

BREAKING OUT OF THE 'TEXTBOX'-
INCREASING OUTDOOR LEARNING

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By

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ABSTRACT

The benefits of taking students outside the classroom to learn are plentiful and have been well documented for decades. Yet, engagement in outdoor learning remains limited in Greater Saskatoon Catholic Schools (GSCS). In my research project I sought to better understand this reality and consider solutions. Through a division wide survey and an action research group, I asked teachers what were the barriers holding them back and more importantly, what supports would help them to engage more fully in outdoor learning. There were 69 survey respondents who answered questions about their experiences teaching outside the classroom. The action research group consisted of 7 teachers with a range of elementary school experience, from preschool to grade 8. Through dialogue, the group generated many possible solutions for their respective challenges and over the course of 8 months, I provided the participants with as many of the supports they brainstormed as possible.

The reflections of the participants on their experiences indicated that effective professional development in outdoor learning should be holistic, encompassing multi-faceted supports which involve content knowledge, action competency, supportive relationships, worldview and motivation. These findings mirrored the themes uncovered in the literature reviewed. Additionally, the participants recognized certain factors that support outdoor learning, such as communication, scaffolding student experiences, creating a classroom culture, the potential of nearby learning locations, and “thinking outside” first. Moreover, they expressed a desire for a database organized with simple, straightforward, outdoor learning resources.

As a researcher, I found considerable interest in outdoor learning but acknowledged that teachers need support to actualize the integration of this teaching practice. Intrinsic motivation is a crucial variable but there are also systemic factors which limit the engagement of teachers such as teaching with under supported, large, complex classes. Overall, the project demonstrated the value in: experiential learning techniques, responsive programming reflective of participant struggles, and professional development with continuity. Finally, to further reconciliation and the decolonization of education, I recognized the importance of authentically including Indigenous knowledge, critical reflection and positionality, and believe that outdoor learning should be a stepping stone towards land-based learning. I also came to better understand my own limitations as a non-Indigenous person trying to support land-based learning, a pedagogy grounded by Indigenous epistemologies.

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DEDICATION

Dedicated to all who guided me down the path towards land-based learning:

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The land, without which, we would have nothing.

TABLE OF CONTENTS

PERMISSION TO USE	i
DISCLAIMER	ii
ABSTRACT	iii
ACKNOWLEDGMENTS.....	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES.....	xii
LIST OF ABBREVIATIONS.....	xiii
Chapter 1: Unfulfilled Potential	1
1.1 Outdoor Learning	1
1.2 Student Benefits	3
1.3 Community Benefits	3
1.4 Reconciliation.....	4
1.5 Current Inequities	5
1.6 Perceived Barriers	5
1.7 Worldview and Motivational Limitations	6
1.8 Purpose of Research	7

1.9 Rationale for Action Research	7
1.10 Personal Motivations and Positionality	8
Chapter 2: Holistic Professional Growth	11
2.1 Pursuing Land-Based Learning	11
2.2 Theoretical Lenses/Methodological Approaches	14
2.3 Patterns/Trends	16
2.3.1 Content Knowledge	17
2.3.2 Worldview and Motivation	19
2.3.3 Action Competence	21
2.3.4 Supportive Relationships	25
2.4 Gaps/Issues	27
2.5 Conclusion	27
Chapter 3: Listening to Their Voices	29
3.1 Theoretical Influences	29
3.2 Research Framework	29
3.3 Study Design and Sample Group	31
3.4 Data Analysis	37
Chapter 4: Addressing Barriers	38
4.1 Division Survey	38
4.1.1 Question 1- Frequency Outside	38

4.1.2 Question 2- Value.....	40
4.1.3 Question 3- Barriers	40
4.1.4 Question 4- Supports.....	42
4.1.5 Question 5- Participation in Research.....	45
4.2 Action Research Project	47
4.2.1 Introduction	47
4.2.2 Benefits.....	48
4.2.3 Barriers.....	52
4.2.4 Solutions.....	59
4.2.5 Review of Participants' Experience	73
4.2.6 Future Considerations	83
Chapter 5: Critical Reflections.....	87
5.1 Survey Reflections	87
5.2 Committed and Creative Educators.....	89
5.3 Systemic Limitations on Outdoor Learning	91
5.4 Supportive Relationships.....	93
5.5 Content Knowledge.....	94
5.6 Action Competence	95
5.7 Worldview and Motivation	97
5.8 General Considerations for Outdoor Learning.....	98

5.9 Setting Yourself Up for Success	100
5.10 Authentic Land-based Learning	102
Chapter 6: Moving Forward with Outdoor Learning	105
6.1 Implications of Research	105
6.2 Limitations of Research.....	107
6.3 Possible Areas for Future Study	108
References	109
Appendix A: Land-based Learning- Survey	116
Appendix B: Content of Survey Invitation Email.....	117
Appendix C: Survey Consent Form	118
Appendix D: Action Research Consent Form.....	120
Appendix E: Timeline	123
Appendix F: Interview Questions	124
Appendix G: Wish List	125
Appendix H: Possible Supports Compilation.....	126
Appendix I: Participant Requests	128
Appendix J: Midterm Review Sheet	129
Appendix K: Midterm Review Updated Requests	131
Appendix L: Final Summative Reflection	132
Appendix M: Supports Participants Received	133

Appendix N: Cheat Sheet Example.....134

Appendix O: Opportunities and Attendance135

LIST OF TABLES

Table 3.1 Participants in action research study.34

LIST OF FIGURES

Figure 2.1 Visual representation of outdoor learning professional development.	16
Figure 4.1 Responses to survey question about frequency of outdoor learning.	39
Figure 4.2 Responses to survey question about outdoor learning barriers.....	42
Figure 4.3 Responses to survey question about outdoor learning supports.	45
Figure 4.4 Responses to survey question about land-based learning interest.	46

LIST OF ABBREVIATIONS

ADHD: Attention Deficit Hyperactivity Disorder

EAL: English as an Additional Language

ELA: English Language Arts

FNMI: First Nations Metis Inuit

GSCS: Greater Saskatoon Catholic Schools

LGBTQ: Lesbian Gay Bi Trans Queer

NES: North East Swale

PD: Professional Development

PP: Power Point

SEMIS: Southeast Michigan Stewardship Coalition

TRC: Truth and Reconciliation Commission

WOW: Women's Outdoor Weekend

Chapter 1: Unfulfilled Potential

1.1 Outdoor Learning

There are many pedagogies which encourage learning outside the classroom: outdoor education, adventure education, environmental education, community-based learning, place-based learning, critical place-based learning, ecojustice education, land-based learning, and others. While they do share similarities, and many of the same benefits, I believe that land-based learning holds the greatest potential for reconciliation, decolonization of education, and encouraging an ethos of sustainability. While critical place-based learning and ecojustice education are also strong pedagogies, I value that land-based education considers humans as integrated into the living world, not superior to or separate from. As an ecologist, and in recognition of climate change, I know that we need to move away from western perceptions of the natural world that are anthropocentric. Moreover, I believe that as part of our journey towards reconciliation, Indigenous epistemologies should be incorporated into our educational system and valued as rich learning paradigms. As Styres et al. (2013) argue, place-based pedagogy “often does not recognize or acknowledge the relationships Indigenous peoples have to their lands since time immemorial, nor does it take into account Land as a living fundamental being” (p. 38). Additionally, it is crucial that educators consider their own positionality, critically, in an effort to further anti-racist goals. From my own positionality as a white settler, I want to ensure that I am including indigeneity in an authentic way in my teaching practice and not perpetuating colonial practices. Tuck et al. (2014) suggest that this is a key consideration for improving education, including outdoor education, by “attending to its embedded issues of colonialism and Indigenous rights and sovereignty” (p. 2). As such, I initially framed this project using land-based learning as the guiding paradigm. In the end however, given further reflection on the required elements for authentic land-based learning, I acknowledged that my research project was unable to achieve this objective. There were several reasons for this which I will discuss in more detail in chapter five. Instead, the participants were supported more generally in facilitating outdoor learning with their students. Rather than furthering participant growth in a particular pedagogy, the research project supported the practice of taking education outside. However, I believe that the knowledge and skills learned through outdoor learning professional development can lay the foundation for

further investment in land-based education. To better explain how land-based pedagogy shaped my project, I will outline my understanding of this concept in the following section.

Land-based education is a powerful pedagogy which is grounded in Indigenous epistemologies that encourages teachers and learners to step outside the classroom and engage in experiential learning. It centres the land as first teacher and emphasizes the interconnectedness and interdependency of all living things (Styres et al., 2013). Moving beyond the anthropocentric conceptualization of land, where human beings are considered the defining feature, land-based education considers humans as intimately connected with the rest of creation and dependent upon the land for survival. Arellano et al. explain further:

Developed over millennia, Indigenous knowledge is perceived as relational, in which the process of relationship to oneself, to every living being, to the spiritual world, and to the physical world, is not only fundamentally anchored to its relation to the land, but demonstrates the extent to which land is at the heart of these relationships. (2019, p. 394)

The land is not merely a life sustaining force but it also becomes a teacher, when we engage in learning outside the classroom. Not limited to solely natural spaces, land-based learning also considers built environments beyond the school setting as having educational potential as well.

Moreover, land-based education provides a critical lens, which emphasizes that any type of place-based learning needs to address colonial legacies and recognize how conceptions of place have been involved with the continuance of settler colonial mindsets (Calderon, 2014). Calderon argued:

If environmental educators are to pursue the work of consciousness raising through education connected to place, there has to be an acknowledgement of this reality to critically examine what it means to inhabit lands that were once (and continue to be) the homelands of Indigenous nations. (2014, p. 27)

Land-based learning invites teachers and students to consider the land around them, its history, its people, its wisdom, and to spend time learning its complexities. As a pedagogical framework, land-based education pushes educators to address the question of sustainability, in both ecological and cultural terms.

Due to all of these valuable foundational elements of land-based learning, I do think that it should be a prominent guiding paradigm to education. However, my project did not actualize the needed components to call my research land-based learning and so for the remainder of my

thesis I will consider how I helped my participants to increase outdoor learning in their practice, bearing in mind that land-based learning had been my goal. I am using outdoor learning as a general term for education that takes place outside, not focusing on any specific pedagogy.

