The Implementation of Healthy Eating and Active Living in Primary/Junior Classrooms

By

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Abstract

This qualitative research study focuses on how teachers implement concepts of healthy eating and active living (HEAL) in primary/junior classrooms. With an increase in childhood obesity due to poor dietary habits and a lack of exercise, steps must be taken in schools to engage students in a healthy active lifestyle. Through a combination of convenience and purposeful sampling, semi-structured interviews were conducted with two elementary school teachers who shared their perspectives and experiences surrounding healthy eating and physical activity in the classroom. The data generated from the interviews was then thoroughly coded and examined using cross-comparative analysis, resulting in the emergence of five significant themes. These findings focus on the significant role of the teacher in educating and instilling values of HEAL, the positive impacts and challenges of implementing these concepts on a daily basis, strategies for engaging the school community in health-promoting initiatives, and the relevance of connecting healthy active practices to larger world issues. This study recognizes the influential role schools play in shaping students’ perceptions of healthy active living, and analyzes implications for the wider educational community. Furthermore, it explores areas for future research, mainly the mental and social impacts of healthy eating and physical activity on students.

**Key Words:** healthy eating; active living; health environment; health-promoting schools; teacher perspectives
Dedication

To my beautiful mother,

Whose incredible strength and unconditional love inspires me everyday.
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Chapter One: Introduction

1.0 Introduction to Research Study

The classroom is a space in which children spend a great amount of time away from home and plays an active role in their development as a whole. Not only does the school environment shape aspects of their social and academic lives, but also contributes to their overall health and well-being (Story, Nanney & Schwartz, 2009). Since the school environment has huge potential to impact children’s health, steps should be taken to ensure healthy practices are being put into action in schools.

1.1 Research Problem

In western societies today, fewer children are maintaining a healthy diet or participating in adequate physical activity (Centers for Disease Control and Prevention, 2011). As a result, obesity rates have skyrocketed dramatically amongst youth (Gortmaker et al., 1999). Gortmaker and colleagues found that 80% of children in the United States consume well over the recommended intake of saturated fat and salt. These poor dietary habits, along with an increased use of technological devices, have resulted in children spending more time glued to a screen and less time being physically active. The development of these unhealthy habits from a young age puts children at an increased risk of health complications such as heart disease, cancer, and diabetes later in life. Not only do these unhealthy lifestyle choices harm children physically, but may also take a heavy toll on children’s emotional and mental state (Centers for Disease Control and Prevention, 2011). The school environment provides a space for multi-faceted growth in children, and should be used as a tool to enhance and support their overall health. Story and others (2009) state:
Health and education success are intertwined: schools cannot achieve their primary mission of education if students are not healthy and fit. Schools have an unparalleled opportunity to promote children’s health by creating an environment in which children eat healthy foods, engage in regular physical activity, and learn lifelong skills for healthy eating and active living. (pp. 72-73)

Thus, it is crucial to educate and guide children starting from a young age about the importance of maintaining a healthy and active lifestyle.

1.2 Purpose of Study

The intent of this qualitative research study is to gain insight into the different ways primary and junior classrooms incorporate a healthy diet and physical activity in everyday learning. This study analyzes how these concepts are currently being practiced and what steps can be taken to enhance them further, examines the existing policies and recommendations highlighted in the Ontario Curriculum, and explores how this material is being covered by primary/junior teachers. In addition, the study identifies the benefits and challenges of promoting a healthy active lifestyle in schools, and the impact this programming may have on children – socially, physically, emotionally and academically. Overall, this qualitative study intends to explore more deeply the role educators and schools play in shaping children’s ideas and attitudes of a healthy active lifestyle.

1.3 Research Questions

The central question that is primarily investigated in this research study is: How do teachers implement concepts of healthy eating and active living in primary/junior classrooms? Through the exploration of this principal inquiry, other subsidiary questions are also addressed:
• According to teachers’ observations, do healthier choices in diet and exercise enhance students’ academic achievement?

• What actions are teachers currently taking with elementary students to promote a healthy active lifestyle?

• What reactions are teachers witnessing from students in regards to the implementation of a healthy active lifestyle in teaching practices?

These questions were developed at the outset of the study and later addressed during the research process. This study takes a qualitative approach, exploring primary/junior teachers’ perspectives on healthy eating and physical activity using semi-structured interview protocols.

1.4 Background of Researcher

Practicing a healthy diet and engaging in daily physical activity are two aspects of my life that I truly value. I strongly believe that by maintaining a healthy active lifestyle, one will reap many benefits – physically, emotionally, and mentally. Ultimately, keeping one’s body in good health has the power to influence one’s overall happiness. This interest in health has led me to explore ways that children can embrace healthy habits in their daily lives, beginning in the classroom.

I attribute my interest in healthy living to the environment in which I was raised, and to my familial Italian background. All four of my grandparents and my father were born in Italy and immigrated to Canada in the 1950s and 1960s. Being heavily influenced by my Italian culture, food has always been an important part of my life. Both sets of my grandparents cultivated fully stocked gardens and fruit trees in their backyards; therefore, fresh vegetables and fruit were regularly on hand during the appropriate seasons.
my grandparents first arrived in Canada after leaving the economic hardships of Italy, they did not have much money in their pockets. They learned to support and sustain themselves in ways that were least costly to them. They did this by growing their own food and rarely ate at fast food establishments or in restaurants. This practice has been passed on through my family’s generations and today we are fortunate enough to enjoy healthy home-cooked meals every day. During my elementary school years, my parents always packed my siblings and me a healthy lunch and snacks, and limited the junk food that was bought when making trips to the grocery store. I continued to pack myself nutritional lunches during my high school years, and today, as a young adult, I am especially conscientious about following a healthy diet.

From a young age, I have always been involved in extracurricular sports teams and activities, partially because I found them enjoyable and also because of the physical, social, and mental health benefits that were to be gained. In elementary school, I was part of cross-country, track and field, and the volleyball, soccer and basketball teams. I then played baseball during all four years of high school and took more than one physical education class as well as an exercise science course. For the past few years, I have signed up for a membership at a local fitness centre as a way to exercise and stay physically active. Since I attend university in Toronto, I find it easy and convenient to get around parts of the city by foot, and try to avoid using public transit as much as possible. Staying physically active in these ways assists me in coping with stress, improves my cognitive functioning, and ultimately puts me in a positive mood.

Maintaining a healthy diet and staying physically active is one of my passions and continues to play an important role in my life today. I strongly believe that my attitudes
towards nutrition and healthy living have been greatly influenced and shaped by the exposure I had growing up with my family and school environment. Therefore, by educating and encouraging children from a young age to actively participate in a healthy lifestyle, they will hopefully carry these values with them in the future. Incorporating a nutritious diet and ample physical activity is crucial to a child’s health and well-being, and may lead to positive changes in other aspects of life, such as high self-esteem, increased attentiveness, and enhanced academic achievement.

1.5 Chapter Conclusion

This study is centred on the principal inquiry question of how teachers implement healthy eating and physical activity in the classroom as a way to enhance children’s overall health and well-being. In the second chapter, a detailed review of the existing literature as it pertains to healthy active living in elementary school classrooms is analyzed and discussed. This literature review examines what kinds of programs are currently being implemented in schools across North America, suggestions for constructing a health-promoting classroom, as well as the benefits and limitations of taking a healthy active approach. The third chapter describes the procedure followed in my data collection, and the participants involved during the interview process. A summary of my research findings is presented in the fourth chapter. Along with making meaning of these findings, I consider how my research fits in with existing studies and literature. The fifth and final chapter concludes my research study by reviewing the implications of my findings and how they affect today’s primary/junior students, as well as areas for future research.
Chapter Two: Literature Review

2.0 Chapter Overview

This chapter highlights concepts and ideas extracted from existing literature that pertains to healthy eating and physical activity in elementary schools. It examines ways to construct a health-promoting classroom, the benefits and limitations surrounding healthy eating and active living, as well as initiatives that are in place in today’s schools.

2.1 Introduction and Terminology

According to Centers for Disease Control and Prevention (2011), with increasing obesity rates and sedentary lifestyles affecting a significant number of children in North America, the need for healthy eating and physical activity interventions has never been so great. An excessive use of technological devices has resulted in a stark decrease of physical activity. Coupled with a poor, low-nutrient diet, many children are at high risk of encountering numerous health problems in their adult years, including heart disease, cancer, and diabetes, as well as a wide range of emotional health issues that arise from an unhealthy lifestyle, such as depression and low self-esteem. Gray and Oslin (2003) conclude that it is imperative that children be introduced to healthy eating and physical activity practices at a young age, to ensure they develop healthy habits that can be carried over into their adult years. Research has found the school environment to be a powerful platform in bringing the message of health and nutrition to students. “While the schools alone cannot solve the childhood obesity epidemic, it also is unlikely that childhood obesity rates can be reversed without strong school-based policies and programs to support healthy eating and physical activity” (Story et al., 2009, p. 72). As children spend a substantial amount of time in schools, it becomes an extremely influential aspect of
their lives. By incorporating healthy lifestyle teachings in schools, children will become more exposed and engaged in these beneficial habits.

