

Why Don't Intermediate Teachers Go Outside?

by

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Abstract

The benefits of spending time outdoors and connecting with the natural world are becoming increasingly recognized, with outdoor education gaining more acceptance and visibility in our society. Unfortunately, traditional schools in Ontario, Canada have not yet shown that they are well-equipped to offer all students access to the benefits provided by outdoor instruction. In my experience as an intermediate teacher, I have found that grade 7 and 8 students feel disconnected from the natural world, yet I and my fellow educators make few attempts to give them the tools they need to see how interconnected they are with the environment around them. In order to understand why other intermediate educators stay indoors and do not take advantage of the outdoor learning spaces and tools around them, I interviewed seven grade 7 and 8 teachers. The teachers all work for the same school board, range in age and experience, and teach in both rural and urban settings. Most of the teachers interviewed had never really considered the advantages of taking their students outdoors. They identified barriers to getting outdoors like curricular expectations, reliance on technology for instruction, and their students' reactions to learning outdoors. In order for intermediate teachers to get outside to instruct their students, they will require professional development, including building their knowledge of the benefits of going outside to meet curricular expectations, and time to work on how best to integrate outdoor instruction into their teaching practices. Until the education system fully acknowledges the importance of students learning outside and better supports teachers to do so, it will be up to individual teachers to do what is best for their intermediate students and get outside as often as possible to meet curricular expectations.

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Chapter 1: Introduction

In September of 2017, I began teaching grade 7 at a new school that had opened in 2016. Several years prior, I had taught at one of the schools that closed to make way for the opening of this new school. I was excited to return to the community and to revive the Eco Team, an extracurricular club for students that had been inactive since I left. The first project the new Eco Team planned was to challenge each of the 25 classes in the school to get outside for one period in the first week of October. I was excited about this initiative as I believe that “the way to fuel a student's long-term passion for environmental justice is to deepen their relationship with their place” (Hansen, 2014, p. 60). When I brought this idea to my principal to see if we could begin this initiative, her response was, “What’s the point?” I do not believe that my principal’s response was atypical. Her question made me realize that there is a lot of work to be done to demonstrate to other educators and administrators that going outside is beneficial for student learning. Fortunately, the Eco Team was given permission to proceed with their project, and in my email to the school staff sharing details of the initiative, I made sure that I provided them with information about the benefits students accrue from spending time in the natural world.

Many researchers argue that spending time outside results in healthier, happier, more engaged, and creative children who benefit society (e.g., Banack, 2015; Williams, 2017), so why are most schoolyards empty except during recess? The goal of my research, then, was to discover why my fellow intermediate teachers do not choose to go outside to teach their students during the school day. As an intermediate teacher, I understand that the sometimes competing expectations of administrators, parents, secondary teachers, the curriculum, and of the students themselves can be overwhelming. I recognize the challenges and demands of the job and feeling like it is impossible to add something else into this delicate balance of expectations. Taking

students outside can feel like one more “add-on” for many teachers and neither reasonable nor worth it for most of the teachers I knew.

If the response my principal gave to the Eco Team initiative to get all classes outside briefly for one learning opportunity is at all typical, going outside to teach intermediate students seems to require a paradigm shift for many if not most educators; I suspected it was, given my own experience and observations. Even for me, someone who cares very much about the connection my students have to the natural world, it is difficult to get my students outside as often as I would like. I knew some of the challenges I personally faced and I was interested in discovering the reasons why most intermediate teachers do not go outside.

Through semi-structured interviews with practicing intermediate teachers, it was my aim to discover why they do not go outside to teach. (I was also interested in why some intermediate teachers *do* go outside to teach, but I was most interested in talking with reluctant teachers.) Some researchers recommend that teachers use the outdoors for authentic instruction whenever possible (Carrier, 2009), but through my teaching career, I have rarely seen the outdoors being used as a tool for instruction. Fägerstam and Blom (2013) say that going outside allows students to learn in a more contextualized and interactive way and allows them to be active participants in their own learning. Most teachers would agree that authentic, experiential, and empowering learning is the goal of education, so why do teachers not take advantage of the opportunity to go outside as a tool that helps them meet these goals?

Personal Background and Context

Growing up on a farm in southwestern Ontario, I respected the natural world as I knew that my family's livelihood depended upon it. I only understood conservation, however, as it related to farming and the values of the protestant Christianity in which I was immersed as a

child. Going to elementary and secondary school in a small, rural community, most of my classmates appeared to have the same understandings about the natural world. It was the 1980s and 1990s, so schools were just beginning to teach about recycling and the human impact on the environment. All the learning I did about the environment was theoretical; no teacher ever took me outside to learn beyond the occasional physical education class (and then only when it was warm and dry outside). In my public school educational experience, I did not gain an appreciation for the way natural systems functioned, interacted, or were necessary for my survival.

When I was a teenager, I worked at a Presbyterian summer camp, Camp Kintail, situated on the shore of Lake Huron. It was here that I experienced the wonder and beauty in the natural world and here that I learned that there was sanctuary to be found in the natural world. When I was in university, I worked each summer at the YMCA Outdoor Centre near St. Clements, Ontario. At the Outdoor Centre, I instructed a program called Earthkeepers, and this is how I finally came to understand the way matter cycles and energy flows in an ecosystem. I somehow got through elementary school, high school, and into university without developing this understanding.

After I earned my B.Ed., I spent several years travelling and teaching around the world. In those years, I came to further appreciate the majesty and restorative power found in the natural world. When I taught in Gumi, South Korea, I saw the way the residents streamed into Geumosan Provincial Park on the weekends to immerse themselves in nature. When I taught in London, England, my Underground station entrance and exit was at the gate of Kensington Gardens and each day after school, I would stop in the Gardens to read my book before going home. The Gardens were a refuge for me and for many others in the centre of the metropolis.

When I worked as a tour guide in Europe, watching Australians walk in snow for the first time never became mundane. What a privilege it was to experience the wonder of the natural world while driving through the Dolomites, biking in the Alps, swimming in the Mediterranean Sea, and witnessing the sun rising over Corfu. In Egypt, I learned some of the ways tourism impacts the natural world, and in Australia, I understood for the first time what it meant for farmers to experience a drought that impacted not only their livelihoods, but also their mental health. I took all these experiences with me into the classroom when I came back to Ontario.

When I began teaching in Ontario, I was idealistic about the ways I could integrate environmental education into the curriculum and did not yet understand how few educators seemed interested in exploring environmental issues with their students. In the ten years I have been teaching for a small school board in southwestern Ontario, I have seen support for environmental initiatives rise and fall. For example, in 2011 and 2012, the school board hosted an awards ceremony for “Eco Stars.” Many schools were represented at the ceremony and staff and students were recognized for their work with Eco Schools Ontario. It turns out that period was a high point because now, in 2018, only two schools in my board are certified by Ontario Eco Schools. For several years, the Environment Lead Teacher for the school board was also a Teaching Learning Coach focusing on secondary math. With such a focus on math instruction in Ontario currently, the portion of her job occupied by environmental issues was minimal. I recently discovered that as of the 2017-18 school year, there is no longer a teacher or administrator employed by the board who is responsible for environmental education.

In the 2015-16 school year, I realized that I needed help to learn how to more effectively teach my intermediate students about the environment. My class of grade 8 students was having a discussion about water conservation, and one of my students put up her hand to say that she

thought that the only reason to conserve water was to save money. I was alarmed. A child had successfully navigated almost ten years in the education system and she had no real understanding of conservation. I started to look at my own teaching to see what I could do better. It became clear to me that I had been teaching my students only about environmental problems, not about the wonders of the natural world. I realized that I did not know how to share the wonder within the confines of a traditional elementary school. I knew that I had to try to get my students outside to experience the natural world. Yet I also knew that doing this would push against the traditional experience and expectations of administrators, parents, colleagues, and of the intermediate students themselves. I thus decided that I needed more formal education to help me make sure I was educating my students well, which led me to graduate studies at Lakehead University, where I have been able to explore the benefits of teaching outdoors.

My research is important because the world is facing unprecedented environmental changes and challenges. Educators need to confront these issues, but many do not have the tools or knowledge to teach effectively about the environment. Too often, I have taught my students about the challenges facing the environment from inside the classroom, as if the environment was an item to be studied, not something to which we are all intimately connected. Fostering connections to the natural world by being in it and experiencing its value while at school may help our students as they confront and manage environmental challenges. It is important to understand why most teachers choose to teach inside in order to overcome these boundaries and barriers that are preventing them from going outdoors. Realizing not all teachers have the same background or interests as me, I wanted to find out what might be holding other educators back from teaching outdoors.

Research Question

My overarching research question was: Why do most intermediate teachers not take their students outside to meet curricular expectations?

Chapter 2: Literature Review

As a former primary teacher, I know there are many ways primary teachers can use the outdoors to meet their curricular expectations: for example, their students can count, sort, observe natural phenomena, and write about their experiences. The curricular connections do not seem to be as clear for intermediate teachers. After many years teaching grade 7 and 8 students, I have experienced the demands and expectations placed on intermediate teachers and I know that, in my context, the benefits of being outdoors are not promoted and may not even be recognized by my intermediate colleagues. I suspect my experiences are not atypical and that in the face of these challenges, many, if not most, intermediate students at public schools in Ontario are not accruing the benefits of learning in the outdoors. Feille (2013) suggests that for many teachers, the classroom feels safe, clean, and familiar, even for teachers like me who recognize the value in learning in the natural world. As learning in the outdoors could be a new and potentially overwhelming idea for teachers, Feille (2013) thus recommends that teachers need to hear that they can start small, see what works for them, observe the benefits, and then from there start to expand their outdoor teaching.

This literature review explores why learning outdoors matters and some of the reasons teaching outside is challenging for intermediate teachers in traditional elementary schools. I analyse what the literature says about the academic, social, and mental health benefits of learning outdoors for intermediate students. The review examines the link between going outside and students' care for and connection to the natural world. I also look at literature that explains how learning in the schoolyard or local contexts can build connections to the natural world, especially since research indicates that many teachers think that interacting with the natural world can occur only on trips to dedicated outdoor education centres or wilderness areas (Banack, 2015). As

students' interactions with the natural world during the school day depend on their teachers taking them outside, I will conclude my literature review with an examination of some of the reasons educators appear to find it challenging to integrate going outside into their practice, including curricular constraints and lack of professional development.

Environmental Education

Today, we are facing unprecedented environmental problems and lack of experience with the natural world is seen as one of the root causes (Louv, 2008; Tan & Pedretti, 2010). One way educators can address environmental challenges is through environmental education, which seeks to foster informed, engaged environmental citizenship through promoting an appreciation for, understanding of, and concern for the environment (Bondar et al., 2007). Environmental education also endeavours to cultivate a love for nature, knowledge of the natural world, pro-environmental attitudes and behaviours, and the skills to act to protect the environment (Steen, 2003; Williams & Chawla, 2016). Because of the pressing issues of climate change, pollution, deforestation, and loss of biodiversity that confront us daily, environmental education has reached some degree of prominence in the public imagination (Tan & Pedretti, 2010). Teaching environmental content is important to most teachers, but it is fraught with many challenges and complexities (Tan & Pedretti, 2010); these challenges will be addressed in detail later in this paper. There are different approaches to and foci in environmental education (Russell, Bell, & Fawcett, 2000; Sauv e, 2005; Stevenson, Brody, Dillon & Wals, 2014), but a full review of all of these is beyond the scope of this literature review; instead, below I touch on concepts that I believe may be particularly salient for intermediate teachers.

Outdoor education. Outdoor education is a distinct and critical component of environmental education. Outdoor education is concerned with providing experiential learning in

the environment in order to foster connections to local places, developing a greater understanding of ecosystems on which students rely, and providing a unique context for learning (Bondar et al., 2007). Outdoor education promotes not just environmental learning, but also supports personal development (Harris, 2017). It can be approached in many ways. For example, many schools develop their school grounds and play areas for outdoor learning, and some promote and support offsite day trips or residential field trips to outdoor education centres (Harris, 2017). Further on in this literature review, I will be focusing on school-based outdoor education in traditional public elementary schools in Ontario, specifically for students at the intermediate level.

The outdoors can be either the venue for a lesson (e.g., going outside to read) or it can provide the content of a lesson (e.g., ecological relations like consumers, producers, and decomposers) (Broda, 2007). I wonder if using the outdoors as a venue for a lesson might be a stepping stone for teachers unsure if they can teach environmental content outdoors to first allow them to feel comfortable enough to just being outside with students, which may lead to the inadvertent use of the natural world as content for a real-time, real-world lesson (e.g., while reading outdoors, a student observes a spider spinning a web).

Environmental literacy. Environmental literacy is an important outcome of environmental education (Bondar, et al, 2007). Environmental literacy is “the degree of our capacity to perceive and interpret the relative health of environmental systems and to take appropriate action to maintain, restore, or improve the health of those systems” (Roth, 1992, p. 5). Bell (1997) believes there is a widespread, institutionalized disregard for nature experience and study in traditional schools. I have firsthand experience of this as previously noted in the comments made by my former student about water conservation. Orr (1991) argues that no

student should graduate from the education system without basic environmental literacy so that they can understand and work to protect the environment given we depend upon nature for our survival.

It is a truism in environmental education that in order to protect the natural world, you need to love it, know it, see it, hear it, and sense it (Broda, 2007; Jensen, 2013; Louv, 2011). Learning outside can help students make connections with the natural world and aid in their understanding of the importance of the environment (Cormell & Ivey, 2012). To connect with the natural world, students need to go out in it, wherever that might be, including in a city, and pay attention to what is going on outside (Jensen, 2013). In their cross-cultural study exploring the relationship between environmental education and pro-environmental behaviours, Ajaps and McLellan (2015) found that when students were outside, immersed in the natural world, connections with nature were built and students developed ecocentric values. Goleman, Bennett, and Barlow (2012) say that when students are environmentally literate, they will begin to recognize the implications of their behaviour and they will have the knowledge to make choices that reduce their impact on the environment. That being said, Russell (1999) cautions environmental educators to critically reflect on their practices and to not accept the simplistic idea that merely having experiences in the outdoors will inevitably result in students who will be motivated to protect and care for the environment; teachers need to facilitate these outdoor experiences carefully in order to ensure they meet learning goals. When that happens, going outside is indeed one tool educators have to help foster connections to the natural world in their students (Dillon, Dickinson, Teamey, Morris, Choi, Sanders, & Benefield, 2006).

It is argued that the protection of the natural world depends on the attachment a child develops to nature (Louv, 2008). When students are taught environmental literacy, they may

develop empathy for all life forms and they begin to recognize that they are part of a web, not apart from the natural world (Goleman et al., 2012). If students understand that their lives are connected to the lives of other living things, they might be motivated to make more environmentally conscious decisions. When students embrace their connections to the natural world, they may recognize the negative impacts of human behaviour, but they will also realize that they have the potential to create a positive impact on the environment (Goleman et al., 2012).

Pro-environmental behaviours. The way I teach environmental issues has evolved as my teaching career has progressed. When I started teaching, I thought that teaching about environmental problems and focusing on individual actions were effective ways to encourage students to care about the natural world. The result of this focus was having students who sorted waste well and worried about environmental issues - not the result for which I was aiming. The environmental knowledge I imparted did not translate into meaningful action or change.

Pro-environmental behaviour is defined as “behaviour that consciously seeks to minimize the negative impact of one’s actions on the natural and built world” (Kollmuss & Agyeman, 2002, p. 240). Early models of pro-environmental behaviour assumed that educating students about environmental issues would lead to environmental awareness and concern, which in turn, would lead to pro-environmental behaviour, but those models have proven to be too simplistic (Kollmuss & Agyeman, 2002). The connection between environmental knowledge and behaviour is not yet well understood. In their study of a secondary school environmental studies program in Ontario, Breunig, Murtell, Russell, and Howard (2013) found that students felt little incentive to act pro-environmentally, were unsure whether real change was possible, and were frustrated with the attitudes and behaviours of others. As educators, we are not doing a good

enough job of creating informed, optimistic, and empowered students who will be interested in and capable of meeting the environmental challenges they will inevitably face.

Kollmuss and Agyeman (2002) found that education is not the only factor influencing pro-environmental behaviour and that emotional investment plays a role (see Figure 1).

