioning (Biddle et al., 2004). Minimal levels of physical activity during the developmental years of childhood is a major contributing factor to increasing rates of overweight and obesity (Hills et al., 2007).

Hills et al. (2007) discuss that children are at a higher risk due to the methods of transportation to school and playing outside when compared with previous generations.

Hills et al. (2007) indicate that many children do not participate in recommended levels of physical activity. Physical activity levels for children today are low and still decreasing (Hills et al., 2007) with the majority of the decrease developing during adolescence (Biddle et al., 2004). Biddle et al. (2004) suggest that providing children with encouragement to become physically active would be a positive step in the direction to minimize the continuing increase in obesity. Physical activity programs that are longer in length have been shown to be more effective than shorter programs as well as lifestyle activities (e.g. walking or biking to and from school) having a more long lasting effect over time (Biddle et al., 2004). According to Canada's Physical Activity Guide, children are recommended to complete a minimum of 60 minutes of physical activity each day (Public Health Agency of Canada, 2007). The goal of Canada's Physical Activity Guide is to increase flexibility, endurance and strength activities while reducing long periods of sitting (Public Health Agency of Canada, 2007).

For the past four years (2005-2008) Healthy Active Kids Canada has released a report card on Canadian children's physical activity levels, in which Canadian children have been graded a 'D' indicating that "insufficient appropriate physical activity opportunities and programs are available to the majority of Canadian children and youth" (Active Healthy Kids Canada, 2008, pg. 8). The objective of the Report Card objective is to reveal the state of health of Canadian children relating to physical

activity, overweight and obesity. The Report Card outlines the current patterns of physical activity of Canadian children and youth (Active Healthy Kids Canada, 2008). Canadian children were given an 'F' in both physical activity levels and screen time indicating that children and youth are not active enough (Active Healthy Kids Canada, 2008). The data from the report card indicated that 90% of Canadian children and youth are not meeting the requirements for physical activity. A major finding in the 2007 Report Card illustrated that physical activity levels drop drastically when children reach adolescence; therefore, a goal in 2008 was to engage youth in more physical activity programs. The suggestion was to encourage youth to develop strategies to be physically active in ways that are motivating, socially stimulating and enjoyable (Active Healthy Kids Canada, 2008).

A study completed by the National Longitudinal Survey of Children and Youth (NLSCY) in 1994/95 determined that about one third of children aged 4 to 11 (37%) met the requirements to be considered physically active (Perez, 2003). The results of the study also indicated that girls were less active than boys which is supported by the 2008 Report Card (Active Healthy Kids Canada, 2008). Ridgers et al. (2006) found that boys participated in more moderate to vigorous physical activity (MVPA) during playtime than girls. Katzmarzyk et al. (2007) found that boys were more active than girls and participated in more MVPA across all ages. Boys often view playtime as an opportunity for competition while girls view playtime as an opportunity to socialize with friends (Ridgers et al., 2006).

The Canadian Fitness and Lifestyle Research Institute (CFLRI) completed a study in 2006 on the physical activity levels of Canadian children. Results indicated

that almost half of youth (48%) reported spending at least six hours each day completing sedentary activities such as watching television, doing homework or using the computer (CFLRI, 2006). This trend was demonstrated more heavily within the male population. Another study Canadian Physical Activity Levels Among Youth (CANPLAY) was completed by the CFLRI in 2005. The study looked at the current physical activity levels of Canadians. The CANPLAY study found that Canadian children and youth ages 5 to 19 take an average of 11,356 steps each day (recorded by a pedometer). There is not a definitive number of steps determined; however, a number of studies have suggested ranges of 12,000 to 15,000 steps each day in order to maintain a healthy weight (CFLRI, 2005). In the CANPLAY study, 84% of children did not meet the criteria of achieving at least 15,000 steps a day. It is evident that children are not meeting the recommendations for physical activity which is increasing the prevalence of overweight and obesity.

Another study was completed by Plotnikoff et al. (2004) that compared physical activity levels and the prevalence of overweight and obesity among children in Canadian urban and rural schools. The children were asked the duration and frequency of participation in physical activity outside of school hours for a one week period. Students were considered active if they completed 30 minutes of moderate activity or 20 minutes of vigorous physical activity at least four days each week. The criterion for the study was based on the recommendations from Canada's Physical Activity Guide to healthy living. The study's results demonstrated that 51.1% to 65.2% of urban students and 51.6% to 61.4% of rural students met the requirements. Approximately one-quarter (26%) of students were classified as

sedentary, 24% were moderately active and 50% as very active (Plotnikoff et al., 2004). Students in grades 12 and 13 (rural schools) had the highest percentage of sedentary students (30.6%) while rural schools demonstrated 31.9% for grade 11 (Plotnikoff et al., 2004).

Active Play During School Hours. Active play was a new addition in 2008 to Canada's Physical Activity Report Card because of the concerns that Canadian children and youth are not playing outside as much as they used to (Active Healthy Kids Canada, 2008). It was suggested that children are spending more time away from the home (i.e. daycare, afterschool programs and organized sport) in addition to safety concerns and have taken away time from active play (Active Healthy Kids Canada, 2008). Active participation in sport teams, clubs or 'play' is more common during early years of childhood. Leisure 'play' will decrease as children enter the adolescent years as physical activity becomes less of a priority (Hills et al., 2007). There has been evidence to demonstrate that physical activity in childhood can predict participation in adulthood (Hills et al., 2007; Ridgers et al., 2006).

Children spend the majority of their day in a school setting; therefore, this is a powerful opportunity to influence children's physical activity levels (Hills et al., 2007; Haerens et al, 2006). A school playground can be an effective environment for students to involve themselves in unorganized playtime (Ridgers et al. 2006). A study completed by Sallis et al. (2001) suggested that making realistic improvements to the school environment would help increase children's physical activity levels throughout the day. The study demonstrated that when improvements were made in the physical school environment and adult supervision, there was an increase in the

percentage of physically active girls and boys (Sallis et al., 2001). Biddle et al. (2004) found that children with access to facilities and playgrounds in addition to time spent outside contributed to an increase in greater physical activity. Similarly for adolescents, when they were given the opportunity to exercise it allowed for an increase in physical activity levels (Biddle et al., 2004). According to the 2008 Canada's Physical Activity Report Card, 91% of schools allow their students to use their outdoor facilities after school hours; however, only 56% indicated they are able to use indoor facilities after school (Active Healthy Kids Canada, 2008). CFLRI (2005) completed a survey of Canadian schools which demonstrated that 40% of schools have implemented policies to fundraise in order to purchase physical activity equipment, 30% have partially created policies; however, 30% of school remain without a policy to fundraise for physical activity equipment (Active Healthy Kids Canada, 2008).

Recess at school is a mandatory part of the day and children usually spend this time outside on the playground. In one school year, children experience up to 600 playtimes indicating that playtime offers a large amount of time where children are able to be physically active (Ridgers et al., 2006). Children accumulate physical activity at a significant level when they are free to interact amongst peers (Ridgers et al., 2006). Playtime offers children the opportunity to be physically active to meet minimum requirements of physical activity recommendations (Ridgers et al., 2006). Ridgers et al. (2006) discussed that children engaged in an average of 8.5 minutes of MVPA in the morning recess, 8.5 minutes during afternoon recess and 18.9 minutes at lunch time. The time spent participating in MVPA during playtime equated to an

average 35.7 minutes of the recommended 60 minutes of MVPA each day (Ridgers et al., 2006). Playtime played a valuable contributor to the recommended MVPA each day (4.7-40% for boys and 4.5-30.7% for girls) indicating that playtime can have a successful contribution to the accumulation of daily MVPA (Ridgers et al., 2006).

Younger children use playtime to practice physical skills, develop motor skills and develop confidence in their movement whereas older students tend to use playtime as an opportunity to develop social skills and play other games (Ridgers et al., 2006).

Students receive break time and physical education classes that provide opportunity to contribute up to one-third of the daily MVPA requirements (Hills et al., 2007; Ridgers et al., 2006). Conversely, children also spend a large amount of time during the day seated in the classroom. The trend towards decreasing physical education classes and sport activities in the schools will contribute to the high amount of sedentary time already occurring in the schools (Hills et al., 2007).

The 2008 Physical Activity Report Card indicated that two-thirds of schools developed policies and programs to encourage teachers, parents and students to be involved in the organization of events, services and facilities for physical activity (Active Healthy Kids Canada, 2008). The 2005 CFLRI Survey of Canadian Schools indicated that 67% of schools were encouraging student involvement in the organization of physical activity events. In addition, 61% of schools indicated that they have policies and programs encouraging teachers to act as role models for students. Also, when asked, 50% of students state that there was emphasis placed on encouraging school staff to be active themselves (Active Healthy Kids Canada, 2008).

Physical Education. Physical education (PE) is a school subject that provides children with the skills, knowledge and attitudes to engage in healthy active lifestyles (Fishburne & Hickson, 2005) also promoting physical activity (Sallis et al., 1997). It is important that children receive quality PE programs that are developmentally appropriate (Mandigo & Holt, 2006) and provide learning experiences in dance, gymnastics and outdoor education (Fishburne & Hickson, 2005). PHE Canada created the term Quality Daily Physical Education (QDPE) in 1988 to describe a program that is taught by qualified professionals, well planned and provides numerous learning opportunities for students (PHE Canada, 2008). It is important that schools outline a vision for the school to assist in ensuring that QDPE is achieved (Leidl, 2005). QDPE programs include: a minimum of 30 minutes of daily instruction for all students, planned lessons incorporating a variety of activities, maximum participation for all students, age appropriate activities, high emphasis on fun, success, fair play and personal health, an intramural program that allows participation for all students and finally qualified enthusiastic teachers (PHE Canada, 2008). Students who receive QDPE have the opportunity to develop the knowledge and skills needed to lead physically active lives in the future (PHE Canada, 2008). A school that has adopted QDPE values the importance of physical education and has promoted QDPE and physical activity throughout the school environment (PHE Canada, 2008).

Children and youth in Canada are encouraged to participate in healthy active lifestyles to prevent against diseases and other illnesses associated with physical inactivity (Fishburne & Hickson, 2005; Healthy Active Kids Canada, 2009; Sallis et

al., 1997). CAHPERD has created numerous criterion that describes a physically educated person. Essentially, a physically educated person is someone who is physically literate (Fishburne & Hickson, 2005). A physically literate individual is someone who has developed a language of physical movement through quality PE experiences (Fishburne & Hickson, 2005). These individuals chose to participate in regular physical activity, are able to move in a variety of ways and appreciate and understand the importance of physical activity (Fishburne & Hickson, 2005).

Physical education was included in Canada's first Physical Activity Report Card in 2005 and was graded an 'F'; however, from 2006 to 2008 it was incorporated in school physical activity and other programming (Active Healthy Kids Canada, 2009). The decision to include PE in the 2009 Report Card indicates the importance of the subject within the school system (Active Healthy Kids Canada, 2009).

In the 2009 Physical Activity Report Card, PE received a 'C minus'. The Ontario School Health Environment Survey (SHES) reported that only 15% of elementary school students receive daily physical education (Active Healthy Kids Canada, 2009). The study also indicated that the majority of students at the elementary school level experience on average two to three PE classes each week (Active Healthy Kids Canada, 2009).

Toronto teachers were asked what barriers they thought existed that prevented participation in PE. There were three categories of barriers found in the survey and they were: low priority for PE (minimal resources, lack of trained staff in PE), lack of performance measures for PE and insufficient infrastructure and facilities for quality PE instruction (Active Healthy Kids Canada, 2009). There is a high level of

opposition from teachers and principals at the elementary school level when it comes to increasing PE levels; however, it remains unclear as to why this occurs (Active Healthy Kids Canada, 2009). There are many programs that schools offer to help increase students' participation in physical activity. The CLFRI 2006 Schools Survey indicates that 58% of Canadian schools place a strong emphasis on student involvement in recreational sports, 37% place an importance on competitive team sports and 53% report placing stress on participation in individual physical activities (Active Healthy Kids Canada, 2009). Schools in Ontario are working to promote physical activity by acknowledging student participation in intramural and interschool clubs and activities (Active Healthy Kids Canada, 2009). It was reported that physical activity was rarely used as a disciplinary action (i.e. taken away due to behaviour); conversely, physical activity was more often used as a reward (Active Healthy Kids Canada, 2009).

Canadian schools were graded a 'B' for infrastructure and equipment use which indicated that schools reported having quality equipment and space for PE classes (Active Healthy Kids Canada, 2009). Gymnasiums are the most common space used for PE classes and fortunately 96% of schools reported having access to one (Active Healthy Kids Canada, 2009). Many schools also reported having access to a track, soccer field, baseball diamond and playground which increases student involvement in physical activity (Active Healthy Kids Canada, 2009).

Screen Time. Hills et al. (2007) and Ridgers et al. (2006) suggested that the opportunity for children to be physically active has been reduced because of a series of environmental, socio-economic and personal factors. For example, television

watching is related to lower physical activity, cardiorespiratory fitness and increased obesity (Hills et al., 2007). Tremblay and Willms (2003) identified that technology devices and unlimited access to calorie dense foods are attributable to an environment contributing to obesity. Canada's Physical Activity Report Card for 2008 indicated that children who experience a high volume of screen time are exposed to obesity and low fitness levels of self-efficacy for physical activity (Active Healthy Kids Canada, 2008).

Children are watching an excessive amount of television and playing video games which is a stimulus for overeating and sedentary behaviour (Tremblay and Willms, 2003; Hills et al., 2007). There is evidence that explains that sedentary behaviours are linked with high intake of snacks for children and adolescence (Hills et al., 2007). During screen time, children consume foods that are high in fat and drinks that are high in sugar (Active Healthy Kids Canada, 2008). In addition to the increase in television watching, the growing use of video and computer games also contribute to the increase in overweight and obese Canadian children (Tremblay & Willms, 2003). With the availability of the internet and mobile phones, children do not even need to leave the home to maintain contact with friends outside of school hours (Hills et al., 2007).

According to Canada's Physical Activity Report Card 2008, screen time remains high despite recommendations (Active Healthy Kids Canada, 2008). Parents are encouraged to limit screen time to a minimum of one to two hours per day working towards reducing screen time by 90 minutes each day (Active Healthy Kids Canada, 2008). Biddle et al. (2004) found that youth (6-17 years old) spend

approximately 0.91 hours watching videos, 0.84 hours a day reading books, 0.63 hours playing video games, 0.77 hours using the computer/internet, 0.52 hours talking on the phone and 0.35 hours reading newspapers or magazines. Another National study was completed with youth aged 11-15 in Europe and Canada that found approximately 30% of boys and 10% of girls play video games for four hours or more each week and 23% of boys and 16% of girls watch videos for more than four hours each week (Biddle et al., 2004). The study also suggests that that in North America, youth aged 8-16 (23% of girls and 29% of boys) watch television for more than four hours each day (Biddle et al., 2004). These results suggest that one-third of adolescence watch television more than four hours each day which is above recommended levels (Biddle et al., 2004).

Nutrition. The rising concerns of childhood obesity have provided a shift in public health to focus on healthy lifestyles such as eating habits. Programs created to change children's food preferences and practices contribute to the promise of decreasing chronic disease and promoting healthy lifestyles that continue into adulthood (Baranowski, et al., 2000). Diets that are high in a variety of fruits and vegetables are linked with decreasing the prevalence of overweight and obesity in youth and can provide protective effects from cancers and heart disease (Blanchette & Brug, 2005; Burchett, 2002; Cullen et al., 2003; Evans et al., 2006). Burchett (2002) indicated that increasing fruit and vegetable consumption has been identified as the second most effective strategy in reducing the risk of cancer.

The importance of consuming an adequate amount of fruits and vegetables have proven to provide substantial health effects; however, children and adolescents

are not meeting recommended guidelines (Blanchette & Brug, 2005; Evans et al., 2006). Healthy people 2010 recommend the consumption of at least five servings of fruits and vegetables for anyone over the age of two (Cullen et al., 2003; Evans et al., 2006). However, new dietary guidelines are recommending the consumption of 9-11 servings of fruit and vegetables per day (Evans et al., 2006). According to Canada's food guide, children ages 2-13 should consume four to six servings of fruit and vegetables per day (Health Canada, 2007). Although the recommendations are well documented, only 20% of children and adolescents are meeting national recommendations for fruit and vegetable intake (French & Stables, 2003). Several studies have revealed that children's fruit and vegetable consumption is well below the recommended level, averaging 1.9 servings to 2.5 servings (Baranowski et al., 2000). Habits formed during childhood such as consuming minimal fruit and vegetables can be carried into adulthood and can result in chronic disease later in life (Blanchette & Brug, 2005).

Health promoting initiatives fostering healthy eating practices focused in a school based setting have the potential to improve health and well being during childhood and later in life (Perez-Rodrigo et al., 2005). The school environment has been recognized as an important setting where changes can occur to decrease the prevalence of overweight and obesity in children. The school atmosphere has been shown to have a powerful influence on students' eating behaviours since students spend more than 34 hours a week in school (Sanigorski et al., 2005). Stables et al., (2005) and Sanigorski et al., (2005) stated that the school environment is a natural and effective setting for conducting health promotion activities.

A study completed by Sanigorski et al. (2005) assessed foods brought to school by children in their lunchboxes. They found that the most frequent foods in their lunches were bread, fruit, fat spreads, biscuits, muesli/fruit bars and packaged snacks; however, almost all children had some 'junk food' in their lunches. Girls consumed more energy from fruit and yoghurt than boys. In addition, it was found that younger children consumed significantly more energy from cakes/buns, sweet spreads and desserts than older children. They did find a significantly high proportion of fruit in their lunches (less than one serving on average) and a high proportion of energy dense snack foods (just over three servings on average) when looking at the results from the students in the Barwon-SW region of Victoria.

Davy et al. (2004) conducted a study focusing on body weight, dietary habits and physical activity levels of middle school aged children and found that 54% of their sample were classified as overweight or at risk for being overweight. Dietary data revealed a mean intake of less than one serving of fruit and one half vegetable servings per day. This was well below the recommendations of five servings of fruit and vegetables per day. Girls reported eating more vegetables than boys. During the day of dietary recall, 45% of children reported consuming zero servings of fruit and 59% reported no servings of vegetables. Students who ate breakfast each morning consumed a higher intake of fruit and vegetables.

Developing healthy eating habits as a child is important to help minimize the risks of developing obesity, or continuing the unhealthy behaviours into adulthood. It has been shown that children are consuming foods that are high in saturated fat, sugars and salt and this unhealthy lifestyle is contributing to the rise of childhood

obesity (Davy et al., 2004; Sanigorski et al., 2005). There is a high level of sweetened beverages being consumed during lunch hour and a shift towards packaged snacks to fill the lunch box (Sanigorski et al., 2005).

When children are provided the opportunity to taste a variety of fruits and vegetables, they become more familiar with healthy choices which tend to increase their consumption due to the exposure of the foods (Burchett, 2003; Horne et al., 2004). The exposure can be influenced by the accessibility and availability of the fruits and vegetables (Burchett, 2003). When there is low availability of fruit and vegetables, children will have limited exposure, resulting in a low preference for the taste of fruit and vegetables (Blanchette & Brug, 2005). It is important that children consume fruits and vegetables and provided the opportunity to taste a variety of foods to gain preferences for specific fruits and vegetables.