2.1.1 Healthy eating and active living

The term “healthy eating and active living” (HEAL) is used by Spitters, Schwartz and Veugelers (2009) in their research about parent and student support of school health policies. Gray and Oslin (2003) use the term “healthy active lifestyle”, which encompasses all choices that create a positive impact on one’s overall health and well-being. Since the concept of HEAL deals primarily with a healthy diet and physical activity, which are the main focuses of this study, the term HEAL will be used throughout this research paper. A healthy diet consists of a balance of nutritious foods, which may include fruits, vegetables, whole grains, nuts, low-fat dairy, etc., and avoids products that are high in sodium, sugar, and fats (World Health Organization, 2004). Along with a nutritious diet, a healthy active lifestyle must also incorporate ample physical activity and exercise. The U.S. Department of Health and Human Services (2008) defines physical activity as, “any bodily movement produced by the contractions of skeletal muscle that increases energy expenditure above a basal level” (p. 2).

2.1.2 Health environment

In order to truly allow students to put HEAL into action, it is important to foster a positive and safe health environment. Wechsler, Devereaux, Davis, and Collins (2000) define health environment as, “all factors that can affect an individual’s health-related behaviours, are external to the individual, and are shaped by members of the individual’s community” (p. 122). The health environment incorporates a myriad of social, institutional, and physical factors, all of which can be applied to the school setting.
Children spend a significant amount of time in schools; in fact, it is most occupied environment away from their homes. “Schools have an unparalleled opportunity to promote children’s health by creating an environment in which children eat healthy foods, engage in regular physical activity, and learn lifelong skills for healthy eating and active living” (Story et al., 2009, p. 73). The social aspect of a school’s health environment may include peers, teachers, parents, community members, as well as school partnerships (organizations, companies, etc.). Institutional factors refer to policies or guidelines established by the school, while physical factors pertain to the concrete space or structure of the school itself and all of its properties (Wechsler et al.). By promoting good health within schools’ social, institutional, and physical spheres, students will be holistically exposed to a positive and effective health environment.

2.1.3 Health-promoting schools

Whitby (2013) refers to school environments that support not only academic achievement but also health related practices as “health-promoting schools” (HPS). Heavily promoted by the World Health Organization, HPS strive to address a range of school health issues through policies, health services and more (St. Leger, 1999). Whitby’s article describes the HPS objective as, “encouraging school boards, district health authorities, and other organizations to establish regional partnerships that would ensure the education mandate was overlaid with a health lens” (p. 18). This research study will also analyze ways to build and maintain a health-promoting classroom where students can put healthy eating and physical activity into practice, while also achieving academic success. Story and colleagues (2009) claim, “Health and education success are intertwined: schools cannot achieve their primary mission of education if students are not
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healthy and fit” (p. 72). Since schools provide an ideal environment to instil values of HEAL in students, it should become their mission to impart these lifelong skills to them.

2.2 Constructing a Health-Promoting Classroom

The classroom is a place where students should not only be educated in academics, but also be introduced to healthy lifestyle skills, as these skills are extremely beneficial and valuable to their future successes. A great deal of literature argues that topics in HEAL must be taught in classrooms to ensure students are gaining the knowledge they need to put these skills into action.

2.2.1 The Ontario Curriculum

The Ontario Curriculum for Health and Physical Education (2015) includes both healthy eating and physical fitness as part of the expectations for grades one to eight. As part of the Active Living strand, the Physical Fitness component focuses on, “the physical and physiological components of fitness that have a direct impact on health and well-being. Health-related components of fitness include cardiorespiratory fitness, muscular strength, muscular endurance, and flexibility” (p. 26). The Healthy Eating component is incorporated in the Healthy Living strand and guides students to make the right food choices and set goals that will allow them to develop positive eating patterns. Some of the topics highlighted in the curriculum under Healthy Eating are, “Canada’s Food Guide, nutrition food choices, factors influencing eating habits, skills for healthy eating, food trends, oral and dental health, food systems, and connections between eating choices, chronic disease prevention, and the health of the environment” (p. 36). As Story and others (2009) point out, consummating aspects of the curriculum in everyday learning is essential to a healthy school environment.
Concepts of HEAL may also be integrated across other subject areas to maximize coverage of the material, since Health and Physical Education takes up a relatively small portion of classroom time on its own. The Canadian Association for Health, Physical Education, Recreation and Dance provides suggestions for achieving this integration. Some of these examples include a social studies class comparing the health practices of various cultures, a math lesson centred on food labels, and a French class that analyzes the four main food groups (“Building a Health Promoting Classroom”, 2001). Using movement as part of academic lessons also allows for students to remain physically active throughout the day, and keeps students interested and engaged (Story et al., 2009).

2.2.2 Classroom initiatives in healthy eating and active living

Introducing knowledge and concepts of HEAL to young students is an essential element in shaping understanding; it is equally critical to put these concepts into action via opportunities for experiential learning (Walters & Stacey, 2009). As an educator, modelling a healthy lifestyle and setting a positive example can truly shape students’ perceptions on HEAL. This can be as simple as packing a healthy lunch/snacks, and participating in physical activities or sports with the rest of the class. Children are heavily influenced by the significant authority figures in their lives and often want to emulate their behaviours (“Building a Health Promoting Classroom”, 2001). Thus, it is essential for teachers to practice what they preach, setting up the students to follow in their healthy footsteps. According to the Australian Government Department of Health and Ageing, reminding students about the importance of healthy food choices and promoting the consumption of fruits and vegetables throughout the day may seem like a small gesture, but can have considerable effects. It stipulates some suggestions in promoting nutritious
foods: planting a vegetable garden, providing adequate snack breaks for the consumption of healthy foods, and offering subsidized fruits and vegetables (“Healthy and Active School Communities”, 2004). Other studies suggest the establishment of a designated area for preparing and storing food (“Foundations for a Healthy School”, 2014), and replacing a list of unhealthy food choices with healthy ones (Rivard, Deslandes & Beaudoin, 2011).

Other strategies to engage students include using stimulating visuals and displaying students’ work that pertains to HEAL around the classroom. This tactic provides positive reinforcement to students and creates an aesthetically health-friendly environment. In addition, when students are able to identify with their work, they may feel a sense of pride and ownership (“Building a Health Promoting Classroom”, 2001).

Wechsler and colleagues (2000) describe the impact of psychosocial factors in the development of healthy behaviours. “The school psychosocial environment can support health-enhancing physical activity and nutrition choices by helping to define accepted norms” (p. 130). The authors strongly advise against the use of food and/or physical activity as a form of punishment and/or reward. For example, by rewarding students with sweets (e.g. candy) for good behaviour, it is highly likely that students will grow to have a preference for those certain foods. A similar idea applies to punishing students using physical activity (e.g. push-ups). Students will eventually associate the activity as negative, which may discourage them from using that certain activity in the future. On the other hand, Rivard and others (2011), argue that a beneficial reinforcement strategy that promotes healthy eating is rewarding students who pack nutritious snacks and lunches. The authors’ analyze healthy approaches used by a Quebec school where it was
found that some educators rewarded students who brought fruits and vegetables, though it does not include how students were rewarded and if this method resulted in healthier snacks.

Recess periods are a valued component of the school day as they allow students an opportunity to go outdoors and partake in physical activity, which is proven to enhance students’ attentiveness in class (Wechsler et al., 2000). However, according to Wechsler and others, not enough children spend their recesses being active. According to the authors’ research, elementary students spend only 48-60% of recess time being physically active, while the rest of the time is spent waiting for turns, socializing, sitting, or watching others. Perhaps teachers could provide students with sports equipment that encourages physical activity (e.g. jump rope, balls, etc.), or postulate ideas for games or sports that students could participate in. It may also be constructive for teachers to explain the benefits of a recess break and encourage students to use the time for exercise. Margaretville Consolidated School in Nova Scotia attempted to overcome this issue using a different approach; creating a program called Kids Teaching Kids. This provided an opportunity for older students to teach the younger ones a variety of physical activities that can be used outside of the classroom walls. Also in Nova Scotia, Champlain Elementary School developed a similar leadership program in which older students were trained in leading playground activities as a way to encourage students to use recess time for movement (Edwards, Munro & Bligh, 2004).