1.2 Student Benefits

The merits of teaching and learning outside of the classroom, in natural environments, has been well documented (Cronin-Jones, 2000; Faber et al., 2009; Kaplan, 1995; Leather, 2013; Little & Sweller, 2014; Louv, 2008; Smith & Sobel, 2010; Soderstrom, et al., 2013; Wells & Evans, 2003; Zamani, 2016), yet most students continue to do the majority of their learning inside. Outdoor learning provides a tremendous opportunity for holistic student growth, which should be a priority in education (American Institutes for Research, 2005; Lake, 2018; Louv, 2008; Malone, 2008). Children have minds, bodies, hearts, and souls, and belong to a community, and their learning should encompass all facets of their being. When students are outside the classroom, there are a multitude of physical benefits including increased gross and fine motor skills (Fjortoft, 2001; Hansen-Ketchum & Halpenny, 2010; Louv, 2008; Lake, 2018; Malone, 2008). Children have improved relationships with their peers through shared experiences and behaviour issues become less pronounced (American Institutes for Research, 2005; Friedel, 2011; Lake, 2018; Malone, 2008). Curiosity is sparked, authentic learning experiences are plentiful and engagement in learning is increased (Clark, 2012; Lake, 2018; Louv, 2008; Malone, 2008; Smith & Sobel, 2010; Powers, 2004; Wells, 2000; Zamani, 2016). Moreover, students are able to understand more intimately their place in the world and how they play a valuable role in sustainability (Bang et al., 2014; Louv, 2008; Malone, 2008).

1.3 Community Benefits

Beyond the multitude of benefits gained by the children themselves, outdoor learning also helps to promote healthier communities and societies by situating learners in their locale, leading to deeper connections with their environment and fostering a greater understanding of the issues that are present where they live and learn (American Institute of Research, 2005; Ärlemalm-Hagsér, 2013; Chawla, 1999; Hill, 2013; Lake, 2018; Selby, 2017; Smith & Sobel, 2010; Sloan, 2013). The opportunities for authentic learning are plentiful when teachers step outside the classroom, and spend time in natural environments. Children are more likely to be committed to protecting and improving their communities when they have invested time and energy in their

local spaces (Hill, 2013; Sloan, 2013). Lowenstein et al. (2018) suggested: “Young people develop a commitment to the common good not by reading a textbook chapter in isolation, but by being immersed in examples of content in real world community settings” (p. 43). Facilitating outdoor learning opportunities is a significant step towards students becoming engaged citizens and nurturing a sense of social responsibility. Education is an opportunity to better the world we live in and educators should be enabling this potential by providing meaningful outdoor learning experiences.

1.4 Reconciliation

In Canada, a vital component of improving our society is reconciliation and addressing the harms done by colonization, including the continued oppression of Indigenous peoples in their own land. The Truth and Reconciliation Commission (TRC), suggests that “reconciliation is about establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country” (2015, p. 6). In order for that to happen, Canadians have been urged by the Truth and Reconciliation Committee to learn about our past and attempt to address the wrongdoings of our country. What is more, reconciliation needs to involve action to change behaviour (TRC, 2015). Amongst many other actionable items, the TRC’s calls to action state that culturally appropriate curriculum needs to be developed, and compels the improvement of Indigenous educational attainment levels and success rates (TRC, 2015). Undoubtedly, educators have a powerful role to play in this regard. As Wildcat et al. stated: “If colonization is fundamentally about dispossessing Indigenous peoples from land, decolonization must involve forms of education that reconnect Indigenous peoples to land” (2014, p. 1). Moreover, non-Indigenous students need to understand their treaty relationship both past and present, and would also benefit from reconnecting to the land. By incorporating Indigenous Ways of Knowing into classroom practice and addressing the impacts of settler colonialism in Canada, teachers can honor reconciliation in a meaningful way (Korteweg & Russel, 2012). Outdoor learning affords an opportunity to work towards these goals by providing an alternative teaching methodology. Land-based pedagogy, in particular, is an even more powerful tool that has the potential to address colonial inequities and transform our educational system (Clarke, 2015; Kapryka & Dockstator, 2012; Korteweg & Russel, 2012; Root, 2005; Simpson, 2014; Styres et al., 2013; Wildcat, et al., 2014). Korteweg and Russel (2012) expressed a similar sentiment:

We now need to acknowledge the truths of colonization of Indigenous peoples and their Lands in order to heal the painfully damaged relationship between Indigenous and non-Indigenous peoples. Acknowledging and attending to the difficult process of decolonization while working towards a respectful Indigenized space of environmental education is a way forward towards a new paradigm of environmental education: Land based education as reconciliation. (p. 5)

Undoubtedly, the relationship between Indigenous and non-Indigenous peoples in our province continues to be damaged, and it is time for all Canadians to start taking steps towards reconciliation. Incorporating outdoor learning practices, and facilitating land-based pedagogy, is one way to decolonize education and demonstrate our commitment to changing and healing.

1.5 Current Inequities

In summary, outdoor learning is a transformative methodology, which has the capacity to improve the lives of our students and the world around us. The benefits are so great, that all teachers should feel compelled to increase the frequency that they leave the classroom and learn from the land. Unfortunately, these experiences remain limited to specialized programs or schools, infrequent classroom field trips and occasionally in select classrooms with invested teachers. In the Greater Saskatoon Catholic Schools division (GSCS), there is one alternative education program that focuses on outdoor learning. Interested students need to apply if they would like to participate and every year, the program receives more applications than spots that are available. It seems inequitable to afford only some students with these profound learning experiences, and a missed opportunity to influence a greater number of students into becoming more active community members. Considering this situation, how can we support teachers to think outside out of their ‘textboxes’ and incorporate more outdoor learning into their practice?

1.6 Perceived Barriers

While teachers will cite any number of barriers or challenges to leaving the classroom, arguably many can be overcome with the proper motivation and support (Coe, 2016; Clark, 2012; Elliot & Krusekopf, 2018; Hall, 2015). Often, lack of time, onerous curriculum, and countless assessments are stated as constraints; however, with proper planning, outdoor learning provides such rich learning experiences that many curricular outcomes can be achieved (Clark, 2012; Coe, 2016; Elliot & Krusekopf, 2018; Hall, 2016). Practitioners of this methodology substantiate these

claims, suggesting that they are able to cover an incredible amount of curriculum outside the classroom and that they see substantial academic growth throughout the year (American Institute for Research, 2005; Clark, 2012; Powers, 2004; Sloan, 2013). Moreover, research has found that when children participate in outdoor learning programs, they are able to achieve greater academic success.

Another common refrain heard from teachers is that lack of money and resources hold them back from engaging in outdoor learning activities more frequently. Undoubtedly, having a large budget and a well-stocked classroom can make some opportunities more achievable but even without these privileges there are still many ways of incorporating outdoor learning (Clark, 2012). Indeed, teachers are required to be creative and efficient money managers to stretch their budget into more outdoor learning opportunities but motivated teachers are able to find ways to achieve this objective. Moreover, with the wealth of information now available online, with a bit of web searching, educators interested in outdoor learning will be encouraged to know that there are many great resources to be found.

1.7 Worldview and Motivational Limitations

In reality, the biggest barriers are often derived from an educator's worldview and limited motivation, as many challenges can be overcome with the right mindset and commitment, and teachers convinced of the merits of learning outside the classroom will find a way to make it happen. However, teaching is a challenging profession, and the inherent difficulty of the job drives teachers to stick with what they know or to use pre-packaged programs, like print packages, worksheets, and textbooks. When teaching becomes overwhelming, there is comfort in the familiar. Given that most people's educational experiences were limited to traditional deskwork, then that will most likely become their default practice when inexperienced or overwhelmed. Teachers experience large class sizes, limited support, and their teaching assignments are subject to change, often outside of their control. When presented with an alternative approach to education, teachers struggling with the everyday demands of teaching may be quick to dismiss 'something else on their plate'. Conversely, there are experienced teachers who feel as though they have honed their practice into what 'works best' and so are convinced that there is no reason to change. School divisions often promote different educational initiatives, mandating that teachers are to incorporate these into their teaching. Typically, these divisional pushes are short lived and, before long, teachers are forced to consider some other new

initiative. Given the required nature of these initiatives and their impermanency, it is no wonder that some teachers are resistant to fully embracing new practices.

1.8 Purpose of Research

Thankfully, many teachers are dedicated to pursuing best practices, like outdoor learning, despite the overwhelming work load of the occupation. However, they can not be expected to put pedagogy into practice if they have little familiarity, training, or experience with that practice (Meichy & Smith, 2007). Given the proper supports, I believe that many teachers would jump at the opportunity to take up outdoor learning practices that research has demonstrated lead to healthier, happier, more confident, and caring students. The purpose of this research is to address the discrepancy between quality research and teaching on the ground, looking at how interested teachers can be supported in breaking away from the confines of their classrooms, and getting their students outside or to other valuable learning locations in their communities. Research in this area has largely focused on pre-service teachers and programs (Anderson et al., 2015; Brown, 2005; Furman, 2012; Nielsen et al., 2012; Twum, 2014) or teachers who are already active place-based/land-based educators (Elliott & Krusekopf, 2018; Hill, 2012; Powers, 2004; Ritchie, 2012; Root, 2005; Russell & Korteweg, 2012). However, the majority of teachers currently employed are not actively practicing outdoor learning, with most children learning exclusively in classrooms. There is little research to show what professional supports are needed to change this reality. As such, my research will focus on active, classroom-based teachers, who are motivated to incorporate outdoor learning and who would like to increase the usage of this methodology in their practice. How can they be supported when faced with different barriers or constraints? How can we support teachers to get their students out the doorway and embracing the potential of learning outside the classroom? Without addressing this significant population of teachers, the majority of children currently in the formal education system will miss out on these invaluable learning opportunities. Given the magnitude and multitude of benefits that come from outdoor learning practices, it would be of great significance to both students and society if these opportunities were extended to all.

1.9 Rationale for Action Research

My literature review findings suggest that there are four main areas that each need to be addressed to best support teachers in the field of outdoor learning: action competency, content

knowledge acquisition, supportive relationships, and worldview and motivation considerations. I feel that it would be important to discuss with educator participants what supports within these four realms they think would be most useful in incorporating outdoor learning into their practice. Using participatory action research methods, I want to work together with teachers to develop supports/solutions to the constraints that are limiting their engagement with outdoor learning. As stated above, teachers are busy and overworked, and so are very resistant to impositions on their time, particularly if they do not see the value in the project. Intrinsic motivations and personal investment are powerful and effective ways of making change. Consequently, research that considers teachers' respective issues and suggestions has great potential to engage and inspire. Similar to successful development projects, the best way of fixing a problem in a community is asking the community itself what they see as the issue and how best to address the root cause. In my professional career, I have met many invested teachers who are willing to and interested in incorporating more outdoor learning but feel ill-prepared to start. I feel confident that through dialogue, solutions/supports could be developed together, and there would be a greater chance at creating changes in their classrooms and practices. As Coe (2016) suggested:

By shifting from a culture of excuse, where concerns and apprehensions act as obstacles preventing outdoor learning, to a model of encouragement, where concerns and apprehensions are foundational in the creation of a safe and holistic educational program, a pedagogical space connecting theory and practice emerges. It is within this newly found space where the barriers to outdoor practice within Canadian schools can be overcome.
(p. 7)

Rather than be defeated by barriers and challenges to outdoor learning, our action research group will foster a culture of encouragement, working together to create strong and lasting solutions.