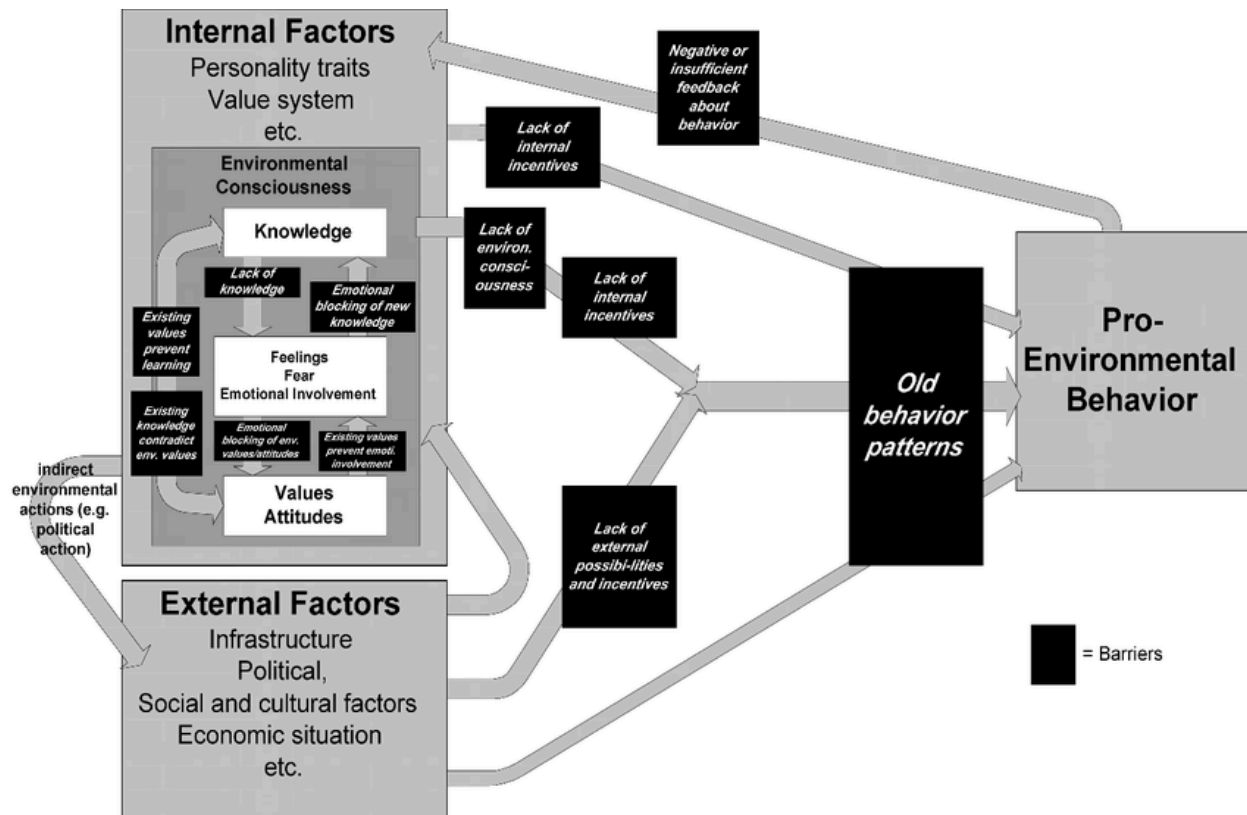


Figure 1. Model of pro-environmental behaviour (from Kollmuss & Agyeman, 2002)

As well, researchers have also found that time outdoors fosters pro-environmental behaviour and higher levels of environmental sensitivity (e.g., Ajaps & McLellan, 2015; Nazir & Pedretti, 2016; Stevenson, Peterson, Bondell, Mertig, & Moore, 2013; Stevenson, Peterson, Carrier, Strand, Bondell, Kirby-Hathaway, & Moore, 2014). As an educator, I have re-focused my

teaching about the environment on creating connections with local ecosystems and local natural phenomena in order to inspire greater pro-environmental behaviours in my students. Students and teachers at many schools, including mine, do not have access to wilderness areas, so I am not able to provide my students with immersive experiences in pristine nature. Recognizing that educators still need to find practical and purposeful ways to provide nature experiences for their students, there are many outdoor experiences students can have in a schoolyard that do not involve immersion in wilderness. For example, Selhub and Logan (2014) found that students who participated in a school gardening program demonstrated more pro-environmental behaviours than students who did not and when they became adults, they placed a higher value on trees than people who did not learn to garden at school. Grounding environmental education in the local community might free educators to foster pro-environmental behaviours that are small and realistically attainable to intermediate teachers, and can nonetheless still have a positive impact.

Significant life experiences. Chawla (1988) explains that concern for the natural world is shaped by social learning and by opportunities for direct contact with nature. Significant life experience (commonly known as “SLE”) research suggests that there are three factors that lead to environmentally active adults: formative outdoor experiences as a child, adult role models who facilitated these experiences, and reading nature books (Stevenson et al, 2014). The SLE research certainly helps to explain my care for and connection to nature and my desire to provide opportunities for my students to connect with the natural world. Educators are well placed to provide experiences that aim to create significant life experiences for their own students.

Williams and Chawla (2016) outline the memories that remained salient to former participants in nature-based environmental education programs that they studied: inspiring program staff, sense

of community and collective identity, taking responsibility for action, and overcoming fears. Given this research, it seems important for teachers to know that they have the opportunity to create memorable outdoor experiences for their students.

The SLE research may explain why some educators choose to go outside with their students, and their past experiences may inform how they plan to go outside, but these outdoor experiences may not necessarily lead to the outcomes educators have in mind. Stevenson et al. (2014) studied how significant life experience is related to environmental knowledge and pro-environment behaviours among middle school students in North Carolina and found that some variables previous research had suggested were integral, may not always be so, but time outdoors is at least weakly correlated to pro-environmental behaviours. Given that, they recommend that efforts should continue to be made to promote outdoor activities that encourage direct interaction with nature for intermediate students.

Feille (2013) also found that a teacher's background makes a difference in how they choose to teach. She found that teachers who make the decision to teach outside had spent a lot of time outdoors when they were growing up (Feille, 2013). Conversely, if teachers do not have a strong belief in the importance of going outside that is informed by life experience, it is more difficult for them to teach in the outdoors (Eick, 2011). Without positive significant life experiences in the outdoors, then, teachers may not feel comfortable going outside and it may not even occur to them that there is value in going outside to teach.

The Ontario context. The policy framework for EE in Ontario schools recognizes that today's students are ultimately responsible for environmental solutions, thus the education system must provide them with the skills, perspectives, and practices they will need to meet

these environmental challenges (Ontario Ministry of Education, 2009). It is provincial policy to promote EE across the curriculum:

Ontario's education system will prepare students with the knowledge, skills, perspectives, and practices they need to be environmentally responsible citizens. Students will understand our fundamental connections to each other and to the natural world around us through our relationship to food, water, energy, air, and land, and our interactions with all living things. The education system will provide opportunities with the classroom and community for students to engage in action that deepens this understanding. (Ontario Ministry of Education, 2009, p. 6)¹

Policy does not always get implemented as intended, however. For example, in Pedretti and Nazir's (2014) study of 377 educators in Ontario, they found that while 92% of teachers integrated environmental education into their teaching at some point, only 47% of respondents participated in environmental education at least once a week in their classrooms. They argue that the lack of professional development in both environmental education and outdoor education is one reason teachers do not incorporate environmental education more regularly and effectively in their teaching practice (Pedretti & Nazir, 2014).

Place-based teaching. One way to fuel a student's passion for environmental issues is to deepen their relationship with their place (Hansen, 2014). When teaching about the natural world, educators need to move from indoor lessons that teach about outdoor places in the abstract to actually teaching *about* the outdoors *in* the outdoors (Gruenwald, 2003). The best way to get to know the environment in which you live is to spend time in it. Thus it is recommended that teachers provide hands-on learning opportunities outside the classroom because when students learn through experience in a place, they may develop an attachment to that place (Kudryavtsev, Stedman, & Krasny, 2012). If a child gets to know the environment in which they

¹ For readability, I have chosen to depart from standard APA formatting and am single-spacing block quotations, which is particularly helpful when sharing excerpts from participant interviews.

live, the knowledge they gain about their place could inspire them to positive environmental action (Norðdahl & Jóhannesson, 2016).

Orr (2007) cautions that attachment to place is not as likely in cities as he believes that many city dwellers have a sense of habitat shaped by familiarity, but not a deep sense of place, which he defines as an “affinity for what nature - not humans - has done in a particular location and the competence to live accordingly” (p. 50). Most schools do not have regular access to wilderness areas, so educators have to use what they have available to them. Fortunately, there is increasing attention to the possibilities of urban environmental education and some educators have described ways in which a sense of place can indeed be fostered in urban areas (Hansen, 2014; Russ, 2016).

Attachment to place develops through direct, frequent, and positive experiences in places (Kudryavtsev et al., 2012). Gruenwald (2003) believes that in order to gain the knowledge to act to protect a place, students must go outside regularly to form long-term relationships with the place in which they live and study. Orr (2007) argues that finding what Rachel Carson called “the sense of wonder” depends on children repeatedly experiencing nature and being validated by adults when doing so. To facilitate this, schools are well placed to facilitate students’ attachment to their place through consistent exposure to nearby nature and validation from a trusted adult, the teacher. When students have developed that attachment to place, they can begin to see how their own place fits in the world. The more students understand their place, the more they can see how their place is impacted by other places and how their place impacts other places (Chang, 2017, Schindel & Tolbert, 2017).

Most students live in urban areas, yet they may not recognize that nature still exists in urban settings. It can be challenging for them to find and explore the natural world (Feille, 2013),

but all urban areas have hidden and not-so-hidden pockets of natural areas that can be found and explored by educators and students (Hansen, 2014). Connecting all students to place should help them face the unprecedented ecological challenges they will be tasked with addressing, and as noted earlier, a focus on teaching environmental literacy can help students face current and future environmental issues (Ferreira, Grueber, & Yarema, 2012).

Using the schoolyard and community. Learning in the outdoors does not have to be complicated! Outside the walls of the school, there typically is a natural area that is freely available and convenient: the schoolyard (Banack, 2014; Rios & Brewer, 2014). Teachers can view their schoolyard as an extension of the classroom (Broda, 2007; Ferreira, Grueber, & Yarema, 2012) and use it to provide real-world, hands-on learning opportunities. The schoolyard offers relevant, experiential, and accessible learning opportunities for all students (Banack, 2014); the challenge for educators is to learn how to use this space effectively. Because students must have repeated exposure in order to form connections to the natural world (Rios & Brewer, 2014), the schoolyard offers opportunities in a way that a one-time field trip to a natural area cannot. Further, if teachers feel comfortable teaching in the schoolyard, they will be more likely to venture beyond the schoolyard to use the community as a teaching venue and tool (Broda, 2007).

The community can be used as a source of inquiry throughout the school year (Ferreira, Grueber, & Yarema, 2012). Learning outdoors does not have to stop at the edge of the schoolyard. Schools are part of communities and going out into the community helps students develop a sense of place and it helps them learn the value of responsible citizenship (Grant & Littlejohn, 2004). Learning outside does not need to focus exclusively on the natural world.

Using the constructed environment also can teach students about the history and culture of the place they live (Norðdahl & Jóhannesson, 2016).

Outdoor classrooms also can strengthen a sense of community at a school (Ferreira, Grueber, & Yarema, 2012). Schoolyards are very different from school to school, so the opportunities and challenges of installing outdoor classrooms and gardens are varied (Broda, 2007). Outdoor classrooms and gardens can act as both venues and content for teachers wanting to go outside. If outdoor learning spaces are going to be used regularly by teachers, they need to be functional, interesting, and comfortable (Broda, 2007). Establishing outdoor learning spaces do not just benefit the students who have teachers who will take them outside to learn, they are also available at recess for all students to explore (Eick, 2011). I know from my own experience installing outdoor learning spaces at three different schools, if a school does not have an outdoor garden or classroom already, in order to create this space, the administration and school community must be supportive in order to get the funding and permission to create this outdoor learning space.

Taking action. Translating environmental knowledge into meaningful action is essential if ecological issues are to be addressed. In order for students to act on environmental issues, they should feel like environmental disaster is not inevitable. Sobel (1996) found that not one of the conservationists he surveyed explained her or his dedication to environmental issues as a reaction against exposure to an ugly environment. If educators want to inspire actions, they should ensure their students do not feel overwhelmed by the environmental issues that they are being asked to address. Mitchell (2014) argues that students are not indifferent to environmental issues; rather they are scared. Educators telling their students that their world is wrecked may inadvertently be perpetuating fear of the environment in students (Kelsey, 2016). Students are

often so overwhelmed and discouraged by the negative information they receive about environmental issues that they do not know what actions to take to create a healthier environment (Ajaps & McLellan, 2015). Chang (2016) says that instead of scaring students with environmental catastrophes, educators should help their students establish positive, caring attachments to their environment. Kelsey (2016) found that providing students with hope that they can face environmental challenges does not lead to complacency, but instead serves as a motivator.

Teachers who try to provide students with opportunities to act to improve the environment can feel like they are swimming upstream in the education system (Hammond, 1996). Hammond (1996) believes that through real world, teacher-supported environmental activism, students learn *about*, *through*, and *from* their action. When students are given the opportunity to act, they recognize the complexity of the issue at hand and they develop the critical thinking skills needed to address the problem (Grant & Littlejohn, 2004). For teachers, introducing authentic action can disrupt their traditional teaching practices and established plans for meeting curriculum outcomes, but my experience with facilitating action learning with my students indicates it can be worth it. In my case, action learning led to students who feel empowered and who are learning the lifelong skill of acting when they see an injustice.

Technology. The education system's devotion to mechanism makes it almost impossible for students to think ecologically (Steen, 2003). With increased time in front of screens, it is argued that our mindful engagement with the natural world is decreasing (Selhub & Logan, 2014). Today, most children spend less time outside and more time on the internet. They learn about exotic plants and animals and are less aware of biodiversity and their local ecosystems.

This can lead to children who care more for distant species than for the species that exist in their own backyards (Selhub & Logan, 2014).

Technology is ubiquitous in the lives of most adolescents, so educators need to harness the power of technology to encourage interactions with the natural world (Boyce et al., 2014). As students become more comfortable with being outside, they rely less on technology and focus more on the nature in which they are immersed (Boyce et al., 2014). We cannot turn back the tide of technology, but we can teach our students to use its power to help make connections to the natural world instead of using it in ways that increase their disconnect from nature (Hougham & Kerlin, 2016). For example, Hougham and Kerlin (2016) describe a number of apps that can be used by teachers outside, particularly in science-focused learning, and Keillor (2015) shares the cross-curricular possibilities of using digital photography in outdoor education with elementary students.

Benefits of Learning in the Outdoors

In this section, I will outline the benefits students accrue from learning outside the classroom. As trips to outdoor education centres are not something in which most students are able to participate on a regular basis, I will focus on outdoor learning in the schoolyard or in the community, as these are readily accessible to most teachers. My focus is on intermediate students because in my experience as an elementary teacher, intermediate teachers spend less time outside with their students than teachers in other elementary divisions.

Academic benefits. When asked to describe an intermediate classroom, most would describe a room with four walls and a ceiling. We need to consider pushing the boundaries of what we consider a classroom to include the natural world because natural spaces stimulate our ability to pay attention, think clearly, and to be more creative (Louv, 2011; Williams, 2017).

Teaching content outside can help students feel that they have a deeper understanding of the topic they are investigating when they have had their hands on the learning instead of reading about it in a textbook (Fägerstam & Blom, 2013).

Fägerstam and Blom (2013) studied a group of grade 7 and 8 Swedish students and compared the academic results of students who spent time learning math and science outdoors with students who learned exclusively indoors. They found that the students who learned outdoors recalled the lessons better than students who learned the same content indoors, and they used more specific examples in their responses (Fägerstam & Blom, 2013). Students in the outdoor learning group also reported feeling more focused and alert when learning outside (Fägerstam & Blom, 2013), which is critical for academic success at school. Lieberman and Hoody (1998) found that in comparative studies of language arts standardized test scores, students who learned in an integrated environmental program that involved outdoor learning outperformed students in traditional schools. Also, Cornell and Ivey (2012) found that through student-centred language arts tasks based in students' explorations of the natural world, students develop their reading, writing, speaking, and listening skills and their understanding of the environment increases.

In my own experience, taking students outside sporadically can result in lower productivity as the experience can be initially overstimulating, it lacks the boundaries students are accustomed to in the classroom, and they do not associate being outside with learning but with recess, but with repeated exposure students settle into outdoor learning. If students are to benefit academically from being outside, my experience tells me that they need to have consistent exposure to outdoor teaching so they learn how to learn outside the classroom,

although I wonder if this might sometimes negate the value to be found in the novelty of learning outdoors, which I discuss next.

Novelty and engagement. In Canada, most of a child's formal education happens within the four walls of a classroom. There are exceptions to this for some students; examples include the Environmental School Project in Maple Ridge, British Columbia for students from kindergarten to grade 7 is almost completely outdoor-based (Blenkinsop, 2014; Blenkinsop, Telford, & Morse, 2016) and forest schools where "children are given freedom to pursue a range of activities such as den building, fire lighting, nature craft, or climbing" (Harris, 2017, p. 275). Such projects can be difficult for most teachers to imagine (Blenkinsop, 2014; Blenkinsop, Telford, & Morse, 2016). In discussions with my intermediate students, they too have a difficult time conceiving of spending all day outside while learning the same subject matter as intermediate students who learn indoors.

In traditional elementary schools, by the time a student reaches the intermediate grades, they expect to spend all day, every day, in a classroom. Going outside is a novelty for them. For example, Fägerstam and Blom (2013) found that 14 of the 21 students in their study liked learning outdoors because it was different from the ordinary. In Dhanapal and Lim's (2013) study, they found that students enjoy the novelty of going outside to learn and are more engaged in outdoor lessons. This is important considering that the Canadian Education Association (2009) found that only 37% of grade 6 to 12 students from across the country felt engaged in their core subjects at school. This means that over half of our students are not engaged in what they are doing in schools, so it behooves educators to find ways to motivate and engage students.

Fägerstam and Samuelsson (2014) conducted a study that shows the potential of outdoor education to enhance engagement in core subjects. They studied Year 7 students (students aged

13 years old) in Sweden who had one of four weekly math lessons outside and compared them to students who learned math exclusively indoors. The indoor math lessons included direct instruction, textbook practice, and some problem-solving. The outdoor lessons used textbook problems that were adjusted to suit the outdoor environment or turned into math games (Fägerstam & Samuelsson 2014). The authors found that the intrinsic motivation of students learning math outside did not decline after 10 weeks, but the intrinsic motivation of the students learning the same math inside did decline. Increased engagement through going outside would be positive for intermediate students as the Canadian Education Association (2009) has found that intellectual engagement falls in the intermediate years and generally does not go back up in the older grades. If going outside is a hook that teachers can use to engage their students, why not take advantage of this readily available tool?

Cross-curricular learning. Devoting discrete periods for separate subjects does not resemble the life that students will be living when they leave school (Steen, 2003). An integrated approach to environmental education in Ontario requires that it be highly visible within, and reflected across, the curriculum (Bondar et al., 2017). It is the reality for many intermediate teachers that they teach on a rotary schedule, however, so they may not see many options for teaching across the curriculum. Still, there are examples of teachers who have managed to do so.