2.2.3 Community and school collaboration

Along with classroom initiatives designed to enhance HEAL, it is extremely advantageous to build partnerships with the community and the school as a whole in
order to broaden students’ perspectives on a healthy active lifestyle (Edwards et al., 2004; Wechsler et al., 2000; Rivard et al., 2011). Edwards and colleagues’ research focused on a two-and-a-half-year initiative designed to bring a holistic approach to students’ health, known as the Health Promoting School Project, which took place across schools in Annapolis Valley, Nova Scotia. Their work truly emphasizes the value of collaboration and teamwork in order to achieve success. As the authors highlight in their article:

One of the lessons learned from the project partners and schools is that change takes time, but a series of small changes over a period of time and collaboration with others does bring you closer to the goal. The involvement of students, parents, school partners and the community contribute to a richness in the quality of the progress made so far. (p. 21)

School meal programs provide students with healthy breakfast, snack and lunch options. According to the United States’ Centers for Disease Control and Prevention (2011), “Students who participate in school meal programs have been found to consume more milk, fruits, and vegetables and have better nutrient intake than those who do not participate” (p. 22). In Ontario, the Student Nutrition Program funds meal programs across several Ontario schools and is run by community partnerships and volunteers. From 2013 to 2014, the program financed $3 million towards the implementation of 200 school meal programs, and hopes to establish up to 340 meal programs with a $32 million investment by 2017 (“Student Nutrition Program”, 2015). Wechsler and others (2000) analyze factors that influence students’ diet by stepping away from the conventional school meal programs and focus on food/beverages outside of the program, such as vending machines, snack bars, concession stands and school stores. Their study found
that when the prices of low-fat food choices were reduced, the sales of these products increased substantially; however, once the original prices were reinstated again, the sales of these products continued as they had before. The authors posed some solutions to overcoming the cost barrier. They suggested the subsidization of healthy foods/beverages by private and/or public associations, and decreasing the prices of healthy options while simultaneously raising the price of unhealthy items. Therefore, it appears that the costs of items can significantly influence food choices made by students.

Another way community and school collaboration may enhance HEAL efforts is through involvement in intramural sports and physical activity programs. This idea is extensively explored by Wechsler and colleagues (2000), who consider intramurals to be an essential asset to the school environment and can be used to increase students’ physical activity. The United States’ Centers for Disease Control and Prevention (2011) also advocates the implementation of intramural sports as an effective means to involve students in physical activity: “Intramural physical activities should provide opportunities for both males and females; meet the needs of students at all levels of skills and physical abilities, particularly those who are not athletically gifted; and reflect student interest” (p. 32). Wechsler and others further emphasize the benefits of intramural sports; they describe them as enjoyable and less competitive, meaning students of all abilities can participate without the pressure of inadequacy.

2.2.4. Parent collaboration

Children are heavily influenced and shaped by their parents; therefore, involving parents in health promoting initiatives can significantly increase children’s participation in a healthy active lifestyle. In Gray and Oslin’s (2003) study of a program aimed to
encourage healthy habits outside of classroom walls, the involvement of parents positively shaped children’s perceptions of healthy living. For example, Jump Rope for Heart, an initiative featured in their study, “increased parental support and allowed children to observe their parents’ participating in physical activity” (p. 55). When children observe their parents engaging in a positive activity, figures they especially admire, they may be inclined to do the same.

2.3 Benefits of Healthy Eating and Active Living

There are several benefits of HEAL, including increased academic achievement, prevention of obesity, and high self-esteem.

2.3.1 High academic performance

Practicing a healthy diet and engaging in physical activity are fundamental components, not only to one’s overall health and well-being, but also for improving intellectual performance (Story et al., 2009). Studies have shown a positive correlation between a nutritious diet/physical activity and high academic performance (Florence, Asbridge & Veugelers, 2008; Belot & James, 2011; Rasberry, Lee, Robin, Laris, Russell, Coyle & Nihiser, 2011). Florence and colleagues conducted a study on grade five Nova Scotia students by analyzing their literacy assessment scores with their meal consumption. Students who consumed a nutritious low-fat meal made up of fruits and vegetables were more likely to achieve higher test scores. Their study also highlights the importance of beginning the day with a nutritious breakfast, whether it is at home or through a school meal program, since breakfast is “effective in improving cognitive functioning and academic performance” (p. 213). A 2004 campaign that took place in Greenwich, United Kingdom, involved replacing processed meals in schools to healthier
alternatives. The researchers found that by changing the school meal program to support healthy options, students’ grades in English and science increased significantly (Belot & James). Another such example was found by Maeda and Randall (2003) that, “After as little as five minutes of a moderate-vigorous physical activity four days a week, a class of second grade children was able to concentrate more, the teacher was able to complete more activities, and math fluency increased” (p. 14).

2.3.2 Obesity prevention

It is important to first understand some of the root causes of childhood obesity in order to theorize applicable solutions. Sorte and Daeschel (2006) propose that obesity can be attributed to “biological, familial and lifestyle factors” (p. 40). However, in terms of lifestyle factors, research has shown that consuming more food than is required, especially processed foods that are high in fat and low in nutritional value, as well as spending a great deal of time participating in sedentary activities, leads to higher obesity rates. A great deal of literature is focused on reversing the detrimental effects of obesity by looking for ways to incorporate HEAL on a daily basis (American Academy of Pediatrics, 2006; Centers for Disease Control and Prevention, 2011; U.S. Department of Health and Human Services, 2008). Sorte and Daeschel note that a diet of whole foods including raw, unprocessed fruits and vegetables “prevents loss of vitamins, increases fibre content, and minimizes the consumption of sodium and fat, which are often found in processed foods” (p. 44). The American Academy of Pediatrics explores the health benefits of physical activity and nutritious foods and its role in weight reduction. Their research concludes that, “Treatment programs that include nutritional intervention in combination with exercise have higher success rates than diet modification alone” (p.
A balanced diet and physical activity are necessary to reduce fat and improve overall health, thus preventing obesity.

### 2.3.3 Positive self-esteem

Along with physical health benefits, HEAL may also result in high self-esteem in children, as well as a lower risk of depression or anxiety (American Academy of Pediatrics, 2006). A great deal of literature supports the idea that involvement in sports and physical activities correlates with a positive self-concept, which is especially important during the stages of childhood and adolescents (Bailey, 2014; Sorte & Daeschel, 2006). A study conducted in Switzerland found that adolescents who participated in sports were less anxious, felt socially connected to others and were overall happier with their lives (Bailey). Children who are overweight are more likely to feel insecure about their bodies (Pierce & Wardle, 1997). Reaching a healthy body weight by practicing HEAL can be beneficial to children’s overall self-esteem and self-concept.

### 2.4 Barriers to Healthy Eating and Active Living

While healthy eating and physical activity are undeniably beneficial to one’s overall health and well-being, there are a multitude of barriers that can prevent these concepts from being put into action. According to Edwards and others (2004) in their study on Health Promoting School Projects, the most prevalent factors that deter children from participating in HEAL are the high costs of nutritious foods and extracurricular athletics, a shortage of available activities and facilities, a lack of interest, and not enough time for children or parents to devote.
2.4.1 Financial constraints

Financial constraints are a main contributor in preventing children from eating the right foods and from participating in extracurricular sports and activities. Foods that are low in fat tend to cost more than high-fat products, swaying people towards the less expensive alternatives, as seen in Wechsler and colleagues’ (2000) study. When prices of low-fat products in vending machines and the school cafeteria were lowered over a three-week period, the sales of these items increased significantly – “sales of fruit increased about fourfold and of carrots about twofold” (p. 129). However, when the prices were restored to their initial state, the sales of these healthy foods dropped rapidly, proving how people are drawn to items that will cost them less. In the case of a low socio-economic status (SES) elementary school in Quebec, families’ financial conditions correlated with the quality of food they purchased. Families of low SES were consuming a higher quantity of fat/salt/sugar rich products and did not consume enough fresh, nutritious foods such as fruits and vegetables, thus resulting in higher obesity rates amongst children (Rivard et al., 2011). The American Academy of Pediatrics (2006) recognizes that for parents struggling financially, it may be difficult to enrol their children in extracurricular sports/activities. Having the option of joining a sport/activity through the school free of charge may provide students with more incentive to get involved. Therefore, it is crucial that schools incorporate a range of opportunities for students to become actively involved, whether that is through unorganized free play, organized sports, regular physical education classes, and/or extracurricular activities.
2.4.2 Limited access to activities and facilities

Access to extracurricular sports and activities as well as spaces that invite physical activity are influential factors that can affect one’s active living. “Correspondingly, a lack of facilities has been cited as one of the barriers to youth participation in sports and physical activity” (Wechsler et al., 2000, p. 127). In response to this issue, Wechsler and colleagues advocate that students should have access to the school’s fitness facilities and gymnasiums outside of school hours to maximize their uses. The American Academy of Pediatrics (2006) also notes that school facilities should remain accessible to children beyond school time to allow them to take advantage of the space. This is especially crucial for children who live in neighbourhoods where access to these facilities are restricted (i.e. those living in apartments or subsidized housing).

