A NEW APPROACH TO HOLISTIC PHYSICAL EDUCATION:
YOGA IN THE CLASSROOM
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Deborah Rogers
Department of Curriculum, Teaching and Learning
University of Toronto

Abstract

Educational policy in Ontario mandates elementary students participate in twenty minutes of Daily Physical Activity. To date, yoga has not been a recognized type of DPA. This study supports yoga as a holistic and personally satisfying form of physical activity for elementary students.

This study will address: student perceptions of yoga; are they the same as adults; and how students think yoga could be used in the classroom. Research shall be conducted through interviews, observations of children participating in bi-weekly yoga sessions, and analyzing participants’ written reflections in open-ended journals.

This research can help to re-define DPA for all students in order to reach out to a variety of student needs. Using Michael Fullan’s (2001) analyses of change, this study will demonstrate the linkages between the practical applications of yoga in the school and theories of holistic education.

This study recommends practical applications of yoga and how it can be implemented in elementary classrooms across Ontario.
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To my teaching colleagues and yoga community, I hope you enjoy the success of this research and, in reading my thesis, gain some insights which you can take back to your classroom or to your next yoga class. We are all dedicated professionals and wish only the best for the populations we work with. We must continue to dream big and follow our passions because it is this drive that will truly benefit our students.
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Chapter 1-Introduction

The topic of this research is based on yoga in the classroom and the benefits that students perceive for themselves, from a qualitative perspective. This is based on the expression of their feelings through writing and personal oral accounts. From a child’s point of view, yoga is looked at in order to determine how yoga can best be integrated within the school day. The bigger picture that this research is connected to is the hope that by using yoga in the classroom, it may produce change for an individual child by experiencing a reflective process that will reveal their holistic self. For the system of education as a whole change would be demonstrated through a shift in values to include yoga within the physical education curriculum and in educational policies.

The interest in this research study originally came from the development of my own personal narrative, written from an autobiographical perspective drawing on William Pinar’s method of “currere”. Pinar describes “currere” as the “kaleidoscope of impulses, instincts, memories and dreams” (Pinar, 2004, p.216). This method uses four defining moments in one’s life, as a tool for inquiry. Each of these moments: the regressive, the progressive, the analytic, and the synthetic build on one another. In the end, the goal is to understand a new perspective and re-invent oneself in light of this exploration. It is through the analysis of these four significant moments in my life that I have come to understand how my past educational experiences have shaped me to become an educator/yoga instructor and how they authentically define my curriculum work with my students.

Within my narrative, I look at my own personal views and how different moments in my life, both subconscious and not, have defined me as an individual and educator. These critical moments are intertwined with my culture, heritage, social practices, educational experiences and the struggles that I have encountered to find real truth in a sea of false perceptions and values.
I question what the word holistic means to me as I attempt to authenticate myself entirely and then transfer this new understanding to my teaching. William Pinar states in his article titled *Autobiography and an Architecture of Self* that “returning home to relatively conscious origins and being open to the disclosure of unconscious material and integrating these origins with present circumstance will seek truth in the journey of inquiry” (Pinar, 1994, p. 203). It is my hope that many teachers will have the opportunity to lead their own inquiries and examine themselves and their own teaching practice, as these deep insights will likely produce change. Educators can benefit from taking the time to stop and think about their daily practice before they evaluate what works and what does not and through this reflection, refocus their goals, visions and philosophies.

**Pieces of Me: A Personal Narrative**

The purpose of this personal narrative is to parallel my own individual journey with the path taken by my students. It is through my unique learning opportunities as an individual, teacher and yoga instructor that allow me to come to an understanding of holistic education and the importance of how I teach holistically. This opportunity is equally important to my students because holistic education incorporates the whole existence of the child, which allows them to connect meaningfully to the subject matter that they are learning.

*My Mother’s voice, pen pal post cards, personal reflections, portfolios, student notes, journal entries, photographs, manuscripts, essays, stories, scrapbooks, paintings, celebrations, rituals, memories and experiences in foreign countries all guide me in this invigorating process of discovery and self-inquiry.*

*These representations have something in common; they are pieces of myself that represent my being. They reflect early childhood experiences of learning and the development of a personal identity. As a teacher researcher and holistic educator, I am delighted at this time to research my passions and burning questions.*
As I embark upon this journey, I ask myself, “What does the word ‘holistic’ mean to me?” I ponder how to situate myself in the field of education. I ask myself, “What has brought me to this place that will allow me to go further with my work as an educator and to take into account the whole of each child I encounter?” It is the consistent questioning and bringing together different personal experiences that allow me to answer these questions in a way that I feel content.

Using the words of Susan E. Chase, her view of Contemporary Narrative Inquiry is “retrospective meaning making, the shaping or ordering of past experiences. Narrative is a way of understanding one’s own and others’ actions, of organizing events and objects into a meaningful whole, and of connecting and seeing the consequence of actions and events over time” (Chase, 2005, p. 656).

This inquiry process is important because it gives me the opportunity to reflect upon my own experiences as a student during one vivid time in my life and to understand how this moment has greatly impacted me as an educator.

**The Student In Me**

Sitting in a small green chair behind a little rickety desk, sunlight reflects off the hot desert sand and shines through the big glass window. The glare of the sun beats down on my face and warms my entire body as I continue to stare out the window and daydream about the mystical stories of the land and the history of the earth. My mind wanders with contentment. I know that I have finally made it to a place where I am meant to be. All of my dreams lie in this place and my existence is buried within the ground. I need to dig deep to find where my roots came from. It is up to me to discover them through my journey in a foreign land.
When walking through the winding cobblestone streets of Jerusalem, I look to one side and see an ancient temple wall that is crumbling yet the bricks are still shiny and new. People are praying at the side of the wall so devoutly, it is almost painful to see. Then to the other side, I see ruins dating back to the Herodian period. I am so stimulated and all my senses are awake to the beauty of the stones embedded in these ruins. Destruction is obvious, yet hope is evident as the pieces from an ancient era are being rebuilt. All around me are vivid images of a diverse people, a rich history and a complex life. I feel small surrounded by the incomprehensible greatness of an ancient city. Yet the honking sounds of clarinets and sweet violins playing Klezmer music are so vibrant and invigorating to the ear, that I feel larger than life. The incredible smells of oil and potato crackling in the deep fryer and pita bread baking in the oven bring me to a place of comfort and familiarity. Zesty Middle Eastern food cooking in the middle of streets. Life is grand and I am at the center of it!

It was the year that I went abroad to sit in a small green chair behind a little rickety desk in a classroom located in the incredibly hot Middle Eastern desert, in the holy city of Jerusalem where the re-birth of myself began. I started to assemble like a puzzle, the different pieces that make up the sum of my parts, as a whole. During that year, I studied with incredibly passionate professors who taught me what “good teaching” was all about. The void of feeling uninspired that was lingering within me was beginning to become filled with interest and curiosity.

I became hard working and studious and this motivated me to do even better. I took comfort in academics and learning became the work that inspired me. I began to learn about great Zionist thinkers who had visions of settling the land of Israel that was once lost and regaining a hope for a people; these great figures inspired me profoundly. I studied Jewish law and religion in order to inform myself not only of religious customs that my people have practiced but also of the reasons why they practiced these customs.
I was no longer a foreigner as I began to practice these customs myself and develop my personal identity further. Finally, I felt that I would connect with who I am and how I exist in relation to others in this vastly confusing world.

I would go to a lecture and hear real stories coming out of the professor’s mouth, which was well versed in authentic experiences with the subject matter. I wanted to believe and understand every word that was said that year, because I knew that this was a rare opportunity. Throughout my university years to follow, I may never be able to live in such a place where I could learn and then experience for myself what I had just read. I was internalizing everything that I learned; it was like taking a step back into history by traveling back to time and place where I wanted to go and belong.

This experience as a learner in a foreign land, situated within a rugged environment is influential in my life. I depict myself in this narrative as the only one that exists, “sitting on that little green chair behind that old rickety desk in the middle of the desert”. This memory represents an organic understanding of what is important to me as a learner, to feel inspired by and included in the environment in which I learn. This has shaped who I am today. These feelings are forever ingrained in me, as it is still one of the happiest moments in my life. However, through this process I have come to understand that I cannot separate my identity from myself as a learner because so much of what I learn is shaped by who I am and where I have come from.

My Identity and Culture

I am Jewish-Ashkenazi because my background is of Eastern European decent. My paternal grandparents immigrated at the turn of the century but both of my maternal grandparents were born and raised in Poland. My grandparents lived a happy,
traditional Jewish life until the Second World War began. Their thriving Jewish community in Poland turned into the Lodz ghetto where they lived horrifically for over a year (1939-1940). Sadly, their only child was taken away from them, and murdered. Each of my grandparents were taken to separate concentration camps to live a fearful and brutal existence. My grandfather was sent to Auschwitz and miraculously survived five years of imprisonment there. My grandmother was “force marched to a series of concentration camps and by the war’s end was sent to Bergen-Belson. They each struggles very hard to survive for five years despite the monstrous conditions.

When the war ended, and the camps were liberated, my grandparents were both alive. Neither was ready to proceed with building a new life until they knew of the other’s fate and miracously they were reunited in a displaced persons camp.

Distraught and sick but overjoyed with life’s miracles, they had their first baby born after the war. Their baby boy was an affirmation of life over death for them and a rebirth of happiness.

Soon after they immigrated to Canada in search of a life that was safe and peaceful. With no money, full of fear and a language that few could understand, they came to Toronto and worked hard to fashion a new life for themselves. While they eventually moved on from the horrible events of the war but never forgot their emotional scars.

My family’s history informed the generations to follow. Our lives in my home have been greatly impacted but the suffering of my grandparents. Therefore Holocaust Studies have always been of great interest to me. We all understood the value of what it meant to survive and remember and this has forever impacted the way religion is viewed in our home. The phrase that stays in my head and tells a story as I go through all of life’s moments is that, with every bit of happiness in life, there will
still be times when you will need to sadden yourself with the realities of history and yet in every sad moment, hope and the willingness to succeed will be present.

I realize that I am creating an “identity text” (Cummins, 1998) that has become my own personal narrative. This text is filled with past experiences, special phrases and family histories. It is equally important that my students create their own “identity texts” in order to link their culture and heritage with learning. They may not have the language yet to do so, but it is the facilitating of these stories, symbols, identities, language and phrases that will help them in their text creation at whatever stage they are at. Students need to believe in their roots to feel confident about the heritages that they come from and to have the opportunity to share these roots with others.

However; culture and heritage are strongly intertwined with religion. In order for the creation of my identity text to occur, I needed to look closely at my religious beliefs and how I see myself as a spiritual person.

**My Spirituality and Visions for the Future**

Since that formative moment, where I once came to understand myself and the deep roots of my religious practice and cultural history, I continue to progress and to reinvent new interpretations of myself based on these remembrances of new lived experiences.

These moments of religious and cultural practice still lie close to my heart as I continue to move forward and grow as an individual. This new visage looks very different from the face it had once worn. As I continue to reveal the multiple layers of self, I come to understand the potential I have in what lies ahead. Some parts of myself I understand now and some I will only begin to know in the future.

Presently, in the spiritual realm, I see a glowing red dot between the centre of my eyes. I hear deep, somber and poetic chanting in my head and I feel my body turned
deeply in a direction where only breath can allow me to go further. I inhale positivity and exhale frustration. My mind is enlightened by the sight of my body doing something unfamiliar and unpredictable. This peaceful place of self-discovery is like the morning sun rising behind the mountains. As the rays of the sun, seep through the cracks of rock marking the beginning of a new day. I am open to the possibility of reaching “true happiness” and clarity of mind.

My spirituality is now known to me through my yoga practice and no longer through the ancient prayers I once recited. My religion is familiar and important to me but lacks the personal connection that I so strongly desire. I am drawn to the part within myself that encompasses more of the world and not just my people and I see great purpose in this hopeful space.

Through yoga, I see a place in the world where people can be connected to each other through mind, body and soul. There can be a common understanding of peace and respect rather than war and hatred. People can demonstrate self-discipline in their lives through a moral code of tolerance, self-control, forgiveness, truth and patience. Things remain calm and yet there is a steady movement towards a force I call “the strength of being”. This force is powerful and has the ability to touch anyone, regardless of his or her culture and identity. It can transcend cultural barriers and can initiate a powerful spark of empowerment, peace, joy and confidence to anyone who is open to receiving this knowledge.

For children at the beginning of their journey in life who are trying to discover how different parts of themselves connect, yoga is by far the most useful way to do this. I came to yoga over ten years ago, in hopes of trying something new that would allow me to centre myself and balance my emotions and thoughts. I was automatically drawn to the creative power within me that was ignited by yoga and has continued to grow. I received my training as a yoga teacher over six years ago and, since this time, I have been working on teaching yoga in the school system.
I see the effects that yoga and its teachings can have on my students. Yoga focuses on all parts of a child’s, emotions, intellect, physical body and soul. For me, yoga completely embodies a holistic approach to education, which allows students to go further in understanding their personal best and making connections within themselves and with others. When I ask my students about their yoga practice, they tell me how they feel and some of the physiological experiences they have had. They are developing their own narratives which I believe together with Susan Chase will bring about “social change” by giving children the opportunity to tell their personal stories and in doing so, to claim their inner voices by giving them the tools in which to express themselves. This newfound expression may create “empathy, eliminating oppressive situations and creating new theories” (Chase, 2005, p. 669) because students can become more understanding of each other’s feelings. Education, through yoga can facilitate this change that I mentioned because it gives children a sense of confidence and power within themselves no matter what their yoga practice is. It breaks down barriers that separate the can and cant’s and puts everyone on the same playing field which creates a safe environment to foster many character education traits such as patience, understanding, perseverance, empathy and respect.

**The Teacher I Am**

As I walk slowly through the hallways of school, my ears are open to the exciting sounds of children’s voices and feet pounding lightly on the floor. I hear laughter in the rooms beside me and, right before me I see diverse faces and the smiles of my students. The children are watching me and staring with wide eyes and wonderment. I begin to speak, feeling light and effortless. Words dance off my tongue and it feels surreal as these words leave my mouth.

As I read a story to them about a young family moving away from a rural neighbourhood to come to the big city to fulfill their dreams, I hear gasps of
excitement and then a sudden rush of “ahhhh” as we reach the climax of the story. A short time later, I hear pencils scribbling away on paper and children talking about how they felt when they first moved to Canada. Every child in the room can relate to this story because each has tried something new for the first time.

I think back to my time abroad and wonder if these children are connecting their personal stories to what is being taught in the class? Are they represented in these stories and do they genuinely believe the words that come out of my mouth just like I believed my professors? I work so hard to teach authentically and to create an environment that pushes and stimulates my students to learn more everyday, just like I did when I was in that little green chair behind that old rickety desk in the middle of the desert.

I envision a world where teaching and learning is a reciprocal relationship and all teachers would have the ability to engage the students deeply. The child, as a learner, is valued and the subject matter is taught in a relevant way to promote a strong sense of individuality and self-esteem within the student. The teacher learns from the uniqueness of each child’s ideas, heritage, culture and identity. This journey steers both the teacher and student thoughtfully along a path that enables the child to make meaningful connections to their own learning.