Aboriginal Health

Physical inactivity, overweight and obesity and other health concerns resulting from sedentary lifestyles and poor nutrition are current concerns for the Aboriginal population. Prior to the 1950s, type II diabetes was a rare disease among the Aboriginal population; however, within the last few decades, the disease has become a serious health concern (Young, Reading, Elias, & O'Neil, 2000). In Native North American populations, factors such as diets high in fat and low in dietary fiber intakes, low levels of physical activity, genetic predisposition and obesity are all associated with a high prevalence of diabetes (Saksvig et al., 2005; First Nations and Inuit Health Committee, CPS, 2005). Obesity, physical inactivity and a positive family history for type II diabetes are known risk factors in the development of type II

diabetes (First Nations and Inuit Health Committee, CPS, 2005). For example, the people of Sioux Lookout Zone of North-Western Ontario suffered from a 45% increase in the prevalence of diabetes within a 10-year period. In Saskatchewan, the rate of individuals being diagnosed with diabetes doubled between 1980 and 1990 (Young et al., 2000). Canada's Physical Activity Report Card for 2008 reported a study with 82 Cree children (ages 9-12) from Quebec which showed that 33% of the children were overweight and 38% were obese (Active Healthy Kids Canada, 2008). Kahnawake, a community southwest of Montreal has suffered from a longstanding problem of obesity and type II diabetes (Active Healthy Kids Canada, 2008). Unlike the last half century, obesity has become more prevalent in the Aboriginal population. Obesity in Aboriginal populations are more prevalent in the central regions of the body (abdominal and upper body), which can be associated with a high risk of developing diabetes (Young et al., 2000).

Chronic diseases such as coronary heart disease, hypertension, obesity, type II diabetes and osteoporosis are more prevalent among individuals with a higher level of body fat (First Nations Regional Longitudinal Health Survey, 2002/2003). This is usually shown in adults; however, are now being observed among pre-pubescent children (First Nations Regional Longitudinal Health Survey, 2002/2003). Data has revealed that Canadians of Aboriginal descent have higher rates of being overweight and obese compared to the overall Canadian population (First Nations Regional Longitudinal Health Survey, 2002/2003). Aboriginal children have a particularly high risk of obesity, which raises concern since obesity is associated with many chronic health problems listed above (First Nations Regional Longitudinal Health

Survey, 2002/2003). Saksvig et al. (2005) indicated that the prevalence of overweight and obesity among Native North American children ranges from 21% to 64% (ages 9-14) compared to 12-14% of US children. Data from the third National Health and Nutrition Examination Survey indicated that 27% of boys and 34% of girls were at or above the 85th percentile for BMI scores (Saksvig et al., 2005). The study also demonstrated that children with a low dietary fibre intake were more susceptible to being overweight (Saksvig et al., 2005).

Aboriginal communities and schools have developed programs to help reduce the prevalence of obesity and diabetes. For example, the Kahnawake Schools Diabetes Prevention Project (KSDPP) has been underway since the 1990 (First Nations and Inuit Health Committee, CPS, 2005). The KSDPP has a long term goal of decreasing the occurrences of type II diabetes as well as raising awareness to the community by promoting healthy eating and a healthy, active lifestyle (First Nations and Inuit Health Committee, CPS, 2005). KSDPP has played an active role in healthy changes within the schools in Kahnawake. The project has influenced the emphasis of healthy lunches, healthier vending machines, weekly teaching sessions (on healthy lifestyles and healthy eating) and education on diabetes (First Nations and Inuit Health Committee, CPS, 2005). Similarly, the Sandy Lake First Nation School Diabetes Prevention Program was established in 1998 and was formulated to educate grade three and four students in the prevention of type II diabetes (First Nations and Inuit Health Committee, CPS, 2005). The program is comprised of four components: a classroom curriculum, family outreach, student activities and advocacy for changes within the school and store environment. The program includes lessons that teach

students the importance of healthy eating and physical activity, a breakfast and snack program, health promotion in local stores, a local radio show that discussed diabetes for children, articles displayed in the local newspaper, information booths displayed during parent nights at the schools and letters sent home with the students (First Nations and Inuit Health Committee, CPS, 2005).

First Nations Regional Longitudinal Health Survey (2002/2003) stated that the most frequently reported form of physical activity was walking (86.9%) regardless of age or gender. The study also found that younger children were more likely to participate in daily physical activity when compared with older children (e.g. 50.3% of three to five year olds compared to 37.3% of 9-11 year olds) (First Nations Regional Longitudinal Health Survey, 2002/2003). According to parent reports, over half of First Nations children always or almost always ate a nutritious and balanced diet (55.4%) whereas 39.6% ate nutritiously 'sometimes'.

The survey also examined First Nation children's Body Mass Index (BMI). Classifications were made according to BMI results into three specific categories: normal/underweight, overweight and obese (First Nations Regional Longitudinal Health Survey, 2002/2003). According to the classifications made in the study, 41.5% of children were considered to be normal or underweight; however, 22.3% of the children were considered overweight and 36.2% as obese (First Nations Regional Longitudinal Health Survey, 2002/2003). Children who are physically active daily are more likely to eat a balanced and nutritional diet always or almost always (60.9%), compared to 45.5% of children participating in physical activity less than once a week (First Nations Regional Longitudinal Health Survey, 2002/2003). The

study demonstrated a significant difference in terms of consuming certain foods, between children who are active daily and children who are never active. For example, 18.7% of active children consumed soda drinks versus 54.9% of those never active and 21.7% of active children consumed fast food versus 44.9% of those never active (First Nations Regional Longitudinal Health Survey, 2002/2003).

Ottawa Charter for Health Promotion

The World Health Organization (WHO) defines health promotion as the process of encouraging people to increase and improve their health (WHO, 2009). The Ottawa Charter for Health Promotion was launched at the first International conference in 1986 (WHO, 2009) (Appendix A). The health promotion emblem was created for the conference as it represents the approach to health promotion described in the Ottawa Charter (WHO, 2009). The logo incorporates five action areas in health promotion. They are: build healthy public policy, create supportive environments for health, strengthen community action for health, develop personal skills, and re-orient health service (WHO, 2009). The Ottawa Charter for Health Promotion also presents three health promotion strategies which are: advocate, enable and mediate which can be applied to all health promotion areas (WHO, 2009). The red outer circle represents the goal of building healthy public policies, The red circle symbolizes that policy is needed to “hold things together” (WHO, 2009). The logo presents the idea that health promotion is a comprehensive approach (WHO, 2009).

Health promotion encourages quality of life (e.g. political, economical, social) through advocacy for health. Health promotion also focuses on ensuring equal opportunities and resources for people to achieve a healthy lifestyle. Finally, there

are numerous demands on all sectors related to health. It is imperative that they work together for the pursuit of health (WHO, 2009).

Comprehensive School Health

Schools are seen as an influential environment for students to improve healthy behaviours (Anderson et al., 1999; CASH, 2007). Students' behaviours are not only influenced through instruction or extracurricular programs, but the additional programs and services offered throughout the school (Anderson et al., 1999). Schools play an important role in influencing students' health; however, schools do not operate in isolation. Other individuals such as families and communities are able to influence positive outcomes and thus schools need to work with community members and families to promote healthy lifestyles (Anderson et al., 1999).

Comprehensive school health (CSH) is an approach to school based health promotion that involves numerous programs, activities and services within the school and community (CAHPERD, n.d). CSH is designed to affect the health of students in addition to creating a healthy environment for which they live and learn (CAPHERD, n.d). In order to make changes, it is required that families, health professionals, educators and community organizations be equally involved (CAPHERD, n.d). CSH approaches require significant investment in time and resources to create a workable plan for the school (CAPHERD, n.d). It is also important to have support from the school community and dedicated individuals to help implement the school's plan on a regular basis (CAPHERD, n.d).

Laforêt-Fliesser and Mitchell (2002) define CHS as "an ecological framework for school based health promotion that integrates health instruction and service within

a healthy school and community environment” (p. 13). CHS requires an integrated approach that combines health and health messaging into school and community environments (CASH, 2007). Laforêt-Fliesser and Mitchell (2002) and CASH (2007) discuss four main components of CSH: instruction (the way students and staff receive formal and informal information about health), support services (the availability of support services and assess health needs, prevent disease and illness), social support (e.g. from family, peers, school staff, community) and finally a healthy physical environment (within the school and school community). CHS focuses on involving students and members of the school community to create positive change (Laforêt-Fliesser & Mitchell, 2002).

It is important to have the support of the principal, teachers, school nurse, parents and community members (McCall, 1999). In addition, Laforêt-Fliesser and Mitchell (2002) also discuss the value of creating a healthy schools committee. The committee comprised of teachers, parents, students and members of the school community establish ownership for planning healthy activities in the school (Laforêt-Fliesser & Mitchell, 2002). The committee is seen as a ‘vehicle’ for discussing many health issues within the school (Laforêt-Fliesser & Mitchell, 2002).

Incorporating CSH into the school environment has many benefits. CAHPERD (n.d) states that a CSH program can improve student health, allow students to take responsibility of their health, improve student and staff relationships, provide ideas and strategies to improve health of students and school community and enhance community relationships. CASH (2007) stated that initiatives are more effective when a comprehensive approach is used that includes quality instruction, change in

the social environment and collaborations with the community. There have been many success stories from schools who adopt CSH approaches. Educators who adopt the comprehensive programs have seen positive increases in academic achievement such as improved concentration, higher tests scores in math, reading and writing and a decrease in disruptive behaviour (CAHPERD, n.d). In addition, school based programs using CSH approaches have seen a reduction in behaviours such as poor nutrition, physical inactivity, tobacco use and alcohol and drug abuse (CAHPERD, n.d).

School Bases Health Initiatives

Active Schools. Active Schools is a comprehensive health initiative that was created to improve and maintain healthy lifestyles in children. The World Health Organization (WHO) has supported many initiatives promoting healthy environments for children. The WHO recognizes the need to promote healthy behaviours on a global level due to the decrease in healthy lifestyles (WHO, 2007). Physical inactivity in children and youth today is becoming a more prevalent lifestyle. The WHO (2007) and CLFRI (2005) indicate that physical activity will help prevent chronic conditions such as heart disease, hypertension, stroke and diabetes.

The Active Schools program was created by OPHEA and is a program designed for children from kindergarten to grade eight to motivate students and recognize school communities (e.g. teachers, parents, students and community leaders) for being active and committed to promoting an active, healthy lifestyle (OPHEA, 2008). The program assists school communities in creating, adopting, implementing and maintaining programs within the school to create a healthier school

community (OPHEA, 2008).

The Active schools program is a six level program that is developed from the word 'ACTIVE'. Each letter represents a category and schools complete different activities under each category in order to move up a level. The categories are: Active participation, Co-curricular, Teamwork, Involvement, Values and Education (OPHEA, 2008). Schools are eligible to register with OPHEA and are provided resources such as tracking posters, classroom posters and activity plan samples (OPHEA, 2008). The Active Schools program educates students in health and physical education, helps maintain an active healthy school environment and promotes school spirit (OPHEA, 2008).

Ever Active Schools. The province of Alberta has created a similar program called Ever Active Schools (EAS). A member of the EAS committee suggested each school follow a comprehensive school health approach to ensure healthy messages are transported to the home, school and community (EAS, 2007). EAS mission is to "facilitate the development of healthy children and youth by fostering social and physical environments that support healthy, active school communities" (EAS, 2007). The committee members focus on the promotion of health benefits of physical activity, healthy eating and mental health within the school community (EAS, 2007). Alberta's physical education and health curricula ensure that all students are given equal opportunity to learn and experience the importance of health and active living through the program (EAS, 2007). EAS is extended beyond behaviour and ensures that children are provided with a school environment where they are able to make healthy choices. The EAS framework consists of four strategies known as the four

‘E’s’ (EAS, 2007). The first is ‘education’. This area includes providing innovative and supporting opportunities for students to make healthy choices that will ultimately allow them to achieve an active, healthy lifestyle. The second ‘E’ is ‘everywhere’ which encourages students to participate in active living initiatives within the community, school and home. ‘Everyone’ includes providing opportunities for all students to increase activity and involvement. The final stage is ‘environment’ which involves developing social and physical environments that support active living (EAS, 2007).

The EAS program has been working closely with many schools in Alberta. In 2007, 131 of the schools working with the EAS program had submitted plans and strategies to increase students’ health behaviours in their school community. Each strategy was unique to the school community that allows them to work on health goals that meet each school’s needs (EAS, 2007).

The existing literature presents a range of information about children and youth in areas such as nutrition, physical activity, physical education and active playtime. The literature was valuable in providing statistics and facts about current health issues in children and youth in non-Aboriginal and Aboriginal populations. As well, the theoretical frameworks of the Ottawa Charter (1986), Comprehensive School Health (McCall, 1999), Active Schools (OPHEA, 2008) offer insight as potential models to enhance children’s health in the school environment. However, there is a paucity of literature which reveal concrete information about the journey to becoming a school using the Comprehensive School Health framework. This research will focus upon

the journey of two Aboriginal schools using Comprehensive School Health as a theoretical framework.

CHAPTER THREE: METHODOLOGY AND METHOD

The purpose of this chapter is to review in detail the theoretical perspective upon which the study is based and discuss methods used. This is provided in order to ensure clarity of the research process for the reader.

Methodology: Interpretivist and Action Oriented

A paradigm is defined as:

a set of basic beliefs that deals with ultimates or first principles. It represents a worldview that defines for its holder, the nature of the “world” the individual’s place in it, and the range of possible relationships to that world and its parts” (Guba and Lincoln, 2004. p. 21).

Similarly, Sparkes (1992) defines a paradigm as a “world view, a general perspective, a way of breaking down the complexity of the real world” (p. 12). The theoretical perspective that will be used in this research study is the interpretive paradigm. Sparkes (1992) has indicated that the interpretive paradigm is more inclusive than other perspectives and points to important features of family resemblance within the various approaches. The interpretive paradigm is concerned with understanding the world as it is and formulating an understanding of the fundamental nature of the social world (Sparkes, 1992). It also views the social world as an emergent process that is created by the individuals involved (Sparkes, 1992).

Interpretivists are focused on the individual’s interests, purposes and intentional and meaningful behaviour which helps the researcher interpret the world from the

participant's point of view (Sparkes, 1992). Willis (2007) stated that interpretivists believe that it is critical to understand the context of any form of research in order to interpret data collected. The goal of interpretive research is to understand the particular situation rather than the discovery of rules or laws (Willis, 2007). As a researcher it is my goal to work with the schools to understand their views and behaviours while working towards becoming a healthy school.

Willis (2007) discusses five characteristics that action research displays when based on the interpretive paradigm. They include: the setting is naturalistic (research conducted is based on real-world contexts), the process is participatory (the research conducted involves all individuals on an equal basis and involved throughout the study), pronesis is the goal (practical judgement, is constantly being influenced by the situation), the work is collaborative (the researcher and participants work together to identify potential problems and solutions) and theory and practice interact (the researchers uses theories during research but also includes explanations and understandings from the participants).

Action research (AR) is defined as:

a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes...it seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues pressing concern to people, and more generally the flourishing of individual persons and their communities (Bradbury & Reason, 2003, p.1).

Greenwood and Levin (2007) define AR as “social research carried out by a team that encompasses a professional action researcher and the members of an organization, community, or network (‘stakeholders’) who are seeking to improve the participants’ situation” (p. 3). AR is viewed as a way to utilize multiple research techniques while working in the field with the goal of increasing change and enhancing knowledge (Greenwood & Levin, 2007). It is a collaborate process that focuses on working ‘with’ individuals rather than doing it ‘for’ others (Greenwood & Levin, 2007). The primary purpose of AR is to produce useful knowledge to help people in their everyday lives (Bradbury & Reason, 2003). AR is used to work towards creating practical outcomes in addition to developing new forms of understanding (Bradbury & Reason, 2003). Successful AR is an emergent, evolutionary and a developmental process developed as individuals obtain skills within communities (Bradbury & Reason, 2003).

Action research has three essential elements: action, research and participation (Greenwood & Levin, 2007). Action is an essential element because it aims to alter the situation of the organization or community to ultimately create a more self-managing, sustainable state. As research is the power of knowledge, theories, models, methods and analysis, AR is believed to be a very powerful way to generate new research knowledge (Greenwood & Levin, 2007). Participation is an important aspect in AR because researchers act as facilitators and teachers for local communities and organizations (Greenwood & Levin, 2007). The goal of AR is to increase the ability of the community or organization to effectively continue to improve their ability to make a more sustainable environment (Greenwood & Levin,

2007).

Participatory action research (PAR) can be defined as a self-reflective inquiry undertaken by participants in social settings to improve rationality of their own social practices (Hughes & Seymour-Rolls, 2000). Willis (2007) describes a framework that divides the PAR project into four elements: reflecting, planning, acting and observing which form a continuous spiral. The cycle ends with observations; however, the process continues back to reflections where the project can continue for numerous cycles (Willis, 2007). The process can continue for numerous cycles as new opinions, strategies and revisions are planned, implemented and evaluated. A complete cycle of PAR provides a solid foundation for the next cycle (Willis, 2007).

Theoretical Framework

The Comprehensive School Health (CSH) Model was used as a theoretical framework to guide the research because of its collaborative approach. The Ottawa Charter was developed after the First International Conference in 1986, after a growing response for a new public health movement around the world (WHO, 2009). The Ottawa Charter for Health Promotion discusses that health promotion is a comprehensive, multi-strategy approach (WHO, 2009). CSH addresses the components from the Ottawa Charter and provides four pillars which provide a solid foundation for CSH. The four components are: instruction, support services, social support and healthy physical environment (CASH, 2007; Laforêt-Fliesser and Mitchell, 2002). The CSH model provides the foundation of a supportive, collaborative atmosphere for schools to create healthy active environments for the school community.

Method

Case Study

The method that will be used in the research is case study. Creswell (2007) defines a case study as an approach where the researcher investigates a bounded system (a case) or multiple bounded systems (cases) over a specific time including detailed data collection using multiple sources of information (e.g. observations, interviews and documents and reports) and reports case descriptions and themes. Yin (2003) defines case study research as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (p. 13). Case study designs are used when the researcher’s goal is to gain an in-depth understanding of the situation and meaning for the participants involved (Merriam, 1998). The researcher has an interest in the process involved rather than the outcome (Merriam, 1998). Case studies are intensive descriptions and analysis of a single unit or bounded system, for example, an individual, event, group or community (Merriam, 1998).

Willis (2007) outlines five criteria that define case studies. They are: particularistic (focus on a specific context such as a person, family, or classroom), naturalistic (they are about real people and situations in real environments), thick descriptive data (including participant and non participant observations, interviews and historical and narrative sources), inductive (rely on inductive reasoning) and heuristic (they illuminate a reader’s understanding of the study). Interpretive researches often use the case study method because it has several advantages. Case studies allow the researcher to gather rich holistic data and can be performed without

predetermined hypothesis and goals (Willis, 2007).

There are a variety of different types of case studies that a researcher can complete. Creswell (2007) discussed three variations such as the single instrumental case study, collective or multiple case studies and the intrinsic case study. For this research project, I will use the collective or multiple case study method. Two Elementary Schools (Hillside Elementary School and Greenwood Elementary School) will be used in the case study. Pseudonyms were used for the schools to ensure confidentiality. When a study contains more than one case the researcher uses a multiple case study (Yin, 2003). This type of study requires the collection and analyzing of data from several cases (Merriam, 1998).

Evidence from a multiple case study is considered more convincing; therefore, the overall study is regarded as being more sound (Yin, 2003). Every case should have a specific purpose within the overall realm of the inquiry. Case studies have proven to be useful when studying educational innovations, evaluating programs and informing policy (Merriam, 1998).