1.10 Personal Motivations and Positionality

As a non-Indigenous person of European settler ancestry, I initially hesitated to use land-based learning as my guiding paradigm for this project due to its foundation in Indigenous epistemologies and concerns of appropriation. However, I felt connected to its underlying philosophies and wanted to help promote the usage of this powerful pedagogy, albeit from my limited western perspective. From my own understanding of the pedagogy, I related to many of its essential characteristics.

As someone with an ecology background, I have a very similar concept of the role of humans integrated into the web of life and the vital importance of the land, as is presented as a philosophical basis to land-based learning. I do not believe in the western notion of limitless growth based on a finite system; instead I know that we need to value the resources that we have and protect the natural biological systems of this earth. We are nothing without the land and as humans we need to better understand how to live in harmony with all creation.

As a learner growing up, I also questioned the teaching methods of the colonial, industrial system. At the time, I would not have fully understood the implications of what that meant but I felt sure that there must be a better way of learning, outside of copying down notes and sitting in a desk all day. I do not mean to undervalue the work that my teachers were doing, but I thought that education could be more engaging. Later in life, I had many affirming experiences that proved this to be true. Working for Ecology Camp for Kids, I helped to deliver ecological education by using experiential, hands-on learning methods, outside, on the land. As a camp counsellor with this program, I would take kids to different locations in and around Saskatoon, and we would learn all sorts of things about science, nature, and ecology. Behaviour management was rarely an issue, as the kids were engaged in the days' activities. Subsequently, prompted by the opinion that teaching could be done differently, I decided to enter the College of Education. Thankfully, I was very fortunate to end up placed for my internship with Ecojustice, a grade 8 outdoor education, social justice program. This experience, witnessing formal education taught outside the confines of the classroom in the best places for learning, affirmed for me the potential in land-based pedagogies. There were so many profound learning moments and I saw such holistic growth in the youth that I was convinced; this is how everyone should be teaching.

Moreover, I believe it is important to acknowledge indigeneity in outdoor learning, and not perpetuate the concept that the great, vast, wilderness of Canada is void of humans, waiting for white settlers to explore (McClean, 2013). I know that we are on treaty land, that has been inhabited since time immemorial by many Indigenous peoples and that it is important for all Canadians to understand this history and continued relationship. I feel that it is vital that educators in Saskatchewan consider their own positionality and what role they play in perpetuating colonialism or addressing and furthering reconciliation.

Going into this research project, aware of my own limitations due to my positionality, I was very cautious about appropriation and had no intent on claiming Indigenous knowledge as

my own. As a non-Indigenous facilitator of what was intended to be a land-based learning study, I explained my background to the action research group, and acknowledged that I did not have the fundamental understanding of land-based learning that an Indigenous person might have. I focused on the parts of land-based learning that I had come to understand from my Western perspective through my own learning journey. These included hands-on, experiential learning, incorporating community, relationality, the interconnected relationship with all living things, and most importantly getting outside onto the land. If the participants were interested in learning more about Indigenous knowledge and traditional land-based learning, which I hoped they would be, I planned on reaching out to Indigenous teachers and leaders in the community to support the learning of our group. In many ways, I planned on learning alongside the participants.

Another source of motivation for me to take on this project are my eight year old twin brothers, whom I want to grow up happy and healthy and I worry that the educational experiences they are having do not match their needs. They have been struggling in the traditional classroom setting and I wonder how they would do given the opportunity to learn outside. Both are naturally inquisitive and interested in learning but are not well suited to sit quietly at their spots, listening to the teacher and filling out worksheets. Moreover, my brothers are Cree, and land-based education, ingrained with Indigenous epistemologies, affords educational opportunities that may be better suited to their learning styles. In Saskatchewan, the Cree nation is the largest group of Indigenous peoples, and their epistemology, their practices, their heritage would be better reflected in land-based education (Bang et al., 2014; Simpson, 2014; Tuck et al., 2014; Wildcat et al., 2014). I want to help shape education so that more students, like my brothers, will be given the opportunities to grow and learn in the best ways possible.

Chapter 2: Holistic Professional Growth

2.1 Pursuing Land-Based Learning

Although I was unable to fully support a land-based learning research project, this had been my original intent, and so I researched literature that I thought would support teachers when pursuing this pedagogy. Land-based education is part of a larger body of research that has found positive outcomes attributed to taking kids outside to learn. While research focusing specifically on land-based education is limited, only in recent years receiving more exposure in educational research literature, there is an abundance of material under the headings place-based, community based, outdoor education, and environmental education. Additionally, there was other literature that considered critical place-based pedagogy, ecojustice pedagogy, education for sustainability and sustainable development. While there are fundamental philosophical differences between these pedagogies, there are some practical commonalities, regarding education outside of the classroom. The following table outlines my interpretation of the various outdoor learning pedagogies that are considered by the different researchers in the literature review.

Table 2.1 - Outdoor learning pedagogies

OUTDOOR PEDAGOGIES	KEY CHARACTERISTICS	CRITIQUES
Outdoor education	Experiential, primarily outside, sensory, interdisciplinary, and relational.	Colonial mentality. “Experiencing wilderness like the explorers”. Lack of Indigenous awareness. Concept of wilderness as devoid of people and development; wilderness as a recreational place. Anthropocentric.
Environmental education	Focus on ecological issues and solutions. Environmental knowledge. Might be classroom based or include outdoor	Based heavily on Western science concepts. Does not consider social justice connections. Tendency to focus

	experiential places.	on technological solutions. Anthropocentric.
Education for sustainability	Transdisciplinary. Solutions focused- long term human and biosphere well being.	Based heavily on Western knowledge. Focus on technological solutions. Anthropocentric.
Education for sustainable development	Focused on solutions, balance of ecology, equity and economy. Convergence of education & development.	Western, Eurocentric. Development is a term that has negative connotations due to historical failings of development programs and projects. Anthropocentric.
Place-based pedagogy	Experiential, outside classroom learning: both natural and built environments, action based, inquiry based, involvement with community.	Western, Eurocentric. Lacks critical considerations, although there can be critical environmental action taken. Anthropocentric.
Community-based pedagogy	Similar to place based but heavily focused on learning within the community.	Lacks critical considerations. Anthropocentric.
Critical place-based pedagogy	Place-based with a critical perspective. Goals of decolonization and reinhabitation. Interactions between people and ecosystems. Challenges status quo.	Anthropocentric.
Ecojustice education	Ecological and social justice focus: ecology of all life systems, sustainable communities, critical inquiry. Challenges status quo.	Not necessarily addressing colonialism nor Indigenous sovereignty. Anthropocentric.

Land-based pedagogy	Indigenous epistemologies, all life interconnected, holistic, experiential, hands-on, learning outdoors, community involvement, critical perspective.	Role of non-Indigenous educators undefined.
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For the purposes of this review, I will look for literature that provides suggestions on how to increase learning outside the classroom, no matter what guiding paradigm the researcher has used. Therefore, in this section, I will often defer to the terminology used by the particular researcher I cite, but I am treating the findings as potentially applicable to land-based education. I acknowledge that there are limitations to how much I can infer but am widening the scope of consideration in my review to supplement the literature published on land-based learning.

Land-based education also has a critical component, which urges practitioners to consider the impact of colonialism on place and how Indigenous peoples are implicated by settler impositions. Again, due to the limited amount of published work referring specifically to land-based education, this literature review will consider works under the headings of social and ecological justice, and their applicability in promoting greater practice of land-based education.

While there are a variety of outdoor learning pedagogies, as well as critical education pedagogies, I wonder how many teachers have put these into practice? Are teachers convinced of the merits of taking their students outside? Do they address colonialism in their teaching? Have they incorporated aspects of land-based education into their teaching practice? If so, what have been their motivations to do so and what have they found helpful when trying to include more outdoor learning: professional development workshops, access to physical tools and materials for outdoor learning, membership in like-minded organizations, digital resources, division resources, mentorship programs, etc.? If not, what is stopping them? What are the barriers and challenges: not interested, do not see the value, time constraints, money constraints, restrictive curriculum, mandated evaluations, unsupportive administration, mandatory division initiatives, etc.?

Within this collection of literature, I will pull out the main themes and patterns that seem to indicate key factors that encourage or discourage educators in attempting different outdoor or critical pedagogies and/or methodologies with the assumption being that these factors could also

apply to land-based education. Given that I was interested in learning how to best support teachers, I searched for literature that addressed at least one element of land-based education (environmental sustainability, social justice, etc.) and that also considered the professional development of teachers in this area. There was plenty of literature that focused on one of these components but much less that considered both. My interpretation of the literature available found four main areas that each need to be addressed to best support teachers in the field of land-based learning: skill development (Anderson et al., 2015; Brown, 2005; Furman, 2012; Hill, 2012; Lowenstein et al., 2010; Nielsen et al., 2012), content knowledge acquisition (Anderson et al., 2015; Bentley, 2010; Brown, 2005; Furman, 2012; Hill, 2012; Lowenstein et al., 2010; Nielsen et al., 2012; J. Ritchie, 2015; Weiler, 2002), worldview considerations (Anderson et al., 2015; Brown, 2005; Hill, 2012; Lowenstein et al., 2010; Nielsen et al., 2012; S. Ritchie, 2012) and supportive relationships (Anderson et al., 2015; Bentley, 2010; Brown, 2005; Hill, 2012; Lowenstein et al., 2010; Nielsen et al., 2012; S. Ritchie, 2012). I curated these four categories based on the reoccurring themes that I was encountering in my research review. The authors often overlap or touch on several of the themes but may not consider them all in their respective papers.

While I had been looking for specific, tangible methods for supporting teachers, for example, peer mentorship, most of what I found in the literature tended to be general in nature. The researchers considered different broad variables that they suggest are important in encouraging growth in their respective fields of study. While I found great value in the arguments put forward by the authors, I would suggest that an important area for further research would be to study the specific methods that best support teachers, in average classrooms, into becoming land-based educators. Also, it would be interesting to hear what teachers themselves feel are the greatest barriers to incorporating this pedagogy and I struggled to find teachers' perspectives.

2.2 Theoretical Lenses/Methodological Approaches

I would argue that all of the authors considered in this literature review, seemed to be influenced by critical theory. Friere was often quoted and many of the authors challenged teachers to question the status quo and consider the implications of the current state of affairs in the 21st century. The majority of the authors considered social justice themes in their articles and suggested it was imperative that education become more focused on developing responses to modern issues. A few of the authors focused on sustainability or environmental considerations,

but they certainly did so with a critical slant to their arguments. Other theoretical frameworks that emerged as commonalities between the authors included post-humanism (Bentley, 2010; Lowenstein et al., 2010; J. Ritchie, 2015), place-based pedagogy (Hill, 2012; Nielsen et al., 2012; J. Ritchie, 2015), and social constructivism (Anderson et al., 2015; Bentley, 2010).