Mitchell (2014), a secondary teacher from British Columbia, recognized that his students were afraid of environmental degradation, but did not know what to do about it. His solution was to design a comprehensive course that educated students about the three pillars of sustainability - environmental protection, economic prosperity, and social well-being/equity - that drew from existing science, civics, and geography courses that, when taught separately, only addressed parts of the problem and left students feeling helpless. Based on his experiences teaching his cross-

curricular course, Mitchell (2014) explains that students engaged in cross-curricular learning are more likely to be good problem-solvers because they are not so focused on content-specific knowledge that comes from studying one subject at a time.

Eick (2011) also describes cross-curricular learning (science and language) where students read about what they going to learn about outside, then connect this information to experiences outside, which in turn gives students motivation to conduct further research, bolstering their reading and writing skills. Other examples could be combining science and health through growing and studying vegetables in school gardens (Ferreira, Grueber & Yarema, 2012) or collecting data while identifying living and nonliving elements of ecosystems on the schoolyard (Broda, 2007).

Experiential learning. No matter the environment, learning is more memorable when it is active, experiential, and applicable in the context of the world in which the students are living (James & Williams, 2017). I have worked with intermediate teachers who see the value in experiential learning, but nonetheless abandon the practice because they do not feel that they can cover the required curriculum effectively if they facilitate “messy” learning. Yet Scogin, Kruger, Jekkals, and Steinfeldt (2107) found that experiential learning experiences excite intermediate students and do not negatively affect standardized testing scores. In one large study in California (Lieberman & Hoody, 1998), secondary students from 11 California schools that used environmentally focused experiential learning scored higher in 72 per cent of standardized assessments across the curriculum and similar positive results were found in elementary and middle schools as well.

Dillon et al. (2006) conducted an extensive literature review on outdoor education and found that the literature shows that experiential learning has great value and great potential when

used to learn in the natural world. As well, James and Williams (2017) studied 56 American grade 7 and 8 students who participated in outdoor field experiences and classroom learning about water and its environmental impact. They found that when students are in the field “doing,” their motivation and engagement are high which can lead to long-lasting learning. Further, when math concepts are applied outside the classroom in real-world situations, students connect abstract concepts to hands-on application and math ceases to be an exercise, but instead becomes a tool (Broda, 2007). Fägerstam and Samuelsson (2014) found that when intermediate students learn math outside, they are able to reason, discuss, and put math into practice in ways they could not when learning individually from a textbook.

Teachers can find ways to teach any subject experientially outdoors, but the curricular connections to the natural world are perhaps most clear in science. When students experience science instruction outside, they recognize that science is not something they read about in textbooks, but something that has meaning in their everyday lives (Fägerstam & Blom, 2013). Students learning outside can achieve a deeper understanding of science concepts and processes (Lieberman & Hoody, 1998). In contrast, there is some evidence that teaching about natural science inside on a screen is counterproductive. For example, Stevenson et al. (2014) found that watching nature-related television is negatively correlated with environmental knowledge, and thus recommended that teachers should get outside with their students and encourage them to interact directly with the natural world.

Feille (2013) is passionate about outdoor teaching and studied three teachers from different schools in Texas to discover how they integrated experiential teaching outside into their teaching practice. One of the teachers in Feille’s (2013) study reported that he found teaching outside easier when teaching science because of the clear curricular connections. For teachers

new to teaching outside, identifying curricular expectations in science that can be taught outdoors might be an entry point for going outside to learn.

As a teacher, I know that experiential learning can be time-consuming, sometimes difficult to implement, and does not always have straightforward outcomes. Breaking away from traditional teaching methods was challenging for me; I struggled to not teach the way I was taught and with the concept that the education system could have been getting it so wrong for so long. Some teachers I have worked with see the value in experiential learning, but told me that it did not allow them to cover curricular expectations efficiently, so they stopped taking that approach in their classrooms. If teachers do not buy into experiential learning in the classroom, it might be difficult to convince them to add another layer of challenge by taking this learning outdoors.

Combining classroom teaching with going outside. I know that teaching the entire grade 7 and 8 curricula in a traditional elementary school in Ontario completely outside probably does not feel like a reasonable possibility at this time for most teachers. While the example of Maple Ridge School in British Columbia illustrates that it can be done, it is too big a leap for the vast majority of teachers (Blenkinsop, 2014). However, it is reasonable for intermediate teachers to combine classroom teaching with outside, experiential learning opportunities. Deep and meaningful learning occurs when the learning done outside scaffolds prior learning in the classroom (James & Williams, 2017). Classroom lessons can be enriched through going outside and observing the phenomena taught inside (Rios & Brewer, 2014). Using the natural world to reinforce lessons learned in the classroom brings learning alive for students who struggle with learning exclusively in the classroom (James & Williams, 2017). When teachers mix their

teaching methods by teaching inside and then going outside, there is a greater chance that more students will be motivated by the lesson (Broda, 2007).

Learning for all. Going outside benefits all students, not just those who traditionally succeed inside a classroom (Broda, 2007; Carrier, 2009). A student who struggles in the classroom may become more involved and engaged when learning outdoors (Broda, 2007). Students with identified special needs can benefit from learning outside and they often take on leadership roles when they are participating in experiential learning outdoors (James & Williams, 2017). Further, James and Williams (2017) found that going outside has been shown to motivate apathetic learners, so knowing that going outside will follow learning indoors, reluctant learners, as suggested by Broda (2007), might be more inclined to stay focused indoors in order to get outside faster.

Social benefits. Going outside is not just a way for students to gain greater knowledge; it can also help build their relationships with others. Williams (2017) argues that when predicting future success, social skills matter more than academic skills. High test scores might be nice for administrators, but in the world outside the classroom, students need to collaborate to build, apply, and communicate the knowledge they accumulate in school (Selhub & Logan, 2014). As a society, we are spending more time inside and many of us no longer spend enough time in the natural world to recognize the ways nature restores us, makes us more creative, more empathetic, and more willing to engage with the world and the people around us (Williams, 2017).

The intermediate years can be challenging socially, so finding ways to promote cooperation and collaboration amongst classmates is important for educators. It is well known that adolescents become more socially oriented towards their peers (Dumontheil, 2016) so for intermediate students to benefit from time outdoors, they need to be able to socialize

(Greenwood & Gatersleben, 2016). Teachers can take advantage of adolescent preference to be with peers by planning collaborative activities for their students to do outdoors.

In a study of an environmental studies program at a secondary school in Ontario, Russell and Burton (2000) described the social benefits of the program, sharing a comment by one student who reported that, “Half of the class I would never have talked to before this course. Now . . . they are my friends” (p. 296). Mannion, Fenwick, and Lynch (2013) found that when students learn in an outdoor setting, there is improved tolerance among classmates and students demonstrate greater respect for individual differences. Norðdahl and Jóhannesson (2016) found that not only did being in a natural space improve social cohesion, it also enhanced problem-solving skills, both of which are important for intermediate teachers. As well, Fägerstam and Blom (2013) found that when lessons were taught outdoors, there was a higher level of involvement from all classmates, which was seen by the students as positive. While researching the impact of learning math outside, Fägerstam and Samuelsson (2014) found that learning outside generally facilitates cooperation and communication in intermediate students. If a school is lucky enough to have access to a wooded area, Chawla, Keens, Pevec and Stanley (2014) say that spending time in the woods promotes cooperative alliances, autonomy, and competence.

Behaviour. Taking intermediate students outside when they have spent their years at school learning the behaviour expectations for a classroom might feel like a challenging proposition for a teacher. Teachers worry about the risks and distractions that can cause problems when students go outdoors (Feille, 2013). Intermediate students who struggle to meet behaviour expectations in the classroom can thrive when engaged in outdoor learning experiences (James & Williams, 2017). Greenwood and Gatersleben’s (2016) study found that

adolescents concentrate better when they spend time outside, so going outside may help students whose behaviour issues stem from difficulty concentrating on the task at hand.

Mental health. Students need to be mentally healthy in order to learn well at school. Going outside can be a tool for teachers to promote mental health in their students. In Greenwood and Gatersleben's (2016) study of 16-18 year old female students in the United Kingdom, they found that being outside in a natural environment can provide restoration for adolescents and can restore attention fatigue in adolescents better than a break inside. In a study of the value of green school grounds for young people, Chawla et al. (2014) found that being outside reduces students' stress and anxiety and it promotes resilience. When learning outside, students are able to protect their peace and calm because they are able to freely move away from situations that may interfere with their well-being (Chawla et al., 2014) in a way that they are unable to do in the confines of a classroom. Some teachers might worry about the risk involved with taking their students outside, but Norðdahl and Jóhannesson (2016) found that when children encounter risks that do not exist in the classroom, the process of learning to handle these risks builds students' self-esteem.

Role of the Educator

When I began teaching, I was incredibly uncomfortable when I did not have an answer to a question and when I was not able to anticipate the challenges my students would have with an assignment. When I felt that I had "messed up," I could feel myself become defensive as I knew that if intermediate students did not have confidence in my knowledge, they would lose confidence in me as a teacher. It has taken me many years to figure out how to be okay with not having all the answers and how to incorporate authentic problem-solving into my teaching. When teachers leave the confines of the classroom, the possibility of an unforeseen problem or

question increases. When educating outdoors, teachers must be aware that spontaneous learning moments will emerge and they need to recognize and pursue these moments (Blenkinsop, Telford, & Morse, 2016). Teachers contemplating taking their students outdoors to learn need to be open to inquiry and a higher level of uncertainty than exists in a classroom. When teaching outside, educators need to be able to respond to the unexpected (Blenkinsop, 2014). This can be unsettling for teachers who expect to be an expert.

To be an advocate for the outdoors, teachers need to experience its “beauty, complexity, and ability to soothe, revitalize, and even heal” (Broda, 2007, p. 152). A teacher who does not appreciate the natural world will not know how to guide their students to connect with nature and they may not even know why it is important. Do most teachers, then, foster a disconnect with nature? The first step in fostering an appreciation for the natural world in students is to have teachers who value spending time outside. Orr (1991) believes that all education is environmental education when one considers the hidden curriculum; by not including going outside to teach about the outdoors, educators unwittingly teach students that they are apart from rather than a part of the natural world. Bell (1997) wonders what students learn when educators provide opportunities for students to interact almost exclusively with humans and human artifacts. Like Orr (1991), Cornell and Ivey (2012) argue that teachers can actually contribute to a student’s lack of appreciation for the natural world because they usually teach indoors. Teachers thus need to reconcile their feelings of inadequacy when teaching in and about nature with the awareness that staying inside fails to provide students with opportunities to explore their deep interconnections with the natural world (Bell, 1997). For educators who do not understand the value of the outdoors as a learning environment, they might dismiss learning outdoors as not

“real” learning (Broda, 2007). Intermediate students could pick up on and adopt this dismissive attitude toward the natural world.

Hill (2012) argues that teachers need to walk their talk. One of the ways educators can do this is by modelling sustainability principles and practices in their teaching across the curriculum (Hill, 2012). As a teacher of intermediate students, I know that my students are watching everything I do and many are unafraid to point out to me when my words do not align with my actions. If intermediate educators talk about the importance of the natural world, but do not act in a way that reflects these values, our students will know that it is not important to appreciate or protect nature. What students need are educators who are role models of environmental integrity, care, and thoughtfulness in schools that embody environmental ideals (Orr, 1991).

Challenges

The reality of the traditional education system in Ontario is that intermediate students are in schools for at least six hours every day for the majority of the year. If students are being educated in schools, they are not being educated elsewhere (Steen, 2003). This reality limits students' experiences in the world beyond the school, so they are cut off from learning in and about the natural world. With this in mind, if our society truly values learning about the natural world, it is up to the education system to show students that learning in and about the outdoors matters.

This is challenging as few teachers are as comfortable teaching outdoors as they are teaching in the classroom where they know that they have mastery over the material to be learned (Bell, 1997). Not all teachers are invested in teaching about the environment and if they are not personally invested, they find it difficult to teach (Hill, 2012). If a teacher is invested and makes the decision to take their students outside to learn, they may find themselves alone on the

schoolyard with their students. From my own experience being alone on the schoolyard with my students, I know that even if teachers can demonstrate the positive impact of going outside to teach, most of their colleagues still will not choose to follow (Feille, 2013).

Even if a teacher does value being outside, they may not know how to teach outside. For a teacher without a strong knowledge of the benefits of teaching outdoors, going outside can be daunting. For a teacher to feel comfortable teaching outside the classroom, they need more than a single exposure to teaching outside (Feille, 2013). Thus I wondered if a challenge the teachers in my study might identify would be a lack of knowledge of how to teach outside?

Steen (2003) believes that standard curricula are profoundly anti-ecological. As I stated at the beginning of this thesis, I saw this firsthand with a grade 8 student not understanding why water conservation mattered. In addition to being able to make it to grade 8 without an integrated sense of the natural world, the Ontario curriculum is so full that as an intermediate teacher, I know that I am unable to cover all the expectations. My experience resonates with that of Feille (2013) who found in her study of three teachers that a major barrier to going outside was that they were concerned that they would not be able to cover their required curriculum outdoors. Although the Ontario curriculum offers teachers ways to incorporate environmental education into all subject areas, unless a teacher highly values environmental education, the expectations that involve the environment are easy to ignore. The Ontario curriculum might thus be a hurdle for teachers wanting to get their students outside?

Even if educators believe the research that shows that going outside with their students is good for their academic performance, regularly going outside when schools are focused on literacy and numeracy also can be challenging (Eick, 2011). In order to teach outside effectively, educators need the support of their colleagues, students, parents, and administrators. If teachers

believe in the value of spending some language time outdoors, they need to identify how they can use the natural world as a teaching tool and how they can incorporate other subjects into their language lessons. I wondered, then, if perhaps another hurdle I might find in my study would be that teachers do not feel supported in doing so and do not know how to garner such support?

As an intermediate teacher, I have found that many of my students do not feel a connection to nature and do not understand how their lives depend on the natural world. Orr (1991) believes that most students leave the education system without an integrated sense of the unity of things, and the consequences of this are felt not only by the individual, but also by the planet. Intermediate students have spent most of their time in the education system indoors, so they expect that when they are at school, they will be inside the classroom. From my experience teaching intermediate students, it can be a challenge for them to see outdoor learning as “real” learning. Being outside when the weather does not match their definition of ideal can push against their comfort zones. The more I learn about learning in the outdoors, the more I am able to have open discussions with my intermediate students about why and how learning outside the classroom can be both challenging and rewarding. Nonetheless, I wondered if perhaps I might find that a hurdle for teachers is student resistance to learning outside?

Just as teachers need professional development to learn how to teach in the classroom, they need professional development to learn how to teach outside the classroom (Banack, 2014). What teachers know makes a difference to student learning; Hill (2012) argues that in order to develop competence teaching outdoors, teachers need to develop a deep, factual knowledge of what and how they are teaching. Other researchers have indicated that without training, many teachers do not feel that they have the skills to teach outdoor education (Feille, 2013; Mannion et

al., 2013; Rios & Brewer, 2014). If a teacher is provided with professional development to bring their students to natural settings, they may feel more confident, motivated, and enthusiastic about what they are teaching (Mannion et al., 2013). Feille (2013) also argues that professional development would help teachers know how to teach in the outdoors across the curricula.

The policy framework for environmental education in Ontario schools states that school boards will “foster collaborative opportunities for educators to develop and share activities, integrated approaches, and action research projects related to environmental education” (Ontario Ministry of Education, 2009, p. 14), but in my experience of a decade working for a public school board, I have never been offered professional development related to environmental education. In my experience, teachers have little to no choice in professional development opportunities since these opportunities are generally not selected by teachers, but are mandated by administration at the school, board, or provincial level. I have never been offered or even heard of professional development for incorporating the natural world into the teaching practice of intermediate teachers. There is an Additional Qualification course in outdoor education available to Ontario teachers, but taking this course is the responsibility of the individual teacher, requiring them to develop their own strategies for using the outdoors to teach the required curricula.

No wonder that Pedretti and Nazir (2014) argue that without professional development, engaging meaningfully in environmental education is difficult to achieve for most teachers. Lack of professional development can deter teachers from going outside as teachers who are not provided with professional development to support their teaching can become discouraged (Stevenson et al., 2013). I wondered, then, if the teachers in my study would agree that they had

minimal professional development in this area and, if so, whether they perceived that as a problem and what sorts of professional development they might see as useful?

Summary

This literature review identifies that intermediate students can benefit from lessons taught outdoors, yet it appears that most intermediate students learn almost exclusively inside their classrooms. When students learn from experiential lessons that are taught outdoors, their retention of the lesson content is greater than if they had learned the same lesson indoors, and when they go outside, they are more motivated to learn. In addition to the academic benefits of learning outside, students' interactions with classmates are positive, attention is increased, and pro-environmental behaviours can be developed. The literature makes it clear that teachers do not have to go on a wilderness trip to experience the benefits of nature, but can simply take students into the schoolyard or adjacent community. Many teachers cite lack of knowledge and confidence when teaching outside, and that might be one of a number of reasons they stay indoors thus professional development may be one key to addressing this problem. My thesis, then, was designed to help determine if the ideas woven throughout the literature do, in fact, reflect the experience of Ontario intermediate teachers. There has not been sufficient, systematic research on why intermediate teachers choose to teach mostly indoors, thus I anticipated that my thesis research had the potential to add to the research literature.

Chapter 3: Methodology and Methods

The goal of my research was to answer the question: Why don't intermediate teachers go outside to meet curricular expectations? To answer this question, I conducted a qualitative study of intermediate teachers in my home board. In this chapter, I will explain how qualitative research was the best way to answer my research question, describe how I collected and analyzed my data, and how I did so ethically.