The Research Process

The research process began in April 2008 and was completed in March 2009. The following section outlines the evolution of the research and how the process unfolded. The research questions that will be examined throughout the research are:

- How has the school environment changed (if any) regarding children's health?
- How has the evolution of the advocate and school health committee contributed to the process of developing a healthy school environment?

- How have the students changed/adopted health behaviours (if occurred) since the initiation of the Active Schools program? (in the following areas):
 - a. School transportation
 - b. Physical activity
 - c. Physical education
 - d. Nutrition
- How have the students views about health, physical education, physical activity and nutrition changed since the beginning of the study?

The Pilot Study

The past two school years (2006-2008, previous to starting my Masters research) Dr. Nancy Francis and I have worked in two schools on an Aboriginal Reserve implementing the CATCH program (Coordinated Approach to Child Health) as a trial study, instructing physical activity and physical education workshops and developing initiatives on physical activity and nutrition. Those schools were chosen due to the relationships (and interest of the program) between Dr. Francis and administrative staff at both schools.

The pilot study for my research was completed during the months of April 2008 until December 2008. A collaborative team comprised of Dr. Nancy Francis (Brock University), the manager from the Reserve Health Team, and a Community Missions Specialist from the Ontario Heart and Stroke Foundation applied for a Heart and Stroke Advocacy grant and were successful. The purpose of the Community Advocacy Fund grant from the Heart and Stroke Foundation was to advocate and implement physical activity and nutrition in elementary schools. The goal of the

grant was to determine an advocate (school champion) at each school who was responsible for creating a healthy schools committee. The purpose of the committee was for each school to host a school event, such as a family fun night, that promoted healthy living for students, staff and community members.

An advocate is essentially an individual who supports or defends a specific cause (Reynolds, Reilly, Ballin & Wooley, 2001). Reynolds et al. (2001) state that advocates should demonstrate the following characteristics: they care about the quality of life within the community, they are willing to take action and speak out for positive change, they create goals and work towards those goals and finally, they are willing to persevere in the face of adversity. Another term for school advocate that has been used is 'school champion'. The World Health Organization (WHO) (n.d.) define health promotion 'champions' as individuals who demonstrate an interest in health promotion and take the lead by mobilizing individuals and communities to take action. The role of the champion is to develop ownership of the program while inspiring others to do the same (WHO, n.d.).

Throughout the year of 2008, several meetings (biweekly- approximately eight between April 1st and September 19th) occurred to determine the school advocates and construct the healthy schools committees. The meetings were held with Health Team managers, Dr. Nancy Francis, Heart and Stroke representatives, physical activity coordinators and members of the health committees to discuss what has been happening at the schools and ensure each school advocacy committee was focused on creating a school wide event. Each healthy school committee was supported by an 'expert' (e.g. member of the health team, physical activity specialist, Brock

University professors/graduate student) to provide assistance with resources, healthy initiative ideas, and to provide encouragement throughout the process. Individual committee meetings (biweekly) were arranged with the committees at each school to discuss specific plans for the year.

When school resumed in September 2008, I worked closely with two schools (Hillside Elementary School and Greenwood Elementary School, pseudonyms were used) that were specifically chosen because of previous relationships and the connections established with the advocate. I have been working with one school (Greenwood Elementary School) for a few years and had the chance to build a relationship with the principal who has shown great support in my efforts to increase the health behaviours of staff and students. The other school (Hillside Elementary School) was chosen because of the interest from the advocate and principal. I received permission from both principals to include their school in my research.

Hillside Elementary School-Pilot Study

Hillside Elementary School has a population of about 311 students (Kindergarten to Grade eight) with a staff (teachers and support staff) of 22. They recently completed renovations on their gymnasium floor, which re-opened in 2008 with a new space for physical education. Their green space is quite large and has three playgrounds, a track, soccer field, baseball diamond and numerous spaces for the students to play.

The school's internal design is shaped in a triangle formation with the library at the front of the school. The classrooms run down each hallway; however, classrooms are only one side of the hall. There is about one class in each grade with some split

classes. The school also has a Cayuga immersion program for the students in the upper year grades.

The advocate at Hillside Elementary school is a grade 7/8 teacher who is motivated and enthusiastic about creating a healthy environment for staff and students in the school. In early September 2008, Dr. Nancy Francis and I developed and facilitated a professional development day workshop for the teachers at Hillside Elementary school. The purpose of the workshop was to educate and discuss developmentally appropriate activities and games for elementary school children.

In early October 2008, a committee meeting involving staff and teachers from Hillside Elementary school as well as members from the Health Team met to discuss and plan the culminating event for the school. Through many discussions, it was decided that November was going to be 'health month' where a variety of initiatives and activities were created to be implemented during the month (Appendix B). A 'kick off' was scheduled for the beginning of November to get the students excited about what was going to occur throughout the month. The 'kick off' consisted of committee members attending the morning assembly and getting the students and staff excited about health (i.e. completed a 'fit break' and explained some of the healthy initiatives scheduled).

Throughout the month of November, the committee organized four events. These events included an overview of Go, Slow and Whoa foods (from the CATCH program) exercise week (focus on daily physical activity), nutrition week (focused on Canada's Food Guide) and daily health trivia and a door decorating contest. Teachers were instructed on how to complete each activity and were given a schedule of the

events taking place throughout the month. Some teachers/classrooms participated in more events than others. It was not mandatory (but recommended and encouraged) for each classroom to participate; however, most classrooms did try to complete as many activities as possible. Upon completion of each activity, points were rewarded to the classrooms that participated, completed the activities on time and demonstrated originality and enthusiasm. The advocate awarded points each week and kept a tally sheet for the total points of each classroom. The classrooms that received the most points (one from primary and one from junior/intermediate) received a bag of equipment (e.g. utility balls, basketballs, skipping ropes) to use during recess, lunchtime or free activity time. The equipment was purchased from the funding received from the Heart and Stroke Foundation grant. The activities in the month of November were to introduce the students to a variety of health concepts, educate on important health issues and get them excited for the Health Fair.

After all the healthy initiatives from November were complete, the plan was to have a Health Fair that students could be a part of. The Health Fair was scheduled to take place to celebrate the hard work of the students and provide them with an opportunity to expand their knowledge on health topics. The Health Fair consisted of booths set up around the gymnasium where students rotated through each station. Examples of the stations include: a label reading game, making a healthy snack and getting active with a physical activity station. The Reserve's family Health Team was present with booths filled with educational information for the students and families. These booth included: diabetes and the implications, healthy babies/healthy living and a booth from health promotions. The Health Fair ran in the afternoon for the students

and again in the evening for students to bring their family members and show them what they have been working on in the last month. The students were given a healthy passport where they got a stamp after they completed each booth.

Daily physical activity was implemented during the morning assembly from the beginning of the school year. To date, teachers and students have continued this initiative and have maintained their 10 minute school-wide physical activity. Each week a different class plans and leads the morning exercise. Examples of activities that were completed are: running on the spot, jumping jacks, pretend to skate, hop on one foot and various dance activities.

Greenwood Elementary School-Pilot Study

Greenwood Elementary School provides a positive, educational environment for more than 260 students ranging from Kindergarten to grade eight. The school was built with an open concept design, with the library housed in the centre of the school. The school's internal design is triangular shaped where the classrooms run down each hallway surrounding the library. The school has a beautiful new playground, track and open green space that the students are able to use during recess and lunch hour.

Greenwood Elementary School has been working on healthy initiatives over the last few school years and was involved in the CATCH program in previous years. The school has been working towards healthier eating and increasing physical activity in their students and staff. The school recently removed the microwaves that were located in each classroom with the intention to decrease the high fat (frozen) foods (e.g. pogo's, pizza pockets) students were bringing. The advocate for Greenwood Elementary School was a parent of children who attended the school. In addition, the

school principal was heavily involved in the committee assisting the students in making healthier choices.

In October 2008, Greenwood Elementary School hosted a Halloween Family Fun night that encouraged students and families to dress up in Halloween spirit and explore the games and activities that were organized throughout the gymnasium. Some of the activities included a ring toss, haunted house and bean bag toss. There was a positive turnout from the students and families and everyone had an eventful evening of fun and games.

After the Halloween Family Fun night, I arranged a meeting with the school principal (who suggested two other teachers/staff members to attend) to discuss healthy initiatives that could be implemented in the school. One of the staff members who attended teaches physical education to the junior and intermediate division classes. She indicated that the students were working on nutrition in health class and could use assistance in that area. I suggested that her students create a Health Fair where the remaining students in the school could rotate and become familiar with Canada's Food Guide. The student's were put into groups of three or four and assigned a food group from Canada's Food Guide (milk and alternatives, fruit and vegetables, meat and alternatives, grain products). A junk food group was also added in for the assignment. The students were to develop a display board with information, such as healthy recipes, nutritional information, general history about the food group and an interactive demonstration or activity for the students to engage in. The grade five to eight students had their information displayed the gymnasium and the rest of the students and staff members rotated through. Parents and family members of the

students attended the health fair to see what the students had created.

Shift towards Comprehensive School Health

When I first started my research project, I planned to use the Active Schools model. Since the pilot study, I realized that the Active Schools model was too advanced to apply as a theoretical framework for the population that I was working with. It became clear that the Comprehensive School Health model was more appropriate model to use as a research framework. Therefore, Comprehensive School Health was the framework used in the research.

Ethics Clearance

The Brock University Research Ethics Board (REB) requires that ethics approval must be obtained before any research commences (Brock University, 2007). The ethics application was completed and submitted to the REB in October 2008. After revisions completed on the ethics application, approval to begin my research was granted in December 2008. The superintendent provided me permission to complete my research in the two schools that were chosen. I was also granted permission (via email/verbal permission) of both school principal's to use their schools in my research.

In January 2009, an e-mail was received from a parent of a student (who is the secretary of the Reserve's Council) from one of the elementary schools indicating that ethics needed to be cleared by the Reserves Ethics board. I was surprised by the e-mail as I had been informed that their ethics protocol was not necessary as verbal permission was granted from the superintendent of the schools and both school principals. I tried contacting the superintendant multiple times (through e-mail and

telephone for about a month) and was unsuccessful at speaking to her directly. I contacted one of the school principals asking if there was another number for the superintendent. I was later informed that she had retired and was provided contact information for the current superintendent. She was immediately contacted and I explained the situation that I was currently experiencing. She also provided written permission to complete my research in the two schools.

After many conversations with the council secretary, I was instructed to complete the ethics forms for their council in order to obtain permission from their ethics committee. I submitted my application to the ethics committee at the end of January 2009. An e-mail was received from the secretary of the council requesting my presence at the February meeting for clarification on aspects of my research. I attended the ethics board meeting on February 20, 2009 and answered a variety of questions the committee asked about my application. About one week later, I received a letter in the mail from the secretary of the ethics council indicating that my application had been granted approval. My research was delayed; however, I was now able to officially start my data collection.

Letter of Invitation and Consent Forms

A letter of invitation and consent form was distributed to all students and teachers (approximately 300) at Hillside Elementary School (Appendix C). Each day at Hillside Elementary School begins with a morning assembly. I asked the principal's permission to inform the students of my research project and introduce them to the consent forms. I addressed the entire school and teacher population at the same time. I explained who I was (in case some students forgot), the purpose for

being in the school and also the importance of having the consent forms returned. I also announced that the class who returned the most forms would receive an extra physical education class. After the morning assembly concluded, I visited each class to answer any questions or concerns students and/or teachers may have. I distributed the letter of invitation and consent forms to the classroom teacher requesting that they keep track of forms returned by the students. I also requested that indicate whether students received permission to participate or whether students did not have permission to participate. Consent forms returned from Hillside Elementary totalled 85 with eight declining participation in the study; therefore, the number of consent forms was 28 percent of the total population.

I spoke with the principal of Greenwood Elementary School and arranged to attend a staff meeting to inform the teachers. The principal felt it was important to have teacher support first which I also felt was necessary. I spoke during their meeting introducing myself (some teachers were more familiar with me than others) and explained what my research included and how their support was important to make it a successful project. I distributed consent forms to the teachers at the end of the meeting which provided further details about the study. I met with the principal after the meeting to discuss the next steps in my research plan. She thought that it may be a good idea to work directly with the teachers' and students'; therefore I spoke with the classroom teachers (one from each division, e.g. primary, junior and intermediate) who were cooperative with my research program. One teacher who agreed to participate taught most of the junior and intermediate physical education (was also a committee member); therefore, I was able to attend physical education

classes on a regular basis.

Letters of invitation and consent forms were received by approximately 140 students and four teachers at Greenwood Elementary School. It was indicated on the consent form to have them returned four days after they were distributed. Most students had them in quickly; however, some were still being returned a few weeks after they were sent home. The homeroom teacher collected the forms and recorded the responses from the parents on a class list. Greenwood Elementary School returned 70 forms; however, nine indicated that they did not want to participate in the study. I received a total of 50 percent participation of the forms distributed.

The Research Process upon Ethics Clearance

Data collection began in December 2008 (upon receiving ethics clearance from Brock University) and was completed at the end of March 2009. There was a minor set back due to the additional ethics application that needed to be completed. I attended both schools once a week (on Tuesdays) during the data collection period. I attended Hillside Elementary School in the mornings and Greenwood Elementary School in the afternoons. The scheduling worked out well where most of the junior and intermediate physical education classes were in the afternoon at Greenwood Elementary School. There were weeks where I also went twice a week (Wednesdays) to ensure I had enough time in the field to collect significant data.

Data Collection

Data collection methods that were used during the research process were participant observations, semi-structured interviews and document analysis.

Participant Observations. Observations completed at Hillside Elementary

School and Greenwood Elementary School used participant observations as a method of data collection. Spradley (1980) states that a participant observer enters a situation with a dual purpose: 1) to engage in activities appropriate to the situation and 2) to observe activities, people and aspects of the situations. Merriam (1998) indicated that observations take place in a natural field setting and observations are first-hand encounters with the participants in a setting. Observations can be used as a valuable research tool when it is used for a research purpose, is planned, recorded systematically and is valid and reliable (Merriam, 1998). Participating in observations also provide the researcher with knowledge of context or provide information on incidents and behaviours to build on specific points of interest for interviews (Merriam, 1998). Finally, observations also allow the researcher to observe situations that may not come up in an interview setting (Merriam, 1998).

Observations occurred during health committee meetings, school-wide activities, physical education classes, classroom activities (e.g. math lesson, indoor recess) lunch time and other school functions that occurred during the school year. I spent a lot of my time in the gymnasium working with different teachers and students during their physical education classes. In addition to being an observer, I was an active participant in physical education classes, school activities and health committee meetings. I taught multiple physical education classes, incorporating new games and activities as well as teaching students about inclusion, teamwork and allowing the students to try new activities. I met with the school advocates approximately twice per month to discuss the schools' progress and new plans for the future. I also had frequent discussions with individual classroom teachers about health initiatives and

activities for their students in addition to school-wide programs. I created ideas and assisted with the implementation of health initiatives, activity planning and provided resource materials to teachers and staff when requested. I felt that being an active member in the process was important to build and strengthen relationships as well as act as a supporter for the committee members, students and teachers of each school.

A notebook was kept with fieldnotes documenting observations and conversations while I was in both schools each week. Patton (2002) stated that fieldnotes are not an optional process. Fieldnotes are “the most important determinant of later bringing of a qualitative analysis” (Patton, 2002, p. 302). I also used an observational chart to document additional information (Appendix D). I documented student behaviours, activities throughout the school, active play at recess, descriptions of the school environment (e.g. posters, playground) and informal conversations between myself and the school community (e.g. teachers, students, staff). I wrote in the notebook after each visit to both schools documenting information (i.e. conversations, positive changes in PE, healthy events held that day, frustrations during the research process) that would assist in my analysis. I have approximately 20 entries in my notebook documenting observational experiences at both schools. During my days spent at the schools, I was there for about three to four hours at school (one in the morning and one in the afternoon) totalling about 150-160 hours.

Interviews. Interviews are often used in case studies with the purpose of developing knowledge about a person or institution (Kvale, 1996). Interviews are one of the most common and powerful methods used to understand others (Fontana &

Frey, 2005). I used semi structured (guided) interviews for my research. The semi-structured interview consists of questions that are more flexibly worded or mixed between more and less structured questions (Merriam, 1998). The majority of the interview is guided by a list of questions or topics to be explored and neither the exact wording of the questions or the order is predetermined (Merriam, 1998). This format allows the interviewer to build on responses by the interviewee to gather new ideas from the topic (Merriam, 1998).

The interview guide provides a list of questions, topics or issues that are to be examined during the interview (Patton, 2002). Questions used in the interviews were related to physical education, physical activity, nutrition and the school environment (Appendix E).

Interviews took place at both Greenwood Elementary School and Hillside Elementary School and were completed in the classroom, nurses' room or the principal's office. I interviewed a total of 16 individuals from both schools. Interviews from Greenwood Elementary School included the school principal, two teachers and eight students. Interviews at Hillside Elementary School consisted of the school principal, two teachers and two students (Appendix F). Interviews were recorded with a digital voice recorder and transcribed verbatim for analysis.

The interviews were helpful to gather thoughts, feelings and opinions about each school's journey towards Comprehensive School Health. The individuals chosen to participate in the interview had returned signed consent forms from their parents or guardians. I spoke with the classroom teachers and/or PE teachers to ask their input on students they felt were possible candidates for interviews. They

suggested students whom they felt participate well in class, could be mature about being interviewed and were able to carry on a conversation when asked questions. I asked all of the students' if they would like to be interviewed, and if they declined, their choice was respected. I only interviewed those individuals who provided me verbal consent in addition to a signed consent form. The students were asked if they felt comfortable to complete the interview alone; however, the majority of the younger students chose to have a classmate interviewed at the same time. A teacher or staff member was present during all interviews with the students at both schools. Interviews were completed during recess, lunch or various times throughout the day (e.g. teacher prep time).

Member Checks. Once the interviews were completed, transcripts of the interview were mailed to the schools to be distributed to the students. I previously spoke to the administrative assistants at the schools asking them to distribute the transcripts once they were completed. Each transcript was individually sealed in an envelope with a letter attached asking parents or guardians to read through the interview transcript and confirm that the conversation was accurate and appropriate for data analysis. An e-mail address was enclosed as a contact in case of any questions or concerns about the interview transcript. I did not receive any e-mails concerning their child's interview.

An e-mail was sent to the teachers and principals regarding their transcript. I asked them to read through the interview and indicate any concerns they may have. I was contacted by both principals with questions; however, that was dealt with and transcripts were finalized. I did not hear from any other teacher in regards to changes

in their transcript.

Documents. Document analysis differs from observation and interviews in that they are usually used for reasons other than the research at hand, meaning they have different limitations (Merriam, 1998). Documents do not require the use of participants to gather data since they are a resource that are readily available (Merriam, 1998). Documents are useful in that they can provide the researcher many things that are not able to be observed (Patton, 2002). Documents can also help guide the researcher to other forms of data collection. For example, information that is viewed in documents can be used to help formulate questions for interviews to gather further information (Patton, 2002).

I gathered a variety of documents from both schools to gather additional information that I could not obtain from interviews or observations. Documents I collected include: school handbooks, school newsletters, school calendars, physical education schedules, pamphlets on school policies and procedures and minutes from meetings. The information gathered from the documents provided information on school policy, procedures, physical education scheduling and healthy events going on within the schools.