Right now, I am at the beginning of my journey in the teaching profession. I have been teaching elementary students for seven years now and I hope that in ten years from now, the same enthusiasm for this process will still exist. I understand that, as a teacher, I exist only through my lens of socialization, culture and language. I think about my experiences as a learner, and the spirit that guides me in this process. I can’t separate myself as a teacher from these parts. I know that teaching can be one of the biggest spiritual undertakings in life and requires curiosity, nurture, passion and openness. I like to think that I was meant to find this ability within me because it feels so natural and free. I take great pleasure in being a dreamer and believing in
ideals, in the same determinist way as many Zionist thinkers once did. As the great Theodor Herzl once said, “If you will it, it is no dream” (Herzl, 1902, p.88). I would like to be able to inspire others to do the same.

Deborah Britzman’s article titled, “Queer Pedagogy and Its Strange Techniques,” has helped me to understand my quest for teacher identity, which is a reoccurring theme in all of my previous moments. Britzman argues that I understand my experiences as a product of my education, in the way that is seen as normal “needs that concern a desire for a transparent truth, for stable communities and identities that ignore contradictions”. (Britzman, 1998, p. 80). This notion of normalcy therefore perpetuates a “production of otherness as central to self-recognition” (Britzman, 1998, p.82). I am constantly trying to understand myself in relation to others, even though theses understandings of others may be reflected in different contexts and may change from moment to moment. I am either on the inside or outside of this self-reflection but am always looking through a “social, historical and relational ethic” (Britzman, 1998, p.83) that identifies this lens. These reflections may not be equivalent in nature but each cause a direct desire. As Britzman would argue, difference is not at the core of true identity, the quest for similarity is.

I have spent a lot of time identifying relationally to my education and cultural background, specifically, to my individual yoga practice, family values and my own teaching. It is through my construction of these multiple layers of self that the desire to feel included is present and important, and can be experienced by anybody.

By teaching in a holistic way, we take into account one another’s differences while attempting to facilitate an environment that allows everyone to feel as if they belong. We need to determine the balance between allowing each child to have their own individual identity, not conform to unnecessary norms and standards and yet be able to engage in Canadian culture. How this is to be done is the real underlying question that will be addressed through this thesis.
Why teach holistically?

I realize that so much of my personal experience of life may be connected in ways that are not clearly understood by me. The moment that I first began to realize the growth in myself as an individual during my year abroad in Jerusalem, was based so much on revealing my heritage and identity from a religious, historical and cultural perspective. My new identity lies in a visionary philosophy of yoga that is neither religious in nature nor related to my historical or cultural background. Even though these two paths may be very different, the quest for truth and understanding is still the same. Yoga and religion are based on the search for something greater than oneself in order to find real connections, spirituality and growth. I strongly believe that it is through teaching that I am able to transfer a love of learning, and a sense of peace onto the students I teach.

As I continue the exhaustive digging and searching, I know that I have finally created a place where I am meant to be except this place does not exist in a foreign land in the middle of the desert, behind a little rickety desk, in a small green chair. This new place is where I sit now, on a metal padded chair that is cold and torn. This new desk is not little or rickety yet it is lopsided and bare. It is much bigger than the desk that I once sat behind. My big glass window looking out onto the sand, where the sun used to shine and warm my entire body is replaced with a white canopy of snow. I feel the crisp air penetrate the glass and my body feels cold yet tranquil as my blood flows freely to warm it.

I am not alone in my quest for understanding my purpose and education and how to understand these many layers of my being. Many theorists have investigated these questions of how to create truth and provided me with thoughtful answers. William Doll looks at knowledge and knowing as apparent in the friction between truth and
reality. After reading his work, I am left with the understanding that there is not one truth but rather “multiple ways of interpreting God’s laughter” (Doll, 1993, p.155). It is my job to explore what is known in order to transform truth into knowledge and reality. Doll cites Rorty by stating, “power and ability can transform truth from the tentatively felt into the fully experienced” (Doll, 1993, p.156). So what truth do I want to experience as I move forward? What truth do I convey in my own curriculum work, as my students begin to create their own meanings?

We cannot be passive and sit back and wait for someone to tell us the truth, we need to be active in the “discovery of knowledge and the making of meaning” (Doll, 1993, p.170). William Pinar, states that “self knowledge and authenticity are important for teachers to exemplify and to set the stage for asking: what attitudes and actions are appropriate given this self knowledge?” (Pinar, 1994, p.204). So perhaps I should reframe my question of why do I teach holistically? When thinking of my desire to teach in an authentic way by asking my students “what do you hold to be true?” then giving them room to deconstruct and reconstruct their answers. Going through the transformative process of discovering their whole, will assist my students in creating their own personal narratives.

From this point, I may be able to perceive myself through a broader personal, social and cultural context. I have found an optimism through my teaching of yoga that I believe is profound, given the ability to guide education to a peaceful, whole place where differences do not appear to be so apparent and hindering. Yoga and the union that it brings to a child’s body and mind, incorporates the depth of culture, heritage and values in such a vast multicultural context.

*This consciousness may be similar in nature, to the third eye or the red dot that shines brightly between my eyes. As I move forward from this moment on, into my transformation of discovering a third space, I attempt to recreate myself inside action and reflection within my research. As I do this, I will no longer be a lonely*
foreigner searching outward to find different connections to myself but rather liberated from my search and calm once again. I will share this newfound peace, with my students as they experience yoga in the classroom.

The proceeding narrative allows me the unique and delightful opportunity to explore my passions and burning questions as they are influenced by my own childhood, education and personal experiences.

The power of this inquiry mystifies yet invigorates me simultaneously and my narrative is reflective of this struggle. I explore personal feelings of sadness as I question where I can tap into my passions and come to know happiness. My narrative helps to explain how I came to see yoga as one of my life’s defining moments and the educational imprint that this moment made on me, prompting me to pursue professional training to become a certified yoga instructor in 2005.

Reading the work of Clifford Geertz (1973) has opened my eyes to the power of interpretation and reinterpretation and has provided me with the insights to develop my narrative. This insight has helped me to evaluate the cultural practices of which I am a product. Understanding Geertz’s work and his vision of qualitative research has given me confidence to write about my life experiences in an academic context and to interpret the data of my life through my narrative inquiry.

I am gratified to know that since I completed my training and have offered yoga to my own students as well as other interested students as an extracurricular activity at lunchtime, I have witnessed profound effects. Furthermore, over these last four years, in response to interest shown by teacher colleagues, I have held a number of workshops for teachers. I have also developed my own resources that can help other teachers use yoga in their classrooms during physical education periods. I believe that yoga is a beneficial tool for engaging and empowering a variety of different types of students. This passion for the subject matter fuels my desire to research in this area.
This inquiry entitled “A New approach to Holistic Physical Education: Yoga in the Classroom” observed student participants over the course of eight weeks. Students engaged in the practice of yoga on a bi-weekly basis during physical activity periods. These yoga sessions were conducted by me and were observed by a research assistant. In this inquiry, we were looking for common trends that occurred throughout the student experiences. It is these common threads, which can be used to provide data that relates to how children perceive themselves through yoga. Is this practice connected to their heritage and culture? How can using yoga create a framework for teachers to teach holistically within physical education and daily physical activity?

The nature of this research is unique in the fact that this is one of the first studies conducted in a Canadian classroom of this kind. Hopefully, this will pave the way for more research to take place in multicultural classrooms in Toronto.
Chapter 2 - Research Question

Through my action research, I am interested in understanding what child participants perceive to be the benefits of yoga for those who practice it regularly, and whether or not these benefits are the same for children as they are for adults.

This qualitative study will answer these questions:

- What do child participants perceive to be the benefits of yoga?
- From a child’s point of view, how can yoga best be integrated within the school day? and
- Are the benefits perceived by educators to be the same for children as they are for adults?

Since I am proposing that yoga can be used and successfully integrated in order to teach physical education from a holistic standpoint, it is important to see if doing yoga on a consistent basis actually works. By exploring the uses of holistic programming within physical education, this study considers real accounts of yoga for children within a Canadian context. The term “holistic” used in this research study is defined as “learning that makes connections” (Miller, 1990, pg.1). This definition emphasizes, in particular the relationship between “linear thinking and intuition and the relationship between mind and body” (Miller, 1990, p.2). It is through the understanding of these relationships and practicing of this core value, that educators have the ability to transcend learning and engage students. Current literature around the issue of physical activity in Ontario, the benefits of yoga for children/adults, and general literature on theories of change are examined.

It is important as well to define the term “yoga” as this word is part of an entire system that is quite complex. The word yoga as interpreted by many, means “union” and can be broken down further into five specific elements all contributing to the union of mind,
body and soul. Jnana, Bhakti, Karma, Raja and Hatha yoga are the different elements of yoga. Karma yoga is the yoga of action, Bhakti yoga is the yoga of devotion, Jnana is the yoga of knowledge, Raja is the yoga of the mind and Hatha is the yoga of the body. All elements of yoga are equally important when creating a necessary balance for those individuals who practice it. For the purpose of this research, my focus was on practicing Hatha with my students. Hatha yoga relates to fully body postures and creating a synergy between the movement of the body and it’s breath. The reason why the other elements of yoga were not focused on, was to allow for a space to be created for students to feel comfortable no matter what cultural or religious background they came from and to tie the teaching of yoga in with the Ontario physical education curriculum.

**Rationale**

This study begins with a critique of the Physical Education curriculum and current educational policy from the Ministry of Education. Specifically looking at the type of language used in both. Critical inquiry is used to gain a better understanding of what dictates the depth of physical education in our schools and our curriculum. Allowing us to look at the dominant voices of education and what they are saying, and how this impacts a broader social context challenging us to accept new ideas such as yoga in the classroom. This idea is not perceived to be traditional like our current skill based physical education program. The Health and Physical Education curriculum provides a lens with which to view the many patriarchal, social structures and specific cultural practices that are reflected in the Ontario educational system as a whole.

This study addresses the policies mandated by the Ontario Ministry of Education in 2005, which favours traditional views of physical education compared to non-traditional views. Traditional views of physical fitness are based on objective measurable benchmarks (i.e. how vigorous the physical activity is, depends on the elevation of the heart rate) Thus, the standards that define “acceptable physical activity” are determined
by educational institutions, not by the individual. A child is only considered physically
fit if he/she can demonstrate a specific skill. This common approach, demonstrated in
broader society as the need to quantify results and meet certain benchmarks does not
consider factors such as the determination of physical fitness from a student’s point of
view as a ‘personal best’ but focuses on the vigor of the activity. It is my
belief that exploring the possibility of including a more holistic approach to physical
education in our schools will allow educators to become more inclusive
of all students.

This study is based on the assumption that being “physically fit” is determined by how
well a child acquires certain skills, emphasized by the specific language used in the
curriculum. It is these skills that a child demonstrates that are deemed important while,
at the same time leaving out many of the important characteristics of physical fitness,
such as personal well-being and self-esteem as determined by the individual. The
curriculum states:

“Students’ attitudes towards health and physical education can have a significant
effect on their achievement of the expectations. To learn effectively and develop
positive attitudes towards healthy active living, students should enjoy skill-
development acquired through physical activity”.

Ontario Physical Education Curriculum, Revised October 6, 2005

The difficulty is that the Physical Education curriculum lies in a one-dimensional view
of skill acquisition. Success is therefore marked by reaching certain performance levels
and by how “athletic” a student is perceived to be. Thus, it is difficult for students who
are less interested in these activities to relate to the established expectations and meet
them successfully.

If the physical education curriculum is not taught in a holistic way, so that students feel
that their learning taps into the whole of their existence (social, mental and physical)
then many students will reject physical education simply because they do not feel good participating in physical education which they have no meaningful connection to. This can cause students to become unmotivated in participating in these activities as a whole.

This continuous cycle of feeling unmotivated during physical education classes will limit the number of students who participate in class and school-wide extracurricular activities, and may contribute to increasing levels of inactivity in children. In fact, “between 1981 and 1996 the number of obese children in Canada between the ages of 8-13 has tripled” (Ministry of Health, 2006, paragraph 2). This research by the Ministry of Health, has proven that childhood obesity has contributed greatly to increased health risks such as heart disease, stroke, and the development of type-two diabetes in children. Ministries of education all across the country, specifically in the provinces of Ontario and Alberta, have responded to increasing health concerns for children with the implementation of new policies that mandate daily physical activity for students in the elementary panel. As quoted in Memorandum No.138:

“School boards must ensure that all elementary students have a minimum of twenty minutes of sustained moderate to vigorous physical activity each day during instructional time. Daily physical activity may include: aerobics, active games, sports and fitness activities”

Memorandum No.138, Ontario Ministry of Education, 2005

When new policies such as these define physical activity to aerobic and sports based activities, it puts a greater emphasis on whether a child can demonstrate a certain physical skill. In my observations as a teacher, many educators have come to depend on these traditional “skill-based” discourses that exist in our curriculum because resources based on this curriculum are what is currently available. These traditional views may ignore whether a child feels good participating in these activities and whether he/she comprehends the benefits of these activities so that he/she will use them in the future. Discourses such as these, need to be questioned as we revamp the face of traditional
physical education and replace it with education that integrates holistic theory and is open to many new influences. Yoga is an example of the blending of holistic theory, with modern influences practiced largely in society today. The practice of yoga, is aimed at making a person feel good about themselves both in mind and body. This type of practice can really help a child to feel good about themselves and successful even if they have not mastered every skill.

However, yoga will not be successfully integrated in the school system, unless we question why little research has been done on this topic given its growing popularity in the western world? One must ask what biases and assumptions contribute to the fact that yoga is so under-examined, and where do these biases and assumptions originate? Research such as this study, is conducted in order to create a conceptual framework and a body of scholarship that supports Ministry policies and can help to change physical education in Ontario to incorporate holistic programming.

When reviewing Memorandum 138, the following question arose: “Does physical activity have to be vigorous in order to prove that it has profound effects on students’ physical well being?” In my opinion, non-vigorous physical activities such as yoga, martial arts, movement and gymnastics may produce the same effects on student achievement as sports based activities. Since student achievement is based on building concentration, focus, readiness to learn, positive behaviour and self-esteem we need to focus on physical activities that emphasize these skills.

The traditional assumption in the field of education is that physical activity must be vigorous in order for it to be deemed “legitimate” as apparent in the language of the curriculum stated here “Students will participate in sustained moderate to vigorous activity, with appropriate warm-up and cool-down activities, to the best of their ability” (Physical Education Curriculum, 2010, pg.89). When new policies such as Memorandum 138 are made to support this thinking, the cycle of reinforcing social and cultural practices that hinder growth and do not move away from traditional notions of physical
fitness are perpetuated. It is common for objective goals to be set where a specific skill set or characteristic must be demonstrated such as the ability to run a certain distance or perform a certain number of fitness activities such as jumping jacks or pushups. This may place considerable pressure on a child and emphasize that failure to reach these goals or participate in a moderate way may label a child in the educational world as a failure who is “unfit” or “obese,” both of which are social constructs. The even greater problem is that such failure can be seen and felt by the child and cause them to avoid physical activity completely. Feeding into social constructs that limit growth of individual needs and abilities.

There are many different factors that determine a child’s personal best such as how they are viewed by peers, teachers and the individual knowing if they tried as hard as they could. The educational system as outlined in Memorandum 138 by defining physical activity as “moderate to vigorous” feels the need to quantitatively measure a child’s heart rate in order to prove that it has great effects on learning. Perhaps we can take a more qualitative approach when we investigate learning by determining how it makes a child feel when they participate in these activities or evaluating a child’s eagerness to do a particular activity instead of looking at surface numbers or appearances. When a child is eager to engage in a particular activity this positively effects learning capacity because they are more likely to perceive the task as worthwhile.