The majority of the literature that I reviewed employed different variations of qualitative research methods. Anderson et al. (2015), Hill (2012), Nielsen et al. (2012), and S. Ritchie (2012) all engaged in interviews with their research participants. Brown (2005) and Nielsen et al. (2012) analysed reflective materials (journal entries, reflective books) submitted by their research participants to discover underlying trends and themes, and Lowenstein et al. (2010) considered a case study. Anderson et al. (2015) and Hill (2012) also utilized participatory action research methodologies. Most of the remaining authors who did not explicitly use qualitative research methods for the entirety of their articles did include some elements. Within their reflections and analysis, Bentley (2010) and J. Ritchie (2015) included several examples of exemplary work in the field, which could be considered mini case studies. Furman (2012) framed her article as a literature review, which considered qualitative research done by other academics. The short piece by Weiler and Frinde (2002) was the only exception to this trend in methodology as they provided an opinion piece on the challenges of critical education during an era of standardized educational reform.

The research participants involved in these studies included teacher candidates (Anderson et al., 2015; Nielsen et al., 2012), educational administration students (Anderson et al., 2015; Brown, 2005), and active outdoor education elementary or secondary educators (Hill, 2012; S. Ritchie, 2012). One gap that I identified in the research was that there was not any research done within this selection that considered the ‘typical’ classroom educator. Hill (2012) worked with educators who were already working in the field of environmental education and S. Ritchie (2012) interviewed educators who were identified as social justice advocates. I think it would be interesting to have research undertaken that looked at the specific constraints and supports that encourage the ‘typical’ classroom teacher to engage in social or ecological justice education. For example, if one interviewed or surveyed a broad cross section of educators, how many of them would say they employ outdoor learning pedagogies? If they do, how often in the course of the year do they incorporate these pedagogies and what encourages them to do so? If they do not employ any of these pedagogies, what is holding them back?

2.3 Patterns/Trends

Four big thematic areas of attention emerged from the literature reviewed that considered the supports and challenges for teachers interested in incorporating outdoor and critical learning practices. The areas for consideration include content knowledge; worldview and motivation; action competency; and the importance of supportive relationships. All four of these dimensions were well documented in the research and writing presented by the authors in this review.

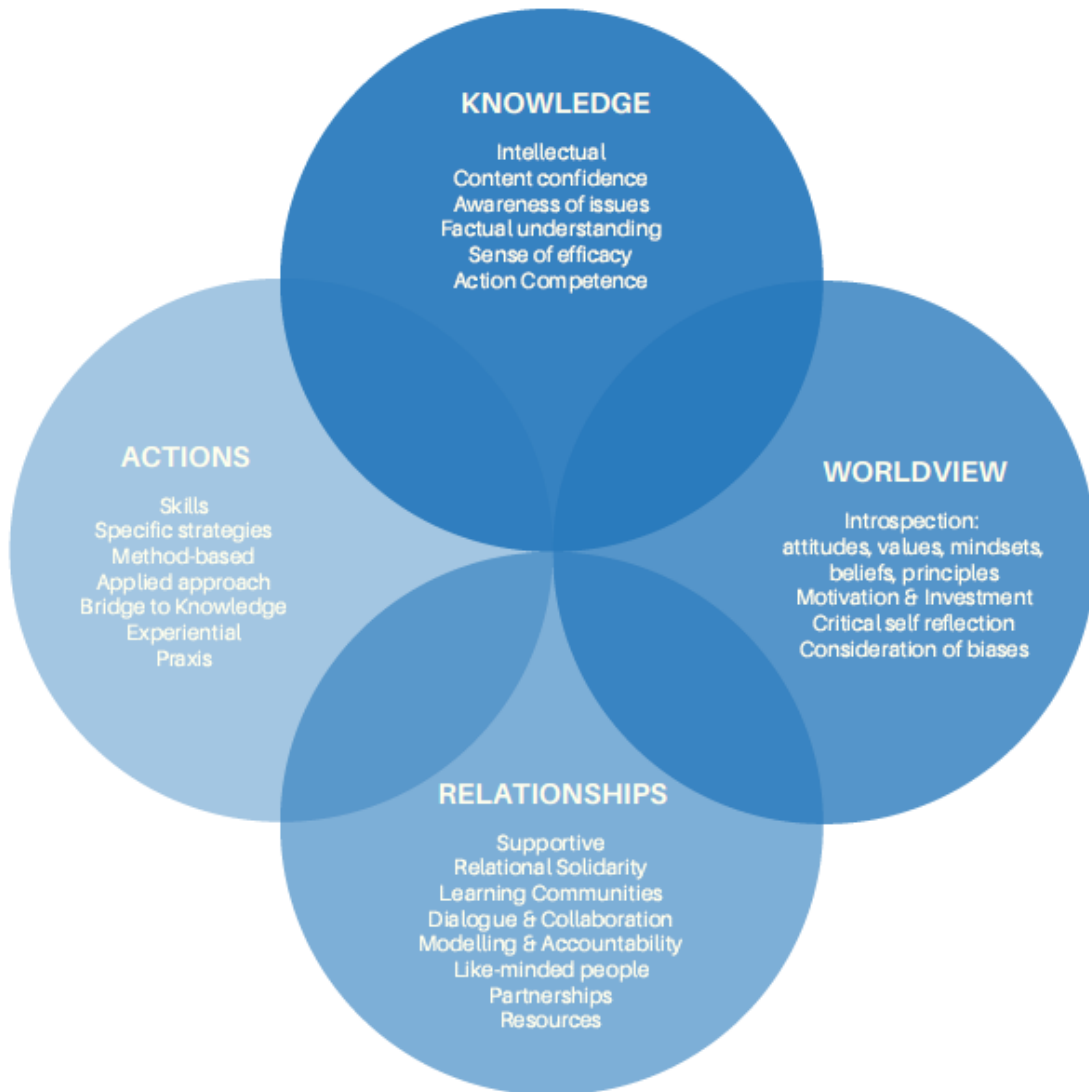


Figure 2.1 Visual representation of outdoor learning professional development.

2.3.1 Content Knowledge

The importance of fully understanding content material is best explained in research findings quoted by Hill (2012) who found “in order to develop competence in any area of inquiry, teachers must have a deep factual knowledge” (p. 21). For example, the participants in the research study undertaken by Anderson et al. (2015) felt they did not have any examples from their formal education that promoted their own social and ecological justice learning. It would be very challenging indeed for an educator to teach students about something that they know little about.

The majority of the authors (Brown, 2005; Furman, 2012; Anderson et al., 2015; Hill, 2012; Lowenstein et al., 2010; Weiler & Frinde, 2002; Nielsen et al., 2012) made reference to the importance of educator knowledge in the areas of social and ecological justice. Brown (2005) and Furman (2012) talked specifically about the need for those working in the field of education to have a heightened awareness of oppression. Hill (2012) discussed the importance of knowing the principles of sustainability, and Nielsen et al. (2012) expressed the need for teacher candidates to be familiar with sustainable development. Lowenstein et al. (2010) suggested that educators should have knowledge of ecojustice principles, and Weiler and Frinde (2002) argued the importance of those working in education knowing the history and contemporary politics of education.

A term that reoccurred throughout the readings was that of action competence or the ability to confidently put knowledge into action (Anderson et al., 2015; Hill, 2012; Nielsen et al., 2012). This builds on the idea in the opening paragraph of this section that suggests that for teachers to feel confident teaching a subject area, they themselves need to have some familiarity with the topics. What worries me is that by and large, teacher candidates have been able to graduate from faculties of education without a strong understanding of social and ecological concepts and issues. Without that background knowledge, how many educators out there are going to feel confident teaching the material to their students? Thankfully, there has been a shift in recent years to include more of this material, as education students are now required to take one course in pedagogies of place, two courses in Indigenous studies, one course in anti-oppressive education, and one course in inquiry. But what about the thousands of teachers who graduated before this change in requirements who did not benefit from this decolonizing shift in focus?

A situation that I often see come up in school, which is very discouraging, is the hesitation of teachers to include or teach First Nations Metis Inuit (FNMI) content because they themselves are not Indigenous and so they do not feel confident in teaching the material. Undoubtedly, this should not be an excuse considering that Treaty education is a mandatory part of the curriculum but I can understand the source of educators' reluctance. This concerning trend was also highlighted by J. Ritchie (2015) in her consideration of the barriers to critical, place-based education, informed by Indigenous knowledge, in New Zealand. While she felt that the bi-cultural curriculum, developed in an attempt to decolonize education, provides ample opportunities to implement these pedagogies, the largely European teaching work force lacks the confidence to do so. I found it interesting that New Zealand has similar problems, according to Ritchie, to what we have here in Saskatchewan. I find our Saskatchewan curriculum to be quite flexible and supportive of social and ecological justice pedagogies but I do not think that educators are interpreting and incorporating the curriculum in this way. The potential is there for our education system to be transformative and yet many teachers are not rising to the challenge.

Moreover, I would argue, due to the complex and sensitive nature of this type of content, teachers need to have a solid understanding of the material, otherwise misconceptions and harmful stereotypes could get promoted or important considerations omitted. For example, if a teacher was attempting to teach about ecological sustainability and focused solely on recycling, they would be teaching a very narrow and limited view on the topic. Most sustainability proponents would likely suggest that reducing consumption patterns in general is more important than recycling alone. Another scenario that I often see in schools is the well-meaning but misguided attempts at encouraging charitable participation. Recently, at an assembly encouraging participation in a social justice initiative, a video was shown depicting all white people 'helping' all Black people. While the goal may have been admirable, the means to get there was certainly very imprudent. Given these potential outcomes, there may be cause for hesitation in encouraging teachers to teach for social and ecological justice, without having the appropriate background knowledge.

An often cited barrier to transformative teaching practices is the pressure that teachers face with the standardized educational reform movement taking place, particularly in the United States. Bentley (2010), Lowenstein et al. (2010), and Weiler and Frinde (2002), all made reference to the limitations that this trend is having on ecojustice education. Bentley (2010) felt

strongly that the overall education policy in the United States is limiting teachers' ability to include environmental education practices. He argued that even though state curriculum standards do include substantial environmental education content, teachers' ability to act effectively is restricted by pressure to 'teach to the test' (Bentley, 2010). Bentley (2010) believed that these trends are constricting good quality education, shifting back to didactic methods of teaching, and pushing inquiry, student led, place-based learning to the back burner. Similarly, Lowenstein et al. (2010) discussed the challenges that arise from current standards and accountability demands that put pressure on teachers to teach linearly so that they can 'cover all the outcomes'. Weiler and Frinde (2002), in particular, felt strongly that social justice education is being undermined by conservative school reformers, who are pushing for greater standardization, meaning pre-packaged curriculum, which is geared towards specific evaluations and the de-skilling of teachers. Although the conservative educational reform movement has been less prominent in Saskatchewan, I have also felt limited at times by the assessment requirements of our division. While I understand that these assessments in theory can provide important diagnostic information, they are an onerous task placed on the teacher that takes up a lot of their time, which could be spent facilitating exceptional learning opportunities, like land-based education. What is more, teachers are not well supported to act upon the data gathered from the required assessments, making them seem at times like an exercise in futility. However, even with all the above taken into consideration, I do not feel that this should be a significant constraint on land-based learning, if the teacher is dedicated to these goals.