Data Analysis

A challenging aspect to qualitative research is analyzing and making sense of the large amount of data (Patton, 2002). The data was analyzed using inductive analysis which involves finding patterns, themes and categories from the data (Patton, 2002). In inductive analysis, the themes and patterns are emerged out of the data; therefore, open coding was used (Patton, 2002). Patton (2002) states that a coding

scheme is the first step of analysis. The core content (i.e. interviews, observations) were coded, identifying patterns in the data. When developing codes and categories, convergence (figuring out what fits together) is a challenge that a researcher faces (Patton, 2002).

As the sole researcher in this study, I was responsible for all of the tasks involved in the data analysis. I transcribed all of the interviews and coded using an inductive approach. After I completed each interview, I began transcribing. It was my goal to have them transcribed the same day they were completed; however, when multiple interviews were conducted it made it difficult to transcribe multiple interviews in the same night. I examined the data (i.e. interviews, observation charts, notebook) and highlighted significant information. A heading or subject (e.g. food, physical education, physical activity) was written beside the highlighted information. A list was then created with all of the subjects/headings to create more specific groups (e.g. education, recess activities, food, healthy lunches, safety) representing possible themes (e.g. physical education, transportation, nutrition). The elaborate list was colour coded (e.g. anything on the list related to physical education was in green) where the 'obvious' themes were identified (e.g. transportation, nutrition). Using the categories that were created from all of the colour coded data, further themes were developed that were used in the discussion (e.g. culture, time constraints). The data was then interpreted which Patton (2002) defines as "attaching significance to what was found, making sense of findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings..." (p. 480). Patton (2002) discusses that interpretation can take three forms: making the obvious obvious,

making the obvious dubious and making the hidden obvious. The 'obvious' findings were transportation, nutrition, physical activity and physical education. Changes in the school environment and student behaviour changes were the 'dubious' findings. The 'hidden' themes that were interpreted were time constraints, professional development, teacher-student environment and cultural traditions.

Internal Validity

'Internal validity' answers the question of how research findings match reality (Merriam, 1998). Reality has been described as a holistic, multidimensional and an ever changing process and it waits to be observed and discovered in research (Merriam, 1998). Merriam (1998) discusses multiple strategies to improve a researcher's internal validity. First, triangulation is explained by using multiple investigators, multiple sources of data and multiple methods to confirm findings (Merriam, 1998). Multiple methods of data and numerous participants were included in the research; therefore, triangulation was achieved. Member checks involved discussing data and interpretations with the individuals involved in the data collection procedure to ensure results are plausible (Merriam, 1998). The interview transcripts were sent to each participant to ensure the information was correct. Participants were provided the opportunity to omit any information from the transcript. As a participant observer, I took an active role was taken in the activities and programming allowing for interaction with participants during and prior data collection. Merriam (1998) also suggests that long term observations (and multiple observations) occur at the research site to increase validity of the results. Data collection occurred weekly (sometimes biweekly) for approximately four months to ensure an abundance of

observations take place at the research setting.

Involving participants in multiple phases of the project from the design of the study to the writing of the findings allows the participants to feel a part of the study which increases validity of the research (Merriam, 1998).

Reliability

‘Reliability’ refers to the ability of the research findings to be replicated, meaning that if the study were to be completed again will the results would be consistent between the two studies (Merriam, 1998). Reliability could be problematic in the social sciences because human behaviour is never identical. In qualitative research, investigators want to describe and explain the world how others experiences it. Therefore, there could be many interpretations of what is happening with no benchmarks to ensure reliability is consistent (Merriam, 1998). When conducting qualitative research, the term reliability in the traditional sense could be misunderstood. Rather than demanding repeated results from the study, an outsider should look at whether the results make sense and that they are consistent and dependable (Merriam, 1998). Three suggestions were made (Merriam, 1998) to help increase the dependability of a research study. The first discusses that the investigator should explain the theory and assumptions behind the study to make their position visible to the participants. I had many discussions with the participants outlining my views and beliefs about the study, remaining open to questions and concerns from the participants throughout the study. The second is triangulation which was previously mentioned. The final is an audit trail which means that individuals should be able to follow the study and gather information about how the

data was collected, how categories were derived and how decisions were made in the study (Merriam, 1998). Decisions throughout my study included many participants from both elementary schools and the community (i.e. health team members).

External Validity

‘External’ validity is defined as “the extent to which findings of one study can be applied to other situations” (Merriam, 1998, p. 207). It is important as a researcher not to control all factors so that the findings can only be generalized to specific, controlled situations (Merriam, 1998). Merriam (1998) illustrates three strategies that can be applied to help increase external validity. Providing rich, thick description ensures that the readers will be able to determine how their situations match the research situations to determine if the findings are transferrable (Merriam, 1998). The second is typicality or modal category which describes and compares the event, program or individual to a similar class structure so others can make comparisons with their situations (Merriam, 1998). Lastly, Merriam (1998) suggests multisite designs indicating that several sites, cases and situations should be used to maximize diversity to allow readers to apply the results to a wide range of situations. The research sites were two different elementary schools allowing diversity in the data. Therefore, the results of the study can be applied to multiple situations and experiences.

Personal Reflections on the Process

There were many struggles and challenges throughout the research process that I will reflect upon. The process with both schools was a learning adventure. I felt welcomed and supported in both schools the majority of the time. I was grateful to

have dedicated principals who agreed to have me teach and help organize events in their schools. I would have not had the same positive experience without the support that I was provided. I went into my research knowing that it was not going to be easy and that I may encounter barriers along the way.

There were many frustrations that I could not have planned for; however, they were dealt with and I continued with my research. Communication was a frustrating aspect of the research that was identified early in the process. For example, one meeting was planned and only three people attended. My research required two hours of driving to the Reserve each week and I was extremely frustrated when I arrived and there was no one there. The meeting dates (for the next meeting) were arranged at the end of each meeting by the chair (e.g. manager from health team, Dr. Nancy Francis); therefore, everyone was aware of the date. In addition, an e-mail was been sent out as a reminder by an individual on the organizing committee (e.g. Heart and Stroke representative, Dr. Nancy Francis, manager from health team). I was upset and discouraged because I planned my day so that I could facilitate and then no one communicated that they are unable to attend. I assumed, and perhaps it was an error to assume, but if we did not hear from anyone, then it meant the meeting was still happening. I am wondering if that was a cultural difference. If I was not able to make a meeting, I would call or e-mail to indicate my absence. I do not recall receiving e-mail or messages indicating that one of the advocates or committee members would be absent from the meetings. I think that it is a cultural difference in terms of responding to e-mails or perhaps another form of communication is more efficient when working with individuals of a different culture. The research is

personal and I wanted the schools to experience positive changes and benefit from the programs that were implemented by myself and the health committees.

I think that there were many occasions where I was pleased and excited for the changes that were occurring in the school. Witnessing and being a part of positive outcomes outweighs the frustrations that were experienced. For example, during one of the first classes I taught (grade 7/8) I decided I would teach cooperative challenges and teamwork activities with the students. I had observed classes previously so I was aware of some behavioural issues that were typical of the class. I would have never expected the outcome that I observed that day. The game we played was 'Crossing the Falls' where each team received numerous pieces of equipment and they have to work together to 'Cross the Falls' (essentially walk across the gymnasium floor) only stepping on the equipment provided. When I saw students working together (especially ones who usually misbehave) to complete this task I was amazed. The students were more engaged in that activity than I had ever witnessed throughout my time spent at the school. The students demonstrated that they were able to work and strategize together to accomplish the task and achieve the same goal. I felt that witnessing students engaging in activities together was moving and a positive change for that class.

One of my last days with the grade five and sixes was spent in the classroom having a discussion about bullying rather than participating in PE class. Bullying was a serious issue in the school, especially in the older grades. The grade five and six class in particular was experiencing a lot of problems with bullying. The class was spent having an in-depth conversation about the effects and issues of bullying. It was

a very intense conversation to be a part of. I was asked my opinions after the teacher finished talking. The students were able to ask questions or comment on anything subject related. I felt myself become emotional listening to the students talk. I was amazed at what they were saying and it was devastating that students were feeling upset and bullying was such an issue in their classroom. The students were very attentive and involved in the discussion and I think it was valuable to have an outsider's opinion on the situation. At the start of my research, I would have never imagined that I would have been involved in such a deep conversation with students. These situations are what makes the research process exciting and meaningful.

The interview process was another challenging stage of my research. I felt that the interviews with the principals and teachers were valuable; however, I found the student interviews difficult. I struggled to get the students (younger grades particularly) to elaborate and discuss topics in detail. I was prepared to have to ask the questions in multiple ways to get the children to discuss the various issues. I was relatively new at the interviewing process myself, so perhaps it was a combination of my inexperience and the immaturity of the students being interviewed. I found that most responses from the younger students were not completely answering the questions asked; therefore, the majority of them were omitted from my research. The older students, teachers and principals who were interviewed provided responses that were detailed and relevant to my research; therefore, they comprised the majority of my findings and analysis.

I had many memorable experiences throughout my time at the schools. The work that was completed required a high motivation level and strong beliefs in the

importance of healthy schools. I believe that having a powerful drive for the subject area provided a huge level of motivation to keep me going. I knew that I was appreciated in the schools and that was an additional incentive for my work.

CHAPTER FOUR: FINDINGS AND DISCUSSION

This chapter will discuss the findings from Hillside and Greenwood Elementary Schools throughout their journey to becoming a more healthy school. Each school has worked to make their school healthier by implementing various initiatives and activities. The research questions that guided the data collection are:

- How has the school environment changed (if any) regarding children's health?
- How has the evolution of the advocate and school health committee contributed to the process of developing a healthy school environment?
- How have the students changed/adopted health behaviours (if occurred) since the initiation of the Active Schools program? (in the following areas):
 - a. School transportation
 - b. Physical activity
 - c. Physical education
 - d. Nutrition
- How have the students' views about health, physical education, physical activity and nutrition changed since the beginning of the study?

The research questions were used to help develop themes and categories when I coded the data. Categories such as school environment, role of the advocate, student change in health behaviours (i.e. school transportation, physical activity, physical education and nutrition) were used as a framework for my analysis.

Findings

I was drawn to Hillside Elementary School because of the dedicated teacher who was identified as the school advocate. Her passion for increasing the health and well being of students, staff, teachers and community members was remarkable. Greenwood Elementary School has a positive school environment that has welcomed new ideas into their school mandate. The school has been working on various initiatives over the past few years so it was important to work with the staff and teachers to determine what their goals and focus was going to be for the year. The following section will present the findings on areas such as school environment, physical activity, physical education and nutrition which are components developed using the Comprehensive School Health framework. The findings and discussion sections were written with the Comprehensive School Health framework as its influence.

School Environment

Both Hillside Elementary School and Greenwood Elementary school have a very welcoming atmosphere. The schools are bright and the walls are filled with work that the students have completed. Both schools have many posters that are displayed throughout that promote a healthy lifestyle.¹ Examples at Hillside Elementary School seen throughout my time spent in the school are: anti bullying signs (“what is a bully?”; “do I ever bully?”; four “no bullying zones” throughout the school), how to wash your hands poster, Canadian Association for the Advancement of Women and Sport and Physical Activity poster promoting Aboriginal girls in sport, Fetal Alcohol Syndrome poster displaying the effects of drinking during pregnancy,

smoking and tobacco posters, and "Are you tobacco wise?", from the Aboriginal tobacco strategy (Observation charts, January 13, 2009). New posters were put up throughout the school year such as 'winter active' activities and 'spring into spring activities'. Examples of posters that I saw at Greenwood Elementary school were: stay active on the milk program, youth drop in basketball advertisement, washing your hands/bathing poster, respect and positive encouragement. Outside of the social development counsellors' room there were posters that encouraged responsibility, trustworthiness, perseverance, self-discipline, kindness and healthy habits (Observation charts, January 13, 2009).

There were also multiple bulletin boards throughout the school at Hillside. They displayed various events such as pictures from the Snowsnake tournament, school sporting events, community after school/weekend programs and pictures from a first aid course in which students participated. Each classroom also had their own bulletin board decorated with pictures or work from the students in each class. Greenwood also had two bulletin boards that displayed the walking club and students who were peer leaders. The school had two 'Minute Maid' machines that are filled with juice and water in the hallway and are available for staff, students and teachers.

Hillside also encouraged and rewarded students for high attendance and helping others. They have a student attendance award that was awarded to the classroom with the highest attendance each month. A large ribbon was placed on the winning classroom that indicated the month they achieved the highest attendance as well as the attendance percentage. Individuals are also recognized for their generosity and willingness to help throughout the school. Students receive a 'helping hands'

certificate when a teacher, staff member or student notices helpful behaviour. Each month the names are put into a draw for a chance to have lunch with the principal. The school's efforts to promote a safe and supportive environment are demonstrated through extra initiatives and incentives that encourage the students to live healthy lifestyles.

Greenwood recently welcomed their new playground which has been well received by the students. They were provided with a new, bright, larger playground that is available for students during recess and lunch hours. Hillside also has multiple playgrounds for students' use during recess and lunch hours.

The school principals indicated that they were pleased with the tremendous efforts that have been put forth by myself to help increase the health of the students in the school. The teachers and staff have been working hard to improve the health behaviours of the students through a variety of initiatives to encourage positive behaviour. In terms of environmental change there was not as much change throughout the school year at Greenwood that I anticipated; however, there were many positive activities and programs occurring throughout the school. *"I don't think we have done any more this year but just the same kind of things that we have been doing last year"* (Greenwood Principal). Both schools have been working hard to improve the health of staff and students. Their school displayed many positive health messages through posters and bulletin boards and their outdoor environment allows students to engage in physical activity during their recess and lunch breaks.

Advocate and School Health Committee

The healthy schools advocates were identified (April 2008-July 2008) before the school year commenced and several meetings occurred for planning purposes for the upcoming school year (September 2008). The advocates and members from the Reserve health team, Ontario Heart and Stroke and Brock University gathered to provide resources and ideas for each committee. The advocate at Hillside Elementary was a dedicated grade seven/eight Cayuga immersion teacher who is passionate about enhancing the health of the school community. There was another teacher who attended the meetings for a few months; however, he was taking a paternal leave for the year. The health committee at Hillside Elementary School was comprised of the advocate, two members from the health team and myself. There were efforts to recruit other staff members to work on the committee however for the majority of the school year the impetus was the one teacher.

A parent from Greenwood Elementary School joined the healthy schools committee (as the advocate) after minor hesitations due to commitment and time constraints (was asking how much time it would involve to be the advocate). The advocate was appointed before the school year and attended a variety of meetings throughout the current school year to discuss plans and goals of Greenwood Elementary School. The committee included the principal, the grade 5/6 teacher, teaching assistant and myself. As the year went on, I began to see a reduction in her involvement with the healthy schools committee. I began to question her reasoning in wanting to become involved with the healthy schools committee in the first place. Her involvement with the committee diminished so quickly; perhaps as the advocate

she was expecting to be the expert on the committee with some sort of 'status' within the school. When this did not happen, it was clear that she was not interested in the role of the advocate.

The advocate's role was to provide leadership and direction for the school health committee to increase the health and well being of the school community. The advocate planned and implemented various health initiatives throughout the school year, working closely with the school committee to ensure activities were executed effectively. The grant received from the Ontario Heart and Stroke Foundation enabled each school to plan an event allowing participation by all students. The plans for Hillside Elementary School were to have a 'healthy month' (November) with a Health Fair as the culminating event in December. The advocate played a very important role in the organization and preparation of the ideas and events planned for the schools. She was also the lead individual in communicating the agenda with the school staff and ensuring they were following the activities planned for each week in the month of November. As the structure of the advocate and committee at Greenwood Elementary School was not carried out as planned, I became more involved with the planning than initially expected. The principal was a driving force in making the initiatives happen throughout her school. She kept an open mind and was willing to try any idea that we developed. We did have the opportunity to meet with two other teachers that were involved with the committee to develop goals for the school year. We were able to brainstorm possible ideas and potential directions.

Working with the advocate and the health team members, the committee was able to create and organize the Health Fair. Prior to the Health Fair, I had biweekly

meetings with the advocate and myself to discuss future plans for the remainder of the school year. When asked how many members there were on the school committee she responded “*There is just me and you*” (Hillside Teacher, Grade 7/8). The other interested individual who was on paternal leave previously had provided assistance with initiatives throughout the school. “*Once he is back...I’ll have a bit more stability there ...because I didn’t get as much help*” (Hillside Teacher, Grade 7/8). After a meeting with the principal in January of 2009, a memo was sent out to staff members seeking interested individuals to assist on the health committee. One new teacher attended the meeting at lunch. It was great to see a new, energetic individual interested and it was nice to find support for one teacher using all her energy to increase the health of the students. I found that she had new ideas and opinions about what had previously gone on in the school. She appeared to be willing to assist; however, was timid to volunteer to make phone calls or assist in planning.

The role of the advocate at Hillside Elementary School worked well as the advocate was a determined individual who had a goal of increasing the health of students. She worked well alongside the health team members and also had a positive relationship with me. The advocate at Greenwood Elementary School was not a changing factor in the school’s process to becoming an Active School. In absence of the advocate, the principal and myself were the ones who were organizing the events that occurred throughout the school year. Activities were being implemented; however, it was more difficult not having one individual who was responsible for overseeing the schools’ initiatives.

Student Behaviour Changes

Transportation. All students at Hillside Elementary School and Greenwood Elementary School are expected to ride the bus to school for safety reasons as the gravel roads are unsafe. The roads on the Reserve are gravel and rocks spit up when cars travel by. There are no sidewalks provided for the students to walk on, ultimately limiting their commuting options. The majority of the students are bussed to and from school; however, some parents choose to drive their children. Many of the students' homes are quite far from their school; therefore, walking to school is also not an option. The absence of sidewalks amplifies safety concerns for children walking or riding their bike to school. *"It's partly because of distance but it's also partly because of the bussing policy where they are trying to discourage children from walking, it's for safety reasons...because of no sidewalks people don't normally walk on the roads here like you would in the city with sidewalks"* (Hillside Principal). The majority of the students at Greenwood are also not within walking distance from the school and therefore are forced to ride the bus every day. *"I would consider it unsafe, I wouldn't let my child walk on these roads...unless they are supervised by an adult"* (Greenwood Principal). After conversations with the principals and teachers regarding students walking to school, it was made quite clear that walking was not encouraged due to safety reasons. Some of the students are driven by their parents/guardians (mostly those out of district) but usually the students arrive on the bus.

I think it's safety because there are some kids who live on the road who could easily walk to school but don't...I have no idea why the kids don't (walk to

school) I think it was more of a safety issue... Years ago when I was in school we had to walk to a point... the whole group in the neighbourhood would walk to a certain laneway and catch the bus; now they stop at every laneway (Greenwood Teacher, Grade 5/6).

Few students may ride their bike when the weather is nice; however, it is not encouraged. Students are forced to take the transportation provided for them despite their thoughts about walking to school. The ability to walk to school provides additional physical activity that these students unfortunately cannot experience.

After discussions about walking and biking pathways with the staff, I found that many viewed the roads unsafe for their students to walk to and from school. The safety of the students at Greenwood and Hillside becomes the main issue when it comes to transportation options. Unfortunately, this presents a barrier as safety of the students overrides physical activity.

Physical Activity. Increasing physical activity for the students of Greenwood Elementary School and Hillside Elementary School has been a priority for the staff and teachers as a main goal for the Comprehensive School Health initiative. The students at Hillside Elementary School have increased their amount of daily physical activity. One initiative from the 'November Health Month' was implementing physical activity during their morning assembly. The school day began with all students and staff members gathering in the gymnasium for an assembly. At the end of the assembly, the entire student body completes 10 minutes of activity. It started as a weekly activity; however, has become part of their daily agenda. *"It's valuable and it's important...it's a battle every morning with my students trying to get them to*

participate and telling them how important it is...I even have consequences when they don't participate properly" (Hillside Teacher, Grade 3). The morning activity was something new and the students were getting into the routine of participating in the activities each day.