2.4.3 Lack of interest

With an ever-increasing rise in the use of technological devices, more children are spending their time attached to a screen and show less interest in physical activities (Whitby, 2013). As Whitby phrases it, “the use of technology is increasing screen time and replacing movement for entertainment” (p. 19). It is essential that teachers restore the excitement in physical activity by introducing fun and creative games/sports that are accessible to all in order to spark children’s interest. Although it may be challenging, meeting the interests of all children is of extreme importance, and ensures all are given equal opportunity to participate. This may involve planning based on children’s abilities and modifying certain games and activities (Centers for Disease Control and Prevention, 2011).
2.4.4 Lack of time

There is no doubt that many parents lead busy and stressful lives, which may in turn negatively affect their children (Whitby, 2013). When afflicted with time constraints, it becomes easy to fall into unhealthy habits. For instance, adults who find it hard to balance schedules may not be able to prepare healthy meals for themselves and their children (Whitby). Therefore, they may resort to quick fixes, normally ones with low nutritional value. In addition, for working class families in which both parents hold full-time jobs, registering their children for organized sports may not be a feasible option (Edwards et al., 2004).

2.5 Healthy Eating and Active Living Initiatives in Today’s Schools

With the problematic obesity epidemic experienced by today’s society, more schools in North America are taking action with the mission of lowering its detrimental effects.

2.5.1 Enhancements in healthy eating

Bringing healthier eating habits and initiatives into schools has been found to be a powerful way to promote a healthy lifestyle in children. One such example is the Health Promoting School Project that has been implemented in several partner schools across Annapolis Valley, Nova Scotia. This program put into action a variety of healthy eating initiatives such as the introduction of healthy snacks in their after-school programs, the exploration of foods through school events, the inclusion of the school policy in the school menu, a Health Fair which allowed for taste testing of nutritious foods that were new to students, and school wide trips (i.e. Dairy Farm for World Milk Day) (Edwards et al., 2004). A similar program is the PHAT (Positive, Healthy, Active Today) Project,
established by the Calgary Be Fit For Life Centre. This program was designed to improve HEAL in students, and was implemented across five Alberta schools. The enhancements in healthy eating seen in these schools are phenomenal. One teacher from a PHAT school makes the following statement:

We have made many changes and improvements to our school this year due to the PHAT program. We helped students make healthier nutrition choices by providing only healthy foods at our school. We only sell water and juice in our pop machine, we eliminated candy and chocolate and replaced it with healthier snack options, and we started selling healthier lunch options in place of pizza. Our school created a breakfast and nutrition break canteen, which offers many healthy snacks for all under $1.50. (Yardley, 2011, p. 25)

2.5.2 Enhancements in physical activity

Along with improvements in healthy eating, the schools of Annapolis Valley also made enhancements to physical activity programming. They established the Kids Teaching Kids program, which involves older students teaching the younger ones about physical activities and games. They also started initiatives that encouraged families to participate in physical activity (i.e. snowshoe-making workshop), Healthy Active Nights directed by older students and university athletes, as well as peer leader lectures about active living during school events/assemblies (Edwards et al., 2004). Ty-Ann Gray is a physical education teacher in Cuyahoga Falls, Ohio and reflects on the different strategies used to improve physical activity in her school. The ABCs of Fitness is an activity in which teachers present a component of healthy active living based on a specific letter of the alphabet each day/week. For example, Day/Week 1, students may learn about
aerobics (focusing on the letter A). Students are then encouraged to take what they learn and put it into practice outside of the classroom (Gray & Oslin, 2003). Another tactic highlighted by Gray and Oslin is the introduction of a physical education corner where teachers can post students’ achievements (those succeeding in a healthy active lifestyle outside of school) on the gymnasium/classroom wall. This approach provides students with recognition from their peers, teachers, and other members of the school community, thus motivating them to succeed. Hill, Hack, and Taman (2010) examine a student led “In Motion Club” organized by Fairhaven Elementary School in Saskatoon:

The In Motion Club stages performances and presentations at assemblies once a month. These assemblies are designed to get the whole school moving and to educate all students about the benefits of being in motion, being physically active, and eating healthy. (p. 12)

This initiative resulted in several positive outcomes including student leadership, high family attendance, integration among grade levels, as well as a deeper understanding of HEAL. The healthy eating and physical activity enhancements that are in play in many of today’s schools are reflective of the need to inculcate healthy lifestyle skills in children. By continuing to implement HEAL initiatives in schools, children’s overall health will benefit greatly.

2.6 Chapter Conclusion

This literature review highlights the importance of HEAL within elementary classrooms, especially in face of the obesity epidemic prevalent in today’s North American society. In addition to analyzing classroom initiatives, it is equally important to work collaboratively with the school, district, families and larger community in order to
improve students’ overall health. Great advancements are already being seen across several schools in regards to improving health, however more schools in North America are still in need of healthier options. In conclusion, implementing concepts of healthy eating and physical activity in primary/junior classrooms is a valuable step in promoting healthy lifestyles among children and combatting the risk of obesity.
Chapter Three: Research Methodology

3.0 Chapter Overview

This chapter outlines the research methodology applied throughout the study of how teachers implement healthy eating and physical activity in primary and junior classrooms. To begin, the procedure and approach taken is examined, followed by an analysis of the instruments and process used during the stages of data collection. The participants involved in the interview process are introduced, and their relevance to the study is described. The ethical considerations relevant to the study are reviewed, along with an overview of the procedures followed during data analysis. The methodological approach employed in this research study encompasses many strengths and benefits that facilitated the process and truly allowed for deep insights and the development of ideas. Nonetheless, it was equally coupled with limitations; both of which are further discussed. To conclude this chapter, a preview of what is addressed in the following chapters is provided.

3.1 Research Approach and Procedures

A qualitative approach was applied to this research study, defined by Creswell (2013) as, “the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem” (p. 44). This qualitative approach allowed me to delve deeply into the lives of the participants and gain a more lucid understanding of their perspectives, views and concerns surrounding the application of healthy active living in the classroom. Through this process of interaction, I was able to build rapport with each of my participants and increase the level of comfort and trust between us, thereby allowing me
to gain access to an “insider perspective” (Creswell). In keeping with qualitative research methodology, I crafted my interview questions to be open-ended, permitting me to shape and modify the questions and/or comments throughout the interview process according to the information my participants were offering. This also gave the respondents the freedom to answer without choosing from pre-determined responses (Bogdan & Biklen, 2007; Sofaer, 2002). In addition to the data collected from the participants, I also drew from extant literature and research relevant to the topic of healthy active living in elementary school settings.

3.2 Instruments of Data Collection

My main source of data was collected through semi-structured interviews with two elementary school teachers. Unlike the rigid and inflexible forms of data collection such as questionnaires or surveys, this interview protocol allows participants to draw from their own life experiences, personal opinions, and perspectives regarding healthy active living, resulting in deeper and more meaningful responses.

Descriptive data is an important characteristic of qualitative research and refers to information that cannot be reduced to numerical values, as stated by Bogdan and Biklen (2007). When researchers analyze this form of data, they refrain from warping the information that has been collected. Instead, they strive to maintain the data in its original form, whether that is by preserving the initial recordings or by studying the raw transcriptions. It is imperative that researchers do not approach the interview process close-minded, but remain open to the wide range of perspectives, ideas, and complexities that may be brought to light. As Bogdan and Biklen explain, “The qualitative research approach demands that the world be examined with the assumption that nothing is trivial,
that everything has the potential of being a clue that might unlock a more comprehensive understanding of what is being studied” (p. 5). By employing a semi-structured interview protocol that entails open-ended questions and discussions, my research surrounding healthy active living in primary/junior classes has been substantially benefited, as I was able to gain access to diverse insider perspectives and ideas that have been formulated from lived experiences.

3.3 Participants

This section of the chapter describes the process of my research that required participant involvement. I begin with an overview of the sampling criteria used to recruit teacher participants that were best suitable for the interviews. I then provide background on the sampling procedure, describing how I located my participants. Finally, I proceed to introduce the participants that have been selected and describe their value to the study.

3.3.1 Sampling criteria

In order to select the most suitable candidates for the purposes of this study, I formulated meaningful sampling criteria that enabled me to make an informed decision. To ensure the participants were thoroughly familiar with the field of teaching and had a large reservoir of experiences to draw from, they must have had at least five years of teaching experience in primary/junior classrooms. In turn, these participants were more likely to have practiced a range of teaching strategies, and have worked with a diverse group of students in various environments prior to this study. The second criterion was that teachers expressed a personal interest in healthy active living, and valued nutrition and physical activity in their own lives. Those who are passionate about their health and recognize the importance of it to their overall well-being are more likely to model and
instil these values into others around them, including their students. Thirdly, selected teachers were those who facilitated opportunities for healthy active living in their classrooms on a regular basis. This could have been through oral reminders, activities, visuals, or other forms of encouragement. All these ways of making healthy living present in the classroom convey that these teachers likely have valuable insights and knowledge on the subject. My final criterion was that teachers must have had demonstrated leadership skills or have participated in any sort of health-promoting initiatives in the school. This willingness of teachers to take action is an indicator that they are invested in children’s health.