2.3.2 Worldview and Motivation

Anderson et al. (2015) suggested that teaching for social and ecological justice is more than just an intellectual endeavor; it is also emotional and spiritual. Educators need to be deeply committed and intrinsically invested in the goals of land-based learning for them to be able to successfully incorporate these principles into their practice. As Nielsen et al. (2012) pointed out, researchers often question why children would want to save nature if they do not love it, so a logical extension of this premise would be how can teachers empower kids to become eco advocates if they are not equally motivated? Therefore, an important consideration for supporting educators in their pursuit of land-based education is the significance of values, beliefs and motivation. While many educators will point to external constraints like lack of time, money and

support for their inability to commit to land-based practices, I believe that worldview and motivation are perhaps the more significant factors at play.

As Brown (2005) argued, personal beliefs are very influential in professional practice and so if educators are not aware, emotionally invested, or personally committed to enacting change, their pedagogy will not support social justice education. Moreover, she stated that beliefs influence perceptions, judgments and actions and so preparation should include a close examination and introspective analysis of oneself (Brown, 2005). Brown (2005) suggested that one of the key components for teaching effective social justice leadership is critical reflection. Educators need to be able to consider their embedded mindsets, worldviews, and values, and how these factors influence their teaching practice (Brown, 2005).

Likewise, Furman (2012) found in her review of 14 different qualitative case studies, considering the characteristics of social justice administrators, that the most successful leaders, besides having a heightened awareness of oppression, were deeply committed, and stubbornly persistent. Conversely, many of the barriers to social justice education that she outlined were philosophical in nature: deficit thinking, valuing ‘technical’ leadership over moral leadership, the personal burden, racial erasure, and teachers denying accountability (Furman, 2012).

Hill (2012) also positioned philosophy, values and understandings as a major factor in his model for changing educators’ pedagogies to become more sustainable. He believed that the first step in transformational learning is to get teachers to wrestle with their own philosophies and to think critically, which he argued leads to wider impacts on practice (Hill, 2012). Additionally, Hill (2012) suggested that an important guiding principle in this process is to be constantly critical, reflective and evaluative.

Lowenstein et al. (2010) and Nielsen et al. (2012), both included references to worldview, the former suggesting that educators need to confront their own bias and beliefs about social and ecological issues, and the latter suggesting that attitude is one of the critical areas when working towards action competence in sustainable development.

Brown (2005) cautioned that professional development of this nature needs to be done with care and consideration, stating that beliefs are highly resistant to change and proposing that individuals can become defensive when they feel they are being challenged. Similarly, Lowenstein et al. (2010) advised that transformational professional development be delivered as a sequence of learning experiences over time so that teachers can transition through periods of

resistance and defensiveness, consideration of new ideas and then accepting them into their own worldview and identity.

I think the point that the authors all seem to be making in this section, about the importance of considering worldview (bias, attitudes, values, principles, etc.) and critical self-reflection, is a crucial argument that is regularly overlooked. Often times new division initiatives are unrolled without having convinced educators of their merit and so, unsurprisingly, there is low teacher commitment. Factor in that professional development is often short lived and limited in nature, and the likelihood of transformational learning is diminished even more. As a graduate student who is eager to share what I have been learning and a member of the FNMI team at my school, I had arranged for a guest speaker to address anti-oppression pedagogy with the staff. However, my administration suggested that perhaps our staff was not ready for critical self-reflection yet and that first we could facilitate something impactful, like the blanket exercise. While at first I was resentful that my preparations were being delayed, I had to admit that perhaps she had a point. When confronted with new information that is displeasing, people can become defensive and resistant to participation. We want people to go through the difficult work of critical self-examination, which can not happen if people refuse to participate or fight the process every step of the way. Moreover, I realized, that if we postponed until next year, I could develop a plan that would be more extensive and likely more effective, that could involve more of the factors outlined in this literature review.

2.3.3 Action Competence

As part of a pilot cohort in the College of Education from 2012-2014, which involved teacher candidates taking place based, anti-oppression, and inquiry courses, one of the main complaints that my colleagues expressed was that they did not know how the theory would be applicable in the classroom. This was also a theme that emerged in the literature, that there needs to be bridge built between knowledge and action, to develop teacher confidence. Anderson et al. (2015) discussed this barrier extensively in their research analysis, as they found that while the teacher candidates felt that social and ecological justice education were worthwhile endeavors, they suggested that they felt ill prepared to effectively incorporate these content areas into their practice. The students suggested that a method-based course should be developed as part of the teacher training program that would take an applied approach to social and ecological justice education (Anderson et al., 2015). Similarly, they also expressed a concern with the difficulty in

navigating personal experiences when dealing with oppression and how they felt that education needs to equip pre-service teachers with the ability to navigate these uncomfortable but critical situations (Anderson et al, 2015). I would suggest that a unit on problem solving situations when oppression is encountered could be incorporated as part of the methods course that the students proposed.

Considering the delicate nature of addressing oppression or other social or ecological justice issues, it would certainly be of benefit if more explicit guidance could be provided for teachers trying to navigate this terrain. As discussed above, in the section on knowledge, I know that many teachers hesitate in this educational realm due to concerns about doing or saying the wrong thing. Personally, I have felt this way before and can appreciate this feeling of apprehension. Terminology alone is an area that I know fills many educators with anxiety. What are the appropriate terms to use when discussing FNMI or Lesbian Gay Bi Trans Queer (LGBTQ) topics? Partially these uncertainties can be addressed by increased knowledge on the subjects, and inappropriate attitudes, and biases can be altered with critical self-reflection and guided discussion; however, a key component that would provide substantial encouragement for teachers is having the opportunity to witness or experience critical, experiential learning in action. What does land-based education actually look like in practice? What are valuable methodological practices? How are units developed? What does a day in the life of an outdoor 'classroom' look like?

Experiential learning was a common thread throughout the literature, with many of the researchers suggesting that this is an effective way to facilitate transformational professional development (Brown, 2005; Furman, 2012; Hill, 2012; Lowenstein et al., 2010; and Nielsen et al., 2012). Just as we suggest that learning through doing or seeing in action is a valuable aspect of education for our students, we need to apply these same strategies when teaching adults if we are to have effective professional learning. I am often disappointed by educational opportunities offered for adults as I feel that they rarely practice what has been identified as good teaching. They lecture, read off slides, and it is mostly facilitator led teaching. As many children would attest, the mind is only partially engaged during these experiences.

Nielsen et al. (2012) provided an interesting example of how to incorporate experiential learning into adult educational experiences, with their creation of a sustainable development education course at the University of Wollongong in New Zealand. The researchers and course

developers felt it was important to incorporate collaborative, experiential, and place-based learning into their course, with the goal of developing action competency in their students who would then feel prepared to teach for sustainable development armed with the necessary attitudes, skills, and knowledge (Nielsen et al., 2012). They wanted to make sure they covered important content knowledge but also facilitated engaging activities. Pre-service teachers involved in the study, who had taken the course, enjoyed and valued the opportunities provided by the class to witness sustainable education in schools, participate in activities as a student, and plan as a teacher (Nielsen et al., 2012). Student teachers had been skeptical about the subject until they had students and a teacher come to the class and share their experiences. Moreover, the experiential learning opportunities of the class helped to confirm that such teaching is possible and reinforced their feelings of efficacy (Nielsen et al., 2012). “Other students noted the importance of connecting theory and practice through firsthand experiences, such as developing a learning garden at the university: ‘So we were doing the research for it and we were reading about it, and then we were actually being able to go out and do it’ (student 1, Interview)” (Nielsen et al., 2012, p. 99).

Brown (2005) also incorporated experiential learning into her work with graduate students in the Masters of School Administration program at the University of North Carolina at Chapel Hill based on Mezirow’s transformational learning theory which she often referenced. The three main components of this theory involve experiential learning, critical reflection, and dialogue. Through my own experiences working and volunteering in both formal and informal education, I have witnessed the value in the different components of Mezirow’s theory, which is why they are all considered in more detail in different sections of this literature review. Over two years and three courses, the students that Brown (2005) worked with were actively engaged in eight transformative adult learning activities, three of which she highlights in her article: cross-cultural interviews, educational plunges, and diversity panels. She suggested that these methods amongst others are highly beneficial in pushing education students outside of their comfort zones and getting them to think critically (Brown, 2005).

Furman (2012) builds upon the work of Brown and other researchers, compiling their strategies into a conceptual framework. She considered the implication of praxis across several dimensions which include the personal, interpersonal, communal, systemic, and ecological. Within each of these dimensions Furman (2012) suggested that social justice leaders need to

develop specific capacities for both reflection and taking action. She reviewed some of the literature on the topic of social justice leadership and while she acknowledged that there is important work being done in the field, there is a gap when it comes to addressing actual skills needed. The capacities that she outlined in her article are intended to address this missing link. What I found most interesting about Furman's work (2012) is that she outlined and described specific tools that educators can use for teaching both adults and youth. These tools include: equity audits, school-wide cultural competence observation checklist, rubric for assessing staff awareness, neighbourhood walks, book studies, site visits, targeted professional development, cultural autobiographies with analysis of cultural background, structured self-reflection, reflective analysis journals, leadership growth plan, life histories, cross-cultural interviews, diversity panels, role-playing, inclusive action plans, critical consciousness, targeted readings, guided discussions, ethic of critique, educational plunges, action research, and critical pedagogy of place. Many of these tools I personally experienced in my Bachelor of Education program, which to me suggests that the College of Education at the University of Saskatchewan is on the right track. I feel as though many (if not all) of these exercises would be beneficial for a school staff. In fact, I have suggested to my administrative team that we should attempt several of them, and as a result of this dialogue, our FNMI team is hoping to develop an extensive FNMI/social justice professional development plan for our school staff next year.

Working with outdoor educators on incorporating sustainable development into their practice, Hill (2012) also utilized experiential learning techniques. His model for change involved considering philosophy, values, and understandings, then addressing program logistics, and finally attempting different pedagogical strategies in the classroom (Hill, 2012). Hill was striving for action competence, and supported the educators he was working with in an action research spiral, whereby they would attempt different pedagogies and practices, review and reflect upon the teaching and learning experiences, and then adjust accordingly (2012).