Methodology

Qualitative research is interested in “how people make sense of their world and the experiences they have in the world” (Merriam & Tisdell, 2016, p. 15). Qualitative researchers aim to create a complex picture of the issue under study by reporting on multiple perspectives and identifying the factors involved in the issue (Creswell, 2014). It is designed to be emergent and flexible to respond to the conditions of the study (Merriam & Tisdell, 2016). A quantitative study that tests or verifies a theory (Creswell, 2014) would not work for this study as I was more interested in exploring the various reasons my colleagues rarely use the outdoors as a teaching tool or teaching environment. While I had hunches about why that may be so given my experience and what I found in the literature, there has been little research on this topic, so an exploratory study was most appropriate.

There are many different approaches in qualitative research. I am taking inspiration from narrative inquiry (Clandinin, 2013) given I sought to hear teachers' stories of their own experiences and their ideas about teaching outdoors through interviewing. At the heart of interviewing is a respect for the worth of others' stories (Seidman, 2013). Clandinin (2013) writes, “Narrative inquiry is an approach to the study of human lives conceived as a way of honoring lived experience as a source of important knowledge and understanding” (p. 17). For

this study, I explored the social, cultural, and institutional stories about teaching outside within which my participants' experiences were, and are, constituted, shaped, and expressed (Clandinin, 2013). For this study, I drew from an appreciation for narrative inquiry by encouraging storytelling in the interviews, but on the whole, this thesis is simply qualitative.

As an intermediate teacher, I am immersed in the world I am studying. I have my own firsthand experience teaching intermediate students and in making decisions about how and when I should take my students outdoors to learn. I thus am a peer of the participants in this study and we share a common understanding of the age of students we teach, the curriculum we are required to cover, and of the priorities of our administrators and school board. We sometimes differ, however, in our perspectives on educational priorities, the importance of environmental issues, and the value of teaching outside.

Methods

In this section, I offer a rationale for using interviews as the source of data for my study, describe my participants and how I recruited them, and discuss data collection and analysis.

Interviews. The purpose of interviewing is to gain an understanding of the lived experience of others and the meaning they make of that experience (Seidman, 2013). Seidman (2013) believes that, "As a method of inquiry, interviewing is most consistent with people's ability to make meaning through language" (p. 14), so I hoped that my interviews would give me an excellent opportunity to understand how educators use or do not use the outdoors in their teaching. Qualitative interviews can be highly structured, semi-structured, or unstructured and emergent (Seidman, 2013). My interviews had both structured questions and space for open-ended discussions intended to elicit participants' views and opinions (Creswell, 2014). I used a

conversational style of interview that allowed me to discuss and probe emerging issues in a naturalistic manner (Reeves, Kuper, & Hodges, 2008).

Participants. My goal was to generate a holistic account of why intermediate teachers rarely go outside to teach. To accomplish this goal, I selected both female and male participants who had differing levels of experience teaching in general and differing experiences teaching outdoors. I interviewed my peers: seven intermediate teachers in the same school board as me. As I work in a small school board, and since I have been teaching intermediate students for several years, I already knew many of the intermediate teachers in the board. I thus found participants through a combination of personal connections and, from there, snowball sampling (Merriam & Tisdell, 2016) by asking initial participants to recommend other intermediate teachers I did not yet know. Below is more detail on each of the participants in my study.

Amanda is a 33-year-old woman who has been teaching for six years. She teaches French to grades four to eight and language to grades six and seven at a small, rural, K-8 school. Amanda's school has a large yard, but no space that is set aside as an outdoor learning space. There are some benches on the yard where a few students can sit and trees sporadically growing throughout the yard. Students at Amanda's school have two recesses each day.

Faye is a 58-year-old woman who teaches grade eight language and art at a grade 7-12 school. Her school is located in an urban area and she teaches all urban students. Faye has been teaching for 14 years after spending several years as a corporate trainer. At the time of my interview with Faye, her school had recently switched from a schedule where grade seven and eight students had one lunch break in the middle of the day when they could choose to go outside, stay inside, or leave the school grounds to a schedule where students have two nutrition

breaks and two 20-minute recesses each day when they are required to go outside. Faye's school has a large, cultivated courtyard and a small yard at the front of the school.

Todd is a 45-year-old man who has been teaching grade seven for 12 years. He teaches at a small, rural K-8 school. His school has an outdoor learning space with wooden stools for seating, but there is not enough room for an intermediate class to work comfortably in this space. Students in Todd's school go outside for two recesses each day.

John is a 41-year-old man who has recently returned to the classroom after spending three years building a small business. Before his break from teaching, John taught for eight years. This year, John is teaching science, art, and music to grade seven and eight students at a grade 7-12 school. His school is in an urban area and his students all live in an urban setting. There is no outdoor classroom on the yard at John's school, but the school has easy access to a river with walking trails and a natural park space. John's students have a 50-minute break in the middle of the school day and students have the option of going outside, but are not required to go outside during this break.

Eva, Kyle, and Paul all teach grade seven and eight students at a grade 7-12 school in a small urban area. Their students are both from that urban area and the rural area surrounding the school. *Eva* is a 38-year-old woman who has been teaching for six years. This year, she teaches math and one period of art. *Kyle* is a 29-year-old man who has been teaching intermediate students for three years. This year, he teaches music, language, art, math, Phys Ed and special education. *Paul* is a 43-year-old man who has been teaching grade seven and eight students for seven years. He teaches Phys Ed and language this year. At their school, these teachers have access to a greenhouse, four large, raised garden beds, a courtyard with picnic tables, and an

outdoor classroom with shade and ample seating. Students are required to go outside for two 20-minute recesses each day.

Negotiating my role. Finding teachers with a variety of experiences teaching outdoors was eased by the connections I already had with the intermediate teachers in my board. I share with them my knowledge of the board and also share with them knowledge of the demands of the intermediate curriculum. Indeed, in my teaching career, I too have struggled to reconcile my belief that children should spend time outside with the demands of the curriculum. Our shared knowledge was useful in creating an atmosphere of mutual understanding and trust. That being said, as I work in a relatively small school board, and because I actively work to promote environmentalism in the board, many of the participants most likely knew that I value promoting connections with the natural world in schools. This might have impacted the way some participants answered questions as they might have felt that they needed to say what they thought I wanted to hear. I made clear that I was seeking a wide diversity of perspectives, that I appreciated that different teachers have different values and priorities, and that them being frank with me would be invaluable to my research and in deepening my understanding. Hopefully that helped to mitigate this potential problem.

Data collection and analysis. I conducted individual face-to-face semi-structured interviews for this study. Semi-structured interviews include a combination of more and less structured questions with some questions having predetermined wording but with plenty of room for emergent conversation (Merriam & Tisdell, 2016). I prepared guiding questions to ask my participants and asked the questions in no particular order. I did not ask all questions of all participants, depending on the flow of the interview and the information they offered in previous answers.

The guiding questions I used in my interviews were:

1. Demographics: What is your gender and age? What grade are you teaching? How many years have you been teaching this grade? How many years have you been teaching in your career? What other grades have you taught, if any?
2. Do you think intermediate-aged children spend enough time outside during the school day? Please explain.
3. Does your school have scheduled recesses for intermediate students? If so, how long and when are the recesses? Do the students have to go outside at recess? What do your students typically do during recess?
4. Have you ever taken your students outside during instruction time?
 - If yes, please describe what you do outside with your students (e.g., what subject(s) or lessons) and why you do so.
 - If yes, how often do you go outside to teach? When do you go outside (i.e., time of day, season, consistently throughout the year?)
5. What, if anything, worries you about taking your students outside?
6. Do you think your administrators would support you if you took your students outside for instruction? Why or why not?
7. Does your school have a space for outdoor learning?
 - If yes, what does it look like? How is it used (by you or other teachers)?
 - If no, have you heard of any plans to create such a space? Would you use an outdoor learning space if it was available? How?
8. In your experience, what do parents feel about outdoor instruction of their intermediate-aged students?

9. Did you go outside beyond recess when you were an intermediate student?

-If so, to do what? Describe how you felt about those experiences.

-If not, do you remember wanting to go outside to learn?

10. Overall, do you think going outside to instruct would be beneficial for your students? Why or why not? Is it practical for you?

11. Have you ever received professional development on using the outdoors for instruction?

-If yes, please describe.

-If no, would you be interested in such professional development? What, if anything, would you like to learn?

12. How do your students like going outside during the school day? (i.e., recess or instruction)

Do you think that they would like to go outside more often? Please explain.

13. What, if any, role might schools play in connecting students with the natural world? Do you see it as part of your job as a teacher to help foster this connection? Why or why not?

Interviews took place at the end of the teaching day, during the teacher's preparation time, or during the teacher's nutrition break in the course of the school day. The interviews took place in the teachers' own classrooms or in a quiet space in the teachers' schools. Each interview took approximately 25-40 minutes. The interviews were audio-recorded on my phone. I transcribed all the interviews myself and I shared the transcriptions with the participants to check for accuracy and to ensure that they remained comfortable with everything that they said.

Qualitative researchers build patterns, categories, and themes by organizing data into units of information (Creswell, 2014). After the participants had reviewed their transcribed interviews, I began the process of sorting and arranging the data into categories. I printed the transcripts and categorized the data by hand. During this process, I developed a sense of the

general ideas and patterns emerging from the data. When all the relevant data had been assigned to categories, I began coding the data into themes. Four themes emerged: 1) the value of outdoor education; 2) reliance on technology; 3) curricular connections; and 4) reactions to going outside. For the second theme, reliance on technology, there was not the same quantity of data as there was for the other three themes, so I wondered if I should include this data in another theme. I came to the conclusion that this data nonetheless merited its own theme for three reasons: 1) technology is almost ubiquitous in the lives of intermediate students both in and out of school; 2) the future of education certainly includes new technologies; and 3) students with exceptionalities often require technology to learn alongside their classmates in a regular classroom setting. When I had the data organized into themes, I was ready to begin writing Chapter 4.

Ethics

Before the process of data collection began, formal approval for this research was acquired through the Lakehead University Research Ethics Board (REB). Potential participants were provided with information about my study either in person or by email (see Appendix A) and a consent form (see Appendix B) to help them decide whether they were willing to participate in this study. In both the information and consent forms, it was noted that participant involvement was entirely voluntary and participants could refuse to answer any question, and that they were able to withdraw at any time from the interview and the study. (In the end, all participants answered the questions asked of them and none chose to withdraw from the study.)

As answering questions about an employer is sensitive, participants were given pseudonyms and their identities are known only to me. All data will remain confidential and the only people who have access to the original data are my supervisor and me. The Faculty of Education at Lakehead University will securely store the data (i.e., a copy of transcriptions

stored on a flash drive) for five years in their data storage area in the Bora Laskin building, after which time the data will be destroyed. There was no physical harm or risk for participants of this study and there was no deception.

Participants were given the opportunity to review their transcripts to ensure that they accurately reflected their perspectives and they could request changes or deletions if desired at that time. (All participants reviewed and approved their transcripts with no changes.) Participants were given the option of requesting an executive summary of the thesis and/or an electronic or hard copy of the full thesis by indicating this on the consent form. These will be sent to participants upon final approval of the thesis.

Chapter Four: Findings

Four themes emerged in my analysis of the data I collected from interviews with seven intermediate teachers. The first theme focuses on the value placed on outdoor education. All of the teachers I interviewed appreciated the outdoors in their personal lives, but had not thought much about how this might translate to their teaching. The data shows that the reasons for not implementing outdoor education into their teaching practices were varied: lack of knowledge about outdoor education; lack of professional development in outdoor education; and lack of adequate outdoor learning space at their schools. The second theme centred around issues of technology use. All the teachers I interviewed work for a school board that provides one-to-one technology for all intermediate students and they are all learning how to educate in an environment where technology use amongst intermediate students is almost ubiquitous. The third theme relates to curricular connections. The participants in my study talked about wanting to explore potential links in the curriculum that allowed them to go outside and wondered how to intentionally develop lessons that would incorporate learning outdoors. They also discussed whether it was even the job of educators to connect intermediate students with the natural world through delivery of the curriculum. Finally, the fourth theme focuses on the teachers' perceptions of their students' reactions to going outside. The participants described how their students responded to going outside for recess and instruction, including how the weather impacted students' reactions.

Theme One: The Value of Outdoor Education

Before the school year begins, most teachers create long range plans that outline what will be taught in the coming school year and how it will be taught. None of the participants in my study said that they thought about incorporating the outdoors into their teaching when they were

making their plans. Faye said, "It's not on the radar. It should be, but it's not." During the interviews, all of the teachers started to imagine practical ways they could get their students outside and indicated that this was the first time they had given it much thought. For example, Kyle said:

...it's not really on my radar. Now that I think about it, it would be so easy just to go outside for 20 minutes for silent reading. There's no reason I couldn't have done that until now and it never occurred to me even to think of that, so it just wasn't on my radar.

In this section, then, I report on what the participants said about why they do not regularly incorporate outdoor education into their teaching practice even though all seven recognized the value in spending time outdoors.

All of the participants in my study stated that they liked spending time in the natural world in their personal lives, but do not do so in their teaching. For example, Amanda talked about the happiness that people can feel when they are outdoors, asking, "Aren't we all happier when we're outside?" Still, she acknowledged that she rarely takes her students outside for instruction. Kyle mentioned that he showed pictures of a camping trip to his students, but saw going camping as a part of his personal life, not his professional life.

Todd recognized that teachers like him do not always do a good job modelling how they value the natural world. He said that his own students do not choose to spend time outside, and upon reflection, stated that if we would like that to change, intermediate teachers need to model for them the value of spending time outdoors:

If we did it [took our students outside], if we talked about it and if we spent a lot of time doing it, I think we could help it become more of their routine. But I don't think they would do it as much on their own.

Todd argued that, as educators, we need to show our students through example the enjoyment that can be found just sitting in nature and enjoying it. Amanda echoed Todd's thoughts on

modelling behaviour by saying that teachers need to demonstrate to students the value of spending time outdoors. She said that she too values the outdoors personally and that as educators, “we need to get them [students] in touch with nature and make sure that they understand how important it is.”

The participants in my study ranged in age from 29 to 58 and none of them reported any significant experience with school-based outdoor education when they themselves were students. When asked if she went outside as a student, Faye said, “Not that I remember.” Kyle said he went outside “only for phys ed” and neither Paul nor John remembered going outside for learning other than for physical education either. Eva remembered going outside once to use chalk to draw graphs on the walls of the school. Amanda remembered one experience going for a walk in the bush behind her school for a social studies or science project.

Not only did my participants have little experience with outdoor education as students, then, one of the participants demonstrated a limited understanding of what outdoor education might be. When asked about teaching outdoors, Faye said that before she could bring her students outdoors to learn, she would need to know “what berries I could eat or what to suck on if I had a headache, or how to paddle a canoe.” This narrow interpretation of outdoor education as only wilderness tripping or natural history practice might stem from the fact that her son works as an outdoor educator in wilderness settings as well as her lack of experience of outdoor education as a student and no professional development in the field. While the other participants may have indicated a somewhat broader understandings of what outdoor education could be, they also demonstrated limited understanding of different approaches to outdoor education which is not surprising given their lack of exposure to the field as either students or teachers.

As noted, Faye's son works as a wilderness educator, and several years ago, she had him take her students to a natural area to show them how various local plants can be used for health and survival. This kind of learning was such a novelty in her small city that she called the local newspaper to do a report on her students' learning. This anecdote demonstrates that outdoor learning is not something that people in our area think is commonplace or a regular part of traditional school instruction. Further, given that the newspaper was willing to report on this example outdoor instruction, it might be inferred that outdoor instruction is seen as potentially valuable in Faye's community.

When asked if going outside to instruct would be beneficial for students, only one of the participants, Faye, mentioned potential academic benefits. Faye talked about both the academic and the social benefits that stem from learning outdoors. She said that many of her students "are kinaesthetic learners, they learn by doing, and even if they're not learning by doing, the fact that they're outside and moving, they're still socializing and learning life skills." Later in the interview, Faye once again talked about the social benefits to be found when spending time outdoors. While she does not teach physical education, she said that she takes her students outside "in June when it's hot and play ball. I think that's a life skill. Or we'll play kickball." Taking a different tack, Kyle and Amanda both talked about the benefits of being outside in the natural light. John indicated that he imagines that there would be benefits to instructing outdoors, but that he would have to experience teaching outdoors himself before he could identify its benefits.

Lack of professional development. Most of the teachers I interviewed expressed that they did not have a good understanding of how to incorporate outdoor education into their instruction. None of the participants in this study have received any professional development

about instructing outdoors, which might explain the lack of understanding about what constitutes outdoor education and how to put it into practice. This might also explain why the teachers I interviewed had not thought about outdoor education as they engaged in planning. As Kyle said, “The reason I don’t do it is that I don’t know enough about it.” Amanda stated that all of what she does know about using the outdoors for instruction came from working at a previous school with a colleague who incorporated outdoor education into her instruction.

All of the participants in my study reported that they would like to receive professional development on how to teach outdoors. Two participants, Amanda and John said that, in particular, they would like to receive training on teaching outdoors that includes demonstrations so they could see how teachers who go outside mitigate some of the potential issues they imagined might arise (e.g., students forgetting things they need, students not staying on task). Both teachers said that understanding the logistics of going outside would make them feel better about planning for their students to go outside. Amanda said that she would like to see “how they’ve used it and how they’ve been successful and maybe some of the things that I’m hesitating about they could help me out with and explain how it works for them.”

Paul and Eva said that they would be interested in professional development that showed them how to teach their required curriculum outside. They would like specific ideas on how to cover the material they are required to teach while outside. Neither Eva nor Paul teach science or geography, the subject areas most of the teachers in my study most closely associated with outdoor education, so they would like support to explicitly connect the subjects they primarily teach (math and language) with outdoor education.

Paul identified that when the school board made the decision to provide one-to-one technology to all intermediate students, teachers were provided with a great deal of professional

development and support to integrate this technology into their teaching. Finding ways to allow students to take full advantage of their one-to-one technology has been a focus of professional development for many of the participants for several years, which has led to a deep integration of technology into most teachers' practices. Paul said that this kind of support for outdoor education would help teachers integrate going outside into their instruction.