Information gathered based on student engagement helps the ministry to determine how engaged a student is, contributing to a greater likelihood of a sustained desire to be active. The activity that a student feels best participating in may not be considered vigorous but a student will be more likely to participate. Which is more important and achieves the desired goal of keeping students active in whatever capacity this may be.

Investigating the social practices that exist in education through a postmodern framework means to look at the pursuit of progress in the field of education, to provide change, and not accept one absolute truth. In this research, I challenge the many negative assumptions
and conclusions made by educators, administrators, parents and students about yoga in general and whether they believe that yoga should be used in the school system specifically. I examine: why do these assumptions and conclusions exist; how do governments and school boards adopt these positions; and why are these assumptions and conclusions reproduced in society? It is a greater understanding of these questions that will allow me to link these connections to my research question and determine if educators perceive the same benefits of yoga for adults as they do for children?

This study will look at how yoga, when practiced twice a week, can benefit students. Which highlights practical implications for the use of yoga. This research looks at yoga as an agent for change in our schools. My research is largely based on the theories and pre-existing work from Michael Fullan (2001). Michael’s work outlines theories of change and emphasizes that a child’s level of engagement is an essential force to producing change in the school and that activities must reflect student interests bound together with the support of educators and the moral capacity building of the school.

The pedagogical implications of this study may open the minds of educators to multiple interpretations of the curriculum, and possibly change the face of educational policies to broaden their definitions of physical fitness. Hopefully, this will allow educators to inform their practice with current research that incorporates new aspects of learning into their teaching. In my opinion, this research will inform social change at a time in the 21st century when education is certainly ready for openness. This shift will allow ministries of education and policy makers to embrace and accept the use of yoga in the school system as a beneficial and welcomed approach that will promote student engagement. Very little exploration of the use of alternative activities has been done to date, such as yoga within the current school system. Therefore making this research original.
Chapter 3-Literature Review/Theoretical Framework:

In general, Yoga is considered by society as part of a wellness practice for adults and is widely accepted in many workplaces as having clear benefits to employee work production and personal well-being as seen by the recent increase in wellness programs being implemented in major corporations. For example, Microsoft implemented a Weight Management program in 2005 to increase the physical fitness of employees and therefore reduce employee absenteeism (McPherson, 2005). Yet yoga for children in their “workplace”, which is the school, is not valued and little research exists within an educational context due to the lack of time and resources needed to explore the significant positive impact that yoga can have on children of all ages.

This research study is unique in the field of education and has the potential to promote and validate the practice of alternative physical activity within our school system. Incorporating alternative physical activity into the school system would contribute to the improvement of teaching practice of physical education for many educators because it would allow them to open their minds to the use of yoga. Educators would actually get to see first hand the benefits both physically and mentally that it can have on their students in many different aspects of school life.

In order to make physical education more appealing for all students not just to a child’s ability but rather his/her whole being, it is necessary to reframe the meaning of physical education as we know it. The new meaning is one that is solidly grounded in theories of learning and holistic education. A review of the current literature about the benefits of yoga within a school context and general literature on the benefits of yoga for children as compared to adults needs to be examined.

Benefits for Adults

Some of the accepted benefits for adults who practice yoga are increased strength,
endurance, flexibility, and balance, which also translates into an increased ability to perform activities, have more energy, and get a more restful sleep (“Health and Yoga. Com,”, n.d.). Much of the research conducted for adults who practice yoga has been done using populations which access yoga as a form of therapy to treat mental illness, pain due to specific injuries, heart conditions, headaches or people who have endured trauma.

For example, The Department of Neurology in Portland Oregon in 2008, studied the use of “mind-body therapies” in the treatment of neurological diseases such as: general pain, headaches, multiple sclerosis, stroke, epilepsy and muscular dysfunction. There is a lot of interesting research that has come out of this department. They have found that “ 62% of people in the United States prefer to use alternative medicine therapies” and that amongst patients “who suffer from psychological stress, yoga as a mind-body therapy can be quite effective” (Wahbeh, 2008, p.2325).

**Benefits of Yoga for Children**

For children, many of the common benefits are the same as adults. However most of the literature that relates to the benefits of yoga for children is geared to the use within a specific population. Literature that exists on the benefits of yoga for children in general, mentions populations such as: children with asthma, ADHD, obesity, psychological disorders such as eating disorders and depression. A study published in the Journal of Asthma looked at six young asthmatics with a history of childhood asthma who went through yoga training for two years. The study concluded that practicing yoga is beneficial for asthmatics because it “increased pulmonary function and exercise capacity” (Jain, 1991, pg.440).

In a review of articles that explored the benefits of yoga for children who suffered from stress I came across a study titled “Yoga for Children in the Mirror of Science” (Steuck, 2005). This work discussed the latest research that showed a clear relationship to the way
that children handle stress. Researching 48 children in grade 5, the study group when compared to the control group found that “yoga produced emotional balance in long term effects and helped to decrease feelings of helplessness, aggression and negative feelings in children who suffered from stress”. (Steuck, 2005, p.371).

Other research looked at the perceptual and motor skills of children aged 9 to 13 years old and how these children performed various steadiness tests at the beginning of a specific period of time and then how another group performed the same tests after repeated exposure to yoga (Telles, 1993). These two groups were compared to each other. One group, had exposure to yoga and another group did not. The study’s conclusion was that “the yoga group showed a significant decrease in errors and an increase in steadiness and balance while the control group showed no change” (Telles, 1993, p.76). The results of this study could advocate strongly for integrating yoga into the school system because the increase of steadiness may lead to an increase in focus and concentration for students thus decreasing errors during academic tasks.

Marsha Wenig at the Yoga Kids International Organization published an interesting academic paper in 2008. This study involved over 160 schools in the United States and one in Canada. In total, 500 surveys were distributed to students in grades 1 to 4 who participated regularly in yoga classes at school. Students were asked to describe how yoga has helped them academically and socially. The survey results indicated that 66% of students felt that they were better able to concentrate in school and remember information (Wenig, 2007). Teachers were also given similar surveys and asked how they perceived the use of yoga in their respective schools. “Out of the 160 schools surveyed, 136 teachers reported that their students were more motivated and achieved better results on tests” (Wenig, 2007, p.5). This study is one of few studies that looks at the use of yoga in an academic context and explores the relationship between yoga and academic success. I do believe that the legitimacy of this organization is solid as this is a very well known organization and the primary researcher is a yoga teacher with
many years of experience working with children in an educational context. The research is valid, however it is important to keep in mind, that the organization that this study originated from is a commercial business that sells Yoga DVD’s to various stores all over the United States. One needs to be very critical when looking at this type of research to make sure that the intent of the research is legitimate in order to appreciate the validity of the research.

The results of these studies mentioned are helpful but have limited relevance when considering the Ontario school system because there are many clear differences between an Ontario and an American school, particularly because of how funding is acquired. In most cases, access to yoga in the school system within the United States is based on funding from government and non-government sources, such as a Charter school approach. The charter school approach is used to gather research and provides resources and training that is not a reality in the public education system. The background of these studies, do not invalidate these studies, it is just that from a Canadian viewpoint these are the only sources of data available to us. Using, these studies to apply to a Canadian context can seem like a stretch. In Canada, educators, whether trained or not, have to be able to deliver Daily Physical Activity and this type of funding for special programs is not possible in Ontario schools. The lack of qualitative research that focuses on children’s yoga in a public education setting is the reason why the significance of a research study such as this one, must look at how yoga benefits children universally.

**The Language of Physical Activity**

Another investigation conducted by R Slovacek at the College of Education in Los Angeles in 2003, found that there was a relationship between yoga, fitness levels, academic performance, discipline, and students’ attitudes about themselves, yoga and school. In this study, 405 5th grade students and 18 core subject teachers and yoga instructors were involved. The results of the study showed that participation in yoga class
appeared to help students improve their attitudes toward themselves. Students’ responses to questions about self-esteem were significantly more positive at the end of the year, with a 20% increase in students feeling good about themselves. Participation in yoga class helped improve students’ physical health. “Students in the study were determined more physically fit (23.4% more 5th graders on average were rated fit and 28.5% more 7th graders were rated physically fit) when compared to the school district mean levels of fitness”. (Slovacek, 2003, p.375). This research supports the use of yoga in the school system due to its clear benefits proven but leads me to question what is the definition of physical fitness used in this study and how is it determined? As the terminology used widely, does not have the same meaning for everyone or every institution that uses it.

A qualitative study conducted by the Lippincott Williams and Wilkins Research Centre, which looked at promoting physical activity in teenage girls show that most girls “preferred the use of the term physical activity over exercise” (Loman, 2008, pg. 291). The use of the term “physical activity included a positive physical attribute, mental health and staying healthy” (Loman, 2008, pg. 291) as viewed by the participants. Participants identified major themes associated with the term “physical activity” which included: autonomy (what they like to do) having fun (participating with friends) and body image (self-confidence). These are necessary concepts as we question the use of the terminology used in the curriculum and what connotations they have.

In order to understand the roots of the term “physical activity” from an education context, I looked at the Guideline for School Programs to Promote Lifelong Physical Activity Among Young People published by the University of California in 1997. In this guide, they refer to the distinction between physical activity, exercise and fitness as being key to understanding health research. Physical activity is defined as “any bodily movement produced by skeletal muscles that results in energy expenditure” (GSCP, 1997, pg.5). Exercise is a “subset of physical activity that is planned, structured and repetitive and is done to produce physical fitness” (GSCP, 1997, pg.5). Physical fitness is a “set of attributes that are either health or skill related” but can include activities that build
strength, flexibility, balance and agility” (GSCP, 1997, pg.5). Based on these definitions, there really is not a major difference between the three however the term exercise is a subset of physical activity and describes the actions used to promote physical fitness. Seems that physical activity and physical fitness can be used as more descriptive terms. When looking at yoga it can fall under each definition either physical activity or fitness. The clear distinction relates to public perceptions and the idea that physical activity has to be moderate to vigorous in order to be effective as previously seen within the definition provided by the ministry of education in 2005. The ministry suggests fitness activities that would fall under this definition but are not clear as to what fitness activities would be acceptable.

“School boards must ensure that all elementary students have a minimum of twenty minutes of sustained moderate to vigorous physical activity each day during instructional time. Daily physical activity may include: aerobics, active games, sports and fitness activities”

Memorandum No.138, Ontario Ministry of Education, 2005

**A New Perspective of Educational Change**

A study titled “A Review and Synthesis of Literature: Daily Physical Activity (DPA) for Children and Youth” (Bates, 2006, pg.59), argues that DPA is best taught when focused on aerobic activity in order to improve fitness levels. This is a comprehensive report that outlines different ways to conduct research and measures the short-term and long-term effects of DPA. This report looks at gender differences, heart disease, diabetes, obesity and osteoporosis risks for children, and advocates for children to conduct self-assessments while monitoring their level of physical fitness and perceived well-being.

The 2006 Elementary Health and Physical Education Curriculum Review conducted by Ophea surveys teachers in Ontario to find out their responses to various questions about
the current curriculum. The survey found that “62% of all respondents indicated that there is a variety of important healthy active living issues that are not currently addressed in the curriculum” (Ophea, 2006 p.62).

“A number of specific changes were suggested by educators which include the following:

- Increase leisure/lifetime activities in order to provide students with exposure to different opportunities in the community.
- De-emphasize competition and traditional organized sports, increase low-organized, lifetime activities.
- Facilitate better awareness of community facilities and resources in order to be active (for athletes too).
- Topics such as spiritual and mental health, obesity and weight management and parental education and internet safety were also recurring themes”.

(Ophea, 2006, p.62)

The above survey is indicative of the need for change of traditional ideas presented in the Ontario Phys-ed curriculum as determined by the views of educators in Ontario. Two of these points stress the fact that phys-ed programming that incorporates more of a holistic approach that considers a child’s spiritual and mental health is welcomed and would be beneficial for the child. This data is important to consider when looking at the need for change in the physical education curriculum. The feelings expressed by Ontario Educators prioritized the importance of de-emphasizing competitive activities and traditional skill-based programming in order to promote healthy active living. Both points support and drive the nature of this research while the study by Bates (2006) refutes it because it argues that physical activity is most effective when practiced aerobically thus supporting this notion that a physical activity must be moderate to vigorous in order to be effective for students. However, one positive point that has come out through The Synthesis of literature is that it is best to provide daily physical activity
where children can monitor their own level of physical fitness. Stressing the importance of how children perceive themselves’ while participating in physical activity as opposed to teacher evaluation of skill based exercises, which was apparent in traditional views of physical education. My research is strongly based on how a child perceives personal benefits both physically, emotionally and mentally while doing yoga and bases this assessment on reflective writing and personal comments/evaluations made by students.

Michael Fullan states, in the third edition of his book *The New Meaning of Educational Change*, (2001) that change is a complex concept to understand and carry out. It is the “crux of how individuals come to grips with reality, including what the change is and the factors that account for it” (Fullan, 2001, pg.18). This statement clearly explains that change involves the synergistic relationship between the purpose and the process that occurs. As stated by Fullan, combining “theory or the content of educational practice and theories of change is a complex social process” (Fullan, 2001, pg.48). Michael Fullan further states, “what teachers do and think is pivotal to educational change” (Fullan, 2001, pg. 115). He describes the complexity of the process of change to start with the views of the educator, which will later improve classroom practices. He asserts that any desired change would require a collective commitment from teachers. I agree with this statement and this level of support will be required in order for yoga to be appropriately incorporated into the school setting because educators have to understand, be informed and be able to implement yoga during DPA in order for it to be effective. If this were to occur, it is possible that when yoga is practiced through school-wide initiatives such as DPA it could help to improve collegiality and unite teachers in a common purpose that has the ability to produce change.

Much more research would have to be conducted on a school wide level in order to support this supposition. The nature of my study is based on a classroom perspective but the data that comes out of my action research could contribute to supporting practical applications of yoga and how it could be applied to various classrooms in other schools. These ideas have potential to be investigated on a much larger scale.
Chapter 4-Methodology: Narrative Inquiry Meets Action Research

After reading Norman Denzin and Yvonna Lincoln’s article titled *The Discipline and Practice of Qualitative Research* (2005) and learning about the history of qualitative research, I have come to understand the “8th moment” mentioned in the article. The 8th moment is explained as the historical progression of where we have come and where we currently sit in terms of qualitative research today, being open to multiple interpretations (Denzin & Lincoln, 2005). This concept has allowed me to think about my research design and to pave the way for my approach to research as a blend of different methodologies coming together to create a rich and meaningful study. This inquiry has allowed me to expose my vulnerability as a researcher through my narrative while the action research approach has given me insight into the qualitative experiences of student participants.

My research began with individual interviews of participants in order to gain a sense of the students’ initial views and assumptions about yoga. As students continued to practice yoga in the classroom, they wrote about their experiences while reflecting on what they thought and felt during each yoga session. At the end of the yoga sessions, students were interviewed again to see if their assumptions or thoughts on yoga had changed at all since the beginning of the study. Student participants also documented their experience in an open-ended response journal directly after each yoga session. Using a list of key terms, these journals, were later analyzed to see if any patterns/trends existed among participants’ written responses.