When the physical activity became a daily event, one teacher became the lead individual in organizing the activity each day. Eventually he organized that each class (in the upper year grades) would have a week where they would be in charge of leading the activity each morning. The entire class would demonstrate as the remainder of the school followed along. It was a positive change to see that the entire school was increasing their daily physical activity; however, it was challenging to have the whole school in the gymnasium at the same time. It increased the chances of students not participating and interfering with other students. However, with the addition of 10 minutes of physical activity being implemented school wide, it was a fantastic start to get the students and teachers excited about physical activity.

Daily physical activity (DPA) was not a mandated policy at Greenwood; however, the principal encouraged teachers to complete a total of 20 minutes of DPA with their class each day. DPA does not happen in every classroom, as it is the teacher's decision whether he/she will complete the recommended 20 minutes. There are some teachers who complete their DPA each day. *"Every morning we do physical activity whether it's walking around the school, walking around the track, if it's too cold or wet then we do a 10 minute aerobic exercise or yoga exercise video"* (Greenwood Teacher, Grade 5/6). The students in her class are aware that exercise happens every morning and have incorporated that into their morning routine. There

is a positive reception by most students in her class; however, there were a few complaints from students who did not like completing the exercises daily. *“If we don’t do that (videos) we are walking around the school or track...everyday...a couple of them always complain...they complain because they are not really active, they are just like, “I don’t want to do that” (Greenwood Student, Grade 5/6).* Most of the students in the class look forward to the DPA, and participate willingly. It was noted by students and the teacher that a few classmates opposed DPA and were very resistant towards exercising each morning. *“Some of them tend to not want to do it or they just swing their arms, they don’t really get into it. They weren’t receptive at the beginning about walking the track. However, now every morning they say are we going out, are we going out can we go out even if it’s raining so it’s getting better” (Greenwood Teacher, Grade 5/6).* As the school year went on and the DPA became established, the students began to enjoy it. I talked with many students who told me that exercising each day helps them get focused on their school work and makes them more alert in the mornings.

DPA was unfortunately not experienced by all students in the school. As mentioned before, some teachers implemented DPA and some did not. The grade two classroom is another successful example of DPA in the classroom. *“She teaches us how to exercise” (Greenwood Student, Grade 2).* The teacher would complete limited space exercises, such as stretching, jumping, running on the spot with her students as a break between classes. The students in her grade two class enjoy exercising and she feels it promotes a healthy lifestyle.

The teachers who implement DPA view it as important; therefore, the students

must participate. *“...Some of the classes still continue to do their daily physical activity but others don’t, you know some of them do it in the classroom ... We push it for a while and then we’ll do it again, but I’d say it’s a little harder in the winter”* (Greenwood Principal). There were struggles with some students throughout the school (generally older students) but the students who are accustomed to completing exercises everyday appear to be in a routine.

There have been successful initiatives at Greenwood Elementary School that the entire school participated. One example was ‘Find Freddy Friday’ where cut out pictures of Freddy (a shoe) was placed throughout the school yard. The event occurred February 20th, 2009 and each class had the opportunity to run around the school trying to find as many Freddy’s as they could. *“The kids were just wild; they would hardly wait to get out there. They just thought that was a great thing and it was so cold out that day we only let them out for 10 minutes because the wind chill was minus 17...they had a great time, they are really enjoying some of the activities”* (Greenwood Principal). The students were excited to have the ‘Find Freddy’ day as noted by the principal. The students who I spoke with said that they enjoyed the event and it was something different they have not experienced. The school also had whole school walking days (one example, ‘Walking Wednesday’ on February 11th, 2009) where the entire school spent 20 minutes walking around the school. *“We’ve had whole school walking days...It was raining that particular day so we had to be creative so they walked inside the school”* (Greenwood Principal). The principal has implemented various physical activity initiatives to help increase the physical activity levels of the students.

Another possible time for students to engage in physical activity was recess. Both Hillside Elementary School and Greenwood Elementary School have new playground equipment and large spaces for free play during recess. The children often play on the playgrounds, walk/run on the track, play soccer, skipping or play tag with friends. *"We skip all the time at recess...we play on the jungle gym"* (Hillside Student, Grade 3). The younger students were more often active at recess enjoying the playground equipment or various other activities. A limited number of students were sedentary at recess and appeared to be from the intermediate grades.

Students at both schools were introduced to a variety of initiatives aimed at increasing physical activity levels. Students became actively involved in DPA and school wide initiatives which was a positive change for both schools.

Physical Education. Students at Hillside Elementary School participated in PE two to three times a week. They work on a five day schedule (Monday through Friday) and the PE classes are 30 minutes long with the exception of the kindergarten classes which are 45 minutes. The majority of PE classes are taught by the homeroom teacher with the exception of the students in the Cayuga immersion program; there is a PE teacher to cover those classes. The PE schedule has been increased for each grade since last year. *"We started out with every other day, so three days out of six now we are on a five day schedule Monday through Friday"* (Greenwood Principal). There have been efforts made to increase the PE times for each class to use the gymnasium at all times throughout the day.

It would be valuable for both schools to have a full time PE specialist for the entire school to enhance the quality of the PE program. *"It is not feasible because we*

are given staffing numbers and I have to staff the classrooms first” (Hillside Principal). The principal at Hillside also indicated she would like to see more focus on the PE program. *“I would like to see more phys ed because I really don’t think that a lot of the teachers here do a proper phys ed program...the focus is on sports...it’s too much games, too much sport oriented; it’s not teaching enough of the skills” (Hillside Principal).* The principal indicated that she had a concern with the PE program at the school due to the lack of ‘quality’ lessons that the teachers were preparing for their PE classes.

I observed many of the classes participating in game-like activities such as dodgeball or tag games (Observation chart, February 10, 2009; March 3, 2009). Dodgeball is not a particularly desirable activity because it allows minimal participation for all students and centres out the athletically skilled students. At Hillside Elementary the result of a dodgeball game is often the athletic boys competing against each other and the rest of the class sitting out on bleachers waiting for the game to end. There was not a formal lesson with a clear outline with developmental skills being demonstrated or worked on. The principal is aware of this and would like to see more application of movement concepts in the PE program.

The students view PE as a subject where they are able to run and play various activities. The grade three class that I spent a lot of time with invited me to work with their class because the teacher was looking for new ideas and activities for PE. *“They like soccer, kickball, dodgeball all their favourite ones they play over and over again which is why I want some new ideas so I could incorporate that” (Hillside Teacher, Grade 3).* The children are used to playing the same sports and activities repeatedly.

It took me a while to become comfortable with the students and for them to adjust to having someone else teach their PE classes.

My goal was to teach different activities to broaden their perspective of possibilities for PE class. Similarly to every other student in the school, they love dodgeball; therefore, my focus was to introduce activities involving teamwork, cooperation, participation by all students and various activities that they have not experienced. For a while they consistently asked if we could play dodgeball. and I responded that we were going to be participating in games and activities that they have not played. Each week I introduced new games and activities. We played tag games, cooperation games, parachute activities as well skipping. They were quite hesitant at the beginning when all different activities were implemented; however, they began to realize that we were not going to play dodgeball and the new activities were actually fun. I received negative feedback (at the beginning of the class) from some of the male students when the focus of the class was announced, but once they became involved they really enjoyed it. I observed a change in the attitudes and behaviours from some of the students after the activity was underway. The students enjoyed participating in the different activities and they shared with me the ones they liked and how they felt about the activities. I found that they were interested in learning new activities and wanted to repeat some of the activities in other PE classes.

Throughout the school year at Greenwood, I spent a lot of time with the intermediate PE classes as well as a grade two and grade three class. The primary students are filled with energy and look forward to their PE class. “... *They want the gym used and to make sure we use it effectively, have them running... Have them all*

participating...Have them all on the floor as much as you can” (Greenwood Teacher, Grade 2). The grade two teacher’s classes are structured and the students listen well as they want to participate in the activities she has planned. The students who were interviewed all stated they enjoyed PE because they like to play sports such as floor hockey and basketball as well as the cooperative games that I instructed during my time in the class. When we were in the gymnasium, the primary students were attentive and anxious to get started. When I instructed, my goal was for all students to participate at all times and I taught games that challenged the students to work together.

The intermediate students were a diverse group of individuals. They were taught PE by the same teacher; therefore, the expectations were consistent across all grades. One issue we struggled with throughout the year was student motivation during PE classes. It was a greater issue with the students in the grade seven and eight split class. *“The main concern in regards to health, I would say physical activity and their motivation to get active” (Greenwood Teacher, PE/Grade 5/6).* I discussed the issue with the PE teacher (also teaches grade 5/6) trying to develop strategies to increase their motivation in PE class. *“I don’t know if they don’t enjoy it because when you give them the option to do what they chose to do there are still some who don’t participate, so I really don’t know the reason, I wish I knew” (Greenwood Teacher, PE/Grade 5/6).* There were many occasions where they had the option to choose an activity that they wanted to play. It appeared that very often the class would be playing dodgeball during PE. After choosing teams, the end result was boys versus girls and minimal involvement from either team. I had suggested

that removing dodgeball as an option would allow other games to be played which might deter some of the sedentary behaviours. *"You get kids who say this is boring and everything like that but they are saying it's boring because they aren't playing...it happens a lot...I don't really know what I could do because no one ever listens to anyone..."* (Greenwood Student, Grade 8). After discussions with this student, she expressed frustration with her classmates' behaviour during PE class. The class is challenging to instruct because there was talking and misbehaving happening during PE. There was more time being wasted than time on task. During observations, I noted that on average out of a 60 minute class, the grade sevens and eights were active for about 15-20 minutes of the class.

It was inevitable that students were frustrated as they enjoyed PE class and knew their time was being wasted by fellow classmates. It was upsetting as an outsider to witness the same behavioural issues repeatedly each week. For the most part, the grade fives and sixes were on task during PE classes. There were some days where there were more behavioural issues than others, but most of the time I found PE classes were enjoyable to teach and for me to work with this group of students. The students were taught PE by their homeroom teacher, which could influence their behaviour during class. They were comfortable with the teacher and her teaching style, in addition to knowing her policies and procedures during class. The students were aware of consequences for misbehaving; therefore, I experienced minimal issues with this class. They were open to new ideas and were excited when I would introduce a new activity. The students appeared to be interested in PE class; therefore making it enjoyable for myself to be apart of the class.

Students at both schools demonstrated an enjoyment for dodgeball. It was challenging to get students to participate in new activities; however, once they became involved they enjoyed the activity. It was my goal to introduce activities that promoted teamwork and cooperation as it was an area of concern that was brought to my attention.

Nutrition. Nutrition and diet was of the major concerns with staff and teachers at Greenwood and Hillside Elementary Schools. It was the intention of the advocate at Hillside to place a strong focus on nutrition because she felt it was a main concern for the students. The health month (November) was comprised of various activities and events with a nutrition focus to inform students of the benefits of healthy foods. Also, the Health Fair held in December had a strong focus on nutrition and had numerous external experts (health promotion, diabetes, healthy babies) attend to share information.

Many of the initiatives that went on throughout the year at Greenwood were focused on nutrition as well.

We have a really good breakfast program and the kids whether they want to or not, whether they have had breakfast or not at home they all come in and they look forward to having snack time. Our secretary and a couple of other staff members work really hard making sure we have healthy things to eat and that there's always something if a child doesn't have a lunch (Greenwood Principal).

The breakfast program runs every day thanks to the dedicated staff members who organize the program. The school receives funding through a grant that allows them to have the breakfast program. Each classroom receives a bin of various nutritious snacks and it is up to the teacher to decide when to disperse the food. Snacks that have appeared in the bin consist of fruits and vegetables, toast and jam, yogurt, cheese and crackers. The students are able to choose items out of the bin that they would like to eat that day. Most teachers have snack time before or after recess; however, food that is left in the bin is available for students during lunchtime. The students are excited about snack time as there is a variety of foods offered for free each day.

My observations within the school setting indicated that students are aware of the difference between healthy foods and unhealthy foods. Healthy foods were discussed as being fruits and vegetables and foods that are low in fat. The teacher and I explained that unhealthy foods were described as foods high in fat and sugar such as pop, chips and chocolate. Grade two and three students indicated they enjoyed grocery shopping with their parents. When asked what foods they liked to select, one student responded, *"I pick out fruits when I am there like watermelon, strawberries, grapes, bananas"* (Hillside Student, Grade 3). Further in the interview, I asked what unhealthy foods they may sometimes eat. *"I eat chocolate bars and chips just like sometimes"* (Hillside Student, Grade 3). The students were aware of foods they should eat often as well as foods they should eat in moderation or special occasions. During the November health month, students learned about 'Go, Slow and Whoa' foods (CATCH), and participated in activities to help grasp the concepts of 'Go, Slow and Whoa' foods. Students were able to categorize their foods into categories and

referred to these terms throughout the year.

Greenwood Elementary School also completed various activities related to nutrition and healthy eating. Each month the school distributed a calendar which outlines everything going on in the school for that month. In February, 'food for thought' ideas and healthy recipes appeared on the calendar and school newsletter. For example, one 'food for thought' item that was displayed discussed the importance of drinking milk and water each day. They added these ideas each month to help keep students and parents thinking about being healthy. The school also had 'healthy lunch days' (February 25th, 2009, March 4th, 2009) where the focus was to have all four foods groups in their lunch. 'Litterless lunch days' (February 3rd, 2009, March 2nd 2009) were also incorporated throughout the year which aimed at reducing the amount of garbage students were bringing in their lunches. 'Favourite fruit' day was another initiative that the school implemented throughout the school year where students and teachers were encouraged to bring in their favourite fruit for snack.

Since the removal of the microwaves (previous year) the nutritional value of the students' lunches increased. *"Since we have been focusing on this I have noticed a difference in the lunches that the kids do bring...I would say the kids generally bring healthier lunches"* (Greenwood Principal). The schools' influence on promoting healthier foods was impacting the students' lunches they brought.

The grade two classroom that I had the chance to work (in their classroom and physical education class) with had a focus on healthy eating. The teacher promoted healthy lifestyles and enjoyed teaching her students to eat healthy. They had a bin of plastic and cardboard food that she would have them sort into food groups and learn

nutrient qualities (e.g. Fat content, high in sugar) and ingredients about each food. They were well educated in their food groups and would always share what they had for lunch with the class especially when their lunch was healthy. They were anxious to learn and were excited when they had healthy foods in their lunch. The teacher would often walk around the class to see what students had food from each of the four food groups. The students were able to share whether or not they had a healthy lunch. I observed a growth in each student in their knowledge of healthy eating.

The grade students were very well educated in their healthy foods and Canada's Food Guide information. The teacher often discussed nutrient value in foods with her students. They also had a class chart that recorded healthy lunches. The students received a check mark each day if they brought in a lunch that contained foods from all four foods groups. The chart was displayed in the back corner of the classroom so each student was able to see their progress. The class brought in healthy lunches most of the time (e.g. sandwiches on whole wheat bread, fruit and vegetables yogurt and soup).

The teachers throughout the school have their own classroom initiatives. Another example is the grade five and six class where the teacher tracks when a student brings a healthy lunch.

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We have a healthy eating chart and I didn't really enforce it and they pretty much picked up on it themselves. If they show me a healthy lunch I will give them a sticker, if they get 10 they get prize box, so I didn't push it on them I just told them it was at the back and it was about January when a group of

them picked up on it and starting coming and showing me their healthy lunch (Greenwood Teacher, Grade 5/6).

The teacher did not enforce the healthy lunch chart and it was interesting that they eventually picked up on it. It became self-motivating since they had to show the teacher when they had a healthy lunch .

One concern that was brought forward by the principal and teachers was the number of drop off lunches that are regularly left for students by parents or guardians who bring in fast food for their children at lunch. *“There is a lot of fast foods...I see them with French fries and McDonalds everyday...there’s some that are chronic for doing that”* (Hillside Teacher, Grade 7/8). While drop off lunches are a problem both schools were experiencing it was a difficult topic to address by the school principals because they did not feel they could tell parents how to feed their children.

Each month at Hillside, the principal draws five students’ names who have received Helping Hands awards to have lunch with her. The students look forward to having lunch, as it is a special treat that not all students get to experience. One change that has been implemented this year is the foods that she serves the students for lunch.

I was ordering McDonalds once a month for them and the kids loved it...this year because of this initiative I changed that and I have gone to juice and I have gone to vegetables and fruit, things like that and I have noticed the kids aren’t really eating it...I have noticed that the interest in it has kind of decreased because it is not McDonalds lunch (Hillside Principal).

The principal has worked hard to increase healthy foods in the school and eliminate unhealthy food options. She thought that it was interesting that the students were picking and choosing certain healthy foods that they would eat during their lunch with her. She has consciously made efforts in the school to educate and provide the students with healthy alternatives and the students have learned to recognize nutritious foods.

The students became more knowledgeable about nutrition throughout the school year through school wide initiatives and individual classroom activities. I believe the teachers had an influence on student learning and student behaviours.

Discussion

Willis (2007) and Sparkes (1992) discuss that interpretivists believe that it is crucial to understand the context of any form of research in order to interpret the data collected. As a researcher, I am interpreting the social world, the participants' point of view within the context of research in an Aboriginal community. While I have been acutely aware of cultural similarities and differences, my interpretations have been guarded and expressed with caution because this Aboriginal community is fairly urban and the differentiation of Aboriginal and Non-Aboriginal is not clearly defined.

The following discussion section addresses the themes that were discovered from research at Hillside Elementary School and Greenwood Elementary School. Themes that will be discussed are: time constraints, professional development, teacher-student interactions and traditions.

Time Constraints

Teachers are busy with various commitments during the school year, so asking them to implement additional activities can be difficult. After many discussions with the school advocate, and principals, I felt assistance was needed in making Hillside and Greenwood healthy, active schools. One common theme that emerged through interviews with teachers and discussions with staff at the schools was the lack of time that individuals had to help out on another committee or project within the school. Both schools already had multiple committees that teachers were supposed to join and volunteer their time. The addition of the healthy school committee was one more committee that needed volunteers. The principals both indicated that there was a lot more the school could be doing to make it a healthy school. *"The big thing is having people to help...like 'Miss' right now is saying there is other people on this committee and then everything falls to one person. So there needs to be more sharing of the workload"* (Hillside Principal). When speaking with the Greenwood principal, the lack of volunteers and teachers willing to help presents a barrier to implementing more healthy initiatives within the school.

Without more manpower I think it's pretty hard because everyone is so busy including myself. It's sometimes difficult to just get things going. Sure there are things that we can be doing, unless we have more staff and I know that's not going to happen I don't see how things can immediately change (Greenwood Principal).

There are other teachers who have an interest in making the school healthy and have ideas or suggestions but are not willing to put the time into making these changes happen.

People have got to start taking more of the workload in terms of doing initiatives like morning exercises... The teachers are grumbling that what's wrong with the other teachers taking part and that kind of thing... It's because people don't step up and say: "Well I'll do this and I'll do that"; it falls to one person and we get tired of doing things (Hillside Principal).

The staff at Greenwood Elementary School were very supportive when it came to implementing activities in the school. *"Everybody's pretty supportive as long as somebody comes up with the ideas; they are pretty good about implementing it"* (Greenwood Principal). The teachers are more than willing to try any program or initiative someone may ask; however, the problem is trying to get them to help plan and create the programs that are being implemented. My experience working in the school demonstrated just that. Teachers are willing to implement it if someone tells them what to do. They just do not want to have anything to do with the organization of it. For example, teachers were willing to do the DPA each morning, but did not want to lead the activity.