In order to understand what might be holding teachers back from instructing outside, I asked them if they believed their administrators would support them if they wanted to teach outside. Every teacher with whom I spoke quickly and emphatically said that their administrators would be supportive of going outside to cover curricular expectations. Amanda connected going outside with improved mental and physical health when she talked about her administrator's potential support for her going outside. She said her administrator is always "looking for ways we can enhance the physical activity and mental health of our students," and she imagined that going outside would do both. When asked the same question, John touched on his perception that there has been a shift in administrator thinking, with increasing value being placed on spending time outside. He said, "I think they'd be; I think nowadays people all recognize that this is how people are trying to get out more." Todd said that the administration at his school "sees the value of it [learning outdoors] and tries to promote it." Paul believes that his administrators "would encourage you doing something new." Lack of support from administrators thus was not something that was holding these teachers back from going outside unlike the lack of professional development.

Space for outdoor learning. Four of the seven teachers I interviewed, Eva, Kyle, Paul, and Todd, have outdoor classrooms at their schools. For the purposes of this thesis, I have

defined an outdoor classroom as a space that is dedicated to outdoor learning where teachers must be able to instruct and students must be able to collaborate.

Eva, Kyle and Paul work at the same school and they have access to a large schoolyard, an outdoor classroom with picnic tables and shade, and a courtyard with picnic tables where no instruction can happen as students must be very quiet so they do not disturb learners in the classrooms that surround the courtyard. Both the outdoor classroom and the courtyard spaces have tables with ample space for intermediate students to work, but my participants reported that the outdoor space that all of the teachers at the school choose when they do go outside is the courtyard. Yet no instruction can happen in the courtyard as students and teachers have to be silent and relatively still as classroom windows border the courtyard on all four sides. If there is sound or movement in the courtyard, students working inside will be distracted. Paul said that he still chooses the courtyard space instead of the outdoor classroom because it is contained and the four walls of the courtyard makes it easier to supervise the students.

Todd has access to an outdoor classroom with wooden stools for seating, but it is not big enough to accommodate a class of intermediate students, with no place to sit comfortably and no surfaces on which to work. For this reason, Todd does “instruction in the classroom and then quick outside, then we’re all just standing together and quick little review and then off they go and explore whatever the task may be.” If there was a space that was comfortable for his intermediate students to assemble, Todd could consider doing all or more of the instruction outdoors instead of in the classroom.

The other three participants, Amanda, John, and Faye have access to schoolyards, but no outdoor classrooms. Faye’s school also has a large, cultivated courtyard, but there is no seating for a group of students in this space. Amanda, John, and Faye reported that their schools do not

have plans to create spaces specifically for outdoor learning. Amanda felt that having an outdoor space designed for instruction would make going outside to teach easier for both teachers and students. She imagined that her students would treat an outdoor classroom as a place for learning, not for recreation.

In the course of my interviews, all of the participants talked about the potential to do more instruction outside, using the space that they do have. At Eva, Kyle, and Paul's grade 7-12 school, there is a small greenhouse and four large raised garden beds in the schoolyard that are used by the Eco Team (the intermediate extracurricular environment club) but are not used for instruction. Paul said that parents at the school open house mentioned to him the value they saw in these spaces. As we were talking, he began contemplating different ways he could use the gardens and greenhouses to cover curricular expectations. Todd has an outdoor classroom at his school that he said he uses occasionally in the spring and fall. He has never had a situation where he has gone outside to use the space only to find that it is already being used by another teacher and her or his students; the space is always available when he wants to use it so space is not a big constraint for him nor for Eva, Kyle, and Paul. It is more of a challenge, however, for Amanda, John, and Faye but they too began imagining ways they could use their schoolyards.

Theme Two: Reliance on Technology

Technology is becoming ubiquitous in the lives of many intermediate students. Teachers rely on technology in the classroom as an instructional tool and also to meet the requirements of their students' IEPs (Individualized Education Programs). The participants in this study reported learning to navigate the positive and negative impacts of technology use both inside and outside of the classroom.

Paul reported that, in general, his students would rather be inside on technology than outside in the natural world. A former primary teacher, he has found that when students get to the intermediate grades, they would rather be inside using technology and no longer have the love of the outdoors they might have had when they were younger:

Teaching primary, there's a real connection to going outside and just a fascination with being outside and a love of being outside. They don't want to come in. I think they just get older and they just get a little more cynical about learning in general and I think they're easily distracted with technology. They'd rather be inside on it.

Amanda also voiced a concern that both she and her students are using technology more and more and this might mean that they are missing out on opportunities to spend time outdoors. She argued that because of technology use, her students are not spending as much time in the natural world as she did when she was a child, and she thinks they are feeling disconnected with nature and do not understand its importance.

Six of the seven participants in my study have two scheduled 20-minute recesses in the school day when students are required to go outside. When asked if students are allowed to have technology outside for recess, Paul said, "the answer would be no, but yes, they're going to bring it out." Three of the participants said that when intermediate students go outside for recess, students try to use their personal devices even though they are not supposed to be using technology during these breaks. Kyle said that the grade 8 girls at his school "stand around the school and try to use their cell phones."

Teaching in a time when technology is important to most intermediate students is a challenge for all teachers, but could present special challenges for teachers who want to go outside to instruct. The school board for which all my participants work has been providing tablets for all intermediate students since 2014. Most of the teachers I interviewed have been

harnessing the power of this instructional tool for several years. Taking full advantage of such one-to-one technology often means using WiFi, and WiFi can only be accessed in the school building. Kyle, for example, notes that he has not handed out a single piece of paper in his language class this school year and in order for his students to work exclusively on the tablets, he requires WiFi access. Planning to teach outside will mean teachers have to plan instruction that is not reliant on WiFi, something most of these teachers have not done for many years.

As well, IEPs often require that students use technology for writing and reading, and some IEPs specify that students require a soundfield that amplifies a teacher's voice and evenly distributes sound around the classroom to allow students who are hard of hearing or have attention deficit issues to hear and focus on a teacher's voice even if the teacher is not facing or talking directly to them. It is not possible to take a soundfield outside of the classroom as the speakers that are part of the system are attached to the walls of the room. Because teachers must legally meet all the requirements of IEPs, they can find themselves tethered to their classrooms in order to meet these requirements. For example, Amanda reported that if she were to instruct outside, she would "need a portable soundfield because students in my classroom require a soundfield." If the requirements of IEPs could be met outdoors, Amanda thinks integrating going outdoors to instruct would be easier for teachers.

Discussing how to effectively use the tablet outside came up regularly in my interviews, demonstrating how little grounding these teachers have in how to simultaneously instruct with technology and instruct outdoors. I interviewed Amanda on a cold, snowy, March day and when we talked about some of her hesitations about instructing outdoors, she said, "I don't know if I want them to have their iPads out there." Todd identified that teachers may feel that they need certain technologies to teach as that has been their routine. He said, "for a lot of us we really

have to change, *I* have to change how I approach certain things to make it so we can go outside.” Some of the teachers came up with ideas for doing just that as the interviews progressed, illustrating how creative and flexible these teachers can be. For example, Kyle realized that there are ways to adapt the way his students have been using their one-to-one technology to be able to use it outdoors. When talking about the possibility of going outside for independent reading, Kyle suggested that students could take screenshots of a digital book in order to read when the device is not within range of WiFi.

Theme Three: Curricular Connections

In this section, the teachers I interviewed explain how the curriculum is sometimes a barrier to going outside for instruction. The participants discussed whether or not it is even the perceived job of the intermediate teacher to foster student connections to the natural world given the limited connections in the curriculum that could allow them to intentionally create ways to get outside to instruct. The participants also discussed what, if any, experiences they had already had in using the outdoors as a venue or as content for instruction.

Intermediate curriculum not about fostering connections to the natural world. Six of the participants in my study reported that their students do not spend enough time outside during the school day and that the curriculum played a role in that. For example, Todd said, “I do not go out nearly as much as I would like,” and he identified the curriculum as a key barrier to getting outside. Paul noted that teachers feel legally obligated to implement the standard curriculum: “you can’t exactly do what you want, you have to follow it.” John argued that teachers feel an accountability to assign grades and marks and that a lot of the benefits that would come from being outside would be “different in that they would be intangible or unquantifiable.” He

suspected that the unseen rewards of spending time outside could not be reflected in our reporting and thus may not be valued.

None of the teachers I interviewed could identify any overall or specific expectation in the grade 7 or 8 curriculum that explicitly requires teachers to foster connections with the natural world in their students. As a former secondary school teacher, Kyle noted that, “there are courses in high school that are specific to going outside, which is great. I don’t know why we can’t have something that coincides? with being outside in our science curriculum.”

All of the participants in my study recognized the value of spending time outdoors, but said that they don’t know how to effectively incorporate outdoor or environmental education into their teaching, or even if they should. Faye said, “Where is the curriculum document that says that’s important? Because it should.” Amanda did not necessarily see connecting students with the natural world as part of her job as a teacher, but it is nonetheless something that she cares about, so she finds “teachable moments” to discuss environmental issues with her students. Todd identified that he feels personally responsible for fostering connections with the natural world in his students, but from a legal viewpoint, indicated that this is not a professional responsibility as an educator. Fostering connections with the natural world, then, was seen as an add-on, not as an integral part of what they were required to teach.

Finding curricular links. As there is no requirement for intermediate teachers to go outside to cover curricular expectations, teachers have to be intentional and creative about finding ways to get outside. Todd identified that “we as teachers feel a pressure as far as the curriculum to meet and, unfortunately I think it’s also very easy to meet those curriculum pressures while still in the classroom.” Two of the participants in my study said that it was their first year teaching science, so they felt they needed to master what, for them, was new

curriculum before they could consider adding outdoor or environmental education into their practice. Further, John touched on the concern that there is so much curriculum to cover in a school year that “if you were outdoors all the time, it may be difficult to get as much accomplished in certain areas of curriculum as if you were inside.” In order to get outside to cover curricular expectations, intermediate teachers will have to reconsider how they choose to meet the requirements laid out in the intermediate curriculum.

Of the seven participants in this study, six of them instruct on a rotary system. This means that they do not teach the same students all day and they have to adhere closely to a rotation class schedule. This also means that they may teach different subjects each new school year. Faye said that this is the first year that she has not taught geography, so the mapping activity she had developed and had traditionally done outdoors was not something she did this school year. Kyle and John both identified that there are many connections to the outdoors in the science curriculum, but they thought that some strands require being indoors because they require specialized equipment. Kyle found links to spending time in outdoors in the grade 7 science curriculum, reporting that he took his students outside to play games which helped them understand balanced ecosystems. He said that planning to go outside depends on the strand of science he is teaching.

As a music teacher, Kyle takes advantage of the benefits of going outside by having his students take musical instruments outside to play. He enjoys spending time outdoors and he reported that his students benefit from the change of scenery and routine that going outside provides. He said that any change, like playing in the gym, would be good for his students, “but outside is better because there’s sunlight.” When talking about teaching students bucket drumming outdoors, he said:

...it's impossible to get every kids practicing their instrument inside, the room would be total bedlam, but going outside, being able to spread out and do their thing around the yard - it's great, they liked it, they felt like they had freedom.

As interviews went along, three of the participants in my study identified new ways they could intentionally incorporate going outside into their teaching. Eva teaches math, and at the beginning of the interview, she said that the math curriculum did not lend itself to being outdoors. Then as we were talking, she realized that it did. She said:

So there's nothing in my curriculum that says I need to tie - well that's not true because you have to relate things to the real world and that *is* in our curriculum, but it's just trying to figure out how to do that.

John had the same realization during our interview. When asked about the practicality of going outside to instruct, he started to explain that going outside with musical instruments would be mostly impractical, then realized that it could work: "I think for music, it would be kind of impractical for the instruments outside. We could take the instruments outside though. Why not?" As mentioned earlier in the chapter, Kyle also said that "it would be so easy just to go outside for 20 minutes for silent reading. There's no reason I couldn't have done that until now and it never occurred to me even to think about it."

Outdoors as venue, not content. Most of the participants have used the outdoors as a learning location, but have not used the outdoors to provide content for their lesson. Amanda and Paul are language teachers and they have taken their students outside to do independent reading. Kyle and Paul instruct physical education outdoors in the spring and the fall when the weather is nice and Todd does the majority of his physical education instruction outside in the fall and in the spring. All of these physical education teachers could do all of their instruction indoors, but Kyle said he believes that although it would be possible to teach it entirely inside, "it would be a huge disservice to the students not to go outside." When the physical education teachers talked

about going outside, they did not say they went outside for the benefit of being in the outdoors, they just saw it as a practical place to play soccer and instruct track and field.

Two of the participants said that they instructed outside not for the benefits offered by teaching in the natural world, but for logistical reasons. John, a music teacher has gone outside to practice with a music ensemble because there was no space in the school to practice. When instructing science, Kyle took his students outside to do an experiment that involved popping water balloons so the water would absorb into the ground outside instead of having to be cleaned up in his classroom. Given some of the teachers do use the outdoors as a venue already, it might be a step in the direction of becoming more comfortable with also using the outdoors as the content of a lesson.

Theme Four: Students' Reaction to Going Outside

The data from my interviews shows that the participants believe that most of their students want to go outside when the weather is warm and most do not want to go outside when it is cold. This applied both to recess and to outdoor instruction and learning. Participants talked about how the weather impacts their students' reactions to going outside and how gender also plays a role in attitudes about being outside. The participants reported that their intermediate students tend to see the outdoors as a place for recreation, not a place for learning.

Recess. In order to gain an understanding of how their intermediate students feel about being outside, I asked the participants about recess at their schools. Six of the seven participants said that their students are required to go outside for two recesses each day. Of the six teachers whose students are required to go outside for recess, five reported that their students often complain about going outside and try to find ways to stay inside.

Five of the seven teachers I interviewed teach at grade 7-12 schools. One of these five teachers has no recess scheduled at his school and the other four teachers have two 20-minute recesses for intermediate students each day at their schools. At the grade 7-12 schools with recesses, the intermediate students go outside for a 20-minute recess twice a day and then come inside to eat in the cafeteria for 20 minutes. During these breaks, the secondary students are in class, so the grade 7 and 8 students have to be very quiet when travelling through the halls to go outside and again when they are coming back inside.

Each of the four teachers who work at the grade 7-12 schools with scheduled recess times reported that there are students at their schools who try to avoid going outside for recess. Paul said that some of the students at his school would rather hide in the bathroom than go outside for recess. Kyle reported that there are “kids who wander the hallways and try to get out of it.” He said that some intermediate students joined the secondary drama club in order to avoid going outside for recess and that “it’s like pulling teeth trying to get kids to go outside.” At Todd’s K-8 school, he reported that intermediate students only complain about going outside for recess when it is cold. He said that, “In the beginning of the year and when spring hits, there are not complaints about going outside, they just don’t want to go out in the cold.”

There are several ways that a student could spend their day entirely indoors even at the schools that have scheduled recess time. All participants said that staff at their schools run team practices and extracurricular activities during break times. As well, at Paul’s school, students are sometimes kept inside for behavioural issues or if they have incomplete schoolwork. He said that this consequence could be imposed either by administrators or by a teacher. At Todd’s school, he reports that the staff are aware that it is beneficial for students to go outside for at least one

recess, so if students “are in a club or team and both are meeting on the same day, they typically should have to pick one or the other to go to.”

In order to understand why some intermediate students enjoy going outside for recess and some complain and even try to avoid it, I asked all the participants what kinds of activities their students do during recess. Paul teaches at a school with students from both rural areas and from the small town in which the school is located. He says that the grade 7 students play: they play sports, they dance, and they play made up, imaginative games. The grade 8 students at Paul’s school play soccer and basketball but there is “a large group of girls who will just stand and hate every second of being outside.” Faye teaches at an urban school with all urban students. At recess, some of her students “loiter and lurk. Others play basketball or some of the boys bring a ball glove and a softball. Some of them just run around.” Most of the teachers had similar answers to this question, but one teacher’s responses differed from the rest. Amanda teaches at a rural school with all rural students. She says that all her students play: “they play basketball, they play flags, we have shovels, so they build in the winter; they really do play.”

Only one participant teaches at a school where the students are not required to go outside during the school day. John teaches all urban students at a grade 7-12 school that is located in an urban setting. His intermediate students have a 50-minute break scheduled in the middle of the school day. Because of the urban setting, his students do not have to stay at school for lunch. For the first 15-20 minutes of the 50-minute break, students may eat in the cafeteria then they have the option of staying in the school or going outside for recess. John does not know how many students go outside as administration, not teachers, supervise the students when they are outside. John says that the group of students who go outside want to be outside because “it’s definitely more effort to go outside than it is to stay seated where you are in the cafeteria.” He also said that

they do not have the outdoor play space that most other schools have, so students have to create their own activities if they go outside.

Weather. All participants in this study talked about students complaining about the winter weather as a main deterrent to teaching outside. Eva identified the weather as a determining factor in her students' enjoyment of being outside. She said that, "when it's nice out, I feel like they spend more time outside. When it's cold, I feel like they avoid going outside altogether." Todd argued that it is tough to teach outside when educators have to deal with Canadian winters and that he believes his students would only like to go outside more when the weather is nice. Kyle shared: "I don't go outside at all to teach in the winter." When asked if he instructs outside in the winter, Paul said: "A few times, but not often." He does not take his physical education classes outside in the winter but indicates that "we're outside quite a bit in the fall (late summer, early fall), and then spring/summer." Faye values outdoor instruction, but she only takes her students outside on warm spring days to do kinesthetic drama activities and in June to play softball or kickball.