The methodological approach used in this study is Participatory Action Research (PAR) defined by Kemmis and McTaggart as being “collective, self-reflective enquiry
undertaken by participants in social situations to improve the rationality and justice of their own social practices” (Kemmis & McTaggart, 1988, p.5). It is important to me that my research does have a social impact. In this model, action research consists of a spiral cycle that includes: reflection, planning, action and observation. All of these moments can occur interdependently and not necessarily in this order. In my study, I followed this cycle as the natural process for what felt to be right for this research. Through my narrative, I have offered my reflections and my views of what the problems are that exist. I entered the planning stage of this research through the writing of my proposal and looked critically at the research and the literature that revolves around this topic and theories of change. My study differs from this model in the way that the student participants are not actively involved or aware of each step of the process. The action moment occurred through the data collection as the participatory action research took place prompting me to participate along side my students as they experience the journey of doing yoga on a consistent basis and learning from their growth.

This methodology of participatory action research suits my research question in finding out how yoga benefits students as it gives me the space to continually refocus my research plan, through a positive tension between observation, reflection, and analysis. I continued to be in touch with my own feelings and personal observations throughout this study and through my prior exploration in the writing of my narrative inquiry. Narrative inquiry was used as a way for me to organize my life experiences and my yoga practice into significant moments that helped me to put into perspective why holistic education is so important to myself as an educator. My experience of using yoga as an example of holistic education fueled the desire to research in this area to see if the connection and importance is there for others. If indeed, a positive result for students would occur. This active tension between the combination of these two methodologies, narrative and participatory action research together helped to reshape my assumptions and expectations throughout the course of this study. The end results of my research, surprised, challenged and enlightened me in so many ways!
Much of their experience was later reflected on through personal interviews and in their open-ended journal responses. I was also able to reflect on the experience as a yoga instructor and educator as I documented my thoughts and experiences in a journal as well. Through my data analysis, I looked at how the results I gathered would lead to future theories that would support change as a collaborative effort. The reflection phase demonstrates how my research supports a plan that would fit into the context of the Ontario school system and bring yoga to the forefront as an agent for change.

I am drawn to the work of Kemmis and McTaggart as this framework outlines the methodology used in this study. The intended results of this study were not to find out if yoga works or not, but rather to make relevant the concerns that I have mentioned in my analysis of the curriculum. As the field of education evolves, there is a need to broaden and expose a new approach to holistic education within the curriculum that reflects the needs and practices of many educators to learn collaboratively. This learning has the potential to produce change on a school wide level and then eventually a board level thus culminating the change by extending this exposure to policy-makers.

The data collection phase of this research took place in my grade four classroom of 29 students, ages 9-10, from various backgrounds and both genders. The school where I teach is located in North York, Ontario. It is a Toronto District School Board school, which consists of 275 students and 20 staff members. There are 10 classroom teachers. The student population represents a mixed multicultural background with over 42 languages spoken in the school. The socio-economic status of the community is lower-middle class.

All 29 students in my class, consisting of 10 boys and 19 girls, were asked if they wished to participate in this research. To participate in this study required written consent from both the student and his/her parent/guardian. Of these 29 students, there were a total of 21 participants made up (24%) males and (76%) females. The remaining 8 students did not
participate in this study due to parental wishes, religious beliefs and general lack of interest.

DPA is a school wide activity that takes place in every classroom in the school at 8:40-9:00a.m, three times a week. The participants who were part of this research participated in a twenty-minute yoga class, twice a week, delivered during daily physical education periods by myself (teacher and yoga instructor). Those students who did not wish to participate joined another classroom teacher and participated in alternative programming in the classroom.

After the initial consent was received, a detailed letter was sent home to students and parents/guardians outlining the particulars of the study and the specific details of what the students will be involved in. An information session was held for parents who wanted more information about the research and to speak to me face to face to share their thoughts and opinions and to entertain their own interests about the research.

There will always be bias that exists, given the nature of this action research, and my role within this study, as a teacher and researcher to try to minimize this bias. In order to accomplish this, a neutral party was involved. A volunteer assistant who is also a fellow OISE student in the Adult Education program volunteered in my classroom to assist me as well as observe students during the yoga sessions. This assistant is an unbiased observer who did not know the students in an academic context. The research assistant and students quickly became familiar with one another and established a comfort level before the research began. At the onset of the study, when the research assistant was introduced in my classroom, her role within the school and the study was discussed with the class. The assistant conducted the pre- and post- interviews with the students. When the data collection was complete, the assistant and I compared our field notes in order to look for similar patterns that we both observed.
Students were interviewed in another classroom location by this research assistant and were asked about their initial thoughts on the topic of yoga. These interviews lasted about 5 minutes and were relatively unstructured so that students felt comfortable sharing their thoughts openly. At the end of the data collection period, students were interviewed again using very similar questions to the pre-interview to see if student views, biases and assumptions had changed from the beginning of the study to the end. The interviews were tape-recorded (see Appendix 3 for a copy of the Pre-Research Student Questionnaire and Appendix 4, for the Post-Research Student Questionnaire).

The data collection period consisted of weekly sessions that took place during DPA sessions on Tuesday and Thursday mornings from 8:40 a.m. to 9:00 a.m. Each session took place during the same time slot each week and lasted for approximately 20 minutes. The yoga sessions took place in an empty classroom, which was a safe setting. There was enough open space provided in the empty classroom for students to do yoga. As well, the school had purchased yoga mats, two years prior to this study for extra curricular activities. So during the research, each child had access to his or her own personal yoga mat for each session. During the data collection, I was interested to see, if doing yoga during this time on a consistent basis, benefited my students.

The data collection period took place from September 30, 2009 to December 1, 2010, following the schedule of the school year and consisting of 15 sessions. Throughout the course of three months, students built up a comfort level with yoga. The students monitored their own growth and the effects that yoga had on them mentally, emotionally, physically and socially. Students recorded these observations in a “free-form journal” twice a week while the research assistant supervised. The writing period took place for approximately 5 minutes after each yoga session, in order to capture students’ thoughts directly after experiencing yoga, within the optimal time of a child’s attention span and working memory. Their writing was completed as an open-ended writing activity in order to not be too structured in any way and prevent their views from being skewed by any outside sources. After each session, they recorded any feelings, thoughts, experiences,
memories, challenges and new learning that they had that day, thus allowing students to freely express whatever feelings they may have. After the writing was completed, a list of key words was used (see Appendix 5) to help analyze student work and identify specific themes within student writing.

Although student writing was individual, dialogue naturally occurred between student participants in order for them to share their feelings with their peers as they went through this exploratory process. This continuous self-dialogue and dialogue with others helped students tap into their own stories and personal experiences. Due to the nature of yoga as a completely personal activity, students felt many different emotions and felt the need to share it with their friends. Creating a dialogue amongst participants assisted in diminishing the emotional inter-subjectivity between participants so that they could feel comfortable with themselves and their accomplishments thus reducing judgment from peers. This made our yoga space a very safe environment for students to grow and for their level of practice to not be judged by others in any way. Students naturally felt vulnerable about their performance levels, but many conversations took place between the students and myself in order to help diminish feelings of anxiety.

During the yoga sessions, I observed the behaviour and growth of the students in order to identify patterns or trends. I recorded my observations in a dated journal and later transcribed these notes onto my computer. All field notes were held completely confidential. Changes in actions or behaviour of the students during yoga sessions were analyzed as well. At first, I started observing all 21 participants during each yoga session. Towards the middle of the research, I shifted my thinking and focused on eight students in particular in order to become more detailed in my observations. All major observations are included in this study, even if they refuted my initial hypothesis that students would perceive physical and emotional benefits and that they would see a natural fit to incorporating yoga into daily physical activities.
**Ethical Concerns: What Should I be Aware of?**

As with any research, there are potential ethical concerns that the researcher needs to consider prior to commencing the study. While reviewing the ethical protocol provided by OISE/UT and the guidelines from the Toronto District School Board, I have identified some areas that concerned me prior to beginning my research and I have outlined how I addressed these issues within my research.

Firstly, when looking at the way that participants/subjects were recruited for this study, all students in my classroom were offered the opportunity to participate on a volunteer basis. Students and parents were informed of the study and then the families had a choice, based on interest and personal background as to whether they wanted to participate or not. It was not mandatory for students from my class to participate, and students who did not wish to participate received different programming during the same time. Students in my classroom needed to be made aware that they were not judged differently in any way if they chose not to participate. Their choice had no bearing on their standing in the class.

In terms of participation in the study, if a child felt at any time that he or she did not wish to participate in the research anymore, and then the student had the right to withdraw. Students were asked to submit an explanation for withdrawal in writing. A written explanation was important in order to create a standard and sense of responsibility/commitment among student participants. No consequences were given and their data was not included in the study. Any reason for withdrawal was accepted and honoured. During the course of the study, no student participant chose to withdraw; therefore, this never became an issue which needed to be dealt with.

This was an anonymous study so names were not required. The only personal information required was the gender and age of the child. Names are not mentioned in the data analysis and research participant identifiers such as student A, B, C were given to ensure privacy. The name of the school where this research took place was not named. Student
writing and data was kept in a locked cabinet within the school, and no other staff
members in the school or students had access to this cabinet. My research assistant had
access to the data but there was one main key for the cabinet, for which I was
responsible. At the end of the data analysis period, tape-recorded interviews were erased
and student questionnaires were shredded. Student journals were given back to
participants in order for them to keep it as a memory of this project.

The study poses minimal risk and vulnerability to students, and the physical activities that
students participated in was ability-g geared. Being a certified yoga instructor and
children’s yoga instructor, I am always aware of the ability and limitations of my students
and each child was monitored safely. No child suffered from any injury during the course
of this study.

One could say that there was an issue of power/bias associated with this study because I
am in a position of power as the classroom teacher and yoga instructor for these students.
I attempted to minimize this by allowing the participants to reach a safe place where
judgment of performance did not exist and students could focus on reaching their own
personal best in their own way. My position as a teacher did have the potential to
influence students in their writing, when expressing their opinions during the research.
Due to my position of power, my active role within this study was minimal. I led the
yoga sessions and observed students during this time but never made any comments to
them about their individual performance, just general comments to the group. I was not
present in the room while students were writing their journals. I analyzed their journals
privately and listened openly during class discussions. I asked open-ended questions in
order to avoid answers that could be interpreted or evaluated in a certain way. My
research assistant, whom students were familiar with, was responsible for interviewing
students privately and anonymously in order to not influence responses. She also never
made comments to students about their interviews outside of the interview experience.
Chapter 5-Research Results:

There are many experiences documented, emotions felt and observations made during the course of this data collection period within my research. As I attempt to outline the summary of my findings I am overjoyed with the depth of the student experiences and their ability to articulate their experiences orally in their interviews and through their writing in their personal journals.

My research showed that, in my classroom, yoga was effective during Daily Physical Activity periods based on participants’ perceived benefits, emotionally and physically as well as their expressed personal satisfaction.

I will attempt to break up the summary of my findings into four categories:

- Data Collected During Pre-Research Phase (based on student pre-interviews)
- Data Collected During the Post-Research Phase (based on student post-interviews)
- Observational Notes During the Yoga Sessions (Principal Investigator and Research Assistant)
- Observations from Analyzing Student Journals (Principal Investigator)

Data Collected During Pre-Research Phase

At the onset of this study before the yoga sessions took place, during their pre-interviews, students were asked the following questions (See Appendix 3):

1. What do you picture when you hear of a person who does yoga?
Many students (9/21) felt that yoga makes a person “stretch his/her body”. Only a few students appeared to understand that yoga is ‘an exercise’ (2/21 students) which gave insight as to how students deciphered the difference between stretching and what is considered exercise.

This result is interesting because very few students at the onset of this study viewed yoga as an exercise. The typical notion of exercise as running or jogging or playing sports was still evident in their minds. The primary role of yoga as viewed by the students, was to relax and stretch.

This finding is significant because it demonstrates that the language we use have many different connotations to it and that traditional views of exercise permeate to students and not just adults.

A large number of respondents indicated that yoga is a physical activity that makes a person relaxed (10/21 students). The emotional or psychological aspects of yoga pertained to feelings of ‘peacefulness and not fighting’. One student indicated that yoga meant increased sense of ‘imagination’.

Overall, respondents perceived that yoga was an activity that touched physical, emotional and psychological domains of their being.

2. What do you think of or picture when you hear the word “yoga”?

Students appeared to have a concept that yoga was an activity that was related to health and pictured someone who is healthy, active, flexible and calm. Students clearly associated yoga with someone who is physically fit and typically built to do yoga such as being tall, flexible and lean.

Comments included: “a person in lotus pose who is meditating”, or “my body stretching with a nice smooth feeling” “Ms. Rogers doing yoga on
a blue mat in a white room”. Yoga is “exercising your body”. Yoga is “Lying down on your mat”, “someone who is flexible” or “a person who is very tall” or “tall, long, person”. One participant indicated that yoga is “inner peace, meditating like the Dalai Lama” (Student J).

The image of a person sitting in lotus pose and meditating is a commonly seen image on television, in movies and books and is not surprising that a student would associate that image with yoga. However it is a common assumption that all people who do yoga/meditate and that meditation is yoga.

It is also common for a student to picture their teacher doing yoga because in this case, this is the extent of their experience with yoga. They know that their teacher does yoga and can relate their image of yoga to their teacher. Having an adult role model does seem to influence student’s perceptions of how yoga can benefit them. If their parents or teacher does yoga, chances are that participants perceive this as a worthwhile activity that can benefit a person positively.

For the student J, who pictured the Dalai Lama, he or she is thinking of an iconic vision to someone who meditates and is peaceful. Perhaps his/her knowledge of yoga is associated with someone they have seen on television or read about. Does this child associate yoga with religion? While it is not clear in this statement, this is reflective of a common assumption that yoga is a religious act and that one needs to practice or believe in the Hindu religion in order to practice yoga. It is this very assumption that is a barrier to the practice of yoga being commonly accepted in the educational system. Through my exposure of introducing yoga within my school, I came across many parents who based on their cultural or religious background would not accept yoga being integrated into the classroom because they would be fearful of exposure of a religious practice to their child. In fact, this idea was demonstrated in the responses of some of the parents who chose not to consent to this study.
Yoga did have its inception through religion, it originated in ancient India and through the practices of the Hindu religion. However; in many cases, the way that yoga is practiced and taught today in North America is free from religious affiliation and focuses primarily on the mind/body connection. This new practice of yoga has made yoga a physical activity that is commonly practiced in the workplace, gyms, community centres, camps, universities and elementary schools.

3. Why do people do yoga?

Common responses were “for exercise, to keep healthy, for relaxation and to increase flexibility”.

Common descriptors of the emotional aspects were “to relax my body”; “To calm down or de-stress”; or to “de-stress and manage my anger and emotions”; “to release my energy”; “to help me calm down”; “to help you let your feelings out”; “If adults have a hard time at work, it helps them to relax”; “to stretch their muscles and to let go of their mad feelings”. “Yoga can find inner peace and peace of mind in the mind and body” (Student J) and “to stretch the body in the morning and reduce stress and frustration” (Student E).

Student L, saw a clear therapeutic impact of yoga “To help with aches and headaches and to wake up in the morning”. While Student Q indicated that yoga will “keep their body healthy” associating yoga with increased health.
4. Which gender might like yoga better i.e. boys or girls?

Five female participants, indicated that they thought girls would like yoga more than boys since “boys are more active than girls” and that “boys like to play with other things like cars and running games like tag”. This suggested that girls perceived yoga to be a less active exercise than other exercises.

One female respondent indicated that they thought that the boys would like yoga less than girls because they would think that yoga was “a girl thing” (Student L).