Teachers' instruction time is filled with mandatory content each day. Their days are extremely condensed and overloaded with literacy and numeracy, thus PE and physical activity is often overlooked. *"People are so wrapped up in math, literacy and stuff like that that phys ed just kind of takes the back seat...the whole*

thing is that if you have an active, healthy child...and you give them a better phys ed program then that's going to help them with learning in other areas as well"

(Hillside Principal). Many teachers choose to focus on math and literacy, because they view that as a priority; however, it is also important that the children participate in daily PE and physical activity. When a teacher is struggling to complete mandatory requirements it is difficult to have additional time allotted for physical activity.

Hillside Elementary School also receives funding for a snack program that is offered Mondays, Wednesdays and Fridays. Staff, teachers and volunteers ensure that nutritious snacks are purchased and the bins are completed each week. I asked the principal how she liked the snack program and if there were any improvements she could think of. *"It could go daily, it's just again, getting the volunteers to do it...you know that's why it's only Mondays, Wednesdays and Fridays because otherwise it is a lot of work on one person. So again part of the problem is getting the volunteers to come in and do these things"* *(Hillside Principal)*. It is truly unfortunate that such a positive program cannot be offered to the students daily because there is a shortage of volunteers to organize the program.

Another physical activity opportunity that has been inconsistent at the schools is an intramural program because of its time demands upon teachers. *"We have a gym that sits empty at noon so an intramural program would be something that could be done here...we need someone to run it...but then it means another teacher would have to step up and give up their lunch hour to run it so again it comes down to who's willing to do it"* *(Hillside Principal)*. The intramural program is another example of a healthy initiative that is sacrificed because of the lack of volunteers and because

teachers feel they cannot afford to give up their time to lead activities. Greenwood also does not have a consistent intramural program that is offered for the students. There are times where a teacher will organize a mini tournament (i.e. floor hockey during the Stanley Cup Playoffs); however, it is often the same teachers. The school also identified students as 'peer leaders' who lead activities during recess. They also have assisted teachers who have organized intramurals in the past. *"Sometimes we do have a couple of peer leaders...they have done some activities outside with the kids but most of the time it's the teachers who have to drive it and if they don't have the time it doesn't get done"* (Greenwood Principal). As of now the students do not have access to an intramural program during lunch hour.

There are some teachers who spend the time coaching or supervising extracurricular activities and it becomes very tiring and physically draining on those individuals who are consistently rising to the challenge. The teachers whom I had the privilege to work with are the teachers who are actively involved in the school. I could see their frustrations during conversations, as they are supporting the events going on in the school. *"...And then it got to the point where I don't have time for spelling or time for math, or this isn't a good time you know, whatever the excuse so it comes and then it fades, it comes and it fades"* (Greenwood Teacher, Grade 5/6).

One of the most common excuses that I heard throughout the school is not having enough time for science, math and reading, so how is there enough time for DPA each day? It narrows down to what subjects teachers identify as important.

They try it, they don't come right out and say no, but they will try it and then they will say; "Ok it's not working for my class because we didn't have time

for this or because we don't have time for that" and every subject is pushing to say; "we need more reading, now there's a math committee so we need more math"...there just isn't enough hours to fit everything you want in. So something's got to give and it's probably up to the teacher as what gives and what doesn't (Greenwood Teacher, Grade 5/6).

Teachers are already struggling to get everything they need completed each day and to add extra DPA may be overwhelming for some. The teachers whom I spent time with were the ones implementing DPA in their classroom. It is evidently up to the classroom teachers' to do what they want with their timetable and unfortunately DPA is often the activity that will be dismissed when it is compared with math, language arts or science. I believe that having DPA as a mandatory part of the day and having a time where the entire school is active at the same time could limit teachers' concerns with time constraints. In addition, I feel it is important to have the entire staff on the same page with the understanding and knowledge that physical activity is an extremely valuable component of the students' well being.

There were numerous positive initiatives that were promoted throughout the school that assisted the school in becoming an Active School. Conversely, there were also a variety of initiatives that could have been implemented and organized if there were more teachers and staff members who were willing to assist the school advocate. It is imperative to have individuals who are willing to sacrifice their time to promote physical activity. In addition, it is also essential to educate the staff and teachers on the importance of making their school an Active School so they see the importance of volunteering their time.

Professional Development

A crucial aspect of making a school an Active School requires educating the teachers on how to create a safe, healthy school environment for students, staff and teachers. Throughout the year, professional development workshops were available for staff and teachers. For example, a workshop on developmentally appropriate activities and ideas for daily physical activity were offered for teachers. The workshops were informative and interactive to provide the teachers with information and resources to enhance the quality of their PE and physical activity programs. The workshops had good attendance; however, the teachers who wanted to learn put the most effort into the workshop. *"We would have to do some in servicing ...have people like you come in and give teachers ideas on physical activity that they can do in the gym rather than just playing dodgeball...I see a lot of dodgeball"* (Hillside Principal). The principal strongly believes that having professional development workshops are a beneficial component to enhancing teachers' knowledge and the programs and environment of the school. She also stated that she would like to have more outside (i.e. health team professionals) individuals coming in to offer workshops for the teachers. Conversations with the principal have indicated that she places physical education high on her list of importance. She is cognisant that the PE program requires some restructuring but was willing to create a positive learning environment for teachers to get the expertise needed to successfully make changes to the existing program.

It is important to have a supportive authority figure in a leadership position. My experiences working at Hillside Elementary School it is evident that the principal

was a widely respected, determined individual. I believe that her passion and beliefs for physical education and physical activity provided a foundation to create a healthy active school.

Teacher-Student Engagement

Successful programs and initiatives rely on the devotion and enthusiasm of the teachers, staff and students within the school environment. The initiatives that have been implemented in the school have been successful; however, for future programs and activities to be beneficial for a long term, teacher and staff participation is essential. I believe that the way teachers model is directly reflects students' behaviour. For example, students who have a teacher who is active themselves encourages student involvement in physical activity. *"I like to do it because I don't have a whole lot of time on my own, so that's also my time to get out and walk as well"* (Greenwood Teacher, Grade 5/6). She is one of the teachers who completes DPA with her class. When her class is out walking she is actively involved walking with them. Her participation serves as positive role modelling for her students and encourages her students to get active.

A new initiative that was implemented at Hillside Elementary School was the morning exercises prior to the daily assembly. During the daily physical activity in the gymnasium there were many teachers that participated with enthusiasm; however, there were also teachers who were simply 'going through the motions'. Despite that the space available is limited since the entire school is in the gymnasium at once, teachers are expected to be actively involved and ensure their students are also fully participating. I have seen teachers who are stationary, talking amongst other staff or

sitting on the benches not participating with their students. *"I mean you expect that from students you know grudgingly doing this, so your senior teacher doing that, having that kind of attitude then you all of a sudden you don't like it either ...you start fooling around so it has a ripple effect"* (Hillside Teacher, Grade 3). There are teachers who are running, jumping and skipping with energy and ensuring their students are moving along with the instructors leading the activities for that morning. It is noticeable when teachers who are viewed as role models are not participating and influencing their students' participation. Staff who are heavily involved in the school's initiatives can become frustrated when they are expending energy to ensure their student's are participating and then there are staff members who are not actively involved and influencing other students behaviour. I agree with the teacher's quote above, as students will look at their teachers and think, "Why should I have to participate if they are not participating?". The support of the school community is tremendously valuable when trying to implement change because the students require positive role modelling to help change their unhealthy behaviours.

Participating in the activities with the students involved provides positive role modelling and is exciting for the students to see their teachers involved. *"...I can only expend it on students who have the potential to change...I can be a role model for the students who watch me...when I participate in the sports I actually participate, I just don't coach, I run with the students...I want to show them that as an individual, I can do this and so can they"* (Hillside Teacher, Grade 3). She coaches the cross-country team and actively participates in the training. She feels that participating in the training demonstrates positive role modeling and dedication to the students and

the sport. In addition to her coaching, there were multiple times where she participated in the PE class with her students. When I instructed her class, there were many instances where we both actively engaged with the students. I noticed a change in behaviour and participation when the students had the opportunity to interact with myself and their teacher. I think that it has an influence on students' involvement and increases their participation. They were very excited to know that they were able to interact with us and engage in different activities together.

Students are very attentive to detail. When I spent time in the grade two classroom, I would have to make sure that I had the healthiest lunch because I would be questioned as to why I had specific items. The students knew what was healthy or unhealthy and I felt that I needed to be an encouraging leader. The homeroom teacher is also a positive model to her students. *"I try to be healthy so I want them to be healthy"* (Greenwood Teacher, Grade 2). The grade two teacher always had fruits and vegetables for lunch which the students noticed. They would observe what their classmates had for lunch and let us know when someone was eating an unhealthy item. It was clear that the students were understanding what we were teaching them as they demonstrated their knowledge daily.

I think that the principal has the most powerful influence on the students in the school. Students witnessing changes at the administrative level is important for personal behavioural changes. The school has a monthly meeting involving parents, teacher, staff and the school community (Home and School meetings) are invited to discuss issues that are school related. When a parent or family member attends the Home and School meeting students are rewarded. Previously students received pizza

as a token of appreciation for having a parent/guardian represent them at the meeting. Since the launch of the Active Schools initiative, the principal removed pizza as the reward and made it a healthier snack such as fruit or yogurt. The decision to remove the pizza as an option and offer a healthier snack was a significant change for the school.

Achieving the goal of becoming a healthy school requires involvement from the entire school community. Having teachers and staff to lead by example is encouraging for the student population to become involved and excited about changing health behaviours. I feel that teachers who provide positive role modelling through coaching or involvement in other school activities demonstrate exceptional leadership qualities that students are able to inherit.

Cultural Traditions

Hillside Elementary School has a Cayuga immersion program that impacts the school's traditions and values. Their traditional language of Cayuga is incorporated in the morning assembly as well as classes for some students. One teacher with (whom I worked closely) taught in the immersion program. She taught grade seven and eight students and found that relating material or situations back to their traditional philosophy was a helpful strategy. The healthy initiatives that were implemented throughout the school were presented to her class from a traditional background. *"The initiatives we have are coming from more of a traditional background...what we do for diet, exercise and even medicines...that's instilling in the kids about taking care of their bodies"* (Hillside Teacher, Grade 7/8). Her views

on health and nutrition are presented with passion and strength from her family and cultural values.

...Pertaining either to their health and fitness and how they treat each other, so I do that from a traditional standpoint because our people always looked after their bodies. They were always looking after their health and then even one another, even down to how they treat each other, all of our speeches, all of our background, is going into how you treat a person...they relate better to it....
(Hillside Teacher, Grade 7/8).

She teaches her students from a traditional background as it has proven to be effective since they can relate to the ways and methods she uses. She has built her classroom based on these teaching practices and has proven that her beliefs and their people's beliefs have become an effective platform for teaching in her classroom.

In addition to her teaching practices, she has found that behaviour management can be minimized and dealt with effectively but using traditional methods. *"For example video games...the boys love playing those types of things...I can just go back to our traditional values and say well our people agreed that's why, we agreed we wouldn't resolve any conflicts by force or violence, so if I am promoting that to you does that seem right?"* (Hillside Teacher, Grade 7/8). When dealing with issues around behaviours and learning in the classroom, she feels that relating situations back to what their people did is a positive way to diffuse any conflicts within the classroom.

Her views on making her school healthier come from her traditional

background. *“I would like it to all be based on our traditional background because our people were that way and its sad that they have assimilated that much that they don’t know that anymore...ideally if we could go back to those values we wouldn’t have any of the problems that we have today”* (Hillside Teacher, Grade 7/8). She has very strong beliefs in her cultural background, such as taking care of your body, practicing medicine and caring for one another and is able to bring those into the classroom to help educate and motivate students.

Hillside Elementary School has completed a variety of initiatives and school activities to increase the students’ awareness and beliefs about healthy living. In addition, their goal was to make the school an Active School increasing the health of the entire school community. Through this initiative, there have been many successes and positive changes; however, the principal and leaders within the school have become aware of areas that need strengthening in order to create the ‘ideal’ healthy school environment.

Connection with the Transtheoretical Model

The Transtheoretical Model (TTM) was previously defined as “a theoretical framework for understanding how people progress in adopting and maintaining health-behaviour change for optimal health” (Cheung et al., 2006, p.104). According to Watson and Hildebrand (2000) there are five stages through which individuals pass as they attempt to change a behaviour. Watson and Hildebrand (2000) discuss the five stages of the TTM as precontemplation, contemplation, preparation, action and maintenance. The TTM is relevant to my research conducted at both elementary schools because my experiences indicated that the teachers and staff at the schools

were all at varying stages within the model. The model is based upon the assumption that individuals must pass through each stage sequentially in order to change a behaviour. There were numerous individuals involved in the Comprehensive School Health journey, each representing different stages. Some teachers were at the action stage; however, many were at the precontemplation or contemplation stage. Having the inconsistencies and variations between individuals can cause challenges and struggles in the environment that are open to promoting behavioural change. An example is the school advocate's challenges and successes. The role of the advocate was more successful at Hillside Elementary School than Greenwood Elementary School. The advocate at Hillside was more involved and determined at creating behaviour change ultimately being at a different stage than the advocate at Greenwood. I think the TTM is relevant to my research because of the variations in participation from staff and teachers at both schools. The model can be used to place individuals at the different stages; however, an individual must complete all stages in order to change a behaviour.

When using Comprehensive School Health as a framework, its effectiveness is a result of the collaborative approach put forth by the school community. A fundamental aspect of CSH is the school and community support. The TTM is relevant to my research because it outlines stages of behaviour change individuals progress through, which directly influences the health outcomes within a school environment. CSH provides a framework to build a healthy school community, promoting behaviour change through education for an entire community to develop

healthy lifestyles; therefore, the TTM can assist in providing a 'gauge' to predict and reflect upon the successes and challenges of CSH.

CHAPTER FIVE: CONCLUSION

This chapter will discuss the challenges and successes of the two schools becoming Active Schools using four health-promoting strategies from the Canadian Association for School Health. The four strategies that that can be used within a comprehensive school health approach are: instruction, preventive health services, social support and a healthy physical environment (CASH, 2006). The chapter will also present recommendations for future research in this area.

Instruction

It is important that children and youth develop skills and knowledge to obtain a healthy active lifestyle (Active Healthy Kids Canada, 2009; Fishburne & Hickson, 2005, Rink & Hall, 2008). It is imperative that each school develops effective programming using a comprehensive curriculum for both physical education and health courses. Having a high quality curriculum will provide teachers with a resource when planning and instructing their students. Fishburne and Hickson (2005) state that instruction incorporating effective teaching practices and physical education (PE) programs that are instructionally relevant for all students are imperative for children to become physically educated.

After numerous conversations with the principal at Hillside Elementary School it was expressed that their PE curriculum is unclear, as it does not outline specific skills that students are required to learn during the PE program. The schools are governed by Indian and Northern Affairs Canada (INAC) which means they do not fall under provincial jurisdiction. They also do not receive the information and inservicing that teachers in the public school boards have the opportunity to obtain

and engage.

The absence of a curriculum can affect the quality of instruction that students are receiving. Principals and administrators have an important role in ensuring that students are receiving quality PE instruction (Fishburne & Hickson, 2005, McCaughtry, Sofo, Rovegno & Curtner-Smith, 2004; Rink & Hall, 2008). The principal was not content with the PE lessons that were occurring in her school as the teachers were playing too many games-like activities and not using quality lesson plans. Quay and Peters (2008) stated that many generalist teachers (classroom teachers) often focus on games because children enjoy them and there is not a high degree of specific content the teacher needs to know to be able to play games in PE. These games lessons often have minimal aims and are structured; however, children experience a high level of enjoyment (Quay & Peters, 2008). Minimal teacher preparation and expertise in PE has been discussed as a barrier to delivering QDPE programs in Canadian Schools (Mandigo et al., 2004). PE lessons need to incorporate a higher level of specific skills to increase the chance of children being involved in organized sport and physical activity outside of PE classes (Quay & Peters, 2008). Mandigo et al. (2004) reported that having a PE specialist can improve physical activity levels, increase physiological outcomes and enhance academic performance. A study in Manitoba, reported that PE specialists were more likely to teach lessons that were developmentally appropriate and inclusive (Mandigo et al., 2004).

Being actively involved in both schools allowed me the opportunity to observe many PE classes and activities within the school. I can understand Hillside's principal's frustrations as I witnessed many PE classes that had minimal structure,

objectives and student participation. For example, in one of the classes that I was observing, three girls (grade 3/4) asked to sit out of the dodgeball game. Teachers must use principles of inclusivity and differentiated instruction in their pedagogy and content and therefore a curriculum and careful planning assists in this process.

Teachers play a crucial role in the delivery of quality PE instruction (Fishburne & Hickson, 2005, McCaughtry et al., 2004). Instructing quality PE programs require planning related to curriculum goals, lessons that provide student learning and effective teaching that will allow students the opportunity to benefit from PE lessons (Fishburne & Hickson, 2005, Rink & Hall, 2008).

Students in PE should be presented with the opportunity to experience new challenges and enhance decision-making skills. My experiences in the two schools has lead me to believe that students are not provided with ample opportunity to engage in quality programming. There are outstanding teachers in the schools who instruct quality PE lessons; however, I feel that all students should be experiencing valuable PE classes. With the current crisis of health, why is it that the teachers cannot adjust to ensure the students are healthier? Students need to participate in lessons in an enjoyable atmosphere that promotes higher learning (Fishburne & Hickson, 2005). In addition, during PE class, students should focus on skills, knowledge and attitudes to be successful in a wide variety of physical activities (Fishburne & Hickson, 2005) as PE is an important setting to improve students' physical activity levels (Mandigo, Holt, Anderson & Sheppard, 2008)

It has been discussed with both principals that in-service/professional development training for all members on staff would be beneficial for their PE

programs. I conducted different sessions last year at the schools and it was the teachers who felt they could benefit who were the most involved. Why is it that teachers do not value in-service or professional development workshops? Teachers are busy as they have assessments and marking to complete, extracurricular events to supervise or organize and other meetings to attend within the school. It was my focus to educate those who would leave half way or did not really have an interest in attending workshops. In my experiences, those are the teachers who could benefit from information the workshops provided. I think that providing opportunities for teachers to become more educated in lesson planning, high quality instruction and integrating PE into other classes will improve the PE program at both schools.

There are teachers who are anxious and excited about learning new strategies and information when it comes to PE or any subject in the school setting. It is important that the generalist teacher believes that teaching high quality PE is possible (Quay & Peters, 2008). When a teacher is missing that belief it can cause PE to be disconnected from the curriculum and school programming (Quay & Peters, 2008). Consistent reminders about expectations and workshops that are offered on a regular basis will hopefully assist with improvement on the instruction of PE classes and other subject areas.

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Preventive Health Services

The opportunity to have additional health staff in the schools is valuable. The students and staff are privileged to have a school nurse, social development counsellor and numerous teaching assistants. The schools welcome students with special needs and have qualified individuals to work closely alongside those students.

The students are aware of the nurses' offices and are able to visit if necessary. The social development counsellor's office is located in a central area where students often pass. They have an open door policy and are active in many students' lives. They are well respected and students know they are able to have conversations with the counsellors whenever they may need. I think these are very positive opportunities for the students because not every elementary school has those specific individuals in the school setting.