3.3.2 Sampling procedures

In order to seek out participants for the study, I used a combination of convenience and purposeful sampling. Convenience sampling is defined by Marshall (1996) as, “the least rigorous technique, involving the selection of the most accessible subjects” (p. 523). Through the network of teachers and educational faculty members that I am familiar with and/or have worked with, I was able to select participants that would be suitable for this study. Purposeful sampling, on the other hand, is “the identification and selection of information-rich cases for the most effective use of limited resources. This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest” (Palinkas, et al., 2013, p. 2). Not only did I select participants based on convenience or accessibility, but also according to the criteria outlined above. To ensure participants felt comfortable and willing to partake in the interviews, I made it clear at the outset of the recruitment process that they had the right to withdraw at any time in the study.
3.3.3 Participant bios

Participant 1: Cristina

Cristina is a grade six teacher who has been working in the York Catholic District School Board for twelve years teaching the junior grades. She has a university degree in Kinesiology and values healthy eating and physical activity, putting both into practice on a daily basis, in the classroom and in her personal life. She is involved in various school initiatives that encourage healthy active living, from coaching sports teams to participating in an after-school boot camp.

Participant 2: Grace

Grace is a grade two teacher who has been working in the York Catholic District School Board for eleven years, teaching Junior and Senior Kindergarten, as well as grades two, three and six. She affirmed that she follows a healthy diet and tries to fit in as much physical activity as she can on a daily basis. Although she does not have an academic background in health, she showed an interest in one day taking additional qualification courses in physical education.

3.4 Data Analysis

After gathering relevant information from the interview process, the data was then thoroughly analyzed using an inductive approach. Rather than initially formulating a rigid hypothesis and collecting data to support it, I took the opposite route. The inductive method is defined by Bogdan and Biklen (2007) as, “constructing a picture that takes shape as you collect and examine the parts” (p. 6). With the information and findings that were collected throughout the research process, I was able to piece them together in a way that allowed me to then develop a coherent central proposition.
The constant comparative method was also used systematically as a strategy to make meaning of incoming information. Boeije (2002) states, “By comparing, the researcher is able to do what is necessary to develop a theory more or less inductively, namely categorizing, coding, delineating categories and connecting them” (p. 393). Each participant delivered unique insights and ideas that were used to truly deepen and enrich my research. By comparing and contrasting the findings from each of the participants, I was able to gain a lucid and intricate understanding of different perspectives. This method also enhanced the validity of the data since various avenues and sources, including existing literature and research, were utilized to support the overarching idea.

3.5 Ethical Review Procedures

Remaining within the ethical standards of research is crucial in ensuring that participants’ rights are respected, and the information presented is valid and reliable. Research ethics must be reinforced during all stages of the research process (Creswell, 2013). As defined by the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT), my research must remain within certain parameters, meaning I was only permitted to collect data through interview protocols with teachers and faculty members. My research did not involve the observation of classrooms, students, or any other educational environments, nor did it involve surveys or the questioning of parents and/or other community members.

Before beginning the interview process, I presented the participants with a Letter of Consent, found in Appendix A, outlining the goal of the research along with the ethical considerations surrounding the study. Once receiving their consent, we collaboratively decided on a site in which to conduct the consultation. Informing the participants of the
purpose of the research, ensuring that there are no risks involved, explaining where it will be distributed, and emphasizing that the data will be stored on a password-protected computer for up to five years, were all imperative pieces of information needed to make the study as transparent as possible (Creswell, 2013). Following Creswell’s lead, I informed participants of their rights to refrain from answering any questions during the interview process, and their rights to have statements retracted. The confidentiality of the participants is of utmost importance and was reiterated to them several times. When using responses extracted from interviews, participants’ names were replaced with pseudonyms as an effort to protect their identity. The paper attempts to express as clearly and honestly as possible the ideas and opinions shared by the participants, resulting in a reliable and truthful study. Once the research study was published, a copy was distributed to the participants to inform them of how their ideas were portrayed and how these ideas shaped and fit into the overall study.

3.6 Methodological Strengths and Limitations

The methodology used throughout the study offered several strengths that benefited the overall quality of my research. By conducting personalized, open-ended interviews with a select number of teachers, I was able to receive more insightful and meaningful responses than if another method of data collection was employed, such as a survey or poll (Bogdan & Biklen, 2007). Teachers were able to open up about their experiences and provide details about their personal opinions and perspectives. It is noticeable through the data collected that this research study truly values quality over quantity, meaning although there was a small number of participants involved, they were
able to provide rich and valuable responses that could not have been obtained in another way.

The data collected for my research was limited to interviews with teachers and faculty members, in accordance with the ethical review parameters delineated by OISE. Therefore, my sources of data were restricted to a small group of participants. Rather than observe and/or speak to students first hand and gain access to their personal thoughts, the questions were redirected at teachers, who answered based on what they have witnessed from their students. Since my findings are centred on the perspectives and ideas of a select group of teachers, they may not be generalizable, meaning they may not be representative of a larger teaching population. As a researcher, avoiding biased opinions posed another challenge. I attempted to employ a critical and reflexive lens to my own subjectivity to avoid tainting the validity of my findings. Bogdan and Biklen (2007) suggest a strategy that can be used to overcome bias, “What qualitative researchers attempt to do, however, is to objectively study the subjective states of their subjects” (p. 37). Embracing this mentality forwarded by Bogdan and Biklen, I strove to focus solely on the perspectives of my participants and took into consideration how my own biases may influence my analyses.

3.7 Chapter Conclusion

This chapter illustrates the qualitative approach taken in this research study and the level of flexibility it entails for both the researcher and participants. It highlights the combination of methods used for data collection, taking the form of an extensive literature review as well as semi-structured interviews with primary and junior teachers. The selection of participants based on a specific set of criteria is also examined, along
with the sampling procedures and participant bios. Inductive methods and constant comparative methods are two strategies employed during the data analysis process. A review of ethical procedures is discussed to ensure participants were treated fairly and respectfully, and to emphasize the overall validity of the findings. Finally, this chapter goes over the strengths and limitations inherent in this study’s design. The proceeding chapter provides a detailed analysis of the research findings.
Chapter Four: Research Findings

4.0 Chapter Overview

With an increasing rate of childhood obesity linked to unhealthy diets and sedentary habits (Gortmaker et al., 1999), this qualitative study aims to discover how teachers implement concepts of healthy eating and active living (HEAL) in primary/junior classrooms. This chapter provides a detailed overview of my research findings, which are based on face-to-face interviews with two elementary school teachers. The information obtained from the interview process was thoroughly coded and analyzed, resulting in the emergence of five main themes. They concisely sum up important insights about the topic of HEAL in primary/junior classrooms, and are followed with subthemes to further elaborate on specific concepts. The five themes are as follows:

1. The role of the teacher in educating students about a healthy active lifestyle.
2. The positive impacts of HEAL on students.
3. The limitations and challenges of implementing HEAL on a daily basis.
4. The school climate in relation to HEAL.
5. Connecting HEAL to larger world issues.

The ideas presented in this chapter integrate the voices and perspectives of both participants while also considering pertinent research from the literature review. The findings focus on the role of the teacher in promoting and instilling concepts of a healthy active lifestyle, while also considering their personal values and how this affects the teaching strategies they apply. Next, the positive impacts of HEAL in different spheres of students’ lives are analyzed, specifically an increase in academic achievement, high self-
esteem, and a sense of enjoyment. The challenges that may limit HEAL from being taught and implemented inside and outside of the classroom are also discussed, such as financial constraints and a lack of time. Furthermore, the findings concentrate on the school climate, including parental involvement, school initiatives, and sports teams, as significant factors that influence students’ overall understanding of HEAL. Finally, I examine how the participants connect and apply concepts of HEAL to larger world issues.

4.1 Role of the Teacher

Both participants agree that while parents are the primary teachers to their children, elementary school teachers play a very prominent role in informing and promoting a healthy active lifestyle, especially if it is not being put into practice in the home environment. Grade six teacher, Cristina, states, “We have to ensure that they’re getting the exercise that they need, and if it’s not happening at home, we have to take it up and be responsible for it at the school level as well.” Children spend a great deal of time in the school setting, which therefore has the power to shape their perceptions and actions, particularly in regards to HEAL (Story et al., 2009). By presenting students with opportunities to put healthy behaviours into practice and informing them about the importance of HEAL in their daily lives, students will begin to take responsibility for their health. Teachers should act as guides or facilitators, promoting healthy living as much as possible, while also allowing students to take ownership of their decisions. Grace, a grade two teacher, describes an approach that could be taken to ensure students remain on a healthy track:
If teachers are aware and they notice that kids are not eating healthy, I think there needs to be a push and maybe in a very soft way, in a very diplomatic way, approaching it with the parents and reinforcing the fact that healthy eating can only benefit their children.

To ensure students are being adequately taught health and physical education in accordance with the Ontario curricular standards, both participants advise that they follow the curriculum guidelines. Grace notes that her students have a health and physical education teacher who teaches the primary grades healthy and active living skills. Being a junior teacher, Cristina does not have a separate health and physical education teacher, yet follows the health and physical education curriculum herself, teaching students all the strands, from active living, movement competence, to healthy living. Both participants express the value of the Ontario Physical and Health Education Association (OPHEA, 2000) document in teaching students about HEAL, as it features a variety of exceptional teaching tools such as lesson plans and interactive activities.