These responses to this question are interesting because it was evident that a few of the girls assumed that boys are very active and that yoga is not active enough for boys in order to keep them interested. They also assumed that, typically, boys would not be interested in yoga. They were subjecting themselves to the stereotype of yoga being a female activity, which is common idea based on my experience of teaching yoga. Many male students over the years have expressed to me, that they do think that yoga is a female activity, which makes them reluctant to get involved with yoga.

However, in this study the remaining 15 participants which included the 5 males participants indicated that boys and girls would like yoga equally. The boys in this study did not share common stereotypes and all stated that both genders would like yoga equally.

5. How do you think that yoga might help children?

Responses included a sense that yoga would impact the physical aspect of the body such as “to get in shape” (student D). Some specific comments In this regard were “to help kids be more healthy” (Student O); “it helps you to be better at sports like stretching and running” (Student B).
It was interesting that students perceived that yoga might “calm kids down because some kids are too hyper” (student D) or “to stretch their muscles to get them ready for sports for example, cross country” (Student I), “to help them become more flexible if they start when they are younger, they can touch their toes when they are older” (Student L).

Surprisingly some students attributed very unique positive effects to yoga such as “yoga can make you smarter…more peaceful” (Student M); “it can give kids more confidence to do anything in the world and not give up” (Student U) or “it can give you a break from school” (Student U); “It will help them with their work to try new things” (Student U); “it helps your mind go off into a whole new world” (Student A); “to let go of stress when you are having a hard time with your homework” (Student T); “because sometimes it helps children who are overweight and need more exercise” (Student F). Other interesting comments included comments such as “it can help children because it is fun and kids need to have fun” (Student Q). “Yoga can help calm your emotions, for example help kids to not be angry” (Student C). Student N also commented that “yoga help kids calm down when they are angry”.

The significance of these comments relate to my original research question because they demonstrate the direct link between student perceptions of how yoga benefits students physically, emotionally and mentally.

6. Do you think yoga could be practiced in a school setting?

Seven students answered “yes” definitively to this question. These students seemed to think it was quite appropriate to do yoga in the school and classroom setting and provided a rationale that supported their opinion.

Comments included “Yes you can do yoga
Anywhere”; “sometimes if a teacher relaxes you like Ms. Rogers does ”; “Yes because you can learn new stuff”; “It can help students with mental disabilities to let their feelings out” (Student U); “If you don’t like sports, it is there so people could do something” (Student T).

The comments expressed by students were very interesting because it shows that students perceive a variety of needs within their school and the importance of catering to these needs. In every classroom there will be a child with special needs, which may not be able to participate in every physical activity. This child is suggesting that yoga could help a student with challenges mentally and physically. Student T is also commenting on different ability levels within a classroom and that as a result, it is important to be inclusive of a variety of needs. Students will be labeled as either “athletic” or not if they don’t like to participate in sports.

Some particularly interesting comments were “Yes, because it is good for kids and kids need to get exercise” (Student Q); “Yes, because school is a big space and bigger than your home” (Student I); “Yes, if yoga is part of the lesson and the principal is aware of it” (Student J); “Yes, at recess in the field” (Student E).

These responses are reflective of important considerations that would be present when thinking about whether or not to introduce yoga into a school setting and some of the challenges that may occur such as: space, teacher comfort level, administrative support, culture of the school. Some schools highly emphasize the importance of sports within the school, which may affect the way that yoga is introduced. Also, timing/scheduling and how to make yoga fit into the curriculum are two other considerations that will be unpacked further in the data and analysis of this research.
7. Do you think yoga could be practiced in gym? classroom? DPA?

The responses to this question were broken down into the following:

17 students said that yoga could be a part of DPA
3 said maybe yoga could be a part of DPA
1 said no yoga could not be a part of DPA

14 students thought that yoga could be part of gym
4 said maybe yoga could be part of gym
3 said no yoga could not be part of gym

8 students said that yoga could be practiced in the classroom
7 students said “maybe”
6 students said yoga could not be practiced in the classroom

A majority of respondents indicated that yoga could be a part of DPA.
A slightly smaller majority of students thought that yoga could be practiced in the gym
but fewer students thought that yoga could be practiced regularly in the classroom.
Possible reasons for fewer students to think that yoga can be practiced in the classroom is
because they are not used to this type of activity within the class and generally view the
classroom as a place of learning which includes school work and pencil and paper tasks.

Interesting “Yes” responses were “Gym is more active and fun. Yoga would
fit into the stretches before gym”; “Yes, it is equal to thirty minutes of
running, so it could fit into gym”; “Yes, gym because you move
around a lot”; “Yes, gym because it helps you warm up your body”; “Yoga could
be in DPA because it fits in with the stretches”; “Yes, DPA because in the morning you
are tired and yoga helps you to get energy in the morning”; “Yes, in the classroom if you
have free time”; “Yes but it depends who says to do it, if it is a teacher or not”; “Yes
during DPA because there could be student leaders”; “We do yoga in DPA which is good because we do it in the morning”; “Yes, you can practice yoga in the classroom during free time if the teacher says so”.

Interesting ‘no’ comments were “Not in the classroom because the classroom is more for doing your work”; “Not in the classroom, because people will get distracted”; “Not in the classroom because they are too small”; “Not in the classroom because there is not a lot of space”;

Responses to not in the gym were the following: “No gym because gym is like running and games”; “No, gym is a physical activity like running around and not just relaxing on the mat, DPA is just like gym so you can’t do yoga”.

These comments reflect the idea that the classroom is a place for learning and that very rarely do we have time to take breaks in the learning of core subjects to teach yoga. Many students also felt that gym was more of a place to be active which consisted of more vigorous activities such as running around and tag games and that yoga would be not vigorous enough in this setting. DPA seemed to be the middle ground between the two because it can take place in the morning when students see the need for stretching activities. As well it can take place in the classroom because it is built into the schedule of having daily physical activity each day and yoga is considered by many students to be a physical activity.
Data Collected during the Post-Research Phase

At the end of this study after the yoga sessions were complete, students were asked a series of questions during their post-interviews to see if their thoughts or views about yoga had changed at all. (See Appendix 4):

1. Would you continue to do yoga in school? Why or why not?

All students made positive comments about their yoga experience during this research study and all uniformly indicated that they would continue to do yoga in school. Participant responses can be categorized into comments that reflect student enjoyment, health benefits, relaxation, challenges and social benefits.

Enjoyment
“Yes, it’s fun and makes you relaxed and takes away the frustration in the morning”; “Yes, because it is fun and exciting and you can pass it along to family members”; 

Health Benefits
“Yes, because when I come to school in the morning, it helps me to wake up and stretch”; “Yes, you can do it for enjoyment and flexibility”; “Yes, because it is good and makes me more flexible. I like the relaxation”; “Yes, because it helps you get energized if you are feeling sleepy because it makes you fit”; 

Relaxation
“Benefits kids a lot and when they grow up they will be less grumpy and stressed”; “Yes, because then I am prepared for the rest of the day because I think better after doing yoga”; ” Yes, because it really calms you down and helps relax your muscles in the morning”; “Yes, because it frees my body from when I’m tired and stressed in the morning”; “Yes, because it loses stress when you’re mad”; “Yes, because
it makes my body feel relaxed and, when I’m sad or mad, it helps me to forget about it and be happy”; “Yes, because it is relaxing”; “Yes I would, because it calms you down which helps you with your work. I found it helped me”.

Challenges
“Yes, because it is fun and relaxing and some poses are challenging and it helps children”; “Yes, I would like to continue because it’s so fun and because Ms. Rogers always gives us challenges and we played games”.

Social Benefits
“ Oh yeah, I would like to do yoga at school because it is easier to do yoga with other people than alone”.

It was remarkable to have such great success with yoga and that many students understood the value of practicing yoga for themselves. Everybody derived something out of the yoga sessions, which made them want to continue to do yoga again within a school context. The categories reflected in these responses due support the goals of practicing daily physical activity within the school because we want students to enjoy physical activity, cooperate with their peers, feel challenged and benefit from practicing physical activity on a physical and mental level. Many students indicated a direct relationship with feeling relaxed while doing yoga and how this would help them with their schoolwork. One of the key goals of Memorandum 180 is that practicing physical activity within the school day for 20 minutes would not only decrease childhood obesity but have a positive impact on student achievement. The results of this study evidently support this goal.

2. Did you enjoy practicing yoga in the morning during DPA? Why or Why not?

Seventeen out of 21 participants said that they like doing yoga in the morning during DPA, which is from 8:40-9:00 a.m. The following section indicates why students made
these comments. Students commented that it gave them energy for the day, allowed them to relax and it woke them up if they were tired. Students felt more prepared for the school day, after doing yoga.

“Yes, because it helped me to exercise in the morning”; “Yes, it gives you all the energy you need for the school day”; “Yes, I think it is because it calms me down in the morning when I am energized”; “Yes it helped me to feel ready for the school day”; “Yes, because it gives you more energy”; “Yes, because it is relaxing in the morning and stretches out your muscles”; “Yes, because it helped me to energetic”; “Yes, it helped me feel less tired and very, very good”; “It helped me to stretch”; “Yes, because yoga is more fun than DPA”; “Yes, because it makes your body more moveable”; “Yes, because in the morning, people are busy and when you do yoga you more relaxed”; “Yes, because I am usually tired in the morning and yoga was exercise that helped me to feel less tired”; “Yes, it helps me feel less sleepy in the morning”; “When I do yoga, I feel relaxed, energetic and awake afterwards”; “Yes, because in the morning, it is when you start your day”; “I like doing yoga in the DPA time slot because you got to rest and relax before doing yoga and it gives you a chance to do calmer things”;

Additional comments were: “DPA, because yoga is sort of like exercise”; "During DPA, because I find it makes me tired when I do the DPA routines and yoga is more energizing”; “During gym, because in the gym you can run and do yoga, and during DPA, you are also exercise and move your body just like yoga”; “In DPA”; “In DPA, it is more relaxing then the DPA that we do”; “In DPA, because you’re teaching other children to do yoga if you are a DPA rep, then the whole school will like yoga and our school can become a yoga school. I am a DPA rep so I can teach others”; “During DPA in the
morning, which helps you to be awake and energized. Gym is a game and yoga is not a game”; “DPA in the morning, because you are still waking up”; “People should even do it before they go to school so that they can wake up”; “I think it would be best during gym because, if it is during class time, you wouldn’t be able to learn anything and, if you are a DPA rep, you would have to choose between yoga and DPA”.

This overwhelming consensus amongst participants indicates that as a whole students see the value of participating in daily physical activity as a way of waking them up and preparing them to do work for the rest of the school day. Many indicated that practicing yoga would be a great activity to do during daily physical activity. This goes back to the original purpose of the Ministry of Education introducing DPA in the first place since it was meant to give students a break throughout the day to engage in physical activity with the intention set out by the ministry to increase focus and attention. DPA is set up within the school to occur as a school-wide activity in the morning, many students find that this structure is working to their benefit and is increasing their focus and attention for the school day. Typical DPA activities practiced at the school include: running outside and aerobic routines played over the PA system in the classroom. It is not that yoga is superior to these activities but including yoga as one of the accepted daily physical activities would help to reach a balanced program that appeals to all student needs and abilities.

Many schools leave DPA up to the teacher to fit into the school day at anytime or DPA takes place at the end of the school day. It would be interesting to see if DPA was set up differently at our school, if students would still prefer the integration of yoga during DPA instead of gym or the classroom.
3. Has yoga helped you at all with your schoolwork? If so, how?

Student responses seemed to show some variability to this question. Overall 13 students stated that yoga did help them with their schoolwork, 4 students’ mentioned that yoga did not and 4 students stated that it helped them a little with their schoolwork. Of the students that responded yes to this question, 5 students mentioned that yoga helps them to calm down while they are doing their school work in subject areas such as reading and writing and 3 student stated that yoga helped them to focus their mind on a task and to concentrate more in class.

Typical answers in this regard are: “It might make you more calm during reading”; “It might help you to calm down while you are doing your school work”; “Yes, it helps me but cannot explain how”; “To calm me down after a bad day at school”; “It takes your mind off of things and you are able to focus better in class”; “Sort of because it has helped me to be more comfortable when sitting on the carpet”; “Yes it helped me to focus a bit better because when I am tired I can’t focus that well”; “Yes, because it wakes me up in the mornings”; “After yoga, your mind cools down. It cools down anger and then you can finish your work”; “First thing in the morning, I’m sleepy. After doing yoga, I feel less sleepy and have more energy”; “Yes, with writing because, sometimes, it’s difficult to think. After yoga, I was more relaxed”; “Yes, because at school, when you are doing writing, yoga makes you feel relaxed and calm so the writing becomes easier”; “Yes, yoga helps me with my writing, I have a stretched out arm and I have more ideas that come to my mind”; “A little, because it makes my mind go directly to the topic. I was more stressed at home and at school on days when I did not have Yoga”; “It calms you down so that you can think better and it clears your mind”.

The remaining 4 students were quite certain that yoga did not help them although
some students did not indicate why they felt this way. Their responses are found in the following section. “No”; “No”; “No”; “No, it does not help me with my school work”.

As the previous section indicated, the main purpose of DPA as set out by the Ministry of Education, was to increase student achievement. However, it is interesting that, when asked, many students did not see the link between DPA and their schoolwork. The student responses captured during the study related mostly to student focus and stress as well as to the transition from school to home or home to school and does not overtly prove to have direct links to student achievement. This thought leaves me to question whether or not DPA in any school, no matter what activity students are participating in-such as running clubs, aerobics, cooperative games, would have similar results where the students do not see the relationship between DPA and school work? I think the two activities are difficult for students to see and vocalize, the direct relationship between the two even though it might be helping them in a positive way.

However from the perspective of DPA’s secondary goal which is to decrease childhood obesity, it might be easier for students to see the direct relationship between physical activity and weight. Therefore, viewing DPA as a physical activity which helps them to be healthy and achieve weight loss. Yet there is still no research to prove that numbers in childhood obesity are actually decreasing in the province due to student participation during DPA.

4. How did yoga help you with your body/physical ability?

Although one student indicated that she saw no change as a result of their yoga practice, the remaining 20 students appeared to recognize that yoga did something to their bodies and their physical ability generally. Some students also indicated that they saw a relationship between the benefits of yoga and other exercise/activities in which they were engaged in.
Positive comments included the following statements:

“Yoga helps me to run faster, flexibility, helped to wake me up during other activities”; “More flexible and I can stretch further”; “It made me a bit more flexible and I feel taller now”; “More energized after doing yoga”; “It helped me to relax more easily”; “It helped me build muscles for when I swim”; “It made me feel awake if I was tired in the morning”; “It makes my back feel better”; “It made me more active if I was not and, once you do it, you can do other things that are hard”; “I felt relaxed and I now know a lot of poses”; “I feel so stretchy like I am an elastic band”; “It makes me stretched out”; “It makes me more flexible and relaxed, now I am doing better at dance”; “It takes away my tension and it really gives you the chance to relax so that you are not stressed out for the whole day”; “It helped me to relax if I have been rushed coming to school in the morning. It helps you get flexible and it helps you get more balance”.