The dental program that is offered at both schools for the students is a beneficial health service that is open to all students. The dentist has a vehicle that comes to the school and picks up the students, examines their teeth and returns them back to school. There is a similar program called St. David's Dental Program, a mobile school-based dental program for children in Texas (Jackson et. al, 2007). The school setting is a beneficial setting for a dental program because of the population of students who may have little or no access to dental care (Jackson et. al, 2007). The program removes barriers to oral health care, such as work schedule, transportation and cost and allows children to achieve better health care (Jackson et. al, 2007). The program that operates out of the school is a positive service that is offered to the students.

The schools are fortunate to have the opportunity to have access to health services for their students. These specialized health individuals provide care and services for many students within the school. I think that it is wonderful that students have these services readily available to them to ensure they are maintaining a healthy lifestyle.

Social Support

The term Active School and Comprehensive School Health is a relatively new concept for the schools that I have been involved with. The past few years have been the starting point of becoming a healthier school. Building an healthy school requires the entire community's support (i.e. teachers, parents, students). Incorporating these partners in achieving CSH can affect the health of parents, grandparents as well as the health of students (Healthy U, 2007; Cushman, 2008). Since this initiative is a new program that the schools are working towards, it was challenging to make changes since there was support (i.e. Health Team, school staff) but not from the entire community.

The advocate was identified in the schools to act as the coordinator for health initiatives that would be implemented within the school. When this position was not maintained, the work was passed on to another individual, usually the principal (Greenwood Elementary School) or myself. The advocate at Hillside Elementary School was energetic and supportive; however, she felt alone in this process. She organized the activities and ensured that the staff and students were aware of the events. She recorded classroom participation during initiatives and completed any necessary preparation work. I felt that we did not have a strong sense of community support during the last year in the initiation of the active schools program.

Healthy U Alberta (2007) indicated that it is crucial for parents to be involved in making their children's school healthy. Getting involved in school meetings, suggesting healthy options for snacks, participating in physical activity at their home

with their children and being positive role models by engaging in healthy behaviours are all ideas that will help contribute to making a healthy school community. I also am aware that there was not a large turnout at the Home and School meetings; therefore, it would make it difficult to get parents involved.

I have had numerous discussions with the principals about educating parents and the community about the importance of having a healthy, active school. Both schools require the support of the community to reach their goals of becoming healthy. Teacher support will assist in the journey towards CSH. I have only been involved with the teachers and staff for a limited amount of time; therefore, I only know a miniscule portion of each teacher's story and concomitant challenges. It is helpful when teachers lead by example and encompass the knowledge about the importance of making their students healthy and creating a healthy school environment.

The students are excited about the programs and activities that were implemented during the school year. I have talked with many of them (especially the younger ones) and they have really enjoyed the involvement. There are many positive outcomes in the last year from each school and they both have potential to create additional changes. There are a lot of positive role models in both schools and they have worked extremely hard to increase the knowledge and activity levels of their students. There are a select few from each of the schools who have demonstrated passion and dedication to ensuring that their students receive the supportive environment they deserve. I think that there has been great success in many classrooms where teachers have put forth extra time and energy into making

sure DPA is complete, the students have a sports team/club to play on or they are eating the most nutritious foods each day. Those teachers deserve recognition and I was privileged to have the opportunity to work alongside such devoted teachers.

The work that both schools have completed is wonderful and I am pleased with the positive outcomes that have occurred. I feel that there is so much more the schools are able to do; however, they need the community support to make even bigger changes. It is inevitable that changes cannot happen overnight nor can they occur without individuals to organize and supervise the programs. I hope that the schools are able to reach out to educate the parents and community on the importance of having a healthy school environment.

A Healthy Physical Environment

The schools' physical environment plays a role in creating an healthy School. The design of the school setting impacts children's decisions to be active (Active Healthy Kids Canada, 2009). For example, the accessibility and maintenance of school facilities, access to community programs and ability to feel safe in the community affect children's physical activity levels (Active Healthy Kids Canada, 2009). Both schools are relatively new; therefore, the physical appearance and structure has been well kept. They were both built with large green spaces for the students to have an open area to play in during recess and lunch. They also have a track, soccer field, and baseball field on the schoolyard that provides the students with areas to be active. Another positive addition to the school environment has been the new playgrounds built for the students. The schools have new, bright, large playgrounds that are available for the student's leisure. There are many opportunities

for the students to be active outside which creates a healthy physical environment for the school.

The schools are also equipped with numerous water fountains that provide the children with clean drinking water. Many of the students now have water bottles that they leave on their desk and are able to refill during the day.

A challenge that remains for students at both schools is the inability to walk to school. There are no sidewalks on the Reserve roads; therefore, presenting safety issues. The ability for students to walk to school in a safe environment is an important aspect of a healthy school.

Hillside and Greenwood Elementary Schools have a healthy physical environment. The schools are a safe and healthy place for all students to become educated and interact with other children. I hope that one day the roads will be safe enough to encourage children to walk to school but right now it is important that children become active during the school day.

Challenges during the Research Process

The research process has been challenging; however, I have remained positive throughout the process, because I am passionate about the subject area and was privileged and excited to work with the individuals at both schools. I was aware that the process was not going to be easy as I am a non-Aboriginal who lives off Reserve. Somerville and Perkins (2003) discuss the different ways of thinking about space in Indigenous and Non Indigenous collaboration and partnerships. They also discuss the power struggles that may arise during a collaborative research study.

... By involving members of the research community as co-researchers

throughout the process they participate in identifying the research problems, designing the research project, gathering and analyzing data, and acting on the outcomes of the research. PAR [participatory action research] is a collaborative process aiming to utilize research as a tool for the joint problem-solving and positive social change between researcher and local practitioners (Somerville & Perkins, 2003, p.255)

My research process included partnerships with key players within the community, such as the Health Team, school principals and the school community members. It was a collaborative approach where many individuals worked together to create a healthy school. I did not feel any direct tensions towards me as an individual and perhaps that was because I included the community in the research process. In addition, Benham (2006) discusses the importance of cultural relevancy. During my research, it was important to ensure that initiatives and programming was culturally appropriate for the schools I was working with.

The ability to feel comfortable in a setting where I was an outsider is challenging. Somerville and Perkins (2003) make reference to a 'discomfort zone' where a level of comfort is not always present.

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... We're a bit unsure about how to talk to people, in the right way, those sorts of things, what it's ok to ask about and what sort of things it's not ok to ask about, and stuff like that. So it's not always one-way, it's a kind of two-way awkwardness too I think, about working together too, that you've gotta understand (Somerville & Perkins, 2003, p. 262).

Working as an outsider in a community that is unfamiliar can present uncomfortable situations. I think a 'discomfort zone' was present during my research for both the Aboriginal community members and myself as a researcher. It was imperative to remain cognisant of cultural sensitivities throughout my time on Reserve.

Another challenge that I was presented with was communication. It was not something that I thought was going to be an issue; however, it became more of an issue as the research process continued. I believe that e-mail has become one of the primary forms of communication today and is reliable in terms of sending and receiving messages. There were many instances where I thought I had communicated with individuals, but that was not the case. For example, during one of the scheduled meetings (October 17, 2008) we (health team managers, Heart and Stroke Foundation representative, Brock University faculty) had planned to meet with the advocates to discuss progress and future directions. Having received only a few responses from the thread of e-mails, it was assumed that if we did not hear that she could not make it, she would be there. This was not the case. I commuted two hours to the Reserve to attend meetings and observations each week. On this specific day, I had driven two hours to find only two individuals at the meeting (the health team manager and the Heart and Stroke Foundation representative). I was not impressed when I arrived as we did not hear that someone could not attend, and the meeting date was decided at the previous meeting so everyone was aware of the meeting date. I was left speechless, wondering how difficult is it to respond to an e-mail or make a phone call to inform someone that you can not attend? *"No one had responded to the e-mail, was that a cultural thing...should we start having people RSVP to the meetings so we*

know who is coming?" (Observation notebook, October 17, 2008). I thought that was a fairly common response to make; however, that may not be the most common form of communication for the population I was working with.

There were other instances where I was under the impression that I had scheduled a meeting to discuss and plan events; however, when I approached the individual I was expecting to meet with there had been a change in their agenda. There were often times where I sent an e-mail or made a phone call to arrange a meeting and was left uncertain if the meeting was actually going to take place. I felt that I was not given a definite answer most of the time, which was challenging as I wanted to make the most out of my time at the schools. This was not the case for all individuals I was working with. I was able to communicate effectively with both principals via e-mail or the phone; therefore, I am left confused as to why I find it challenging to communicate with most people I was working with. I learned to be patient and understand that there are cultural differences between myself and the population I was working with. My personality and work ethic (i.e. very structured and planned) may have been overwhelming and intimidating to some people. I think that I learned to relax, communicate effectively and work together and with the individuals I was assisting in the schools.

It was difficult to be a participant and an observer during the research process. Initial plans of the research was to have an advocate at both school who would hold the responsibility for organizing and completing the initiatives. The role of the advocate did not go as planned for one of the schools. Having the advocate remove herself from the position left me completing a large degree of organizational and

planning work that I did not account for at the beginning. It was helpful that there was other support from the staff and teachers at the schools; however I did spend a lot of time completing tasks that were thought to be the role of the advocate.

Recommendations

The purpose of the research was to discuss the journey towards Comprehensive School Health. I found that the Active School model was too advanced for the schools I was working with; therefore, the Comprehensive School Health model was a more suitable framework. The schools were able to implement various health initiatives working towards increasing the health of students and staff. They were successful at introducing their students to a variety of health topics and providing the opportunity to increase their physical activity levels. The schools are continuing to work to promote health and physical activity to increase the health of the school environment. The following are recommendations for future research in this subject area.

Social Support. The Comprehensive School Health model is focused around collaborative partnerships. The approach includes numerous individuals such as community members, parents, health team members, local businesses and students. It is important to have school administration support for the initiatives occurring within the schools. I felt that the principals at the schools I was working with were a strong support system for myself and my research. Since CSH relies on the partnerships and relationships within the community, I think that more community involvement would have made the project more successful. Having more parent involvement within the schools initiatives would have also been encouraging for the staff and students at

Greenwood and Hillside. I think that it is important to start at the administrative level to ensure they are supportive which can effect on the outcome of the schools successes. The staff and teachers were supportive throughout the healthy schools initiative; however, to fully adopt the CSH model, support is needed from multiple sources outside of the school environment.

Increased Time in the Field. As a researcher, I think it would have been valuable to have more time observing and participating in the schools. I feel that I did have an adequate amount of time to obtain concrete data; however, an increased time would have provided the opportunity to collect additional data. Additional observation days would have allowed more time to develop more relationships and further understand the culture and school environment.

School Questionnaire/Background Information. I would recommend that for future studies in this area to include a school background or history questionnaire. I think that the schools were both at different levels in terms of healthy school environments that having completed or received some background information on the schools would have been helpful. I was more familiar with Greenwood Elementary School than Hillside Elementary School; however, I had not worked with the staff and students as closely as I did this past year. I think that it would have been helpful to spend more time building a relationship with the entire staff to ensure they are supporting initiatives despite that I learned more as my research progressed; however, it would have been helpful before I started. I think that really understanding the population and culture the researcher is working with will provide assistance when trying to implement change.

School Policy. One topic that was discussed throughout my time in the schools was the development of school policy. Ontario schools are mandated to include daily physical activity each day. The schools I was working at do not fall under the same Provincial jurisdictions; therefore, are not required to complete daily physical activity. I would recommend that future researchers work with school administrators to implement health policies such as no drop off lunches, daily physical activity, no pop in the schools and daily physical education classes. Many of these topics were discussed with the principals but were not put into action. I think that having school policies can help decrease some of the unhealthy behaviours within the schools.

I feel that the changes that were implemented in the schools were positive and it provided an introduction to what a healthy school would look like. I have learned that making changes has numerous stages and can take many years. I believe that I provided resources for the school and staff to stay motivated and encouraged them to continue working towards their goal of becoming an Active School. I hope that both schools have the strength to continue as there is so much potential at both schools and I think they are more aware of that over the past year. Changes can happen. I saw it throughout the year; it just takes time and I hope the schools are willing to face the struggles to make positive changes to their school environment.

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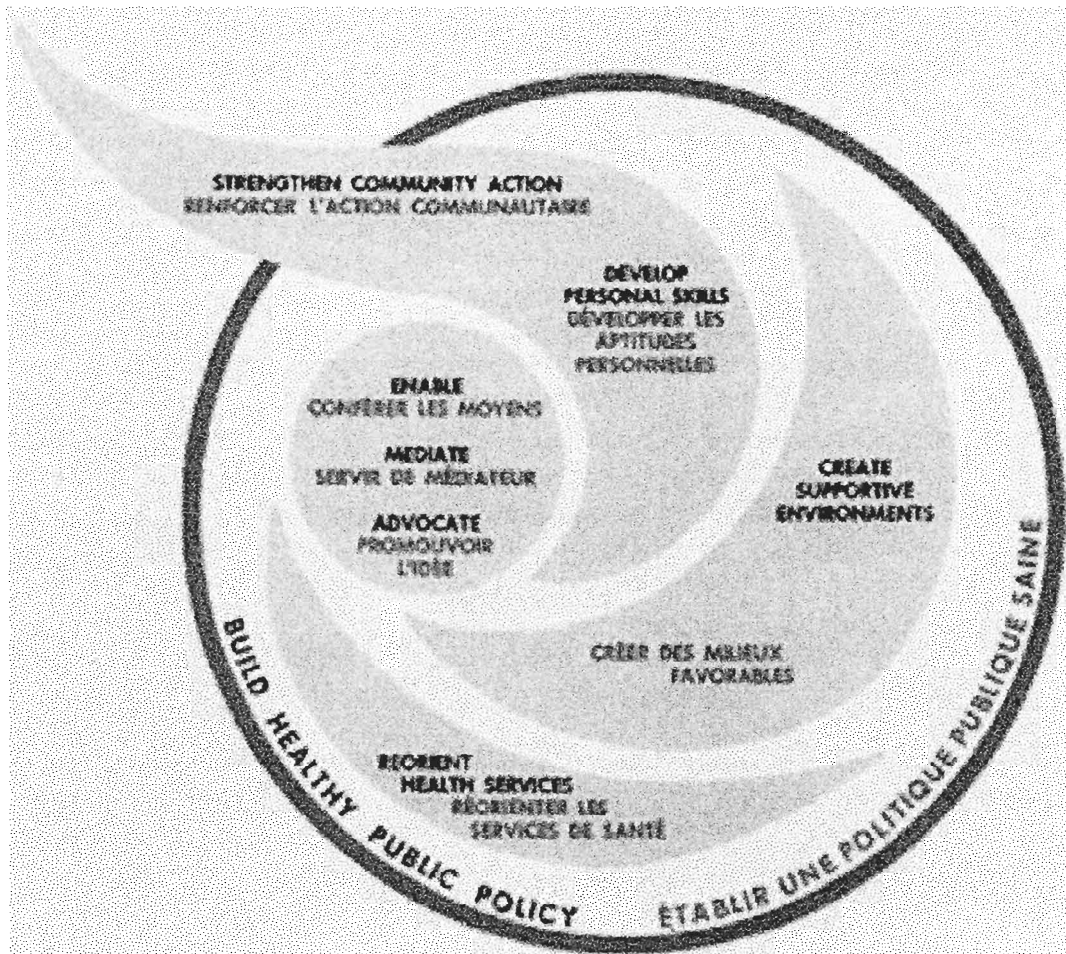
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Appendix

Appendix A Ottawa Charter for Health Promotion



Ottawa Charter for Health Promotion
First International Conference on Health Promotion
Ottawa, 21 November 1986 - WHO/HPR/HEP/95.1

The first International Conference on Health Promotion, meeting in Ottawa this 21st day of November 1986, hereby presents this CHARTER for action to achieve Health for All by the year 2000 and beyond.

This conference was primarily a response to growing expectations for a new public health movement around the world. Discussions focused on the needs in industrialized countries, but took into account similar concerns in all other regions. It built on the progress made through the Declaration on Primary Health Care at Alma-Ata, the World Health Organization's Targets for Health for All document, and the recent debate at the World Health Assembly on intersectoral action for health.

Health Promotion

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being.

Prerequisites for Health

The fundamental conditions and resources for health are:

- peace,
- shelter,
- education,
- food,
- income,
- a stable eco-system,
- sustainable resources,
- social justice, and equity.

Improvement in health requires a secure foundation in these basic prerequisites.

Advocate

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health.

Enable

Health promotion focuses on achieving equity in health. Health promotion action

aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men.

Mediate

The prerequisites and prospects for health cannot be ensured by the health sector alone. More importantly, health promotion demands coordinated action by all concerned: by governments, by health and other social and economic sectors, by nongovernmental and voluntary organization, by local authorities, by industry and by the media. People in all walks of life are involved as individuals, families and communities. Professional and social groups and health personnel have a major responsibility to mediate between differing interests in society for the pursuit of health.

Health promotion strategies and programmes should be adapted to the local needs and possibilities of individual countries and regions to take into account differing social, cultural and economic systems.

Health Promotion Action Means:

Build Healthy Public Policy

Health promotion goes beyond health care. It puts health on the agenda of policy makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health.

Health promotion policy combines diverse but complementary approaches including legislation, fiscal measures, taxation and organizational change. It is coordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments.

Health promotion policy requires the identification of obstacles to the adoption of healthy public policies in non-health sectors, and ways of removing them. The aim must be to make the healthier choice the easier choice for policy makers as well.

Create Supportive Environments

Our societies are complex and interrelated. Health cannot be separated from other goals. The inextricable links between people and their environment constitutes the basis for a socio- ecological approach to health. The overall guiding principle for the world, nations, regions and communities alike, is the need to encourage reciprocal maintenance - to take care of each other, our communities and our natural environment. The conservation of natural resources throughout the world should be emphasized as a global responsibility.

Changing patterns of life, work and leisure have a significant impact on health. Work and leisure should be a source of health for people. The way society organizes work should help create a healthy society. Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable.

Systematic assessment of the health impact of a rapidly changing environment - particularly in areas of technology, work, energy production and urbanization - is essential and must be followed by action to ensure positive benefit to the health of the public. The protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy.

Strengthen Community Actions

Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities - their ownership and control of their own endeavours and destinies.

Community development draws on existing human and material resources in the community to enhance self-help and social support, and to develop flexible systems for strengthening public participation in and direction of health matters. This requires full and continuous access to information, learning opportunities for health, as well as funding support.

Develop Personal Skills

Health promotion supports personal and social development through providing information, education for health, and enhancing life skills. By so doing, it increases the options available to people to exercise more control over their own health and over their environments, and to make choices conducive to health.

Enabling people to learn, throughout life, to prepare themselves for all of its stages and to cope with chronic illness and injuries is essential. This has to be facilitated in school, home, work and community settings. Action is required through educational, professional, commercial and voluntary bodies, and within the institutions themselves.

Reorient Health Services

The responsibility for health promotion in health services is shared among individuals, community groups, health professionals, health service institutions and governments. They must work together towards a health care system which contributes to the pursuit of health.

The role of the health sector must move increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services. Health services need to embrace an expanded mandate which is sensitive and respects cultural needs. This mandate should support the needs of individuals and communities for a healthier

life, and open channels between the health sector and broader social, political, economic and physical environmental components.

Reorienting health services also requires stronger attention to health research as well as changes in professional education and training. This must lead to a change of attitude and organization of health services which refocuses on the total needs of the individual as a whole person.

Moving into the Future

Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love. Health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members.