In their article, Lowenstein et al. (2010) discussed the merits of ecojustice and community-based education and used the work of the Southeast Michigan Stewardship Coalition (SEMIS) to provide examples of the beneficial opportunities provided by these pedagogies. The coalition focused on helping teachers to better understand ecojustice concepts and issues and also different pedagogical strategies and how they could translate these concepts to their students.

They found that what helped to increase teacher sense of efficacy was by modeling the different learner activities (Lowenstein et al., 2010).

2.3.4 Supportive Relationships

The importance of relationships was a reoccurring theme throughout most of the articles reviewed, although the authors outlined different benefits that educators stand to gain. Supportive relationships help to promote lasting commitment in the face of adversity, which Anderson et al. (2015) touched upon and S. Ritchie (2012) discussed at length. Communities of learning that engage in dialogue are a rich source of learning and growth as suggested by Brown (2005), Hill (2012), S. Ritchie (2012), Nielsen et al. (2012), and Lowenstein et al. (2010). Finally, connecting with like-minded individuals and organizations can prove to be sources of valuable resources, successful strategies and motivational examples, which is mentioned by Bentley (2010), Lowenstein et al. (2010), and S. Ritchie (2012).

The research undertaken by S. Ritchie (2012), concerning the common factors that encouraged social justice educators, focused extensively on the value of relationships for all of the reasons listed above. He found that a commonality between successful social justice educators was that they all had some type of supportive relationship through like-minded groups or mentors (S. Ritchie, 2012). S. Ritchie reasoned that relationships, which he called networks, helped to sustain critical educators by offering support when teachers feel isolated, providing examples and resources for innovative teaching strategies, and creating a space for sharing about one's struggles and successes (2012). Furthermore, he argued that teaching against the grain requires courage and access to resources beyond the traditional curriculum which are not readily available (S. Ritchie, 2012). Having a supportive network of like-minded colleagues can help in both of these regards. Relationships become bridges of solidarity when social justice educators can often feel like islands. Anderson et al. (2015), also bring up a similar point when discussing the emotional and spiritual aspects of teaching for social and ecological justice. They point out that these subject areas can cause discomfort and push back and so teachers need support in navigating these difficulties (Anderson et al., 2015).

The benefit derived from relationships in supporting land-based teaching that was most referred to in the articles was the potential learning and growth that can come from collaboration and dialogue. Brown, in particular, discussed the importance of dialogue as one of the key components of transformational learning theory as put forward by Mezirow. She argued that:

As we struggle to understand how issues of race and ethnicity affect the educational experiences for all students, we must work to overcome our prejudices by listening carefully to those whose backgrounds, perspectives and understandings differ from our own. Engaging in socially just leadership requires us to maintain an open conversation, to examine and re-examine our perceptions and those of others, constantly looking beneath the surface and seeking alternative explanations and ways of understanding. (Brown, 2005, p. 22)

Brown (2005) suggested that by engaging in conversations that evolve as we listen carefully to others with cautious openness and consider our own biases and colleagues' points of views, we have a tremendous opportunity for learner growth, transformation, and empowerment. Similarly, Hill (2012) also discussed the merit of dialogue within a collective learning community in supporting sustainable development education. Nielsen et al. (2012) considered collaboration as one of their main areas of focus when developing their course on sustainable development for educators. Lastly, Lowenstein et al. (2010) listed collaboration as a key component of their model for successful ecojustice professional development.

The final benefit of relationships to be considered is the richness in resources that can be acquired. As discussed above in regards to S. Ritchie's research (2012), connecting with like-minded individuals and organizations can help educators to find pedagogical supports. Others with similar values and goals may have valuable examples, lesson plans, activities, materials, ideas, connections, etc., to share. Bentley (2010) discussed the value in developing relationships with informal education organizations and creating mutually beneficial partnerships. Lowenstein et al. (2010) also considered at length the merits to be derived from taking advantage of community assets. They cite as an example the SEMIS collaborative team which involves 2-6 teachers working with community partners and a liaison person. The partners help teachers with program development and assist in finding appropriate curricular materials. The liaison provides ongoing support and communication between all the members involved in a team. Lowenstein et al. (2010) found that this collaborative framework was quite conducive to transformational learning and was supportive of ecojustice and community-based education.

I think that the authors make a strong argument regarding the value and importance of relationships. Teaching differently from everyone else in the school can be isolating and it is easy to fall into comfortable, traditional habits. Having a group of like-minded individuals would

certainly encourage accountability, afford allies when the going gets tough, and help to provide fresh ideas and resources.

2.4 Gaps/Issues

There was a considerable amount of literature found that considered the benefits of different outdoor and critical pedagogical approaches (place-based learning, land-based learning, social justice education, etc.) but very little that looked at specific supports and challenges for teachers trying to extend these pedagogies into practice. It would be interesting to learn more about other approaches to supporting teachers beyond student teacher training and professional development workshops. For example, there was no mention of mentorship programs, site visits, school-based approaches, consultant support, community-based partnerships, etc. Surprisingly, there was very little research that considered the experiences of the typical, classroom-based teacher attempting to incorporate land-based education. While many different groups were included in the research reviewed, it seemed a glaring omission that every day classroom-based educators were not.

2.5 Conclusion

The four main themes from the literature reviewed provide significant points for consideration when attempting to provide transformational learning experiences for educators with the goal of encouraging land-based education. The four themes are: a balanced approach facilitating content knowledge acquisition, skill development, motivational and worldview considerations, and supportive relationships, and these would seemingly provide an effective way of developing the appropriate knowledge, attitudes, skills, and relationships needed for teachers to become successful land-based educators. Supporting teachers to be critically reflective and action competent by providing experiential learning opportunities and a supportive network of like-minded individuals is arguably a strong strategy for developing committed, mindful, active land-based educators. However, I discovered through the course of my research project that my literature review failed to identify the components necessary for authentic land-based learning, that acknowledges the indigeneity of the pedagogy and the ongoing impact of colonialism. This is part of the reason why my project analysis ended up addressing outdoor learning more broadly.

Based on the findings of the literature, my research project attempted to consider these four broad categories when working with the action research participants. I wanted to address the

discrepancy between quality research and teaching on the ground, looking at how interested teachers can be supported in breaking away from the confines of their classrooms, and getting their students outside. My research focused on active, classroom-based teachers, who are motivated to incorporate land-based learning and who would like to increase the usage of this pedagogy in their practice. How can they be supported when faced with different barriers or constraints? How can we support teachers to get their students out the doorway and embracing the potential of learning outside the classroom?

Chapter 3: Listening to Their Voices

3.1 Theoretical Influences

The research undertaken for this project was guided by transformative theory, specifically reflecting Bowers' Ecojustice theory (2002), which stresses the interconnectedness of social and ecological justice issues. I believe that our education system needs to start reimagining its goals within the context of transformative change, whereby we are striving for a new world order that is ecologically and socially sustainable. Similarly, O'Sullivan (1999) argued that there needs to be an integral transformative shift, whereby education focuses on the notion that our central concern should be the "well-being of the earth and the well-being of the human within the earth community" (p. xxi). The living world is deeply interconnected, yet I believe that western culture has become fixated on consumerism and the illusion of 'progress' above all else, including the health and well-being of our planet and communities. Children and youth have become disconnected from nature and need to realize their role within the larger web of life (Bai & Scutt, 2009; Louv, 2008; Lowenstein et al., 2018). I believe that education has the potential to create change and educational research should also be striving for the same objective. Bowers (2002) argued that this is possible with an ecojustice pedagogy that is "centered on understanding relationships within the larger households we call community and the natural environment" (p. 33). He believed that ecology should be the root metaphor underlying education that "foregrounds the different forms of interdependencies, as well as the need to exercise critical thought in ways that strengthen the ability of natural and cultural systems to renew themselves in ways that do not compromise the prospects of future generations" (Bowers, 2002, p. 29). I believe that by taking children outside of the classroom more often we can have a transformative effect on their educational experience and work towards achieving the goals of ecojustice philosophy.

3.2 Research Framework

How can actively employed teachers, working in average classrooms, be best supported in increasing outdoor learning practices? The main research design I will employ to investigate this question, is qualitative participatory action research, due to its inherent ability in providing participants a voice and involving them more constructively in the research process. Teachers are regularly bombarded by 'solutions' imposed on them by others, which often leads to lackluster

investment and commitment. While division initiatives may be based on sound research, when something is dictated from the top down onto teachers, Stringer (2014) has pointed out that it can be hard to convince them of its merits. I believe the autonomy and professionalism of teachers must be respected, and for change to occur, researchers must work collaboratively with teachers to enact solutions that will address the concerns and challenges that they face in their personal work situation. While some barriers and constraints may be consistent amongst teachers, the combination of variables imposing on teachers' working lives will be unique to each individual. Stringer (2014) spoke to this point:

The problem with generalized recipe-like solutions is that they fail to take account of the underlying issues that have made the experience problematic for participants in the first place. Recipe-based solutions often are based on the professional expertise of the practitioner and fail to take account of the deep understandings that people have of their own experience and the underlying issues that are a central part of the problem.

Professional knowledge can only ever be a partial and incomplete analysis of the situation and needs to complement and be complemented by the knowledge inherent in participant perspectives. (p. 167-168)

Educational research has more of an impact and is embraced by educators, when educators themselves are involved in developing solutions appropriate to their unique classroom setting. I believe action research provides the best way forward in enacting real change in the classroom based on solutions developed by those actively working with students. As Stringer suggested, when "stakeholders devise a course of action that 'makes sense' to them and engage in activities that they see as purposeful and productive, they are likely to invest considerable time and energy in research activities, developing a sense of ownership that maximizes the likelihood of success" (2014, p. 168). Based on this logic, I made sure to recruit teachers who had at least some interest in land-based education, and we worked collaboratively to develop solutions to their individual challenges, that best suited their respective teaching assignments and placements.

Moreover, I am motivated to be involved with research that attempts to provide real world solutions for those who are most impacted by the issues in their field or community. Working within a transformational theoretical framework, I believe that research should do more than sit on a shelf; instead, it should provide a road map for instituting change. As outlined by Gedzune and Gedzune (2011): "Action research embraces the notion of knowledge as socially constructed

and views research focused on its creation as necessarily embedded within a system of values that is oriented towards justice and democracy, flourishing of persons, communities and ecology of which we are all a part” (p. 45). Working together, I believe educators can contribute to the creation of a more ecologically and culturally sustainable future.