### 4.1.1 Personal values

The degree to which HEAL is implemented in everyday classroom teachings is often contingent on the teacher’s personal values and perspectives regarding a healthy active lifestyle. One of the criteria that was considered when selecting participants for this study included a personal interest in health and physical activity. Cristina and Grace are excellent candidates for this study as they both value HEAL and put it into practice on a daily basis. Cristina has an undergraduate degree in kinesiology, coaches various sports teams, and participates in an after-school boot camp program. Grace has a strong passion for running and was involved in a youth learning program titled “Girls on the Run.”
Modeling a healthy diet and an active lifestyle as a teacher are essential aspects to fostering an environment that encourages healthy living and inspires students to follow by example. Grace supports this idea by noting, “Kids might want to experiment more because they see their teacher eating something really healthy.” Similarly, The Canadian Association for Health, Physical Education, Recreation and Dance declares that children prefer to emulate those in an authoritative position, thus affirming the importance of teachers setting positive examples (“Building a Health Promoting Classroom”, 2001). Teachers may also demonstrate values of healthy living through the sharing of stories and think-alouds. For example, Grace shows students her healthy morning snack and does a “self-talk” before and while eating, explaining to them why she enjoys that particular snack and the health benefits that come from eating it. Cristina also believes in the power of sharing personal stories as a way to connect to students on a more meaningful level. She states, “They [the students] know that I play soccer, they know that my kids are active as well, and that it’s important in our lives.”

4.1.2 Teaching strategies

The teacher participants highlight several strategies that can be used to encourage and teach students about HEAL in the classroom. Incorporating daily physical activity (DPA) benefits students physically, socially, and mentally, and also results in improved academic achievement, productivity and attentiveness. The Ontario Ministry of Education (2006) recommends students partake in 20 minutes of DPA each day. Grace suggests the idea of a school-wide DPA session, as many individual classrooms fail to participate in DPA on a daily basis: “There should be more of a push for daily physical
activity. Maybe we could go on the P.A. system, where there’s a time slot every other day. Go on the P.A., everybody stops, and we’re doing physical activity.”

Based on my own experiences, I believe that by fostering a sense of motivation in students, they are more willing to participate and actively engage in health and physical education. As the participants point out, this can be achieved through collective workouts, low-competition activities, rewarded physical education periods, and outdoor play. Through my own student teaching, I have found that when students exercise together, they feed off of one another’s energy and feel a stronger sense of inclusion. Cristina advises that two classes participate together in a workout routine called T25, which is a 25-minute video projected on a big screen for everyone to follow along collectively.

Cristina also expresses how low-competition sports and activities allow for students to feel more comfortable and less anxious. By eliminating the pressure to perform at a high level, there is more room for enjoyment, and thus a willingness to participate. Rewarding students with additional health and physical education periods is another way to create positive connotations around HEAL and it should not be taken away as a form of punishment. She states, “Any time there is something to give as a treat, it’s always extra gym. It’s never a threat to take away gym. Teachers that do that, it’s a big mistake. Students are more resentful.”

Grace highlights the concept of bringing physical education outdoors, which sparks positive responses from students: “Outdoor play – we bring activities out for recess. The student council members will go out, and they’ll bring sporting equipment for kids so they are more active.” In the research of Wechsler and others (2000), recess
periods are a valuable opportunity for students to partake in physical activity, which has been found to improve attentiveness in the classroom. However, their studies have also shown that only about half of students are staying active during recess periods. Therefore, having older students lead outdoor activities may inspire the younger ones to be physically active at recess.

As a way to increase students’ self-confidence and enthusiasm, it is imperative that they practice and develop the skills needed for a certain sport or activity before participating in a game setting, which is achieved through scaffolding. Once students have gained a deeper understanding of the rules and skills, they will feel more comfortable and prepared to engage fully (Corlett & Mandigo, 2013). Cristina provides an example of how she implements scaffolding when teaching her students about basketball. She begins by teaching them skills such as dribbling and blocking, using low-competitive circuits and drills, before eventually transitioning to an organized basketball game.

4.2 Positive Impacts of Healthy Eating and Active Living on Students

As described in the literature review, following a healthy diet and engaging in adequate physical activity have substantial positive effects on the overall social, academic and mental well-being of students, including increased academic achievement, decreased obesity rates (therefore, less health problems), and high self-esteem. Through discussions with the participants, all of these positive impacts of HEAL, along with a sense of enjoyment, are brought to light.
4.2.1 Increased academic achievement

Following a healthy diet and partaking in physical activity have been found to improve cognitive abilities and thus enhance academic achievement (Story et al., 2009; Florence et al., 2008; Belot & James, 2011; Rasberry et al., 2011). The participants find that healthy students tend to perform better in all domains of school, including social and academic, compared to their unhealthy counterparts. Grace promotes healthy snacks, especially in the morning because they “get your brain working” and fuel the body. She claims that healthy food choices “affect their [students’] learning and their overall academic success.” Understanding that healthy active living improves students’ academic achievement, a strong argument can be made that there needs to be a greater emphasis in classrooms and schools in promoting healthy eating and providing opportunities for physical activity.

4.2.2 High self-esteem

The idea that a healthy active lifestyle may lead to increased self-esteem is one of the benefits mentioned by both participants. When asked about her perceptions of the importance of health education, Cristina replies by saying, “It is extremely important. It helps with their learning, it helps the students feel good about themselves, it helps with self-esteem, it helps with their overall self-worth.” She also notes that students who exercise regularly and eat nutritious foods are more likely to be successful and happy with themselves. Grace integrates the concept of positive self-image in health teachings and discusses with students ways to achieve a healthy self-image using exercise and combatting false messages from the media.
4.2.3 Enjoyment

The participants emphasize that, when educating about HEAL, they often stress to students that nutritious foods and physical activity not only result in several health benefits, but also add enjoyment to their lives. Although it is essential to teach students about the importance of HEAL, Cristina affirms, “I like to make it more about them having a good time moving and feeling good about themselves.” She also recounts how one of her students who was not particularly enthusiastic about health and physical education at the beginning of the year expressed a newly found interest in it by the end, claiming, “I like gym; this is actually fun.” Demonstrating to students through interactive activities that HEAL can be fun and engaging is an excellent incentive to motivate students to participate in a healthy active lifestyle.

4.3 Challenges of Implementing Healthy Eating and Active Living

Some of the challenges that may hinder HEAL from being put into practice, as highlighted in the literature review, are financial constraints, inaccessibility of facilities and activities, lack of interest, and limited time (Edwards et al., 2004). Two of the greatest limitations as expressed by the participants are financial costs and time constrictions.

4.3.1 Financial constraints

While the teacher may control the level of learning that takes place in the classroom in regards to HEAL, it is much more challenging to reach students outside of school in the home environment. Grace notes that it is difficult to instil values of HEAL in students if it is not being encouraged at home, which may be due to financial constraints. She states:
Sometimes it’s not a big push because unfortunately there are families, for different reasons – it could be an economical or financial reason – that they can’t afford healthier choices, or to have healthier lifestyles for their children. I do still believe that you can eat healthy in a cheaper way.

One of the ways to combat the issue of cost is by informing parents and families of more economic alternatives for following a healthy active lifestyle by sending information home via newsletters, pamphlets, or school websites. Several schools offer breakfast, snack and/or lunch programs, ensuring that all students are given equal access to nutritious foods. These programs are especially beneficial to those who come from families that struggle financially and find it difficult to purchase healthy options. Furthermore, it is imperative that schools offer extracurricular activities and sports teams free of charge to students so that all are granted equal opportunities to put a healthy active lifestyle into practice, regardless of socio-economic background (American Academy of Pediatrics, 2006).

4.3.2 Lack of time

According to the participants, one of the most prevalent challenges facing teachers in terms of implementing HEAL in the classroom is a lack of time. Considering the number of subjects and curricular expectations that need to be covered, it may be difficult for teachers to strike a balance amongst lessons when math, science and language occupy the majority of the day. Therefore, integrating movement across the curriculum may be an effective way to ensure students are participating in adequate physical activity throughout the day, as well as providing mini-lessons whenever an issue relating to health and well-being arises in the classroom. For example, Cristina mentions
that when teaching about the solar system in science, she brings her students outdoors and has them represent the planets and the relative distance between them using their bodies.

Parents may also find that a lack of time poses a challenge on their ability to practice a healthy active lifestyle for themselves and their children. As Cristina points out, “Right now we live in a society where it’s about fast food and it’s about saving time.” Similarly, Grace highlights how parents often send their children to school with packaged and processed snacks and lunches, which tend to be unhealthy and low in nutritional value (Sorte & Daeschel, 2006), simply because they are easy and quick.

### 4.4 School Climate

The school climate is a significant contributor in shaping students’ perspectives of HEAL and has the potential to influence their overall understanding of healthy active living. Parental involvement, school initiatives, and sports teams reflect the school’s overall level of engagement with healthy active living.