When asked how he believes his students would react to going outside for science instruction in the winter, John speculated that "there would be a tremendous amount of complaining." This was a common response from the participants. Kyle imagined that if he took his students outdoors to instruct in the winter, his students would complain about the cold weather. Paul also felt that if he was to go outside for instruction in the winter, some of his students would complain and would choose not to be active outside. He said that some of his students would go outside and be cold because they "just don't want to be bothered to put on their jackets and boots." When asked if he has ever experienced students complaining about

going outside when the weather is warm, Kyle said that, "Sometimes they'll complain that it's too hot outside, but they're more likely to go outside when it's too hot than when it's too cold."

Clothing. Eva said that she believed her students would enjoy being outside more in the winter if they were wearing clothing appropriate for the weather. Of the seven participants in this study, only Amanda who teaches in a rural school reported that her intermediate students wear snow pants when they go outside at school in the winter. Todd said that he has students who wear jeans, jackets, and sandals outside for recess in the winter then complain about being too cold. Kyle also reported that some of his students wear torn jeans and then complain that they are cold. Eva described how the students at her school wear spring coats when the temperature is below zero, so they are cold and do not feel comfortable in the outdoors in winter. Todd observed that the boys and girls who are "bundled up have such a great time outside, but they all of a sudden hit intermediate age, some of them earlier, and then it's just hang out time outside instead of play time."

Gender differences. Four of the teachers I interviewed talked about girls trying to avoid going outside and that boys seem to enjoy being outside more than girls. Faye's homeroom class had 29 students, 23 of whom are boys. She argued that this gender imbalance is at least in part why her students enjoyed going outside for instruction and that "most would be okay" if she suggested going outside for instruction in winter. Paul has a group of female students at his school who he said avoided going outside in the winter because they hate being cold and do not want to wear clothing that is appropriate for the weather. Four teachers also mentioned that they had observed that the girls were less active when they were outside than the boys. Kyle said that most of the intermediate boys at his school play sports at recess, but as mentioned earlier in the chapter, most of the grade 8 girls at his school "stand around and try to use their cell phones."

Some students want to go outside more. Participants reported that there are some students who do want to spend more time outside when they are at school. Amanda said that when she told her students they were going outside during instructional time, her students responded by saying, “You’re the best teacher!” When Eva was a student, she never thought to ask her teachers if her class could go outside but reported that her students sometimes ask her to go outside when the weather is nice. Kyle is a music teacher who uses the outdoors when teaching instrumental music. Once or twice in the spring, he takes his classes outside and they play their instruments in the schoolyard. He said that his students have always reacted positively to playing instruments outside. Todd reported that his students like going outside for instruction because it’s a change for them. All of the participants in my study said that they believed their intermediate students would be very happy to go outside more in the spring and fall when the weather is warm.

When making decisions about their practice, one important factor teachers consider is the specific students who are in front of them. Paul stated that some of the students he taught this year would be happy to go outside for instruction, and some would not. Of the grade 7 and 8 students Paul was teaching at the time of the interview, he explained that he would make different decisions about going outside with his grade 7 students than he would with his grade 8 students. When asked how his intermediate students would react if they went outside more, Paul said:

I think they would be positive with it. The group I have now would be very positive with it. Put it this way, my grade 7s would love it, my grade 7s are pretty open-minded. They would be on board with any kind of new suggestion whether it be outside or in. Our grade 8s would not. So it’s just a difference in kids and mentality.

Paul's perception that his grade 8 students would not be enthusiastic about going outside means he does not have much incentive to create lessons that would happen outdoors.

Amanda reported that most of her students are enthusiastic about going outside both for recess and for instruction. She shared that she sometimes uses going outdoors as a reward for good behaviour in the classroom. She reflected that this means that her students might see the outdoors as a place for play, but not a space for work. Amanda said that she thinks that if she used the outdoors for instruction more regularly, they would stop seeing it as a place to be rewarded and see it as a place to learn.

Summing Up

All of the participants in my study saw value in being outside personally, but none thought much about incorporating outdoor instruction regularly into their teaching practice. As an intermediate teacher, I recognize that there are many factors to consider when planning what and how to teach. It is understandable to me that teachers who did not experience significant outdoor education as students and who teach in a board that does not offer any professional development on outdoor education do not often think to go outside to cover curricular expectations. Further, figuring out how, or even if, technology fits with outdoor education is certainly something that people teaching in 2018 have to consider. The weather also is a factor that must be negotiated if a teacher is going to instruct outside, and this is not always an easy task when teaching intermediate students who have not traditionally done much outdoor learning. While no teacher is required to go outside to teach, all of the teachers I interviewed were very open to the idea of covering curricular expectations outside and many began thinking of new ways to incorporate outdoor instruction into their practice as we were talking,

demonstrating that the more exposure teachers have to outdoor education, the more likely they might be to incorporate it into their practice.

Chapter 5: Discussion

Following the same format as the previous chapter, I have organized my discussion to mirror the four main themes that emerged from the data: 1) the value of outdoor education; 2) reliance on technology; 3) curricular connections; and 4) reactions to going outside. In this final chapter, I discuss the findings analytically while making connections to the literature I had already reviewed in the second chapter as well as new literature that helped me contend with topics that emerged in my interviews. Throughout this chapter, I have also included anecdotes from my own experience teaching intermediate students and my own ideas about why intermediate teachers do not go outside to instruct. I close the chapter with recommendations for how to get intermediate teachers outdoors more often to meet curricular expectations, a discussion of the learning that occurred for the participants by participating in this study, and a reflection on how the experience of writing this thesis will impact my own teaching practice going forward.

Theme One: The Value of Outdoor Education

None of the seven intermediate teachers I interviewed intentionally built outdoor education experiences into their long-range plans. While they all valued being outside personally and they all imagined that spending more time outside would be a good thing for their students, as yet they did not often instruct outside. The possible reasons for this situation are many, including a dearth of outdoor learning spaces appropriate for intermediate instruction, insufficient understanding about what outdoor education might include and how to effectively use the outdoor spaces at their schools to meet curricular expectations, and a lack of professional development related to outdoor education.

Value of time in the natural world. All of the teachers I interviewed expressed that they personally valued spending time outdoors, yet they did not build going outside into their teaching practice. By not going outside to cover curricular expectations, do these teachers unwittingly teach their students through the hidden curriculum that they are apart from the natural world rather than part of and dependent upon the natural world? Orr (1991) and Cornell and Ivey (2012) argue that teachers can contribute to their students' lack of appreciation for the natural world by instructing their students almost exclusively indoors. Hearing teachers say they value being in the outdoors then seeing them spend almost all day, every day, inside might lead students to perceive a disconnect between what teachers are doing and what they say they value. Thus Hill (2012) asserts that educators need to walk their talk by modelling sustainability principles and practices across the curriculum. As Orr (1991) suggests, students need educators who are role models of environmental integrity, care, and thoughtfulness. In my own experience teaching intermediate students, I have found that many of them are very perceptive and they are often searching for positive and caring role models who live what they believe. Intermediate teachers who choose to demonstrate the value they place on the outdoors by actually going outside to instruct could have a lasting impact on the students they teach.

None of the teachers I interviewed could clearly explain the benefits their students would accrue from outdoor instruction. They all believed that spending learning time outdoors would be beneficial, but none of them articulated that students would benefit academically from time spent outdoors. Fägerstam and Blom (2013), for example, found that teaching content outside where students can engage in hands on learning can help students gain a deeper understanding of the topic they are investigating, but none of the teachers I interviewed mentioned knowing that their students could develop deeper understandings by learning outside. As well, none of the

participants in my study seemed to know that students who learn outdoors have been found to recall math and science lessons better than students who learned exclusively indoors (Fägerstam & Blom, 2013) or that when learning in natural spaces, students have an increased ability to pay attention, think clearly, and be more creative (Louv, 2011; Williams, 2017).

The care and compassion for students that the participants demonstrated in their interviews made it clear to me that all the teachers are interested in the well-being and educational success of their students. I thus believe that if these teachers had more information about the academic and social benefits of going outside to learn, they would want these benefits for their students. This implies to me that these educators have probably never been presented with information about the benefits of outdoor instruction, pointing to a need for professional development in this area.

Understandings of and experience with outdoor education. Although I did not ask the participants directly to define what outdoor education means to them (something in hindsight I wish I had done), it was nonetheless clear from my interviews that most of the teachers I talked to did not have a clear or broad understanding of what outdoor education is. Thus it is unrealistic to expect them to intentionally incorporate it into their teaching. As explained in chapter two, outdoor education is concerned with providing experiential learning in order to foster connections to local places, developing a greater understanding of ecosystems on which students rely, and providing a unique context for learning (Bondar, et al., 2007). According to Bondar et al.'s (2007) definition of outdoor education, it should be practiced in local environments.

All of the teachers I interviewed had used, even if only sporadically, the outdoors as a venue for instruction, mostly for physical education. This means that all the teachers have, perhaps unintentionally, participated in outdoor education. With a deeper understanding of

outdoor education, these teachers might begin to use the spaces that are available to them just outside their classroom walls more regularly and intentionally as a teaching venue and teaching tool. With greater knowledge and experience with outdoor education, they could start to view the schoolyard as an extension of their classroom (Banack, 2014; Rios & Brewer, 2014).

As well, none of the teachers I interviewed made links between spending time outdoors and pro-environmental behaviour. As discussed in the literature review, researchers have found that time outdoors has the potential to foster higher levels of environmental sensitivity and pro-environmental behaviour (e.g., Ajaps & McLellan, 2015; Stevenson, et al, 2013; Stevenson, et al, 2014), but participants in my study were either unaware of that or they do not believe it is their job to foster pro-environmental behaviour in their students. Gruenwald (2003) argues that in order to gain the knowledge to act to protect a place, students must go outside regularly to form long-term relationships with the place in which they live and study. Given all the teachers in my study personally valued time spent outdoors, I believe that if they knew about the potential for outdoor instruction to influence pro-environmental behaviour, they would be more willing to consider implementing outdoor instruction.

Significant life experience research suggests that two of the factors that lead to environmentally active adults are formative outdoor experiences as a child and adult role models who facilitated these experiences (Stevenson et al., 2014). One of the reasons teachers may not think about going outside to instruct is that they did not have experiences learning outdoors when they themselves were students. All of the participants had very limited experience going outside to learn when they were students, and when they did, it was mostly for physical education. Amanda's experience outdoors was so unmemorable that she could not recall why her class was going for a walk in a natural area.

I also did not have any significant learning experience in the outdoors when I was an elementary or secondary student. I trace my interest in teaching outdoors to my time working at an outdoor education centre when I was an undergraduate university student and the time I spent instructing outdoor was certainly a significant experience for me. None of my participants had such experiences instructing outdoors, so this could be one reason they do not think about instructing outdoors now. Stevenson et al. (2014) reported that time spent outdoors is at least weakly correlated to pro-environmental behaviours, so if teachers want to encourage such behaviours in their students, they should consider providing their students with experiences that encourage direct interaction with nature as these have the potential to lead to greater care for the natural world. Indeed, if educators understood that concern for the natural world is shaped by social learning and by opportunities for direct contact with nature (Chawla, 1988), they might be motivated to work to find ways to provide more experiences in the outdoors for their students.

In order to provide such experiences for their students in an effective way, however, teachers would need to learn about research on outdoor education and significant life experiences, especially since not all nature experiences are equally educative and require careful facilitation (Russell, 1999). This would require substantive professional development, which I will discuss further in the next section. Further, information alone is not enough; teachers need to feel comfortable going outside if they are going to be willing to instruct outside. Eick (2013) found that if teachers do not have a strong belief in the importance of going outside, often informed by life experience, it is more difficult for them to teach outdoors. Obviously, a teacher who has not had any significant learning experiences outdoors cannot go back in time and magically acquire a significant childhood experience, so we need to help them find ways to

spend more time outdoors so that they become comfortable enough to take their students outside for instruction.

It is logical that teachers who are not comfortable outdoors would not instruct outdoors. Inexperienced math teachers who find themselves instructing this subject for the first time spend time doing the math they will be teaching in order to develop the skills and comfort level to teach this subject effectively. Likewise, teachers wanting to instruct outdoors need to develop the skills and comfort level to ensure they provide high quality instructional experiences for their students. This necessarily involves spending time outdoors. A teacher who is instructing math for the first time usually has colleagues to ask for support. For teachers looking to acquire the skills to teach outside, they generally do not have anyone in their schools or even their boards to turn to for support or guidance. So where do these teachers turn to gain the skills and experience to teach outdoors? In Ontario, there are professional organizations like the Council of Outdoor Educators of Ontario and the Ontario Society for Environmental Education who hold conferences and offer some resources for teachers, but most teachers would be unaware of these groups unless they heard about them in their pre-service education or through in-service professional development, which the teachers in my study had not. Pedretti, Nazir, Tan, Bellomo, and Ayyovoo's (2012) study of educators in Ontario found that over 75% of participants "attributed their EE to personal studies rather than professional development sources" (p. 9).

Lack of professional development. Kyle reported that he does not instruct outdoors because he does not know enough about it, and both John and Amanda said that learning about teaching outdoors and seeing examples of how to instruct outside would help them feel more comfortable in considering going outside with their students. This sentiment aligns with Mannion et al.'s (2013) findings that if teachers are provided with professional development to

bring their students to natural settings, they may feel more confident, motivated, and enthusiastic about what they are teaching. As Banack (2014) argues, just as teachers need professional development to learn how to teach *in* the classroom, they need professional development to learn how to teach *outside* a classroom. As Pedretti and Nazir (2014) found, without professional development, engaging meaningfully in environmental education is difficult to achieve for most teachers.

The lack of professional development is definitely part of what is keeping my participants indoors. None of the seven teachers I interviewed had ever received any professional development about outdoor education. Unless a teacher independently proactively seeks professional development from an outside institution (e.g., Additional Qualification courses, outdoor education conferences), all of their professional development is selected and provided by their school administration or school board. This means that unless a teacher works in a school board that provides professional development about outdoor education, they probably will never receive any professional development on how to incorporate outdoor instruction into their practice. All of the participants said that they would like to receive professional development about teaching outside, which shows that they all have an interest in learning more, but need to be provided with the opportunity to do so.

Pedretti and Nazir (2014) argue that the lack of professional development in both environmental education and outdoor education is one reason teachers do not incorporate these more regularly and effectively into their teaching practice. Certainly, I personally knew I needed to do a better job teaching environmental education, and the only way I thought I could attain the skills and knowledge I desired was to do a Master's degree focusing on environmental and sustainability education. On my own, I did not have the knowledge or access to resources to

effectively integrate environmental education into my instruction. Had I received professional development about environmental and outdoor education, I may not have needed to pursue further higher education. Not that I regret doing an MEd, but my experience demonstrates the difficulty teachers can have when seeking ways to connect the value they personally find in the natural world with their teaching practices.

Professional development can help educators change the way they teach. In my interview with Paul, for example, he talked about the high quantity of professional development teachers received when our school board made the decision to provide the intermediate students with one-to-one technology. This support led to most teachers rapidly and deeply embedding technology into their practices. The school board decided that the integration of technology was important, so they provided the support that allowed teachers the opportunity to learn how to integrate this technology. If the same importance was placed on outdoor education and the same quality and quantity of professional development and resources were provided for teachers, it would follow that outdoor education also could become more deeply integrated into teachers' practices.

I found it interesting that most of the teachers I interviewed cited technology as a reason they would struggle to get their students outside. They have integrated the use of technology so deeply into their practice, that going outside without the technology has become a hurdle to overcome in order to instruct outside. This also demonstrates that professional development has the power to change teachers' practices and that professional development in outdoor education would also need to include ways of integrating educational technology and outdoor education. In my interview with Kyle, he was already thinking of ways he could use technology outdoors, showing that when teachers are given the opportunity to think about it, they are able to be creative and come up with ways to use educational technology outdoors. Further, it has been my

experience that my colleagues are beginning to experience some technology fatigue; they have been inundated for years with ways educational technology can improve their teaching and they are looking for different professional development experiences. The fact that every participant in my study would like to receive professional development about teaching outdoors tells me that teachers are ready to move on from professional development solely focused on technology. I will return to a discussion of technology as it relates to outdoor and environmental education in the second section of this chapter.

Space for outdoor learning. Eva, Kyle, Paul, and Todd all have access to outdoor classrooms and Faye, Amanda, and John have schoolyards in which they could instruct. Nonetheless, it was clear from my interviews that none of the participants viewed the outdoors as a place for regular instruction throughout the school year. I must admit that it surprised me that teachers with easy access to outdoor classrooms did not regularly use these spaces. Although neither Paul nor Eva explicitly raised student behavioural issues as a reason for not going outside to instruct, it is telling that when both go outside, instead of the outdoor classroom in the schoolyard they use the courtyard, which is a contained space where it is easier to manage students and students and teachers cannot make much noise. Further, the quiet work that is done in the courtyard uses the outdoors as a venue for the lesson, but not as the content. Using the outdoors as a lesson venue as opposed to lesson content will be explored further in the third section of this chapter.

Broda (2007) argued that if outdoor learning spaces are to be used regularly by teachers, the spaces need to be functional, interesting, and comfortable. The only teachers who have an outdoor learning space that meet these criteria are Eva, Paul, and Kyle, who all work at the same school. The fact that they still do not use the outdoor classroom demonstrates that there are other

factors at play in teachers' decisions about outdoor instruction. Before one can expect teachers to use an outdoor space regularly, we first need to get teachers out of their classrooms and into the outdoor learning space in the first place. Having the knowledge and skills to do so ties back to the need for professional development. Once the teachers with an outdoor classroom get outside, the fact that they have a comfortable space to instruct may keep them outside. In Todd's case, his outdoor classroom does not comfortably accommodate his intermediate students and works better for primary students. Amanda, Faye, and John do not have outdoor classrooms at all, but they do have outdoor spaces at their schools where they have sporadically taken their students for outdoor instruction. Thus, as illustrated by the experiences of Eva, Kyle, and Paul, merely having an outdoor classroom does not automatically mean teachers will go outside to instruct. While the quality of outdoor learning spaces may limit what sort of learning can be done outside, it does not appear to be the deciding factor for the teachers in my study.