While qualitative action research was my main guiding methodology for pursuing this project and I knew that a small group of participants would be best to achieve my objectives, I thought there would also be value in a small quantitative survey to collect a broad cross section of data from a variety of teachers. I wanted to know, in general, what was the level of engagement in outdoor learning within our division? Were many teachers interested in this practice? How many teachers were active practitioners? What were some of the main barriers that teachers face and what solutions do they think would help? I wanted to have a sense of the spectrum of experiences and what common hurdles teachers encountered when pursuing outdoor learning. I felt that by collecting these data in a survey, it would provide a larger snapshot of teachers’ involvement with outdoor learning. This could then guide the participatory action research project.

3.3 Study Design and Sample Group

The intent of this study was to consider the experiences of teachers with outdoor learning, focusing on how to overcome barriers and consider solutions that would get them outside the classroom more frequently. To start off, the first piece of data collection involved a short survey that was distributed throughout GSCS division by email in May 2019.

The questions posed in the survey were as follows:

1. How often do you take your class outside of the school building (school yard, nearby park, community spaces within walking distance, field trips within the city, etc.) throughout the year?¹
2. Do you think that there is value in getting your students outside of the school building?
3. What hinders you from taking your students outside of the school more often?
4. What supports would encourage you to take your students outside of the building more often?

¹ I chose not to include the term land-based learning for most of the questions in my survey as I was not sure if the meaning would be clear to all. Instead I focused on the act of getting students outside the classroom to learn.

5. Would you like to increase the frequency and quality of time you spend outside the classroom with your students? Interested in learning more about land-based learning? If so, consider joining an action research group focused on increasing land-based learning. Contact Nicole Turner at nicole.turner@usask.ca to learn more.

The questions included in the survey are also attached as Appendix A and the content that was included in the body of the email is attached as Appendix B. The body of the email was concise with a big bold heading and a picture, to try and catch teachers' attention. I know from personal experience, that given the abundance of emails received by teachers, I had a brief window to draw them in or my email would be quickly deleted. Similarly, I kept my survey short and sweet, limiting it to five questions, so that teachers would not lose heart after following the link. I used an online platform to host the survey for ease of use and organization of responses. At the outset of the survey, I included a consent form which outlined how participation was optional, their responses would be anonymous and that by completing the survey, consent was implied. The survey consent form is included as Appendix C. Despite the measures I took to ensure ease of use and completion of the survey, I was not confident that I would get many respondents due to the time of year (late May) and the workload of teachers. Thankfully, I was pleased to find that 69 teachers took the time to complete the survey. I think this speaks to the high level of interest that teachers have in outdoor learning. To ensure anonymity I did not ask any identifying questions such as grade level taught or school that they are employed, but given from teachers' responses it is safe to say that there was a range of teaching assignments from pre-K, up to grade 12.

The final question of the survey included my email so that respondents who were interested in participating in my action research project could contact me but their responses to the survey would still remain anonymous. In hindsight, I should have worded the final question differently and worried less about the respondents remaining anonymous. The questions that I asked were not particularly scandalous and I think many respondents misunderstood my final question. Many teachers responded that yes, they were interested in participating but only a handful followed up with an email. It is possible that they were interested but not enough to follow up but I wonder how many were interested but missed the next step. In the end, I had 10 out of 69 survey respondents contact me expressing their interest in participating in the action research project. I should also note that, while the survey was live, I personally contacted

educators who I knew had an interest in learning more about outdoor learning and told them to watch out for the email and survey. Three out of five of the educators that I attempted to purposively recruit ended up joining the study.

Subsequently, I followed up with the teachers who had emailed me about joining the action research project. Out of the 10 who emailed me, 8 were elementary school teachers and two were in high school. As I had planned on working with a group of only 4-6 participants, and most of my experience with outdoor learning dealt with elementary aged children, I decided to limit the group to solely elementary teachers and informed the high school teachers that regrettably I would not be able to involve them in this study. Perhaps I should have restricted the survey or recruitment for the study to elementary school teachers but I was not sure what kind of response I was going to get and did not want to eliminate any potential participants. It would be of interest to have a similar study developed that worked exclusively with high school teachers but for the purposes of this study, I was unable to work with all the interested participants. Additionally, one of the teachers who initially expressed interest decided to withdraw her name from the study due to unforeseen changes in her life. So, in the end I had 7 participants, which was slightly more than originally intended. However, I felt that this would be a manageable size to facilitate meetings and provide personalized support but not so small that the results would be inconsequential and difficult to decipher any patterns.

Six of the participants are educators who work for Greater Saskatoon Catholic Schools. One of the participants is a teacher who is not employed by GSCS but instead runs a private preschool program housed out of a GSCS school. Thankfully, the participants represented a range of grade levels taught: Candace is a kindergarten and grade 2/3 release teacher, Mackenzie is a full time French Immersion kindergarten teacher, Sarah is a grade 3 teacher, Amber and Chris are grade 7 teachers, Lauren is a grade 8 teacher, and Shannon is a preschool teacher. While I had hoped for a gender balance, in the end, I had six female participants and one male, which is not surprising due to the prevalence of women in elementary education. Considering that this gender imbalance is reflective of the workforce, perhaps this made for an appropriate working group. All of the participants were experienced teachers with at least 6 years of experience and an average of 17 years (putting me, with five years in the formal education system, the least experienced in the group). Additionally, the participants all had previous experience teaching the grade levels/subjects that was their current assignment. While I assumed that the participants would

have at least some interest in outdoor learning, hence their participation in the study, I did not require that the teachers be active outdoor educators. In the end, the group had a range of experience with outdoor learning. Some were experienced outdoor educators, comfortable taking their students outside the classroom, while others had very limited experiences with outdoor learning and did not have a lot of confidence taking their students outside, feeling more comfortable inside the classroom. The range of experience worked very well for the purposes of the study as we had lots of great dialogue within our research meetings and all group members had knowledge to contribute. The project was designed to have the group work collaboratively to develop solutions and supports that would best address the barriers and challenges that inhibit outdoor learning in their unique teaching situations.

Table 3.1 Participants in action research study.

Teacher	Grade Level Taught	Experience	Meeting Attendance
Amber	Grade 7	11 years total.	All three meetings.
Candace	Kindergarten & Grade 1/2 & 2/3 release.	31 years total.	All three meetings.
Chris	Grade 7	18 years total.	All three meetings.
Lauren	Grade 8	6 years total.	First & third meetings.
Mackenzie	French Immersion Kindergarten	14 years total.	All three meetings.
Shannon	Preschool	12 years total.	All three meetings.
Sarah	Grade 3	24 years total.	All three meetings

Once the research group had been established, all the participants were sent a consent form electronically by email to review and then a hard copy was signed at our first group meeting. The action research consent form is attached as Appendix D. The bulk of the research was to be actualized through a series of four group meetings. The first two meetings took place in June of 2019, there was a midterm review meeting planned for January of 2020 and a final summative meeting in May of 2020. However, due to COVID-19, the midterm review became the final group meeting and the information that I was planning to gather at the June meeting I

collected through a questionnaire sent through email. Please see the research project timeline included as Appendix E.

The first meeting provided an opportunity to gather information on the participants' motivation to take kids outside, barriers that inhibit this goal and supports and resources that they felt could help. The second meeting focused exclusively on brainstorming and considering supports and resources that could be gathered, developed or organized as soon as possible or over the summer to be put into action at the end of August or the beginning of the next school year. I prepared a few open-ended questions to guide the conversation (see Appendix F) and let the group lead the dialogue for the most part, only contributing when I thought I had something of value to add. I did not want to influence the group's responses by dominating the conversation. As Jones (1985) suggested, "to understand other persons' constructions of reality, we would do well to ask them...and to ask them in such a way that they can tell us in their terms" (as cited in Parsons, Hewson, Adrian, & Day, 2013, p. 94). I wanted to hear what they thought were the benefits, barriers and possible solutions to outdoor learning from their own perspectives, unbiased by what the person leading the meeting had to say.

At the second meeting, I also brought 40-50 books that I displayed on adjacent tables so that participants could peruse to see if they thought any of them could be potentially helpful resources. Some of them were my own personal copies but the majority I borrowed from the Stewart Resource Centre from the Saskatchewan Teachers Federation. I wanted the participants to be aware of all the great books that are available to borrow from their professional association. At the end of the second meeting, I also had the participants fill out a 'Wish List', so that I knew exactly what each participant thought would be useful (see Appendix G). As most teachers know, not every participant in a group is as outspoken as others, and so I wanted to make sure I did not miss the requests for resources and supports that some of the quieter participants might think useful. Near the end of the meeting, one of the participants pointed out to me that they were not sure of all the options available that could help support outdoor learning. I had been so wary about not influencing the opinions of the group that I had not considered that people are limited by the constraints of their own experiences. So as a follow up to the meeting I compiled all of the participants wish lists into one master copy and then I added a few more options that I thought could be helpful (see Appendix H). I sent this compilation by email to the group and suggested that they could update their own respective wish lists if they saw something else that interested

them and that they thought would be helpful. I took all the wish lists, added the updates and created an Excel spreadsheet that displayed all the participants and their requests so that I could easily see who was interested in each respective resource and support (see Appendix I). The items that the participants initially requested on their wish lists are marked on the spreadsheet with an X, and the items that they added after are marked with a U for updated.

Over the summer and in the fall, materials were distributed and Professional Development (PD) opportunities were made available based on what the action research group thought would be helpful. The purchasing of materials and coverage of registration fees was made possible by a Stirling McDowell grant that I received for this research project. Once the participants had time to digest the professional development attended and put their new knowledge to practice with their students, as well as make use of any gathered resources, we met in January 2020 to review the success and challenges of the action research project thus far and to consider possible future actions. In the end, this meeting ended up being the final in person gathering of the action research group. During this meeting, we focused on individual outdoor learning highlights and the teachers shared what they thought had been most useful out of the supports, materials and resources provided. We also considered our next course of action, what other ideas did they have for solutions that could be helpful? At the conclusion of this meeting, I had them complete a 'Midterm Review' which had them reflect on the action research project and outdoor learning up until that point. Each midterm review document was personalized for each participant, as the front page included a summary of what they initially requested, and what they had received to date. The back side was a series of reflective questions. I included an example of a midterm review document as Appendix J. One of the questions asked the participants to list any other resources, materials, or supports that they had not received or initially requested that they thought would be of benefit. Again, I compiled all of their responses into a spreadsheet (See Appendix K). In lieu of a final in person group meeting, as was planned for May, I sent the participants a final summative questionnaire to collect closing reflections on outdoor learning and the action research project (see Appendix L). Throughout the duration of the study, from May 2019 to May 2020, I maintained regular email contact with the participants to guide and support their journey implementing strategies in outdoor learning.

All of the group meetings took place in the backroom of a local restaurant (so we could have snacks and a drink) after school for approximately two hours. The meetings were audio

recorded and notes were taken in a journal. The recorded data were transcribed by the Social Sciences Research Laboratory at the University of Saskatchewan. I reviewed and cleaned the transcriptions and had the accuracy confirmed by the participants. All electronic data and the participant consent forms will be kept in a locked drawer in a locked office on campus for five years and then disposed of appropriately.