Caring, holism and ecology are essential issues in developing strategies for health promotion. Therefore, those involved should take as a guiding principle that, in each phase of planning, implementation and evaluation of health promotion activities, women and men should become equal partners.

Commitment to Health Promotion

The participants in this Conference pledge:

- to move into the arena of healthy public policy, and to advocate a clear political commitment to health and equity in all sectors;

- to counteract the pressures towards harmful products, resource depletion, unhealthy living conditions and environments, and bad nutrition; and to focus attention on public health issues such as pollution, occupational hazards, housing and settlements;

- to respond to the health gap within and between societies, and to tackle the inequities in health produced by the rules and practices of these societies;

- to acknowledge people as the main health resource; to support and enable them to keep themselves, their families and friends healthy through financial and other means, and to accept the community as the essential voice in matters of its health, living conditions and well-being;

- to reorient health services and their resources towards the promotion of health; and to share power with other sectors, other disciplines and, most importantly, with people themselves;

- to recognize health and its maintenance as a major social investment and challenge; and to address the overall ecological issue of our ways of living.

The Conference urges all concerned to join them in their commitment to a strong public health alliance.

Call for International Action

The Conference calls on the World Health Organization and other international organizations to advocate the promotion of health in all appropriate forums and to support countries in setting up strategies and programmes for health promotion.

The Conference is firmly convinced that if people in all walks of life, nongovernmental and voluntary organizations, governments, the World Health Organization and all other bodies concerned join forces in introducing strategies for health promotion, in line with the moral and social values that form the basis of this CHARTER, Health For All by the year 2000 will become a reality.

CHARTER ADOPTED AT AN INTERNATIONAL CONFERENCE ON HEALTH PROMOTION*

The move towards a new public health, November 17-21, 1986 Ottawa, Ontario, Canada

*** Co-sponsored by the Canadian Public Health Association, Health and Welfare Canada, and the World Health Organization**

Appendix B Hillside Elementary School November Health Month Agenda

Time	Activity	Responsibility
Week 1 Nov 4-7	Kick off day assembly Intro-health month & committee members Food for thought daily, GO/SLOW/WHOA class posters	Teachers exercise minimum 10 minutes each day
Week 2 Nov 10-14 Class points- Mon Nov 10 @ assembly	Exercise week Team members come to lead morning exercise during assembly Students complete exercise journals Health promotion-JK-Grade 1 Walk-a-thon	Health committee- info to staff & students
Week 3 Nov 17-21 Class points- Mon Nov 17	Diet week Canada's food guide distribution to all classes Healthiest lunch Diet journals/graphs	
Week 4 Nov 24-28	A.M assembly class presentation (Grade 4-8) Food for thought daily trivia Door decorating contest	
Week 5 Dec 2	Health Fair Class winners Primary/junior/intermediate presentation-class physical education equipment	

	Students ¹ 1:00-3:00	
	Family 4:00-6:00	

Appendix C Letter of Invitation and Informed Consent

Healthy School Initiative at Hillside Elementary School

January 19, 2009

Project Title: The Process of Becoming an Active School

INVITATION TO TEACHERS, STAFF AND COMMITTEE MEMBERS

You are invited to participate in a research study. The purpose of this study is to describe the process of two schools becoming Active School.

WHAT'S INVOLVED

As a teacher, staff member or committee member of the Healthy Schools Committee you will be involved in activities such as physical activity, physical education and nutrition that are implemented within the school. In my pursuit to understand the process of becoming an Active School, I would like your permission to observe you and interview you regarding this process of becoming an Active School. The interview will take approximately 30 minutes and will be arranged at your convenience. The interview will be recorded with a digital recorder; you will receive a transcription of the interview and to ensure you are satisfied with your responses. All individuals will remain anonymous and I will not be judging any particular behaviour. I will not be observing in any classroom unless invited to do so by each teacher.

POTENTIAL BENEFITS AND RISKS

Your school will benefit through the information gathered as we work towards creating a healthy environment for everyone connected to Hillside. There are no known or anticipated risks associated with participation in this study

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any time and may do so without any penalty. Your decision whether or not to participate in the research will in no way effect engagement in the Active Schools initiative.

CONFIDENTIALITY

The information that is provided in the interviews will be kept confidential. There will be no mention of names in the written analysis of the research paper. Any direct quotations used in the research will be accompanied by a pseudonym for the participant. Data will be stored for 1 year after the research study has been completed. Data in hard copy will then be shredded and copies stored on a computer will be deleted. The data will be restricted to Lyndsey Matsumura and Dr. Nancy Francis.

PUBLICATION OF RESULTS

Results of this study may be published in professional journals and presented at conferences. Feedback about this study will be available upon completion (June 2009). If there are any questions, comments or concerns feel free to contact me at lyndsey.matsumura@brocku.ca.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact Dr. Nancy Francis at nancy.francis@brocku.ca. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (File # 08-092). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

Thank you for your assistance in this project. Please keep a copy of this form for your records.

CONSENT FORM

I agree to participate in this study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

I would like to collect this form from you on Tuesday January, 27, 2009.

Name: _____

Signature: _____ Date: _____

My role at Hillside is _____ (e.g. teacher, committee member, administration staff)

Thank you,

Lyndsey Matsumura

Graduate Student

Faculty of Applied Health Science, Brock University

Letter of Invitation and Third Party Consent Form Parents and Children

Date: January 19, 2009

Project Title: The Process of Becoming an Active School

Dear Parents:

As you may know, Hillside Elementary School has been involved in initiatives aimed to increase physical activity during school hours and students' knowledge about nutrition (i.e. healthy eating habits or how to eat a balanced diet). The school administration has agreed that we will work towards Hillside becoming an Active School.

I am a graduate student in the Faculty of Applied Health Science at Brock University. I am conducting research to describe this process of Hillside becoming an Active School. An Active School focuses on increasing the health of students, staff, teachers and community members through activities initiated by your Healthy School Committee.

In order to conduct this research I would like to observe the activities related to health within the school environment. This will occur during school wide activities, physical activity classes, lunch time, recess, after school activities and other school functions. I will be observing children, teachers, parents, administrators and staff in activities related to their health (e.g. bulletin boards, playground equipment, physical activity, physical education and nutrition). I will be talking with teachers and staff about the activities which relate to students' health. *All individuals will remain anonymous and I will not be judging any particular behaviour.* I will not be observing in any classroom unless invited to do so by the classroom teacher.

I would like permission to speak with you and/or your child in an interview which will consist of questions regarding physical activity, physical education, nutrition and other health initiatives that were implemented in the school (e.g. what are some of the active school activities that you have participated in? What do you think an active school would look like?). The interview would occur at a location and time that is convenient for you and your child would be interviewed during school.

Your school will benefit through the information gathered as we work towards creating a healthy environment for everyone connected to Hillside. There are no known or anticipated risks associated with participation in this study.

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any time and may do so without any penalty. Your

decision whether or not to participate in the research will in no way effect engagement in the Active Schools initiative.

At the completion of this project, I intend to publish this research in a scholarly journal. An executive summary will be available from the principal or through the school newsletter.

If you have any questions about this study or require further information, please contact me.

This study has received ethics clearance through the Research Ethics Board at Brock University (File # 08-092). If you have any comments or concerns about your rights as a research participant, please contact the Research Ethics Office at (905) 688-5550 Ext. 3035, reb@brocku.ca.

Thank you for your assistance in this project. Please keep a copy of this form for your records.

I appreciate your time and cooperation. If you require further information please feel free to contact me at lyndsey.matsumura@brocku.ca or Dr. Nancy Francis at 905-688-5550 ext. 4366.

Please return to your child's teacher by Friday January 23,2009.

Thank you,

Lyndsey Matsumura

Graduate Student

Faculty of Applied Health Science, Brock University

Child's Name _____

Please indicate your decision by checking the box:

☐ I give my child permission to participate in the Hillside Active Schools study conducted by Lyndsey Matsumura

☐ I do NOT give my child permission to participate in the Hillside Active Schools study conducted by Lyndsey Matsumura

Signature of parent/guardian _____

I (name of student) _____ agree to participate in the study explained above. I have chosen to participate and understand the information described in the letter or explained to me by a parent/guardian. I have also had the chance to ask any questions or get more information on things I did not understand. I am aware that I am able to ask questions at any time and can stop participating at any time throughout the study.

Student Signature: _____

Date: _____

Appendix D Observation Chart

Observation Location	Question/Statement	Response Notes	Other Relevant Information
Classroom	<p>Are there any healthy posters in the classroom (i.e. nutrition, physical activity, physical education, bullying)?</p> <p>Does the teacher have any healthy challenges within the classroom?</p> <p>Does the teacher do DPA or any other physical activity throughout the day in the classroom?</p> <p>Do the children consume beverages or snacks during the day?</p>		
Gymnasium	<p>Is the gymnasium being used at all times during the day?</p> <p>How often do the children receive physical education in a week?</p> <p>How long are the physical education classes?</p> <p>How long are the children actually doing physical activity during physical education class?</p> <p>Who teaches the students physical</p>	<p>Gr 7/8- approximately 25 min in a 45 min class (class was an hour, first part spent in health class)</p> <p>Gr. 5/6- approximately 40 min (hour class)</p> <p>Gr. 5-8 taught by the</p>	

	<p>education?</p> <p>What activities are the children participating in during physical education class?</p> <p>Is there access to equipment?</p> <p>Are they using age appropriate equipment?</p>	<p>same PE teacher</p> <p>-choice (dr. dodgeball) -played girls vs. boys, - a lot of standing around, considering it was their choice, not much involvement -Taught crossing the falls and hoopster Gr. 5/6- crossing the falls and hoopster</p> <p>Large, nicely stocked equipment room, lot of variety</p> <p>Played with balls for dodgeball, variety of equipment</p> <p>-when I was teaching (ie. Mats, hockey stick, hula hoop, skipping rope)</p>	
Recess	<p>How long are the recess breaks?</p> <p>Is there a playground that is accessible for all children?</p> <p>Do the children have access to equipment that they can use during recess time?</p> <p>Are there organized activities for children to engage in?</p> <p>Are children standing around talking or actively playing?</p> <p>What do the children do on an indoor recess day?</p>	<p>15 min (one in the morning and one in the afternoon)</p>	

	Are there students who are prevented from going outside due to discipline or other reason?		
Lunchtime	<p>Do the children go home for lunch?</p> <p>Do they bring a packed lunch?</p> <p>Is there lunch brought to them by a parent or guardian?</p> <p>What kind of foods are children bringing for lunch?</p> <p>Do the children pack their own lunches?</p> <p>Use of storage containers for lunch?</p> <p>Content of beverages in lunches?</p>	<p>No, almost all students are bussed in to school, not really in walking distance to go home for lunch</p> <p>-Yes, mostly all students bring a packed lunch to school</p> <p>-School took the microwaves out of the classrooms last year</p> <p>-Some parents bring lunch to the school (saw about 10 today)</p> <p>-Pizza, Mcdonalds (pop), pasta, other lunches in plastic bags</p> <p>Gr. 3- lots of sandwiches (white bread), fruit, crackers, juice boxes, some thermoses (not sure of the contents)</p> <p>1</p> <p>Saw some Tupperware containers, homeroom teachers says she stresses having a litter less lunch</p> <p>Juice, water, pop</p>	

	<p>What are the children doing after they eat lunch?</p> <p>Is there activities planned at lunch hour for the children to do?</p>	<p>Children eat for 15 minutes and then go outside for 20-25 minutes</p> <p>After they finish eating, they sit quietly and read a book or do quiet independent work</p>	
Afterschool	<p>Are there programs offered after school for the students?</p> <p>Who runs the afterschool programs?</p> <p>How do the children get home after school?</p> <p>How do they get home after the after school programs?</p> <p>Are there programs offered for all students?</p> <p>What kind of programs are offered? (i.e. sports, dance, clubs etc)</p> <p>Do many of the children attend?</p> <p>How often do the children attend?</p> <p>Why do they not attend?</p>		

Hallways	<p>Are there posters in the hallways?</p> <p>Are there beverage machines available to students?</p> <p>Bulletin Boards?</p>	<p>Stay active on the milk program poster, youth drop in basketball flyer, school philosophy statement, candy gram (\$3.00 for grade 3 fundraiser), washing hands poster, bathing poster, respect, positive encouragement (many strengths, I am one of a kind, I'm a winner)</p> <p>Social Development Counsellor's room-responsibility, trustworthiness, perseverance, self discipline, kindness, healthy habits</p> <p>Minute maid juice machine x 2 (water and juice)</p> <p>Walking club bulletin board, peer leaders bulletin board</p>	
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Appendix E Interview Guide

Principal

- What is the population of your school?
 - Students, teachers?
- How do the students get to school?
 - Bus, walk, parents, bike?
- What would a healthy school look like to you?
- Is there any aspect of that description that resembles your school?
 - What aspects are similar?
 - What else would you like to see?
- Do you have any healthy policies within the school?
 - i.e. no pop?
- What are some health initiatives that have gone on within the school lately?
 - In terms of nutrition, physical activity, physical education
- How are you involved in the healthy initiatives that go on in your school?
- What are some healthy lifestyle behaviours that you engage in?
- Are there any teachers, staff or parents are that heavily involved in the school?
 - Such as healthy initiatives, highly motivated to increase health of children?
- What are your thoughts about the initiatives and programs that are currently going on in your school?
 - Positive change

- Teacher's behaviour
- What kind of changes have you observed regarding your school environment?
 - At recess, lunch, afterschool?
 - During physical education classes? Intramurals?
 - In students? What grade?
 - Gender?
- Have you seen any health behaviour changes in your students? Teachers?
How? Why do you think these changes are occurring?
 - If there are changes that have occurred, do you think they are sustainable? And why?
- What have you noticed in regards to lunches and snacks that the students and teachers are bringing to school?
 - What types of foods do you see in children's lunches? And for snacks?
Teacher's lunches?
 - Have there been any improvements from the previous years?
- How often do each class have a physical education class?
 - Are the majority of the classes held in the gymnasium? Do the classes ever go outside?
- Are their intramurals or after school programs that children participate in?
 - What types of afterschool or lunch hour programs are offered for the students?
 - Are they offered every day?
 - All grades together? Separate?

- Who supervises these activities?
- What else would you like to see in the school?
 - Programs, activities, school wide activities
- What did you find successful? Was there anything that you found unsuccessful?
- Were there any barriers to making the program successful?
 - If so can you explain?
 - How were the barriers addressed?

Teachers

- What grade do you teach?
- What is the total number of boys/girls in your classroom?
- What healthy initiatives do you see going on within the school or your classroom (if any)?
- Is there one specific area of health that you see as a main concern?
 - If so what is it, and why do you think it is a concern?
- What healthy behaviours do you see your students engaging in?
- What healthy behaviours do you engage in?
- Do you enforce any healthy policies in your classroom?
 - i.e. no pop?
- Do you coach any school sports or extracurricular activities?
- If so which ones?
- What does a healthy school look like to you?

- Do you think your school resembles any aspects?
 - If so can you explain?

Nutrition

- Do most children stay at school for lunch?
 - Are they able to walk home for lunch?
- What foods are common in the children's lunches?
 - At the beginning of the school year compared to now?
 - Has there been a change in the types of foods brought?
- Do parents often bring their children lunches from local restaurants?
- What do these lunches consist of?
- How often is this occurring?
- What healthy initiatives have you completed in your classroom?
 - Were they successful? If so how?
 - Physical activity, nutrition, physical education?
 - Why did you find these successful? Not successful?

Physical education:

- Do you teach your children physical education?
 - If no, who does?
- How do you get to school?
 - Drive, walk, bus?
 - Is your house located in an area close enough to walk to school?

- What are some existing programs/initiatives that have been going on for a while within the school?
 - What do you think makes them successful?
- What activities do your students enjoy participating in?
- What are some things you would like to see happen within the school?
- Have you seen any changes from your students throughout the year?
- Is there other areas that need focusing on that have changed from the beginning of the year?

Students

- How do you get to school?
 - Bus, walk, drive, bike?

Nutrition

- What is your favourite thing to eat for lunch?
- What do you usually eat for breakfast?
 - Dinner? Snacks?
- What do you usually bring for lunch when you are at school?
- Does your mom, dad or grandparents ever bring you lunch at school?
 - From where?
- Do you go grocery shopping with your parents/grandparents?
 - What types of foods do you like to buy when you are out grocery shopping?

- If you go out to eat with your family, what is your favourite restaurant to go too?
 - How often do you go out for dinner?

Physical Education/Activity

- Do you like participating in physical education class?
- What is your favourite activity to do in physical education class?
- What do you do during recess time?
 - Play with others? Play on equipment? Take out own equipment to play with?
 - At lunch?
- Are there activities in the school that you like to participate in?
 - When do they occur?
 - Lunch, after school?
- Do you play on any school sport teams?
 - Which ones?
 - Participate in intramurals?

Committee Members

- What is your relation to the school?
 - i.e. parent, teacher, community member?
- How long have you been involved with the school?
- What is your goal(s) for the school you are working with?

- Are they long term? Short term?
- What made you decide to join the school health committee?
 - Take on the role of the advocate?
- How many members are there on your school health committee?
- What is your role on the school health committee?
- What are some aspects that you believe the school needs to improve?
 - Why? What are they?
- How many members are there on your school health committee?
- What is your role on the school health committee?
- Did you decide on short term and long term goals for the school?
 - If so, what were they?
- What did you find was the most important area to focus on in terms of health?
 - Ie. Physical activity, nutrition, physical education
- What did you feel was done well in the school already?
- What initiatives did you and the health committee do for the school?
 - What did you find successful?
 - What did you find unsuccessful?
- What activities do you think the children enjoyed?
 - Was some enjoyed more than others?
 - If so, why?
- Did you find that you had a good level of support from the school/community?
 - How so?

- What are some activities/initiatives that you would like to see happen at the school?
- Did you meet any of the goals you set out at the beginning of the year?
 - Long term/short term?
 - What did you do to ensure goals were met?
 - How were they met?
- How can you describe this experience?
- Is it something you want to continue working with?

Appendix F Interview Summary Chart- Hillside and Greenwood Elementary School

Name	Affiliation	School	Grade	Location	Time	Number of Pages
Mrs. A	Principal	Hillside		Principal's Office	31 min, 39 sec	13
Mrs. B	Teacher	Hillside	3	Classroom	24 min, 28 sec	9
Mrs. C	Teacher	Hillside	7/8	Resource Storage Room	16 min 21 sec	7
Chelsea	Student	Hillside	3	Classroom	14 min, 30	13
Miley	Student	Hillside	3	Classroom	14 min, 30 sec	13
Mrs. D	Principal	Greenwood		Principal's Office	26 min, 31 sec	11
Ms. E	Teacher	Greenwood	2	Classroom	23 min, 33 sec	9
Ms. F	Teacher	Greenwood	5/6 and (PE 4-8)	Classroom	16 min, 15 sec	9
Stephen	Student	Greenwood	2	Nurses' Room	16 min, 56 sec	16
Brandon	Student	Greenwood	2	Nurses' Room	16 min, 56 sec	16
Duncan	Student	Greenwood	2	Nurses' Room	15 min, 21 sec	15
Heather	Student	Greenwood	2	Nurses' Room	15 min, 21 sec	15
Lois	Student	Greenwood	3	Classroom	11 min, 42 sec	15
TT	Student	Greenwood	5	Classroom	13 min, 52 sec	16
Pooh Bear	Student	Greenwood	5	Classroom	13 min, 52 sec	16
Sam Johnson	Student	Greenwood	8	Nurses' Room	15min, 19 sec	15

** names are pseudonyms**