#### 4.4.1 Parental involvement

Many parents play an active role in the school as volunteers and therefore contribute significantly to several of the school’s health practices. Grace discusses one movement started by the parent council to encourage healthy eating in the school, which involved bringing in baskets of fruits and vegetables every week for the students to enjoy. Cristina shares a similar anecdote where the parent council distributed watermelon to grade three and six students prior to writing the EQAO tests. She also mentions that the parent council plans to initiate a cooking class for grade seven and eight students, which I
believe is an excellent way to impart healthy life skills and values that they can carry with them into their adult years.

**4.4.2 School initiatives**

Interactive, inclusive, and engaging initiatives organized by the school provide students with ample opportunities to become involved in healthy active living. Some of the school initiatives described by the participants include a “family night” where students and their families can partake in a cooking or dance workshop; a Girls on the Run program to empower, educate and inspire young girls through running; breakfast/snack/lunch programs that provide students with nutritional meals; and student council leaders who organize outdoor activities for younger students. Exposing students to healthy initiatives within the school environment keenly informs their thinking and positively influences their perspectives of HEAL.

**4.4.3 Sports teams**

School sports teams not only get students active and excited about exercise, but also teach them the important values of inclusivity, teamwork, trust, and good sportsmanship. Both participants express the vital role sports play in shaping a healthy active school climate. The sports available to students reach a variety of interests, some of which include karate, soccer, basketball, volleyball, and baseball. They are especially beneficial for students who are limited to extracurricular activities outside of school due to financial constraints. As noted in the literature review, intramural school sports are less competitive than house league teams, more enjoyable, and inclusive towards students of all abilities (Wechsler et al., 2000).
4.5 Making Real-World Connections

When asked how the participants connect teachings of HEAL to larger global issues, they discuss how they incorporate topics of substance abuse, health problems, and media influences in their lessons. In my opinion, informing students of the harms of unhealthy habits is equally as important as teaching them the benefits of healthy living. By raising awareness of the dangers of substance abuse and of various health complications, students may be deterred from falling into unhealthy habits and persuaded to put HEAL into action. Cristina affirms, “We cover it in health – that leading an inactive lifestyle leads to these kinds of diseases and problems [obesity, heart disease, and diabetes].” Grace also notes that childhood obesity has reached an all-time high and children are now facing more health complications due to unhealthy diets and a lack of physical activity. Furthermore, she critically analyzes with her students the harms of false advertising and skewed messages presented by the media in terms of health and self-image. She explains:

You need to talk to kids about self-image and how you can have a positive self-image in a very healthy way. We talked about what the media teaches us, what the magazines show us, and how that’s not real life. That can’t be our aspiration.

Connecting HEAL to larger world issues and making it relevant to students’ lives is crucial to their understanding, and provides them with more meaningful insights on the importance of healthy active living.

4.6 Chapter Conclusion

After thoroughly coding and analyzing the information generated from the two interviews, five prominent themes emerged, all of which provide perceptions into how
teachers integrate HEAL in primary/junior classrooms. Teachers who value a healthy active lifestyle are more likely to implement these concepts in their everyday teachings and instil these values in students. The participants highlight several positive impacts of HEAL, including increased academic achievement, high self-esteem, and a sense of enjoyment, all of which were similarly noted in the literature review. Along with the benefits, they also discuss potential challenges to teaching and promoting concepts of HEAL. One of these limitations includes financial constraints, making it difficult for families to purchase nutritional food options and enrol their children in extracurricular sports and activities. Secondly, the need to cover curricular expectations across all subjects within a limited time frame also impedes on teachers’ abilities to incorporate HEAL in the classroom. Furthermore, the participants provide insights on how the school climate influences students’ understanding of a healthy active lifestyle. Actions taken by parent volunteers, initiatives established by the school, and the implementation of school sports teams all play a role in shaping students’ perspectives of HEAL. Lastly, the participants demonstrate how concepts of HEAL can be tied to larger global issues including substance abuse, health complications, and false media messages, thereby deepening students’ understanding and making HEAL more meaningful in their lives. In the following chapter, I discuss the implications of these research findings, provide recommendations for how this study can be used by the educational community, as well as highlight next steps and areas for further research.
Chapter Five: Implications

5.0 Chapter Overview

This research study focuses on how teachers implement healthy eating and active living (HEAL) in primary/junior classrooms. The findings draw from extant literature pertaining to HEAL in elementary schools, as well as from semi-structured interviews with two teacher participants. Through this qualitative research process, the data collected revealed several key insights about HEAL initiatives that are currently taking place across North American schools, practices and strategies used by teachers to promote healthy living, and some of the benefits and limitations of incorporating HEAL in the classroom. This chapter summarizes the main research findings, examines implications for key stakeholders, provides various recommendations, and poses areas for further research.

5.1 Key Findings and their Significance

After conducting two face-to-face interviews with teacher participants and thoroughly analyzing the generated data, five prominent themes emerged:

1. The teacher’s role in educating students about healthy active living.
2. The positive impacts of HEAL on students’ overall well-being.
3. The limitations and challenges that may inhibit the implementation of HEAL.
4. The role of the school climate in shaping students’ perceptions of HEAL.
5. Connecting the concept of HEAL to the real world.

The first theme analyzes the role of teachers’ perspectives in promoting concepts of HEAL to students through their own personal values and various teaching strategies. As found by the Canadian Association for Health, Physical Education, Recreation and
Dance, teachers have the potential to influence students’ perceptions and attitudes regarding healthy active living, especially if it is not being encouraged in the home environment ("Building a Health Promoting Classroom", 2001). The current study found that, through modelling, teachers can lead students to eventually make healthy choices on their own and take responsibility for their overall health and well-being.

The second theme elucidates the benefits of HEAL, such as increasing students’ academic achievement, self-esteem, and overall enjoyment. Existing literature and the participants of this study agree that healthy active students perform better academically and socially than their unhealthy counterparts (Story et al., 2009; Florence et al., 2008; Belot & James, 2011; Rasberry et al., 2011), as well as improve their physical, mental and emotional states (Centers for Disease Control and Prevention, 2011).

The third theme reveals the challenges of enforcing a healthy active lifestyle, identifying how financial constraints and a lack of time (both in the classroom and at home) can impede on students’ health. The study found that some families may find it difficult to afford healthy food choices or to enrol their children in extracurricular activities, making it all the more important for schools to offer cost-free food programs and sports teams. For teachers, finding time to incorporate physical activity and health teachings may be challenging considering the amount of material that needs to be covered in a limited time frame. Parents may also find that a lack of time inhibits them from making healthy choices, which is why they may turn to “quick fixes” such as fast food or packaged and processed food options.

The fourth theme identifies the school climate as an influential contributor in the promotion and engagement of HEAL to the extent that it encompasses parental
involvement, school-wide initiatives, and sports teams. Parent volunteers play an active role in the school community and have the potential to greatly influence and build on healthy practices. Introducing school initiatives that encourage healthy active living (e.g. cooking workshops), as well as sports teams, will expose students to healthy practices and further inform their thinking about HEAL.

The final theme, making real-world connections by incorporating issues such as substance abuse, health problems, and false media, provides an opportunity for students to become more aware and think critically about larger global concerns and how they impact their lives. Educating students about the harms of unhealthy practices, such as a poor diet, lack of exercise, and substance abuse may help them make well-informed decisions that will benefit and improve their overall health.

5.2 Implications

The findings that have been generated from this study suggest that the educational community may face several implications if healthy active practices are not put in place. By understanding the benefits of consuming healthy foods and partaking in adequate physical activity, policy makers and faculty members will be better informed as to why HEAL should take more precedence in the school environment. Children spend a great amount of time in the school setting outside of home; therefore, opportunities to support and improve their overall health must be implemented, especially since healthy living positively correlates with optimal learning experiences.

5.2.1 Broad implications for the educational community

This study sheds light on implications for the educational community as a whole. According to the extant literature, healthy eating and physical activity have been found to
improve intellectual performance. Studies have shown that students who consume nutritional meals and engage in regular exercise achieve higher academic success and exhibit greater concentration (Florence et al., 2008; Belot & James, 2011; Rasberry et al., 2011). Taking these findings into consideration, students who do not follow a healthy diet nor participate in physical activity are more likely to experience lower academic achievement. Some of the consequences that may ensue from not putting HEAL into practice on a daily basis include poor attentiveness, unwillingness to participate in classroom activities, and low self-esteem, all of which contribute to a disrupted learning experience (Wechsler et al., 2000). The Ontario Ministry of Education’s (2014) mission statement affirms, “Ontario is committed to the success and well-being of every student and child” (p. 1). Providing students with ample opportunities to eat nutritiously and participate in regular physical activity will ensure that this goal is met, as HEAL has been found to positively impact all domains of a child’s life – academic, physical, social, emotional, and mental (Bailey, 2014; Sorte & Daeschel, 2006).