Five students commented that yoga helped them with sports outside of school such as swimming, dance and track and field. Six students mentioned that it helped them to learn how to relax properly. The importance of this finding is not to be ignored. Learning how to relax is a skill for life that has value in teaching our students. It is important because we are giving students the tools to be grounded, rationale decision makers who can emotionally handle many situations in life, by teaching them how to effectively balance and control stress. It is always hoped that balanced decision-making will help students to build healthy life skills as set out in our healthy living section of the physical education curriculum. Site new curriculum…

5. Now what do you think of or picture in your minds when you hear the word yoga?

Comments included the following: “Now, the picture in my mind is me”;
“I picture a person standing in the middle of the road doing tree pose”; “I picture Ms. Rogers in a white room with a yoga mat doing poses like the sun salutation/lizard on a rock”; “I picture a person who is always calm and, when they get mad, they never yell and are able to calm themselves down”; “I picture myself in the lion and pretzel position”; “I now picture myself and that I want to join when people do yoga”; “I picture myself teaching others and being a good friends with each other ”; “Someone who is relaxed and calm and thinks that they can do anything because that is what I feel when I do yoga”.

4 students mentioned that they now picture themselves when they think of a person who does yoga lot when before they thought of someone else such as an adult figure who wanted to relax after work. These students had expanded images of yoga after participating in the yoga practice. Specifically, instead of identifying a singular, non-specific person who did yoga, they now pictured themselves when they thought about yoga or they were able name a specific person, such as an adult figure, whom they were familiar with and envisioned a posture that they knew.

6. Based on your experience why do you think people do yoga?

There seemed to be an overwhelming sense that yoga has a positive affect in reducing stress, relaxing oneself and reducing anxiety and, thereby, creating a calmer, more clear thinking, happier gestalt in people.

Comments made by students include:
“It makes them more relaxed and it is fun for them”; “It makes them happier and reduces stress and frustration”; “It relaxes you, clears your mind and reduces negativity”; “If they are stressed, it calms them down”; “It calms you down”; “It makes them feel more relaxed, energetic”; “It is very relaxing”; “They want to relax their mind and stretch their muscles”; “People like yoga because they feel relaxed”;
“They want to stay fit or healthy, especially mothers, because their back are sore”; “To stretch and wake up”; “To help them stretch and feel relaxed”; “To relax themselves”; “Because it is relaxing and makes you calm down when you are angry”; “Yoga is fun and relaxing and makes you more flexible and it is exercising”; “Yes, because it is good for your mind and body”; “It is really good for your body and to be stretched out. It makes you healthy and feel good in the morning”; “To get their mind off everything and become relaxed”; “To help you believe that you can do anything, depending on the poses that you do and how you do them”; “To calm down if you are excited about something they can just calm down and forget about it”.

In comparison to the responses to this question during the pre-research interview phase, some of the responses are quite similar. Student still have a good understanding of how yoga can help them outside of physicality. Now students have incorporated themselves into their visualization and have become a bit more descriptive in their responses. 7 students mentioned that people would do yoga to clear their mind, balance emotions and to calm down and reduce frustration. 9 students mentioned relaxation and 2 students recommended using yoga to keep healthy. Nobody specifically mentioned using yoga to increase flexibility, which was a common response to this question during the pre-interview phase.

7. How can yoga benefit children if practiced daily?

Participants seemed to recognize that yoga had benefits on a number of different spheres of experience, physically, emotionally and psychologically. Comments below are categorized under those headings:
Physical benefits:
“It makes you more flexible” (Student I); “It can give you more energy to do other things in gym” (Student C); “To get more exercise to do their work” (Student D); “They will be more flexible” (Student A); “It can help them with gymnastics, sports” (Student I); “Kids will stay fit or healthy and they will always feel relaxed” (Student L); “Yoga would make children more flexible and better at sports” (Student Q); “It makes you energized, ready to play and be fit” (Student S); “It makes you healthy because you’re stretching. You would know a lot about yoga and you would remember what poses to do better” (Student H); “It will make kids feel better; they will do better in school, be more flexible” (Student T).

Emotional and Psychological benefits:
“Makes kids have more fun” (Student B); “It reduced my frustration” (Student E); “Helps children to be less lazy” (Student F);” It helps them get their minds off being mad” (Student M); “It reduced my frustration”; “They don’t get mad easily and they are always happy. It helped me with my emotions” (Student G); “It is relaxing and makes you nicer” (Student P). “When I am angry, I do yoga and it makes me calm down my emotions” (Student N); “It can make children more relaxed and more focused. For example when you do tree pose” (Student R); “Doing yoga can sometimes stress out children and if you do yoga it can really open you up to see the world in a different point of view” (Student U).

In this question, 4 students stated that yoga benefits children emotionally, 7 students stated that it was energizing and helps them to balance emotions. 3 students mentioned using yoga for exercise purposed or to maintain fitness and health which relates to the phys-ed curriculum and the different strands. There were various responses to this question all of which relate to the intended benefits of daily physical activity. However, the responses did not significantly support the expectations of the ministry of education in the creation of Memorandum 13.8 which set aside a daily block of 20 minutes for students to participate in vigorous activity. Students seemed to derive other benefits from
yoga, which seemed equally important but did not constitute vigorous physical activity as set out by the ministry, which is determined by the nature of the exercise and the specific elevation of the heart rate.

8. How do you think yoga could fit into the school day best? (Gym, Class, DPA)

DPA
16 students thought that yoga would fit best During DPA, primarily because it is in the morning and is a preferred time.

Common responses were: “During DPA, because it let’s your body calm down” (Student A); “DPA, because yoga is sort of like exercise” (Student O); “During DPA, because I find it makes me tired when I do the DPA routines and yoga is more energizing” (Student P). “DPA, because you are teaching other children to do yoga. If you are a DPA rep, then the whole school will like yoga and our school can become a yoga school. I am a DPA rep so I can teach others (Student S); “DPA in the morning because you are still waking up. People should even do it before they go to school so that they can wake up (Student U); “During DPA in the morning, which helps you to be awake and energized. Gym is a game and yoga is not a game” (Student T); “Yoga fits best during DPA because it is in the morning and in gym we do sports and in the class we study” (Student F).

Gym
Four students thought that yoga would be effective in the gym because it is a bigger space and a longer period of time.

Examples of student responses: “During gym, because in the gym you can run and do yoga, and during DPA you are always exercising and moving your body just like yoga” (Student N); “Gym because it is longer” (Student C); “During gym, as a stretch at the beginning of exercise” (Student E); “I think it would be best during gym because, if it is
During class time you wouldn’t be able to learn anything and, if you are a DPA rep, you would have to chose between yoga and DPA” (Student H).

Classroom
One student thought that the classroom would be the best fit for practicing yoga “During free time in the classroom, not during gym or DPA because yoga get’s you active” (Student M). This child clearly still does not relate yoga with physical activity but associates yoga with an activity that could be used during free time in class.

In this question, the majority of students said that yoga would work best during DPA because it is in the morning and yoga gives you energy. Students did not see the classroom as a space where yoga could take place outside of DPA because that is for learning. 3 students mentioned gym because it is longer and it fits in with the stretching in gym. From the participant responses it is clear that many students still see gym as sports and games and do not see yoga fitting into the curriculum, they associate yoga with relaxation and emotional content as well as flexibility. As compared to the pre-interview responses where 14 students indicated that yoga would be appropriate in gym and 8 students thought that yoga could be practiced in the classroom, the numbers have shifted greatly to DPA as the best fit for yoga.

9. As an opportunity for students to reflect on their thoughts at the end of the project, students were asked how they perceived changes in their thinking about yoga since they participated in the research study. Students were asked to explain these thoughts.

“...”
“...”
“...”
“...”
“...”
“...”
“I feel less lazy after doing yoga”;
“Now I find yoga easy when before I found yoga very hard to hold the poses”;
“Some poses look easy but they are not that easy, now I know that I can do it”;
“I thought that there was only a few poses, now I know how many poses there are and that you can stay healthy and fit”;
“Most people think why do I have to do yoga, but once they try it they like it. You never know unless you try. Everyone in the class like yoga”;
“Now I think yoga is doing cool poses and not just sitting there”;
“Yes, I learned some new poses”;
“Yes, before I did not know a lot of poses and now I realize that there are so many poses”;
“Yes, then I thought that poses could be dangerous and now I think that it is safe”;
“I teach my aunt and my brother how to do yoga, my aunt is feeling better and my brother is more energized”;
“I find it more fun then I did before, I now practice at home”;
“Yes, before I thought yoga was just for people who are really angry and stressed out about life. Now, I know that anyone can do it just for fun and for pleasure”;
“At first I was nervous, but then I started to learn a lot about it. As we did it more, I started to find out about yoga and we had fun. Ms. Rogers turns it into a game and then, at the end, I thought to myself “Hey, I am really enjoying this!”.

These comments reflect the overwhelming response that students felt good because they saw growth in themselves and in their ability. Many students commented that they felt good because they were able to do something at the end of the research that they were not able to do previously. Many took comfort in the
fact that they realized that yoga was not that hard that they felt successful at the activity. Some students acknowledged that they felt better emotionally and were able to handle their emotions better.

These trends are important to the well-being of our students. It is important to provide a space where students can take pride in their accomplishments within physical education programming, even if this satisfaction is not produced from participating in a team sport or success at a skill based activity. Students can take this yoga practice home and are likely to continue to make healthy choices, stay active and reap the benefits of feeling more emotionally balanced.

**Assistant Observational Notes During the Yoga Sessions (Research Phase):**

At the onset, kids were doubtful at the beginning, saying “I can’t do it” or it is “too hard”. As students started yoga they seemed very focused and relaxed and came to understand the value of focusing and how it can help you. Student E commented “that he focused on something while other students could not keep their balance”. Students relied on confirmation from peers, wanted to look around to see what others were doing. Students made Self Image Statements such as Student J, who related to hero and said “I feel like Terry Fox, like I have artificial legs like I can do anything”. Throughout the yoga sessions, students gained confidence as the sessions progressed. Student E said-“I can do this, I know I can”…and “I like the challenge”.

Principle Investigator’s Observational Notes During the Yoga Sessions (Research Phase):

When asked how yoga makes them feel? The majority of students who participated commented by saying that they felt calm and relaxed. Some specific comments were “I feel like I am the only on in the room” (Student J); “Like I am walking in heaven” (Student Q). Student I said- “I feel like I could do yoga for longer and that I am running out of time”. Students frequently commented that they felt that yoga class was a safe place and that nobody would laugh at them.

Social Statements:
Students seemed to enjoy the social aspect of practicing yoga with their peers. Yoga often came up in their personal conversations and experiences. Participants always laughed, smiled and interacted with each other in a pleasant way. They particularly enjoyed the couple of sessions dedicated to partner yoga because they could experience success with a partner and both feel like they are contributing their strengths, not solely depending on what they could or could not do. Many participants told me that partner yoga was their favourite activity and that they had so much fun.

Self-Esteem Statements:
Students often asked for confirmation by asking me “is this good?” and “do I have it?”.

During the research phase, I was often presented with questions from participants asking me if they were good at yoga? This is the type of questioning that I often received from the participants and leads me to wonder how does physical activity make them feel? Are they intimidated by the standards that we set for them within our curriculum and by their physical ability? Are they overwhelmed by the social pressure of peers to preform? We often give students a task and give them a certain amount of time to see if they can demonstrate their ability within a certain task. This creates pressure for students and a standard that many don’t end up meeting. Is the experience of practicing yoga any different for them? Some students did struggle with themselves if they did not get a posture right away and may have felt frustration and then they commented that they
could not do it. However this feeling never took away from their enjoyment and many students understood that practicing yoga was about growth and that as you practice you will see your growth and improvements. One small posture was insignificant to their whole practice and they would be better at the next posture. Whereas in a sport setting or skill based activity you either have obtained the skill or not, which directly relates to your achievement in that activity. Only one student showed particular insight grasping the concept that physical ability is a spectrum and that everyone has different abilities but there is always room for improvement. “If you try hard at yoga then you will get it and it may not happen naturally but you just have to try” (Student M).

Personal Identity Statement:
Student L made links to her own identity by relating child’s pose to her Muslim prayer and said “I sit in lotus pose when I pray in my religion.

The practice of yoga can help students to find their own personal identity? Based on the evidence of this statement, a student can connect to their own cultural practices through yoga? Just like yoga helped me to replace my religious practice. Yoga can help students create a personal identity text that consists of the whole schema of a child in the emotional, physical, psychological and social domain.

Physical Statements:
Student J said that, “Yoga helps me when I play sports and endurance Building activities”. Student I said that, “yoga helps me with my diving”. (Student T) “yoga makes me more flexible and relaxed, now I am doing better at Dance”. (Student Q) “I am more flexible at swimming classes, now that I am more flexible it is easier for me”.

Student I made this unsolicited statement during a guided reading session based on the article “from Dodge ball to Yoga”. “I think that if yoga could be done in gym, I’d be happy because it allows students to see their different natural abilities that makes them what they are today. Let’s say John (just an example of a student name) had trouble with
sports but was good with yoga it would let him participate. If schools only focused on sports like basketball, then it would be difficult for students like John who are not good at sports, this is why yoga is important.

Throughout the research phase, this trend occurred, students did see the relationship between yoga and physical education, either as a physical activity itself or as an activity that would help them greatly with various other sports or extra-curricular activities that they were involved in.

Comparative Results

When comparing my observations to the observations made by the research assistant it is evident that we both noticed that self-image was a major component to the practice of yoga and that the better students felt while participating the more they enjoyed the activity. For many students this is how they self-assessed their ability. We also both noticed that social confirmation from peers impacted the way that students viewed themselves, their yoga ability and their success. Yoga as viewed by the participants was very much a social activity that was based on acknowledgements from peers.

Observations made from Analyzing Student Journals by the Principal Investigator

A summary of independent written comments have been identified by the PI and presented here. Some comments are reflective of the student’s thoughts and therefore there are instances as in previous quotations where spelling errors or grammatical errors have been left in the verbatim quotation in order to give the reader a sense of the actual comments in the student’s own voice. The bolded text below is the observations made by the principal investigator.
STUDENT B
“ My favourite posture is the tree and sun salutations because I am both good at them and they are fun postures”
“Yoga helps me because it calms me down, you’re relaxed, you’re body is more flexible In your mind you feel so relaxed. Physically you’re a little more energetic (I feel energetic)”.

STUDENT G
“ I like yoga because it is good for your body”
“ I like yoga because I try my best and it’s fun to do”

STUDENT H
“ I like it when we did dancer because it is fun and I am good at it”
“Yoga benefits kids because it makes them more flexible”

STUDENT M
“When I keep on doing this same move over and over again, I get better. Maybe some day when I grow up and I am a yoga teacher, I know how to do moves. I will do something in the yoga class that most people did not do but I did”.
“Yoga helps kids to be more flexible and athletic”

The above student comments are reflective of participants expressing what they like and associating it with what they are good at. These comment emphasize the need to have confidence in order to feel successful during physical activity, to be motivated to try their best, to get positive recognition from others and to perceive an activity as fun.

STUDENT D
“Yoga makes me feel relaxed and comfortable”
“When I do yoga, I forgot about my fears and troubles”
“Yoga helps me by relaxing my muscles, calming my mind from stress and lastly yoga makes me forget about my fears and troubles”.
“I think yoga benefits kids because it releases their anger and calms them down”

STUDENT M
“Yoga makes me feel like I have been in heaven. I feel like and angel from above and heavy cloud being lifted”.
“When I do yoga it makes me calm and I lose all the stress and no bad thoughts in my mind, nothing is bothering me”
“Yoga makes me feel so relaxed and so good that I am the only one in the room”

STUDENT F
“When I do yoga I focus and participate”
My body is relaxed when I do yoga and stretched”
“Yoga helps kids at school because when they go to school they are lazy and they need to do yoga so they can be unlazy”
“Yoga helps me sometimes when I am mad, I do yoga and calm down”

These three participants are acknowledging that the practice of yoga can help to reduce the risk factors for kids that relate to mental health such as stress, fear, laziness, negativity and anger. These participants are attributing their experience of yoga with others.