It is important to recognize that if students are being taught inside a school, then they are not being formally taught elsewhere (Steen, 2003). As Steen (2003) and Orr (1991) indicated, it is no wonder many students, and teachers for that matter, come to see learning as solely an indoor activity. Although not all of the participants have outdoor classrooms, they all have spaces they can potentially use for outdoor instruction - they just have to walk outside their classroom doors. And they could do this every school day if they desire. Rios and Brewer (2014) found that students must have repeated exposure to the outdoors in order to form connections with the natural world, so teaching outside regularly would be beneficial. All of the teachers I interviewed believe that intermediate students need to develop greater connections to the natural world, so using their outdoor spaces more often would make sense.

Going outside to teach is a big change, however, since teaching indoors is the norm in most public schools. Blenkinsop (2014), who helped start and researches an elementary school program that has no buildings, has observed that the process of change is not easy for teachers as it requires a different orientation to the world and to teaching. He has found it is possible though, through concerted, ongoing work of committed teachers. Teachers need to develop a strong conviction that what they are doing is beneficial for their students since outdoor instruction is going against the grain for intermediate teachers. Speaking of environmental education more generally, Kollmuss and Agyeman (2002) found that educators without conviction may feel that their attempts are insignificant, believing change can only be brought about by powerful others, so it is possible that some teachers may wait for instructions from superiors before they will consider teaching outdoors, demonstrating the importance of educational leadership.

Theme Two: Reliance on Technology

Technology use is not just important in the lives of intermediate students, it has also become essential for most teachers. Steen (2003) argues that the education system's devotion to mechanism makes it almost impossible for students and teachers to think ecologically. Teachers who want their students to benefit from the use of technology and who are also concerned with the environmental literacy of their students thus face challenges. As the school board where all my participants work provides one-to-one educational technology for all students, my participants must contend with the broader impact of technology always being in the hands of their students, something that is a concern for many outdoor and environmental educators (Louv, 2008; Selhub & Logan, 2014). The need to meet some IEP requirements with technology is also a concern for teachers wanting to go outside to instruct.

Four of the seven participants talked about students wanting to be on their devices as often as they can, and three participants mentioned that their students wanted to be on their devices when they are outside for 40 minutes each day for recess. With increased time in front of screens, it is argued that mindful engagement with the natural world is decreasing (Steen, 2003; Louv, 2008). When students are spending time looking at screens when they are outdoors, they are not able to pay attention to or interact with the natural world. Screen time is not just impacting students' interaction with the natural world, however, in my personal observations, also their interactions with their classmates. Many of my intermediate students consistently choose to be in front of a screen when that is an option. At my school, at lunch and during indoor recesses, one of the options students have is using their technological devices. Almost all of my students choose to use their devices during these times. Some of them still converse with classmates, but their conversations are regularly about the content they are viewing on their devices.

Because technology is ubiquitous in the lives of most adolescents, educators need to harness the power of technology to encourage interactions with the natural world (Boyse et al., 2014). The school board that all my participants work for has demonstrated a strong commitment to integrating technology into instruction, as evidenced in their purchase of tablets for all intermediate students. As an intermediate teacher in this board, I was provided with a great deal of support to integrate this technology into my teaching. It is possible to integrate tablet technology into outdoor education, which I will describe later in this section, but the teachers I interviewed indicated that they did not know how to do this. In order to integrate one-to-one devices into OE, educators need more support, resources, and information to do so.

Taking full advantage of the one-to-one technology provided to intermediate teachers by the school board is important to the teachers I interviewed. In my own classroom, I have seen the benefits of consistent access to information on the internet and access to apps and programs that allow my students to learn as well as to represent their learning in various ways. Amanda worried, however, that increasing the use of technology means that her students are feeling disconnected with the natural world and do not understand its importance. It is worrisome that the benefits intermediate students accrue from using technology may come at the expense of ecological literacy; numerous environmental and outdoor educators worry that increased screen time negatively impacts mindful engagement with the natural world (Louv, 2008; Selhub & Logan, 2014; Steen, 2003). It is concerning to me that in our board, we seem to be perpetuating this problem instead of confronting it. I believe that we need to take action to purposefully spend less time in front of screens and more time in the natural world.

Still, technology and outdoor education do not need to be set up as mutually exclusive. Hougham and Kerlin (2016) argue that educators can give students opportunities to use the power of technology to help make connections to the natural world instead of using it in ways that increase their disconnect from nature. Indeed, they argue that technologies can be tools that help teachers meet their learning objectives (Houghman & Kerlin, 2016). To use technology in conjunction with teaching outdoors, teachers will need to plan their lessons around harnessing the power of technology and they will need to think about new and innovative ways to use the technological devices available to them. For example, as the science curriculum has some ties to the natural world, teachers might be able to plan a lesson around students being citizen scientists. Students could input environmental data on their devices, and then the data can be compared and

graphed across student groups, spatially between field study sites, or temporally by noting changes over time (Houghman & Kerlin, 2016).

As most intermediate students are very comfortable using devices and sharing on social media, teachers also could use social media as a platform for empowerment in conservation. They could make videos in the outdoors about conservation issues and distribute these videos on social media platforms as a way of engaging with the environment through their technology (Hanson, 2018). Technology can be a hurdle to going outside, but with innovative lesson planning, teachers can use students' devices to enhance outdoor instruction.

Another issue related to technology is that teachers must meet all the expectations and requirements listed in the IEPs of students identified with exceptionalities. Many IEPs require access to technology (e.g. soundfields, voice-to-text and text-to-voice technologies). This means that going outside is not an option for the teachers who cannot meet these requirements outdoors. If schools believe that it is important for students to spend time learning outside, they will have to invest in ways to allow IEP requirements to be met outdoors. That may involve purchasing portable soundfields, providing WiFi access outside, or allowing technology to be used outside the classroom. Special education teachers might also need to develop the skills and knowledge to work with classroom teachers to find ways to make outdoor learning spaces accessible and inclusive for all students, regardless of their learning needs. Dillon et al (2006) have commented on the barriers students with special needs face in outdoor education but as yet there is limited work being done in inclusive outdoor education (Russell & Fawcett, 2013); more needs to be done in this area.

Theme Three: Curricular Connections

Steen (2003) argues that standard curricula are profoundly anti-ecological. Certainly, the participants in this study were unable to readily identify curricular expectations that could be met outside. The data from my study reveals that when teachers do go outside to instruct, they use the outdoors as a venue for instruction, but not as the content of the lesson, meaning that their students generally do not interact with the natural world and thus do not benefit from all the advantages of outdoor instruction. I admit that finding ways to get my students outside has proved to be a challenge for me in part because of the content of the curriculum I am tasked with teaching. The teachers I interviewed were uncertain if it was even their job to connect students with the natural world, given it is not clearly mentioned in the intermediate curriculum. My participants did see the value of outdoor instruction, so during the course of the interview, they began thinking of connections that could be made and ways they could get outside with their students.

It is provincial policy in Ontario to include environmental education across the curriculum, yet none the teachers I interviewed actively planned outdoor lessons that were aimed at connecting their students with the natural world. The policy framework for environmental policy states:

Ontario's education system will prepare students with the knowledge, skills, perspectives, and practices they need to be environmentally responsible citizens. Students will understand our fundamental connections to each other and to the natural world around us through our relationship to food, water, energy, air, and land, and our interactions with all living things. The education system will provide opportunities with the classroom and community for students to engage in action that deepens this understanding. (Ontario Ministry of Education, 2009, p. 6)

Based on the data I collected, this Ministry policy is not implemented as intended. Although I did not directly ask my participants about this document, none referred to it nor indicated that they

knew that this policy framework even exists. If teachers actually knew about the policy framework for environmental education in Ontario schools, they might begin to recognize that it is indeed their job as educators to “enrich and complement students’ classroom learning by organizing out-of-classroom experiences and activities” (Ontario Ministry of Education, 2009, p. 17).

Three of the teachers I interviewed were creative in the interviews, thinking on the spot about ways they could go outside with their students. This tells me that when teachers are given the opportunity to consider outdoor instruction, they are willing and able to find ways to go outside; clearly they had not previously been provided with opportunities to consider outdoor education. Throughout my teaching career, I have been inspired by colleagues who have learned about educational advantages they can give their students across various subject areas and who then do the research and planning in order to make these happen for their students. From my own experience, I know that trying new ways of teaching is time consuming and challenging, especially if the innovations go against the perceived norm for intermediate teachers. Still, with effort and some knowledge, I have found ways to get my students outside while covering curricular expectations, so I know it can be done. From what I know about the desire of my participants to provide high quality instruction for their students, I believe that if they were provided with more knowledge and information about how to implement outdoor education and the time to find ways to integrate it into their instruction, they would make reasonable attempts to do so. Indeed, it is clear to me from my interviews that teachers would integrate outdoor instruction if they were given the right tools to do so.

When teaching about the natural world, educators need to move from indoor lessons that teach about outdoor places in the abstract to actually teaching *about* the outdoors *in* the outdoors

(Gruenwald, 2003). Of all the teachers I interviewed, only two mentioned teaching about the outdoors in the outdoors. John talked about the possibility of going outside later in the school year as part of the life systems strand in the science curriculum and Todd talked about going outside for still-life drawing and for science exploration. While the five other participants go outside sometimes, all of the activities they described use the outdoors as a venue, not as content for the lesson. Using the outdoors as a venue is a good first step to help teachers grow more comfortable teaching outdoors, but in order to take full advantage of the benefits of outdoor instruction, the natural world needs to become the content to the lesson. If teachers provide hands-on learning opportunities outside the classroom, their students may develop an attachment to that place (Kudryavtsev, Stedman, & Krasny, 2012) and the knowledge they gain about their place could inspire them to engage in positive environmental action (Norðdahl & Jóhannesson, 2016). There is no doubt that teachers would like their students to engage in positive actions for the environment, so going outside to learn about the natural world might be a relatively easy way for teachers to start exploring outdoor instruction.

Feille (2013) identifies that a barrier to getting outside was that teachers are concerned with covering all their required curriculum. This means that moving from using the outdoors as a venue to using it as content will depend upon teachers finding ways to go outside while still meeting curricular expectations. In my experience, many teachers have complicated relationships with the curriculum. We know we have to meet the expectations in these documents, but there are barriers to meeting all the expectations, including meeting the needs of the specific students in front of us, incorporating new pedagogies, and the sheer quantity of curricular expectations. Kyle is right when he said that a teacher can meet every expectation in the intermediate curriculum without going outside. The teachers I interviewed struggled to identify what

expectations in the intermediate curriculum could be taught outdoors. Faye, Paul, and Kyle cited the geography and science curricula as the most likely subject areas that would allow them to take their students outside. There are many expectations that involve the environment in the grade 7 and 8 curricula, but none that *require* a teacher go outside to instruct. For example, in the geography curriculum, one of the expectations for grade 8 students is:

A3.2 identify and describe some ways in which the physical environment can influence the general location and pattern of human settlements

(e.g., the impact of factors such as climate, soil, and topography of the location of agricultural settlements; the impact of physical features on urban development; the importance of water for transportation, irrigation, industry, personal use; the existence of natural resources and the development of resource towns; the type of building erected in an area prone to earthquakes)

Sample questions: “What type of physical environment is most conducive to agriculture?” “What can happen to a resource town once the resource on which its economy depends has been depleted?” (Ontario Ministry of Education, 2013)

A teacher could develop an outdoor lesson to meet this expectation, but going outside is not required, and would almost certainly not be as efficient as learning this lesson in a classroom. Efficiency, when considering the volume of expectations in the geography curriculum and the time given to meet them, is something all the intermediate geography teachers I know have to consider. If the sample questions were written in a different way, perhaps teachers would be more inspired to get outside. For example, here is how it could be written:

Sample questions: “When you are standing in your schoolyard, what do you see in the physical geography that makes this a good or bad spot for a school?” “When you walk around your community, in what ways do you see the physical environment impacting where people live and work?”

If a teacher sees that going outside to meet curricular expectations is not only a possibility but implied as a requirement, they will be more likely to take their students outside. Writing the sample questions in the way that I did may also remind teachers that using the constructed

environment can also teach students about the history and culture of a place (Norðdahl & Jóhannesson, 2016) and that going outside does not have to exclusively focus on spending time in and exploring natural areas. Such a shift might be particularly important for teachers who work in urban areas (Russ, 2016). Meeting the expectations in the curriculum is important for teachers, so if they see ways to get outside written directly in the curriculum document, they may think about going outside more often.

In my experience with intermediate curricula, especially the science curriculum, some of the expectations that involve the environment are about the impact humans are having on the natural world, and not about how the natural world functions and supports life, including human life. For example, the first overall expectation written in the science curriculum for all strands of the grade 7 science curriculum are:

Understanding life systems: 1. assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts;

Understanding structures and mechanisms: 1. analyse personal, economic, and environmental factors that needs to be considered in designing and building structures and devices;

Understanding matter and energy: 1. evaluate the social and environmental impacts of the use and disposal of pure substances and mixtures;

Understanding earth and space systems: 1. assess the costs and benefits of technologies that reduce heat loss or heat-related impacts on the environment.
(Ontario Ministry of Education, 2007)

The first expectation that teachers see when they open their curriculum document to plan each strand of science instruction, then, is about the ways humans impact the environment. It is no wonder that students can become so overwhelmed and discouraged by the negative information they receive about environmental issues that they do not know what actions to take to create a healthier environment (Ajaps & McLellen, 2015; Kelsey & Armstrong, 2012).

While human impact on the environment is important for students to understand, instead of teaching exclusively about environmental degradation, perhaps the science curriculum should focus on environmental literacy, which will better help students face current and future environmental issues (Ferreira, Grueber, & Yarema, 2012). If there were expectations in the intermediate curriculum that focused on developing connections to the natural world and environmental literacy in students, their fear and anxiety about the natural world might be replaced with attachment and determination to protect the environment (Kelsey & Armstrong, 2012). Both Kelsey and Armstrong (2012) and Chang (2016) argue that instead of scaring students with talk about environmental catastrophes, educators should help their students establish positive, caring attachments to their environment. Focusing on environmental literacy may help students develop empathy for all life forms and allow them to recognize that they are a part of a web, not apart from the natural world (Goleman et al., 2012). When looking at the current science curriculum, it may be difficult for intermediate teachers to identify places where there are opportunities to encourage the development of positive feelings about the environment so when new curriculum documents are developed, more emphasis on fostering environmental literacy needs to be considered. If students can feel a sense of connection and be environmentally literate before they learn about environmental catastrophes, they may be in a better place to grapple with the implications of their behaviour and they will have the knowledge to make choices that reduce their impact on the environment (Goleman, et al. 2012).

There are so many expectations in the grade 7 and 8 curriculum that all intermediate teachers that I know understand that it is not possible to teach all the specific expectations in the curriculum. Thus, they have to select which specific expectations will help them most effectively meet the overall expectations. If teachers have little training or experience teaching in, about, or

for the environment, they can easily decide to focus on expectations that do not relate to the environment. The dense curriculum also makes outdoor instruction seem time consuming. From my experience teaching outside, I know that going outside to instruct can mean that lessons take longer than teaching inside. When students are in the field “doing,” their motivation and engagement are high, which can lead to long-lasting learning (James & Williams, 2017), but as a teacher it can be difficult to balance what we suspect is good for our students in the long run with the heavy demands of the curriculum.

Banack (2014) says that the schoolyard offers relevant, experiential, and accessible learning opportunities for students, but these opportunities are lost if intermediate educators rarely consider instructing outside to meet their curriculum expectations. In my experience teaching outside, primary teachers are more likely to use the schoolyard for instruction. On a warm day in late April, I was on the schoolyard with my students in the morning for physical education and the afternoon for two consecutive periods working on a measurement task. That morning, a kindergarten class was sharing the yard with us. In the afternoon, there were two primary classes on the yard in the first period, one working on a math assignment and one participating in physical education. The second period we were outside, there were two different primary classes on the yard, one working on math and the other physical education. No junior or intermediate classes were on the yard at the same times as my class in the three periods we were outside. This may be a small and isolated snapshot of one day at one school from the perspective of one teacher, but this experience is very common for me at my K-8 school and in the four years I worked at a grade 7 to 12 school, being alone on the schoolyard during instruction time was also common, especially on days when it was not a warm and sunny day. Given what the

teachers in my study reported, my experiences of being the lone intermediate teacher outside do not appear to be atypical.

The curricula that all my participants are working to implement were written to meet the learning needs of students all over the vast province of Ontario. This means that curricula do not contain expectations that are specific to the location of individual school boards or communities. Teachers in my small, mostly rural school board have to meet the same expectations as teachers in large urban areas and remote, northern communities. There is nothing in the curriculum that would guide the teachers in my school board to know how to use their specific place as an instructional tool. If they want to engage in place-based learning, teachers are unable to directly follow the guiding questions in the curricula, but instead have to create their own questions and assignments. The problem of lack of local content in the curriculum can be amplified by teachers who use textbooks in their instruction since textbooks also are written for a province-wide audience, and do not have information to help a teacher know how to use their own specific place to instruct their students.

An integrated approach to environmental education in Ontario requires that it be visible in, and reflected across, the curriculum. In one case study of an integrated environmental studies program at the secondary level, students had opportunities to learn experientially about and with their natural and social communities, which led them to hone interpersonal skills and grow personally (Russell & Burton, 2000). This integrated approach is not seen as possible for most intermediate teachers as they do not teach the same students all day. Six of the seven teachers I interviewed teach on a rotary schedule. This means that they have to adhere very closely to a timetable and it means that they may teach only two or three different subjects. An intermediate teacher not on a rotary schedule generally teaches their students all subjects except French and

music. Teachers who teach the same students most subjects may also choose to adhere closely to a timetable, or like me, they may choose to adapt their instruction times to the tasks at hand (e.g., spend more time on science this week, and less next week), and they may choose to teach across the curriculum. Teaching on a rotary schedule may be one of the reasons teachers don't think about integrating EE and might be why they do not think they have time to go outside to instruct. While there are many Ontario examples of secondary school teachers who disrupt the rotary schedule, opting to stay with the same group of students for the full day for an entire term by offering integrated environmental studies programs (Breunig et al, 2014), I am not aware of any examples of such programs being offered in Ontario for the intermediate grades, which seems like a missed opportunity to me. Adhering to a rotary schedule and treating subjects as discrete entities is an example of the mechanist approach that so concerns Steen (2003), making him and me wonder if most schools are even capable of producing students with a holistic or ecological worldview.