5.2.2 Narrow implications for students and teachers

Beyond the educational community, the findings also elucidate implications that directly affect the lives of the students. By falling into unhealthy lifestyle practices at an early age, these children are likely to cement these habits and carry them over into their adult years. Research has found that a poor diet and a lack of physical activity greatly increase the risk of health complications, including heart disease, cancer, and diabetes to name a few (Centers for Disease Control and Prevention, 2011). Part of the Ontario Ministry of Education’s (2014) vision, as well as that of teachers, is to set up students for future success and ensure they are provided with the proper guidance and resources that
will help them achieve their goals. Imparting to students the importance of following a healthy active lifestyle will help them develop lifelong skills and values that can benefit their overall health in the future.

As generated from the research findings, an implication for teachers is the effectiveness of making real world connections with healthy active living. By demonstrating to students the important role healthy eating and physical activity has in their daily lives (i.e. provides energy, increases self-esteem, improves concentration and attentiveness), teachers will be able to better motivate students and solidify their understanding of HEAL (Story et al., 2009; Belot & James, 2011; Rasberry et al., 2011; Bailey, 2014; Sorte & Daeschel, 2006). Another implication for teachers is the benefit of involving parents in healthy active initiatives and ensuring they are on board with the promotion of HEAL. Children tend to emulate the adult figures in their lives, specifically parents and teachers (“Building a Health Promoting Classroom”, 2001). Therefore, it is crucial that teachers gain the support of parents who can further advocate for HEAL at home and deepen students’ knowledge about healthy eating and physical activity.

5.3 Recommendations

The implications brought to light in this research study point to several important recommendations for the Ministry of Education, school administrators, and teachers to consider, which have been framed below:

1. The Ontario Ministry of Education should create detailed guidelines and certify that Ontario schools are implementing healthy food programs to ensure all students are receiving proper nutrition throughout the day, especially for those who are not receiving it at home. By exposing them to these healthy alternatives, students will be
better prepared to learn, more attentive in class, and their perspectives about healthy eating will be positively informed.

2. To further promote HEAL, school administrators should implement school-wide initiatives that actively involve students in healthy eating and physical activity. Sending the message across through school assemblies, interactive workshops, and family information nights are all effective ways to encourage students to put HEAL into practice in their daily lives. It is also imperative that administrators ensure DPA is being put into action in all classrooms for at least twenty minutes each day, as recommended by the Ontario Ministry of Education (2006).

3. Teachers have a responsibility for modelling practices of HEAL in the classroom. Sharing stories of healthy living practices and bringing in nutritious snacks and lunches are motivating strategies teachers can employ to set positive examples. Teachers may also go beyond simply modelling by incorporating hands on approaches to healthy eating, such as preparing or growing nutritious foods with the students, whether in the classroom or in a school garden. Integrating physical movement across other subject areas is not only beneficial to kinaesthetic learners, but also keeps students active and sharp throughout the day. Lastly, reaching out to parents about the benefits of implementing HEAL at home ensures students’ understanding of healthy living extends beyond the classroom.

4. Often teachers are hesitant or unwilling to incorporate HEAL in the classrooms because they lack the proper knowledge, skills, and level of comfort. Educating teachers about HEAL through professional development courses, workshops, and pre-service teacher education will provide them with the support they need and break
down the barriers that limit their commitment to healthy active living in the classroom.

5.4 Areas for Further Research

This research study provided many insights into how teachers implement healthy eating and physical activity in primary/junior classrooms; however, it has also elicited the need for further research on other strategies to imbue students with a deeper connection to their health. Rather than simply learning about food as a commodity or fuel for the body, more emphasis could be placed on the mental and social impacts it has. Looking at where food comes from, its environmental footprints, and the preparation involved can evoke in students a stronger appreciation for what they put in their bodies. The foods people eat are also contingent on a variety of social components, including where one eats, cultural traditions, and/or religious observances, to name a few. These concepts were not addressed by the teacher participants during the interview process, nor were they emphasized in the extant literature, therefore continued research in these areas would be beneficial to the development of this study.

Furthermore, investigations could be conducted on the mental and social impacts of physical activity on students. More specifically, it would be informative to this research study to discover the mental effects of exercise on students, especially as an outlet for dealing with stress or as a coping mechanism for those struggling with mental illness. Analyzing how active living enhances students’ social abilities, particularly their cooperative and communication abilities, could further advance this study in a more holistic way.
5.5 Conclusion

This qualitative research study analyzes approaches to incorporating HEAL in primary/junior classrooms and the role it plays in students’ overall health and well-being. By drawing from existing literature and conducting and analyzing two semi-structured interviews, meaningful insights have been generated pertaining to health initiatives that are currently in place across North American schools, the benefits and challenges of implementing HEAL in classrooms, and next steps that can be taken to further enhance health promotion for students.

In today’s western societies, the issue of childhood obesity is at an all-time high, onset by an increase of unhealthy diets and lack of physical activity. With the rates of childhood obesity on the rise, more children face the risk of future health complications, including heart disease, cancer and diabetes to name a few, along with experiencing negative impacts on their social, mental and emotional states (Centers for Disease Control and Prevention, 2011). This research sheds light on the importance of a healthy diet and regular exercise in children’s daily lives, and why they should take more precedence in the school environment. Not only does HEAL result in increased academic achievement, but has also been found to enhance students’ self-esteem and confidence. Recognizing that the school environment is an influential space that allows for multifaceted growth in children, incorporating a stronger presence of healthy active living will positively shape students’ perceptions of HEAL and greatly improve their overall health and well-being.
References


Wechsler, H., Devereaux, R. S., Davis, M., & Collins, J. (2000). Using the school environment to promote physical activity and healthy eating. _Preventive Medicine, 31_(2), S121-S137._


Appendix A: Letter of Signed Consent

Dear ______________________________,

My name is Sofia Di Sevo and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on how teachers implement concepts of healthy eating and physical activity in primary/junior classrooms. I am interested in interviewing teachers who value a healthy active lifestyle and strive to bring these practices into the classroom as a way to encourage and inspire their students. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be audio-recorded and transcribed. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates. I may also present my research findings via conference presentations and/or through publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded. The interview data will be stored on my password-protected computer and the only person who will have access to the research data will be my course instructor, Angela MacDonald. You are free to change your mind about your
participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks to participation, and I will share a copy of the transcript with you shortly after the interview to ensure accuracy.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Sofía Di Sevo

E-mail: sofia.disevo@mail.utoronto.ca

Research Coordinator: Angela MacDonald

E-mail: angela.macdonald@utoronto.ca

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by ___________________ and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: _____________________________________________

Name (printed): ________________________________________

Date: ____________________ ___________________________
Thank you for agreeing to participate in this research study, and for making time to be interviewed today. This research study aims to learn how teachers implement concepts of healthy eating and physical activity in primary/junior classrooms for the purpose of supporting and encouraging children to lead healthy active lifestyles. This interview will last approximately 45-60 minutes, and I will ask you a series of questions focused on healthy eating and physical activity in the classroom. I want to remind you that you may refrain from answering any question, and you have the right to withdraw your participation from the study at any time. As I explained in the consent letter, this interview will be audio-recorded. Do you have any questions before we begin?

**Background Information**

1. What school boards have you worked in?
2. How many years have you been teaching?
3. What grades have you taught during your years of teaching?
4. Is there a specific grade or division you prefer to teach?
5. What was your undergraduate degree in?
6. What kind of background or experiences do you have with health education?

**Teacher Perspectives/Beliefs**

7. What are your perceptions of the importance of health education?
8. Who do you think is responsible for teaching children concepts of healthy active living (teachers, parents, students, etc.)?
9. What do you think are the most important aspects of healthy active living that need to be taught to students?
10. In what ways are your perspectives or values surrounding healthy active living modelled in the classroom?

11. Do you think today’s schools do enough to support and encourage healthy active living in students?

**Teacher Practices**

12. How do you link healthy eating and physical activity to the expectations in the Ontario Curriculum?

13. Do you promote healthy active living to your students on a daily, weekly, or monthly basis? How?

14. Do you integrate concepts of healthy active living across other subject areas? How?

15. Do you connect teachings of healthy active living to larger issues? (For instance, obesity, heart disease, diabetes, mental health, sustainability, etc.). If so, how?

16. What are your students’ reactions or attitudes towards healthy eating and physical activity?

17. Do you incorporate hands-on activities in your teachings of healthy active living? Please elaborate.

**Supports and Challenges**

18. What are the challenges of teaching healthy active living?

19. What sorts of resources are available to teaching healthy active living?

20. How accessible are these resources?

21. Is your school involved in any healthy active living initiatives, in terms of either physical activity or healthy eating? If so, can you please provide examples?
Next Steps

22. Are there any changes you would like to make to your teachings of healthy active living?

23. Do you have any advice for new teachers who would like to implement concepts of healthy active living in their classrooms?

24. Are there any other thoughts or experiences pertaining to healthy active living you would like to share?