STUDENT E
“When I do yoga I feel almigty and powerful”
“I think yoga benefits kids because yoga helps kids reduce stress when kids grow up”
“Yoga clears my mind of negativity”
STUDENT U

“My body feels really good and energized and awake. When I do yoga I have an awesome time and try my best”
“My body feels like it is capable of doing anything”
“yoga helps me mentally because when you do yoga if fills your mind with good thoughts that can help you far into life”
“Yoga helps me emotionally because when you do it, you feel like you can do anything which gives you faith in doing so”.

These two participants identify the links between what they are learning now through yoga and how these skills can benefit them later on in life. Using critical skills to evaluate the benefit of practicing yoga when you are a kid and how it may continue to benefit you later on in life.

STUDENT J

“Yoga makes me feel relaxed because it makes my body relaxed from all of the stress I have”

STUDENT K

“When I do yoga I feel relaxed because yoga makes me think about good things”
“I like yoga because if I am mad, I can do yoga so I can forget what I was mad at”
“Yoga makes me feel happy and relaxed and joyful. Yoga makes my body feel good and stretched out. Yoga makes my mind feel blank and open”.

Student J and K as well as other participants in this study have reflected on the need to evaluate his/her experience and overall sense of mental health. Both students have pointed out that the student experience can include stress and negative emotions.
STUDENT N
“Yoga helps me emotionally because I understand feelings now”
“I like yoga because it makes me feel relaxed like whenever I do yoga my body feels that I am in a soft bed”

STUDENT O
“When I do yoga, I feel very relaxed it is very fun. It is sort of like exercise. I like yoga because it feels soooooo great!”.
“When I do yoga I fel energized and ready to do anything. It makes me fel relaxed”.

STUDENT P
“Yoga helps kids because it helps them to be energetic for the day”.
“Yoga helps me to be relaxed”.

STUDENT Q
“Yoga benefits kids by relaxing them and making them relax more”
“Yoga makes me feel more happy and excited”

STUDENT T
“Yoga helps you physically for example if you are so unflexible and unconcentrated but you do yoga your mind goes away and you will be concentrating so well you will be more flexible then you were before”.

The preceding five students mentioned that they felt relaxed, happy, excited and energetic. These students are attributing yoga to feeling great both physically and emotionally. Participant T is identifying the link between mental health, physical health seeing the benefits of physical education from a holistic perspective.
STUDENT R

“When I do yoga I was happy. Tree is my favourite posture because it makes you balance and focus”

“Yoga makes me feel like I lost weight”

“Yoga helps me by making my body relaxed and helping my mind to calm down and feel good. I feels so peaceful when I do yoga”.

This participant was the first to comment that doing yoga as physical activity may positively effect their weight which is one of the influencing factors of the implementation of daily physical activity, to reduce childhood obesity amongst Canadian children.

Data Analysis:

The data presented above are direct observations from the students themselves before and after the research study as well as observations made by the Research Assistant and Principal Investigator. A review of student thoughts, as documented in their personal journals, was also provided.

Through the analysis and reflection of my action research, specific conclusions can be made. There are a couple of key trends that will be extrapolated which support and refute the nature of this research. It is important to understand these observations and thoughts in relation to my research questions and it relationship to the theoretical framework used.

At the onset of my research, I was interested in understanding the benefits of yoga for children who practice it regularly. I was interested in knowing if these benefits are the same for children as they are for adults. Participation in daily physical activity is the avenue by which I was interested to see if yoga could be used and successfully integrated in the school system and that students would perceive personal benefits, even if the activity presented was not vigorous in nature. My classroom was used as a window into
the lives of my students and a qualitative account of their thoughts and experiences would determine how students viewed and understood the benefits of yoga as it relates to them. Based on these findings, I propose that, if the research participants in my classroom could benefit and then describe how practicing yoga benefits them then this would become a model for other Canadian educators to incorporate yoga into their programs.

This study addresses the use of policies mandated by the Ontario Ministry of Education in 2005, which favours traditional views of physical education compared to non-traditional views. Traditional views of physical fitness are based on objective measurable benchmarks (i.e. how vigorous the physical activity is, which depends on the elevation of the heart rate). However, this study looks at physical education from a holistic standpoint, taking into account how personal growth relates to physical, mental, emotional and social well-being. The definition of physical activity is different depending on people’s perceptions of this language. Vigorous physical activity is only an aspect of well-being. As determined in the definition set out by Guidelines for School and Community Programs states that physical activity is defined as “any bodily movement produced by skeletal muscles that results in energy expenditure” (GSCP, 1997, pg.5) therefore incorporating yoga to fall under this category.

Throughout this research, many students described the practice of yoga as making them fit or something that makes you healthy, but did not view yoga as ‘exercise’. There continues to be a perception that physical activity must be vigorous in nature to be valid or acceptable. This leads students to view yoga as physical activity but not necessarily exercise. This idea continued throughout this study and never changed. This constant view probably prompted many students at the end of the study to indicate that yoga would fit best during DPA because it energizes you, relaxes you and prepares you for the school day. Students did not see yoga fitting into the class because it was a place of learning and there was not enough time while the gym was reserved for high impact exercise such as sports and games. Revisit original hypothesis and how does this compare?
These results are very similar to a qualitative study conducted by the Lippincott Williams and Wilkins Research Centre (2008), which looked at promoting physical activity in teenage girls. The results from this study show that most girls “preferred the use of the term physical activity over exercise”. The use of the term “physical activity included a positive physical attribute, mental health and staying healthy” (Loman, 2008, pg. 291) as viewed by the participants. They also identified major themes associated with this term such as: autonomy (what they like to do) having fun (participating with friends) and body image (self-confidence).

The perception that exercise is more valuable than physical activity will not change unless we change our approach to physical education. This change would include how the ministry views education as the need to be vigorous, how educators interpret the curriculum as skill acquisition and how they teach physical education as a completion of skill. This change may lead to a shift in the way that students view physical education. The value of these terms that we use today such as: vigorous, exercise, skill acquisition, active participation, fundamental skill building, athletic and sport creates a divide in the interchangeability of these terms and the application of their uses. What is the main goal that we want students to learn? It is clear that many students are misled by what determines physical activity and what constitutes health.

Fortunately, the health and physical education curriculum has been revised and implemented in Fall 2010. With this revision of the ministry expectations for kindergarten to grade 12 students, we will see a slight shift in the value of physical education to a more holistic approach. They have “re-structured fundamental movement skills to improve the scope of development and have expanded and improved the examples of physical activity given” (Mandigo, 2009, slide 5) from the Working With Schools 201 Workshop on June 19th 2010. The new Ministry documents have also changed Fundamental Movement skills to be called “Movement Competence taking into
account how a person moves, their awareness and effort” (Mandigo, 2009, slide 8). This approach will help the curriculum take on more of a student-centered approach. There will be more of an emphasis on the student to “embrace life long healthy living, critical, personal and interpersonal skills as it relates to health” (Mandigo, 2009, slide 10). This will broaden our criteria of what is healthy or who is considered to be a healthy person and will change the way we educate our youth.

It will be interesting to see if this new shift of thinking broadens this new scope of physical education and therefore changes students and educators views of what is physical activity. Considering that now Yoga is specifically mentioned as an example of a fitness activity in the new curriculum under the larger category of Movement Competence (Health and Physical Education, 2010, pg.140). This may have a significant impact on the validity of using yoga to improve the health and wellness of students. Then from this point moving forward, credible research such as this study will become more predominant within educational research.

Another major trend that was identified was that most students discussed the benefits that yoga had on their mind and body from an emotional standpoint. This combined ‘mind/body’ notion was surprising in the initial phase of the data collection and yet hoped for. Throughout the study in the pre- and post-interviews, as well as the student journals, participants emphasized the main benefits of yoga as relaxing, de-stressing, helping to balance emotions, clear their mind and calm down. Participants demonstrated a clear insight into the emotional depths that a person can feel such as frustration, stress, anger and intense feelings. Students understand these emotions and are able to articulate the needs of people who do yoga, even if they do not experience these emotions themselves. When thinking of yoga, students keyed into the emotional aspect because they really found that the continuous practice of yoga on a regular basis emotionally and mentally affected them in a positive way. This positive impact will improve their feelings towards school and hopefully mentally prepare them for the rest of the school day. Due to the overwhelming importance of the emotional well being as mentioned by participants
within this research study, it leads me to see clearly, a greater need for activities that focus on the emotional and mental well-being of our students. We need to provide a space for kids to emotionally connect while they are at school. We are doing a significant disservice to our students if we focus too much on academics and athletics and ignore the emotional experience of our students.

As stress, was mentioned numerous times in the student interviews and the reflective journals it leads me to question why are kids so stressed and how do they come to know this feeling? Has our school system and our expectations that we have put on Canadian students created an environment that is too stressful for students and how do they cope with this stress? Recent research from the Canadian Association for Health (1992) would say “active students are less susceptible to stress, exhibit positive attitudes about school and themselves, are less aggressive and play better with fellow students” (Canadian Association for Health, 1992, paragraph 4). The school is a very stressful environment for students due to academic testing, time constraints, social factors and bullying. The school can also be a stressful environment for educators as well. In fact, a recent poll released from the Ontario College of teachers states “1,000 Ontario teachers say that teachers love their jobs, but suffer stress brought on by time constraints, parent complaints, performance reviews and school politics”. (Ontario College of Teachers, 2006, paragraph 2).

Chances are, if a child is feeling stressed, not only at school but the home environment can be a stressful place as well. Financial worries, family dynamics, living situations, health factors can all contribute to creating a stressful environment. If this is the case, all members in the household would feel this way. Do student’s feelings of stress mimic the same stress as adults? Perhaps more time and research needs to be dedicated to the causes of child stress and how students are experiencing this stress on a day to day basis at school and what effects this has on students academically, socially and emotionally.
At the onset of my research, I was interested in understanding the benefits of yoga for children who practice it regularly, and whether or not these benefits are the same for children as they are for adults? There was a direct link mentioned in this study as to the benefits that students felt as compared to adults. One student participant mentioned, “yoga helps to relax their bodies like an adult because you get the same amount of stress like if your parents don’t care for you or you do something wrong, you will get stressed”; “yoga can make kids feel like their troubles are nothing” (Student J); “to take away the stress and frustration so when you are a grown up you will be less stressed and less grumpy” (Student J). This comment alludes to the fact that one of the reasons that adults practice yoga is to de-stress from their work environment, calm down and to improve their mood and overall feelings of happiness which is what was evident from student responses within this research.

When looking into the many benefits for adults who practice yoga I found a pilot study that documented the benefits of yoga for 100 adult participants. It was found from this study had after 15-90 minute yoga sessions over a 10-week period, there was a reduction in blood pressure and stress among study participants (Liebert, 2010). These types of outcomes are very similar and consistent with my study because many student participants commented on their energy level and stress reduction. This allows me to conclude that the benefits of yoga are very similar for children as they are for adults. Yoga is becoming common practice in many workplaces in order to improve physical and mental health, worker satisfaction and effectiveness. The same should be brought into the workplace of children, which is the school, to increase personal satisfaction and well-being of our students.

As this study reveals, if students are practicing yoga daily through physical activity, this may lead to positive benefits for educators and students alike and therefore decrease the stress created in the classroom. If the idea is that teachers are participating in daily physical activity with their students, then this will give teachers time to de-stress as well.
The difference of the experience of adult yoga as compared to children’s yoga is that it is more highly regarded as physical activity for adults. Yoga takes place in many gyms and workplaces where it can also be delivered in a very vigorous way with the inclusion of “ashtanga yoga”- a fast paced/energetic sect of yoga and “hot yoga” which takes place in a heated room. Many adults will sweat throughout this activity and in many cases partaking in regular yoga classes will be an adults main or only form of physical activity or exercise being considered a weekly workout. While children naturally spend more time outside and being active, yoga is considered less vigorous in comparison to other activities they participate in such as sports and swimming. It is important to mention that yoga can become more vigorous for children, depending on how it is taught which would satisfy the demands for more vigorous physical activity within the school system.

As the similarity of benefits of yoga for children and adults became clearer throughout this study, this concept was taken one step further in terms of raising the idea that if a child participates in yoga now it will have an impact on a child’s life when older. Many participants saw how their mood or lives might be affected when they become adults. One participant commented “Yoga helps me to take away the stress and frustration, so when you are a grown up you will be less stressed and less grumpy” (Student E). The last comment is reflective of the link between practicing yoga when you are a child and the lasting benefits that this will lead to when you are an adult. This is what essentially we are aiming for in the curriculum, to set the students up with healthy life skills that will allow them to question and make healthy choices when they are adults based on goal setting and healthy reflective practice.

When asked if students thought that yoga helped them at all with their schoolwork and if so how, there was a clear divide on this theme. Students did not overtly mention that yoga had a direct impact on their achievement, marks, report card or that doing yoga improved their memory skills or made a difference in the quality of their schoolwork. In fact, many participants said that yoga did not help them. However, embedded in many student responses, both oral and written, students mentioned how it helped them to focus,
concentrate, calm down and feel relaxed. A couple of students stated that this sense of calm would help them in subjects such as reading and writing. “Yes yoga helps me with school work because at school when you are doing writing. Yoga makes you feel relaxed and calm so the writing becomes easier”; “Yes, yoga helps me with my writing, I have a stretched out arm and I have more ideas that come to my mind”; “A little, because it makes my mind go directly to the topic. I was more stressed at home and at school on days when I did not have yoga”; “It calms you down so that you can think better and it clears your mind”. These comments relate directly to the implementation of memorandum 138 implementing 20 minutes of physical activity with the expectation that DPA will significantly affect student achievement. Student achievement in Ontario is measured by literacy and math scores on a yearly provincial test.

It is evident from this study that the intent of DPA to increase student achievement is justifiable in theory, however the link between DPA and student achievement is weak. There is little research on this aspect that clearly states that students in Ontario have achieved more due to participation in daily physical activity, which undermines the effectiveness of this Ministry initiative to achieve this goal. There are many benefits that students are receiving from the implementation of daily physical activity from a physical standpoint, which is important enough to continue on with this program and it represents an opportunity for further study.

An interesting trend that existed amongst research participants in this study is that 13 out of 21 participants had done yoga before in a previous grade with another teacher. This contributed to the outcome of this study because many students had some comfort level with yoga at the onset of this study. This experience level was very minimal since it meant that students had only participated in yoga once or twice and were familiar with a couple of poses. This did help to minimize the fear and anxiety for students when they initially decided to participate. The power of repeating successful activities regularly is what is going to make the biggest impact for students because it will increase confidence, comfort level and ability, but in order to have repetitive activity, you need educators who
will be willing to devout their time to the benefit of an activity.