Theme Four: Students' Reaction to Going Outside

The data I collected (as reported by the teachers I interviewed) suggests that students' reactions to going outside in the winter can be very different from their reactions to going outside when the weather is warm. Getting students outside for recess in the winter can be a struggle. Based on their experiences, the teachers in my student project that their students would not react well to going outside for instruction in the winter, but would be happy to do so in the fall and late spring. According to the teachers, gender appears to play a role in the desire to be outside, with girls showing less interest in being outside than boys. Still, many students see going outside as a reward in the warm weather, although perhaps mostly for recreation rather than as a space for instruction and learning.

Six of the seven teachers I interviewed teach at schools where students are required to go outside for two 20-minute recesses. Going outside for recess is a break from lessons and it can be a time when students build relationships with peers. Being outside for recess is also a time for students to spend time in the natural world and it might be the only time some students spend outside in their day. When they are outside, students have the opportunity to develop an understanding of the ways that nature restores us, makes us more creative, more empathetic, and more willing to engage with the world and the people around us (Williams, 2017).

Five of the six participants who have recess at their school say that in the winter, many intermediate students do not want to go outside for recess. Four of the participants told stories about the measures students will go to be able to stay indoors in the winter (e.g., hiding in bathrooms, roaming the halls, joining clubs that meet at recess). The students who are avoiding going outside for recess are missing out on benefits of spending time outdoors. The teachers who have recess at their schools all said that their students do not resist going outside when the weather is warm, however, so the resistance seems to be mostly related to the weather and having to dress appropriately in order to be comfortable. Amanda, the lone participant who said that her students enjoy going outside in the winter, reported that her students wear appropriate winter clothing and they play when they go outside in winter. This finding may suggest that in order for all intermediate students to enjoy recess in the winter, they need to be encouraged to wear clothing appropriate to cold weather and they need to be participating in an activity.

None of the teachers I interviewed said that their students would be excited to go outside to learn in the winter. I wonder, though, if schools are complicit in developing the attitude in some students that weather is a barrier to going outside, especially when we cancel recess when it is raining or very cold or when we restrict access to the schoolyard when the yard is icy. All of

the teachers I interviewed live and teach in a location that experiences at least five months of potential sub-zero degrees Celsius temperatures. As intermediate teachers, if we do not want to accept that our students will have minimal time in and connection with the outdoors during these cold months, we need to act. Our intermediate students already have been learning inside a school system for almost a decade, which employs a centralized curriculum that is anti-ecological and limits the potential for regional variation (Steen, 2003). If we want our students to appreciate the natural world in *all* seasons, we need to get our students outdoors for instruction regularly to allow them to see and experience that going outside in the winter has many benefits. I take my intermediate students outside in the winter each year, and although they do not all wear appropriate winter clothing and some complain about the cold, I know that these experiences show them that the outdoors can be a place where they can have fun, learn, and be active in the cold months of the year. Each year, the Council of Outdoor Educators of Ontario hosts a “Make Peace With Winter” conference, what they describe as “amazing weekend packed full of professional development, experiential learning and winter fun” (COEO, 2018). Perhaps if my board supported intermediate teachers attending a conference such as this one, they would feel more comfortable teaching outside in the winter?

Lack of appropriate clothing was mentioned by all but one of the seven teachers I interviewed. Should we accept not going outside in the winter because some intermediate students are, as Todd said, “slaves to fashion”? As a teacher of intermediate students, I have had very few conversations with my students about appropriate outdoor clothing. Looking back on the conversations we have had, I may have perpetuated the problem by making light of teenagers’ winter clothing choices. I certainly model wearing warm clothing in the winter, but working to understand the reasons some intermediate students do not choose to wear warm

clothing in winter may be a more effective way of effecting change in students. If the reasons are understood and discussed by both students and teachers, students' winter clothing choices may change and this might make them feel more comfortable when they are outside in the winter.

In terms of the gender dimension of going outside in winter, there is increasing interest in how gender plays out in the field as well as in enhancing gender equity and girls' and women's empowerment in environmental and outdoor education (Gough, Russell, & Whitehouse, 2017). Schools are well-placed to do this work and there is a long history of interest in facilitating outdoor education for girls and women in both formal and informal learning environments (Gray & Mitten, 2018; Warren, 1996). Four of the teachers I interviewed said that girls complain more about going outside than boys. This might mean that those female intermediate students do not see the outdoors as a space for them or it might reflect concerns about fitting in socially or body image (Breault-Hood, Gray, Truong, & Ullman, 2017). If they do not want to be outdoors, it will be more difficult for them to foster a connection with the natural world and without this connection, they may be less likely to want to protect the environment. At my own school, I do not find that girls complain more about going outside in winter than the boys, but that might be due to the fact that as a female teacher, I model for students my enjoyment of being outdoors. As well, the members of the intermediate Eco Team at my school are overwhelmingly female. This might be because these female students do, in fact feel a strong connection with the natural world, but may also be due to me being a female and being a role model for caring for the environment. As noted above, gender is gaining more attention in environmental and outdoor education research (Gough, Russell, & Whitehouse, 2017), which could be useful in better understanding what might be going on for female intermediate students resisting or being keen about going outside.

To wrap up this section, it is important to remember that when students enter the intermediate grades, they have spent much of their time in the education system learning indoors. What time they have spent outside at school typically is for recess, physical education, or as a reward for good behaviour inside the classroom. If intermediate teachers bring their students outdoors for instruction, they will need to give them the skills they need to learn outside of the walls of a classroom, including being able to self-regulate such as choosing to wear appropriate clothing. Learning in any new venue requires a teacher helping students build the skills and gather the tools they need to succeed in the learning environment, but using the schoolyard may be an even bigger challenge at this moment in time because most students may never have seen it as a place for learning.

Conclusions

Orr (1991) said that the planet needs more people who live well in their places. As teachers, if we do not take our students outside and they have few other opportunities to get outside with their families or through play or other informal learning, we can have little hope that our students will have much knowledge of their place. And if they do not know their place, how can we expect them to live well in it? Throughout this thesis, I explored why intermediate teachers do not go outside to meet curricular expectations. I have come to the conclusion that until there is a systematic change in education where more value is placed on environmental and outdoor education, it will be up to individual teachers to do the work to connect their students to their places. Alas, this has been the norm in Canada for many years where it is not unusual to have, at best, only one or two keen teachers in a school engaging in environmental education (Russell, Bell, & Fawcett, 2000). I find it disturbing that this still appears to be the case in

Ontario even after there have been attempts to encourage environmental education through developing of a policy framework (Ministry of Education, 2009).

Even when intermediate teachers know the benefits of outdoor instruction and make the decision to implement this way of teaching, they may be fighting an uphill battle. They will have to proactively seek out the literature about effective outdoor education, they will have to encourage a group of intermediate students who have only seen education as an indoor pursuit to believe that they can learn outside, and they will have to answer the questions of administrators, colleagues, and parents who may not understand the benefits of outdoor instruction. Those teachers who already know the benefits of outdoor instruction may feel an added responsibility to mentor their colleagues by sharing their knowledge and understanding if they hope for more students to be involved. This is daunting, but important work for educators. As I wrap up the thesis, I want to offer a few recommendations for teachers. I also reflect on what participating in my thesis research may have meant for the teachers who kindly agreed to be involved as well as what it will mean for me going forward as an intermediate teacher.

Recommendations for teachers. Orr (1991) said that students should not graduate from formal education without having basic environmental literacy so they can understand and work to protect the environment given that we depend upon it for our survival. Currently, the education system in which I teach does not provide me with the tools to ensure my students are environmentally literate. If teachers like me believe that environmental literacy is important and valuable for their students, they have to learn how to teach it on their own.

Teachers are just one piece of a large and complex education system. Throughout my career, I have received the message that although there are many policy and administrative decisions that teachers cannot control, teachers have the ability to make decisions about how

their students learn the required curricula, but that is easier said than done. Because the curriculum we teach is divided into subject areas, because intermediate teachers often teach on a rotary schedule, and because each year new professional development is introduced to address specific learning goals (which never includes environmental or outdoor education), it is difficult to find the time required to learn how to teach in all the ways that would be best for their students. I worry that our education system will continue to have difficulty moving beyond the anthropocentrism and mechanism that currently shapes its practices to embrace a more organic, systematic, or ecological approach to education (Steen, 2003), so individual teachers need to do the best they can, working to innovate within the confines of the education system. I encourage my fellow teachers to do just that even if it is difficult to implement a new way of teaching in a system that relies so much on tradition.

Sometimes I find myself falling into the trap of believing that the education system is a monolith that an individual cannot change. More optimistically, I know that each individual intermediate teacher has about 30 students in front of them every day who are, for the most part, open to change. I have long believed that the power in the education system is in the classroom, and I continue to believe that an individual teacher can guide and open up possibilities for their 30 students each school year, including in outdoor education. Together, we can make a difference in our students' lives and perhaps if there were more of us doing so, we can help create the conditions for more systemic change.

I must admit that one of the findings of my participants that I found most surprising was that students do not want to be outside in the winter. Living in Canada, we are somehow creating children who see cold weather as a deterrent to spending time in the outdoors. All but one of my participants said that their students would complain if they were told they would be going

outside to learn in the winter. As it is cold in Canada for most of the school year, does that mean we must stay inside for most of the school year? And are we educating children to have no sense of the beauty and importance of winter? As intermediate teachers, we need to seriously consider how to talk to our students about winter weather and model for our students how to find enjoyment, learning, and even comfort in the outdoors in the winter.

Finally, in the busyness of a teaching career, educators often rely on the professional development that we are provided by our schools and boards and on our own limited experiences with our students to guide us in our practices. I have found that unless I am directly presented with information on new ways to teach, I rarely have the time to go searching for it and I do not always know what I do not know or where to look for this information. Until I started my Master's degree, I essentially left it up to the policymakers at the provincial and board levels to decide not only what, but also how and where I teach. If we want all intermediate teachers going outside to instruct, then, policymakers need to decide that being outside is important for students and make changes to the curriculum and ensure that there are professional development opportunities available. I have some anecdotal evidence that in some school boards across the province, outdoor education and environmental education are promoted in their professional development, but it is not happening in my school board. This means that if individual teachers in my board want to get outside to instruct, they have to proactively find the information they need, find colleagues who can mentor or support them, and seek out appropriate professional development.

Teachers learning through participating in my research. During the interview process, I found that each of the teachers in my study demonstrated professionalism, deep pedagogical knowledge, creativity, and genuine care for the wellbeing of their students. If the

participants had had the opportunity earlier to gain a deeper understanding of outdoor instruction and if they had known that outdoor education promotes not just environmental learning, but also supports personal development (Harris, 2017), I am sure that they would have considered incorporating outdoor education into their teaching practice more regularly. While I was interviewing these intermediate teachers, all of them talked about the ways they could take their students outside for instruction. I hope that the interview process sparked an interest in outdoor education in these teachers and I hope they will be inspired to plan for outdoor instruction not just for what remains of this school year, but also as they plan for the next school year.

All of the participants in my study said that they believed that their administrators would be supportive of them if they wanted to teach outside. Perhaps as teachers, we perceive more barriers to our ability to teach the way we want to teach than actually exist? That is something that Berger, Gerum, and Moon (2015) found when they were working with pre-service teachers in a climate change education course. Now that the participants have had the opportunity to think about implementing outdoor education during the interview process, it is my hope that these teachers will take advantage of the openness for change they see in their administrators, seek out various supports and resources they need, and start to go outside for instruction more often. I am looking forward to seeing the participants, my colleagues, at meetings over the next years and not only finding out if they have indeed made attempts to integrate outdoor instruction in their teaching practice, but supporting them as best as I can if they so wish.

Implications for my teaching practice. Dating back to my time when I was a BEd student in the Faculty of Education at Lakehead University in 2001-2002, I knew that I wanted to instruct outdoors, but once I found myself teaching in the education system, I did not go outside as often as I would have liked. There were so many demands on my time and energy, and as a

new teacher, doing almost all my instruction indoors was the only way I felt I could manage my career. I recognized that the implications of this was that my students would not develop a strong attachment to the environment with me as their teacher, and as I became a more experienced and confident educator, I knew I needed to make a change in how I was teaching in order to get outside more often and more effectively. The problem was, I did not have any good ideas about how to do this. I decided to begin the process of earning this Master's degree and I immediately encountered research on the many benefits of experiential outdoor and environmental education. Learning about the social and academic benefits of outdoor instruction made me wonder why I and other teachers did not take advantage of this knowledge and try to provide these benefits for our intermediate students. This wondering led me to my thesis question: Why don't intermediate teachers go outside to meet curricular expectations?

Through interviewing my colleagues, I was consistently reminded of their thoughtfulness, kindness, and of the hard work they do to provide all of their students with the best education possible. I heard them when they talked about the expectations parents, administrators, and students have of them and the many ways they try to balance these expectations. These interviews reminded me that, although there are so many expectations of me as an intermediate teacher, I still can and need to prioritize outdoor instruction. I am excited to be able to devote more time to putting the learning I have done through writing this thesis into practice next school year and throughout my teaching career. I hope that other intermediate teachers will join me outside!

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Appendix A: Information Letter

Faculty of Education
telephone: (519) 301-0490
email: mmcdonal@lakeheadu.ca



Date

Dear [potential participant],

I would like to formally invite you to participate in the research that I am conducting for my Master's thesis in the Faculty of Education at Lakehead University in Thunder Bay, Ontario. The title of my thesis is *Why Don't Intermediate Teachers Go Outside?* I believe that the knowledge that you possess could provide me with useful insight into this question.

For this qualitative study, I will be interviewing between seven to ten intermediate teachers. All interviews will be audio-recorded and conducted and transcribed by myself. You will not be paid to participate in this research. You may benefit from participating in the research through the opportunity to reflect on your teaching practice.

There is no foreseeable physical harm or risk for participants of this study. You will have the right to refuse to answer any question. You will be given the opportunity to review the transcripts, if desired, to ensure that these accurately reflect your perspectives.

To ensure anonymity, all data gathered through this research will be kept confidential, the name of your school and school board will not be identified, and pseudonyms will be used in my thesis and any associated writing or presentations. The teachers I interview will not be identifiable in my thesis and any associated writing or presentations. Only my supervisor, Dr. Connie Russell, and I will have access to the raw data. At the end of my research, data will be submitted to my supervisor, who will securely store the information on an external hard drive in the Faculty of Education's data storage area for 5 years after which it will be destroyed as per Lakehead University's policy.

Your participation in my research is entirely voluntary. As a participant, your rights include: the right to not participate; to withdraw at any time during the data collection phase and to have any collected data related to you not included in the study; to privacy, anonymity and confidentiality; and to having safeguards in place to ensure security of data.

The results of this research will be used in my thesis and in presentations and written articles. You may request an executive summary of the thesis or an electronic copy of the full thesis by indicating so on the consent form.

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Research Ethics Board (REB) at Lakehead University. For questions regarding participant rights and ethical conduct of research, you may contact Susan Wright at the REB at (807) 343-8283.

If at any time, you have any questions or concerns regarding the research please feel free to contact me by email at mmcdonal@lakeheadu.ca, or by telephone at (519) 301-0490. You also may contact my supervisor, Dr. Connie Russell by email at crussell@lakeheadu.ca, or by telephone at (807)-343-8049.

Thank you.

Sincerely,

Michelle McDonald
Master's of Education student
Faculty of Education
Lakehead University

Appendix B: Consent Form

Faculty of Education
 telephone: (519) 301-0490
 email: mmcdonal@lakeheadu.ca

Study title: Why Don't Intermediate Teachers Go Outside?

I, _____, have read and understood the information about the research project, including the potential risks and benefits of the study. I hereby consent to my participation in the research.

I understand:

- The potential risks and benefits of the study;
- I may withdraw from the research at any point during the data collection period;
- I may choose not to answer any questions;
- All information gathered will be treated confidentially;
- Following the completion of research, all data will be submitted to my supervisor, Dr. Connie Russell, who will securely store the data on an external hard drive in the Faculty of Education's data storage area for 5 years before being destroyed, as per Lakehead University's policy;
- I will be given the opportunity to review the transcripts;
- I may request an executive summary of the thesis or an electronic copy of the full thesis by indicating so on this form;
- I will not be identifiable in the thesis or any publications or public presentations resulting from this research, unless otherwise indicated on this form that confidentiality is waived and the use of my real name is preferred.

I also understand that the results of this research will be used only in the following:

- My thesis, which will be available in the Lakehead University library;
- Presentations at conferences or in teaching;
- Written articles for scholars or professional educators.

(Print Name)

(Signature)

(Date)

I would like to receive an executive summary of the thesis: Yes: ___ No: ___

I would like to receive an electronic copy of the full thesis: Yes: ___ No: ___

Please provide an email address to receive an executive summary of the thesis or an electronic copy of the full thesis: _____

Please sign and return this form to Michelle McDonald. A copy of this consent form will also be provided to Dr. Connie Russell. For further information concerning the completion of this form, please contact:

Michelle McDonald
Master's of Education Student
Lakehead University
Phone: (519) 301-0490
Email: mmcdonal@lakeheadu.ca

And/or
Dr. Connie Russell (supervisor)
Professor, Lakehead University
Phone: (807) 343-8049
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