One must remember the work of Michael Fullan and his concept of change when he states, “What teachers do and think is pivotal to educational change” (Fullan, 2001, pg. 115). The complexity of the process of change starts with the views of the educator and the desired change, which would require a collective commitment from teachers. In order for yoga to be appropriately incorporated into the school setting, educators have to be informed, understand and be able to implement yoga during DPA. Not only will teachers have to undergo professional training and receive resources to implement yoga in their classrooms but their needs to be a practice established on a regular basis. Yoga used through school-wide initiatives such as DPA, will help bridge the gap of non-collegiality and unite teachers in a common purpose that has the ability to produce change. There is a benefit of educating and training staff at the school to produce change in the school and therefore students are able to see this growth if they are exposed to it year by year.

One participant in this study responded to the question “how do you think that yoga would fit best into the school day? DPA, gym or the classroom?” this participant said, “DPA, because you are teaching other children to do yoga. If you are a DPA rep, then the whole school will like yoga and our school can become a yoga school. I am a DPA rep, so I can teach others (Student S). This builds on the idea that if teachers and students are exposed to yoga continuously this will empower students to teach others and may lead others to yoga as an activity which is more in line with Ministry expectations in the new curriculum. This will foster a great sense of leadership and further develop interpersonal skills for students.
Chapter 6- Further Questions:

In order to continue research on this topic, it would be worthwhile to pursue the following research questions. Do kids feel better after yoga or do they feel better after physical activities that significantly increase their heart rate? Answering this question would give us an understanding of how important vigorous activity is and how it actually makes participants feel? Is feeling energized a major factor of physical activity? If so, after they complete it, what type of activity will likely prepare them for return to the classroom and achieving more academically? This question would give us a sense of what type of activities would increase student work production and achievement.

It is my experience that after activities of a vigorous nature, many people feel tired and weak while other people feel more energized after an activity of a moderate nature and have the capacity to continue with work, especially academic work. However I could be misled and the reverse effect could be present. Understanding this element will greatly shape the types of activities that we expose students to and will allow educators to gain a better grasp on what are the most desirable activities to do during DPA that will likely increase student achievement.

More extensive research that focuses on the nature of stress as relevant to how Canadian students experience it would also be helpful. This would give us insight into the main environmental causes of stress and help decrease these factors in the classroom. A reduction of classroom stress will likely improve the emotional gestalt of our students, which may lead to better academic results.

It would also be interesting to investigate what type of student populations benefit most from yoga, given that there are many differences among student subgroups. For example, student populations studied thus far, have proven, through research to have the greatest success with practicing yoga, are students with mental health issues and physical disabilities, asthma and Attention Deficit and Hyperactivity Disorder as seen in the
research published by Journal of Asthma that looked at six young asthmatics with a history of childhood asthma who went through yoga training for two years. The study concluded that practicing yoga is beneficial for asthmatics because it “increased pulmonary function and exercise capacity” (Jain, 1991, pg.440). Asthma is a common physical factor for many students. What percentage of this student population do we actually have in our schools that have physical disabilities, suffer from asthma or have Attention Deficit Disorder? This information will allow us to understand what the needs are in Ontario and would communities benefit from the implementation of yoga in their local school.

It would be worthwhile to research the relationship between gender and participation in yoga. In this study, the male participants did not see any reason why boys would not like to participate in yoga activities. However, the female participants viewed yoga as a predominately female activity and did not think that boys would like this type of activity. This study cannot be generalized to represent all student populations, but getting a sense of what the student views are from both genders based on consistent research from year to year, would be interesting and helpful to know. This information would allow us to know if yoga could be implemented in the school system effectively because it would need to be equally appealing to students of both genders.

It is also important to factor in the thoughts and opinions of parents, educators and administrators into the use of yoga in the school. How do parents feel about their children participating in yoga? What are the pre-conceived notions; assumptions and challenges that exist that refute the use of yoga in a multicultural classroom. How do teachers and administrators see the use of yoga in the classroom? Do they see it as beneficial and if not, why not? On the flip side, what are the interest, beliefs, values and curiosities that would support the use of yoga in the school system? How many educators and administrators would be supportive of these initiatives? By purchasing resources that help teachers develop solid programming. This is a very important piece to understand in producing effective change in Ontario schools.
Limitations of the Study:

There are some limitations to this study that affected the results of this research, which need to be acknowledged in order to fine-tune my own future research questions and frameworks.

It is important to remember that some students may be offering positive comments about their yoga experience because they want to please their teacher. The notion of pleasing the teacher and receiving positive feedback or frank secondary gain is understandable when working with students. However there was an attempt to control this issue in the study by using an objective research assistant. Also I, the teacher and principal investigator, was very aware and reflective of this possibility throughout the study. I was intentionally aware of my own actions and discussions.

Another limitation of this study was that it depends on the group of student participants. It is important to appreciate that yoga sessions were perceived to be both different and fun and therefore more desirable and more positive then routine DPA activities. This factor intrigued many students in the class to obtain consent to be a part of this research study. Future endeavors with a different group of students on a more routine basis may produce the same results. Students over time may not find yoga to be as fun and appealing because it is not different from their regular programming.

On the other hand, some students in other cohorts may not enjoy DPA or yoga. Further research may find that yoga is more beneficial for students who have an interest in taking part in this exercise by choice. Therefore, yoga would be used preferably during extra-curricular activities that cater to student interests. Different groups of students will respond differently and it is hard to generalize one group of students’ experiences and apply these results to the whole student population within the school. Next year, a different cohort of student participants may lead to different results. There may be a greater interest or disinterest in participating in yoga from year to year. This would affect
my research because the results may not turn out to be as positive as this year’s students. However, no matter what results would occur if students are disinterested it is important to know why.

Another limitation of this study was the timeframe during which DPA takes place. Twenty minutes of daily physical activity two or three times a week, was a very small amount of time to produce significant research that profoundly affects students. Had yoga been practiced each day for twenty five/thirty minutes, then it would be more beneficial to student growth. I often felt rushed when teaching yoga to students and was very mindful of the time in order to not cut into instructional time. Realistically by the time the students are organized and prepared to begin the activity, 15 minutes remain to participate in the activity. More time would allow for longer yoga sessions and would include the organization of students and clean up to allow for exactly 20 minutes of concentrated yoga.

Lastly, since the yoga sessions took place in an alternate classroom with enough space to set up mats for each student, this may have added to the comfort level for participants and therefore improve their success with yoga. In many other school situations, it is highly unlikely that alternate locations in the school are available to use for any DPA activities and the teacher will use his/her own classroom, which may be very limited in space. This is a typical situation in many schools. Therefore the genuineness of this setting might have been compromised due to this decision. However, if the school is previously equipped, then it is harder to choose not to take advantage of the situation. The same type of activities could have taken place in my classroom as well. Due to the resources supplied at my school, we were fortunate. The budget and resources at most schools, may not allow students to have access to yoga mats unless a yoga program is in place or yoga is incorporated into gym or extra-curricular activities already. Would the results of this study be different if students did not have yoga mats? In my opinion no, because most of the postures taught involved sitting or standing poses that students only need a small
space to practice in and could be practiced in a regular classroom setting, without mats, very easily.

**Future Implications of this Research:**

Upon completion of this study, results will be shared with parents and students in the form of a letter and a copy of this study will be donated to the school library. Families will be able to sign out the thesis to read at their own leisure.

The goal of the study was to explore the benefits of yoga for children and to provide a possible new interpretation for educators to utilize the phys-ed curriculum and policies set out by the Ontario Ministry of Education with a new perspective. This thesis will contribute to opening up a space for a more inclusive/holistic approach. Since this study did prove success with the use of yoga in one classroom and might help to create successful in other classrooms. This study could have great implications for improving the health and physical well being of students in Ontario. This research provides further avenues for students to become healthier in a way that is different from what is currently practiced.

We can apply this research to the field of physical education by creating concrete resources for DPA to supply to the Ministry of Education, which would become easily accessible to all schools. Schools could implement programs that successfully integrate yoga into their schools, thus paving the way for further research to occur with different age groups and within various school communities.

My findings question and explain theory practically. My narrative is a candid view of how I came to find yoga personally and spiritually, and as an educator on a personal search to reveal my identity. When I read my student responses and analyzed the data, I looked for connections between theories of identity and how my students experienced themselves through the practice of yoga. I question whether participation in yoga makes
them feel a certain way that’s different from when they participate in other phys-ed activities? I did qualitatively find out how yoga makes students feel after participating in yoga on a regular basis but I did not compare this feeling or their answers to other activities they participate in.

The answer to this question would be a great starting point to further my research in a doctoral thesis. There will naturally be a comparison between yoga and other types of physical activity to which students are accustomed. If this comparison is significant and students end up feeling better about themselves as they practice yoga, this conclusion may support the implementation of yoga in the school system even further. This exposure may create a move away from traditional types of physical education programming and encourage further revision of ministry policies to reflect this change.

Evaluation of policy mandates and curriculum documents are an important force driving the nature of this research. It is important to keep up to date with the success of the new curriculum and how teachers perceive the quality of their physical education programming. The significance of how teachers view the new physical education curriculum will provide conclusions and offer further suggestions as to how we can improve educational materials to make these resources more inclusive of student needs.

I plan to share my research results with the head of the Daily Physical Education initiative at the Ontario Ministry of Education with whom I have spoken with. Hopefully, my research will have an impact on the type of research that is accessible to educators. This new research may shed further light on possible revisions to policies and teaching materials that are available in schools to further include yoga in the language of physical education as it relates to a Canadian context.

As further research on this topic is conducted and more consistent results have been found to support the use of yoga during physical activity in various classrooms, then the
next worthwhile step would be to create an action plan that could guide successful implementation of yoga on a system wide level.
Chapter Seven-References:


Canadian Association for Health, Physical Education, Recreation and Dance Research Department. (1992)


Ontario College of Teachers, State of the Teaching Profession, An annual Compas report, Public Opinion and Research Inc. (July 31, 2006).


Chapter Eight-Appendices:

Appendix 1-Parent/Student Consent letter

Dear Parents or Guardian,

I am currently a student at the Ontario Institute for Studies in Education and a teacher-researcher studying the benefits of yoga for children. I am interested in determining the effects that yoga can have on a child’s physical well being when practiced regularly during daily physical activity (DPA). Yoga is a physical activity that is holistic in nature and can have a positive impact on a child’s physical, emotional and mental growth. By studying the positive impact of yoga for children, such information will be useful to schools in designing better physical education programming that encompasses a holistic framework and appeals to a wide variety of students.

The External Research Review Committee at The University of Toronto, The Toronto District School Board and the school principal has granted approval of this study to take place at ________Public School, in your son/daughter’s grade four classroom this year.

Your son/daughter will be asked to consent to this letter if they wish to participate in this research study starting September 30th, 2009 and ending December 1st, 2009. Your son/daughter will be asked to take part in two private one-on-one interviews lasting approximately 5 minutes at the beginning of the research study as well as at the end of the study. These interviews will ask questions about student thoughts and views about yoga at the onset of the research and then at the end to determine whether student thoughts or opinions have changed in any way.

An information session will be held on September 29th to inform participants about the nature of this study. Starting September 30th, students who provide written consent and wish to participate in this study will participate in two weekly yoga sessions on Day 2 and Day 4 mornings from 8:45 to 9:00a.m. during DPA.

I am a certified yoga instructor and will be leading each of the yoga sessions. Students will need to arrive at school promptly for each session. After these yoga sessions, students will engage in written reflection in a personal journal about new learning, challenges, growth and physical experiences.

Students who choose not to participate will participate in another activity with a fellow staff member. Student’s participation in this study is voluntary and will not effect their attendance in class or his/her evaluation by the school. All information collected will be strictly confidential. After all data has been collected, students will not be identified individually.
Please indicate on the attached form whether you permit your son/daughter to take part in this study. Students who wish to participate will also need to consent as well on the form below. Your cooperation will be very much appreciated. Please contact me at msrogersclass@gmail.com if you have further questions. Feel free to contact the Office of Research Ethics, McMurrich Building, 12 Queen’s Park Crescent W, 3rd Floor or (416) 946 3273 if you have any questions, concerns or would like to become more aware of your rights. The deadline to return consent forms is September 25th, 2009.

Sincerely,

Mrs. Rogers
Appendix 2-Student Consent Form

☐ YES I, ___________________________, am informed of the nature of the research

   (Student name)

and I agree to participate in this research study.

☐ NO I, _________________________, do not wish to participate in this research study.

   (Student name)

Student
Signature_________________________Date:_____________________
__

PARENTAL/GUARDIAN CONSENT FORM

☐ YES, I am informed of the nature of this research and I agree to allow my child___________________, to participate in this research study.

   (Child’s name)

☐ NO, I do not allow my child___________________, to participate in this research study.  (Child’s name)

Parent/Guardian’s signature: _______________________
Date:_____________________

Feel free to contact the Office of Research Ethics, McMurrich Building, 12 Queen’s Park Crescent W, 3rd Floor or (416) 946 3273 if you have any questions, concerns or would like to become more aware of your rights.
Appendix 3-Copy of Pre-Research Student Questionnaire

1. What type of physical activity do you usually like to do?

2. Have you ever done yoga before? If so when? Where? How many times?

3. What do you think of, when you hear the word yoga?

4. What do you picture when you hear of a person who does yoga a lot?

5. Why do you think people do yoga?

6. Do you think boys or girls would like yoga equally or one would like it more? Why?

7. How can yoga help children?

8. Do you think yoga is difficult? Why?

9. Do you think that yoga could be practiced in a school setting? Why or why not?

10. Do you think that yoga could be part of gym? Or the classroom routines? DPA?
Appendix 4-Copy of Post-Research Student Questionnaire

1. What part of yoga did you really like?

2. What part of yoga did you find the most difficult?

3. Would you like to continue doing yoga in school? Why or why not?

4. Did you enjoy practicing yoga during DPA? Why or Why not?

5. How did you find that yoga helped you at all with your body/physical ability?

6. Has yoga helped at all in school? If so, how?

7. Now, what do you picture when you hear of a person who does yoga a lot?

8. Based on your experience, why do you think people do yoga?

9. How can yoga benefit children if practiced daily?

10. How do you think yoga could fit into the school day best? (Gym, DPA, Class)

11. Have your thoughts or views about yoga changed at all since the beginning of this research? Explain.
Appendix 5-Non-Standard Observational Key Words Checklist

These key words are used to help guide the analysis of student’s journal reflections. These words will help identify patterns, trends, common themes that occur within their writing. These themes may reflect general growth, changes, challenges, similar experiences, thoughts etc… that students experienced after participating in the yoga sessions.

My body…

Stretching/stretched/stretches

Flexibility

Twisting

Bending

I can’t

Feeling frustrated

Strong

Muscles

Balanced/balancing/balance

Makes me feel happy.

I like to do…

This is my favourite posture because…

Makes me feel…

When I do yoga I…
Appendix 6-Confidentiality Agreement

I _____________________ have been asked to assist the principal investigator, Deborah Rogers during the data collection period, pertaining to her research study “A New Approach to Holistic Physical Education: Yoga in the Classroom”.

My responsibilities during this research will include:
- Conducting individual, confidential student interviews prior to and post research
- Observing yoga sessions and taking anecdotal field notes
- Assisting with analyzing student journals.

I am aware that as a research assistant, I am obligated to maintain student confidentiality and to keep the data collected secure and private at all times. I am not to share any information with anyone outside of this research project.

Signature____________________________
Date______________________________
Appendix 7-Research Assistant Flyer

Are you interested in assisting a M.A. student with research?

This research study will look at the effects of the use of yoga for children during DPA.

Please contact Deborah Rogers at: deb.rogers@utoronto.ca

for further information about the purpose of the study and the research assistant position!!