3.4 Data Analysis

After all the data had been collected, I used a thematic analysis to make meaning of the research. While reviewing the survey results, interview transcriptions, and journal notes, I identified key words and points that I highlighted. Following this step, I looked for threads amongst the highlighted points and grouped them together according to themes (Parsons et al., 2013). Finally, similar themes that emerged from the data were organized into larger categories. Using this type of thematic analysis allowed me to pull out the important variables identified by the participants, and assemble an overarching review of the data. Categorizing the data in such a way allowed me to discern and highlight the big takeaways from the research.

Chapter 4: Addressing Barriers

4.1 Division Survey

The survey sent out in May 2019 had 69 respondents, seemingly with a range of teaching assignments and experience with outdoor learning. The survey was short and to the point and only took participants on average 2 minutes to complete. While there was a range of responses for some of the questions, there were definitely themes that emerged regarding barriers and solutions. The following section will present the data collected and highlight some of these themes.

4.1.1 Question 1- Frequency Outside

Approximately how often do you take your class outside of the school building (to the school yard, nearby park, community spaces within walking distance, field trips within the city, etc.) throughout the year?

The results for this question surprised me the most, as I wrongly assumed that the majority of the people who would respond to this survey would fall into the category of active outdoor educator. I presumed that if they took the time to complete the survey, they would have a strong interest in outdoor learning. In reality though, 50% of the respondents (34 individuals) said that they took their students out once a month, at best, throughout the whole school year. Conversely though, the other 50% of the group (33 respondents)² answered that they went out at least 2-3 times a month, with 6 respondents claiming that they went out daily! So, there was a big range in the frequency that respondents were taking their classes outside. Given peoples' responses, I was able to group them accordingly:

- 15 people had responses that fell in the category of less than five times a year that they left the classroom (the range of responses being 1x a year, up to 3-5x a year).
- 19 people had responses that fell in the range of 5-15 times a year leaving the classroom, which is on average about 1x a month.³
- 12 people had responses that fell in the range of 16-30 times a year leaving the classroom, which is on average about 2-3 times a month.

² Two of the respondents gave answers that were unquantifiable. Example “not enough”.

³ Based on a school year of 182 days over 10 months.

- 6 people had responses that fell in the range of 31-45 times a year leaving the classroom, which is on average about 1 time a week.⁴
- 5 people had responses that fell in the range of 46-60 times a year leaving the classroom, which is on average about 1-2 times a week.
- 2 people responded that they went out daily but only in the spring and fall.
- 2 people had responses that suggested they went out 3 times a week.
- 6 people responded that they went out daily.

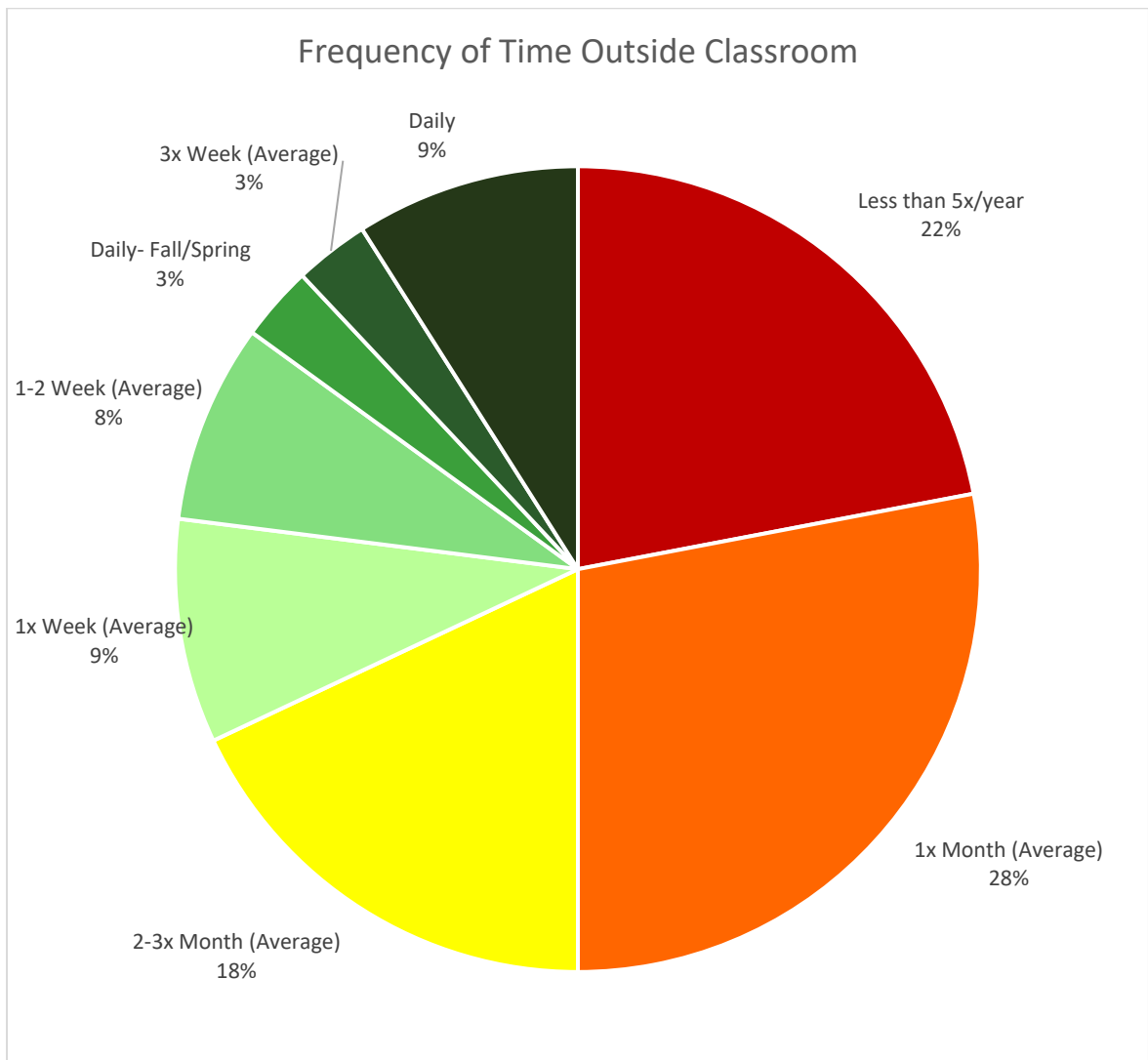


Figure 4.1 Responses to survey question about frequency of outdoor learning.

⁴ Based on a school year of 182 days and 39 weeks.

Several respondents made note that the frequency of their visits outside was dependent on the weather, which is reasonable given that indoor recess restrictions limit the allowable time outside during the winter months but also speaks to the fact that many teachers only consider outdoor learning during the ‘nice’ months, even though there are plenty of learning opportunities in the winter.

Also worth considering is the fact that I did not disaggregate for the type of activities that were taking place outside the classroom. I feel that there are so many benefits to learning outside the classroom that it did not really matter for the purpose of this survey what they were doing. Some may have been holding physical education class at the local ball diamond, others may have been visiting city hall on the city bus, and others may have been going on multi day camping trips to Pike Lake. While some respondents made note of what they were doing while outside, most did not.

4.1.2 Question 2- Value

Do you think that there is value in getting your students outside of the school?

Not surprising but very encouraging, all respondents answered affirmatively for this question, with varying degrees of enthusiasm. Two responses that were lackluster included “sometimes” and “only as long as there is an academic reason for doing so”. However, on a more positive note, 31 individuals had emphatic responses or explanations added in support of learning outside the school. For example, “Yes!!”, “Very valuable”, “Essential”, “Absolutely”, “Extremely important”, “YES!!! They learn at such a rapid pace and are able to connect with the world on a much larger scale.” Interestingly, this means that although many of the respondents were only getting their students out a few times a year, they all felt there was value in learning outside the school.

4.1.3 Question 3- Barriers

What hinders you from taking your students outside of the school more often?

Unsurprisingly, the number one constraint listed by teachers was money. Out of the 69 respondents, 27 of them listed financial barriers as one of the reasons they did not get out of the class to learn. While classroom budgets certainly are limited, personally, I am unconvinced of the strength of this argument, based on my own personal experiences. However, it was the most

common barrier listed by the respondents. Some specified their financial barriers, listing busing costs, sub costs and programming costs.

Following money, the next most commonly identified barrier involved issues relating to students and classes, including student behaviour and abilities (mentioned 9x), the lack of appropriate clothing for the weather (mentioned 5x), class sizes (2x), frequent bathroom breaks (1x), and age of the students (1x). While individually some of these responses are insignificant in frequency, all together this theme was referenced for a total of 18 times as a barrier.

Not far behind this barrier, weather related hindrances were listed 16 times- including statements such as “winter”, “-25”, “extreme weather”, etc. Unavoidably, there are cold weather days in Saskatchewan when we are not allowed by our school division to go outside. I would be curious to know though, how many days out of the year do teachers consider ‘bad weather’ days, that stops them from going outside? Are bad weather days all -25 or colder? Or is it weather that is outside their comfort zone – perhaps it is raining or had rained? This barrier is also connected to the aforementioned barrier, a teacher may love going out in the winter or rain but if the students do not have the proper gear then they are not likely to get out as much in the cold as they might when the weather is sunny and warm.

Time was the barrier listed fourth most frequently, referenced 14 times. Often the teachers did not elaborate, but some mentioned scheduling restrictions, having extra chores to deal with, short class lengths and prep time restricting their flexibility. I did not include time concerns related to covering curriculum in this grouping, as I felt that belonged in its own group. Which brings me to the next most frequently listed barrier- curriculum concerns (referenced 14x in total). Specifically, teachers listed the pressure to try and cover curriculum 8 times and being unfamiliar with curricular links to outdoor learning was mentioned 6 times.

Location related hindrances came up 13 times with teachers suggesting that they were either unfamiliar with locations to visit (6x) or that the location of their school was not ideal for outdoor learning (7x). And finally rounding out the top of the list, mentioned more than 10 times, was supervision, needing to have enough adults for proper supervisory purposes but struggling to get the support (listed 12x).

Following these popular trends in responses, there were a few other less frequent responses that came up. Transportation barriers, outside of cost, was mentioned six times. Lack of outdoor learning resources was listed six times. Top down constraints were mentioned in a few

different ways, for example, cumbersome policies and paperwork (x2), needing division approval for excursions (1x), having to work on division initiatives (1x), and onerous assessment demands (1x). Limitations inherent to teaching assignments was mentioned 4 times. The extra organization required for outdoor learning was mentioned once and one keen individual said “nothing”.

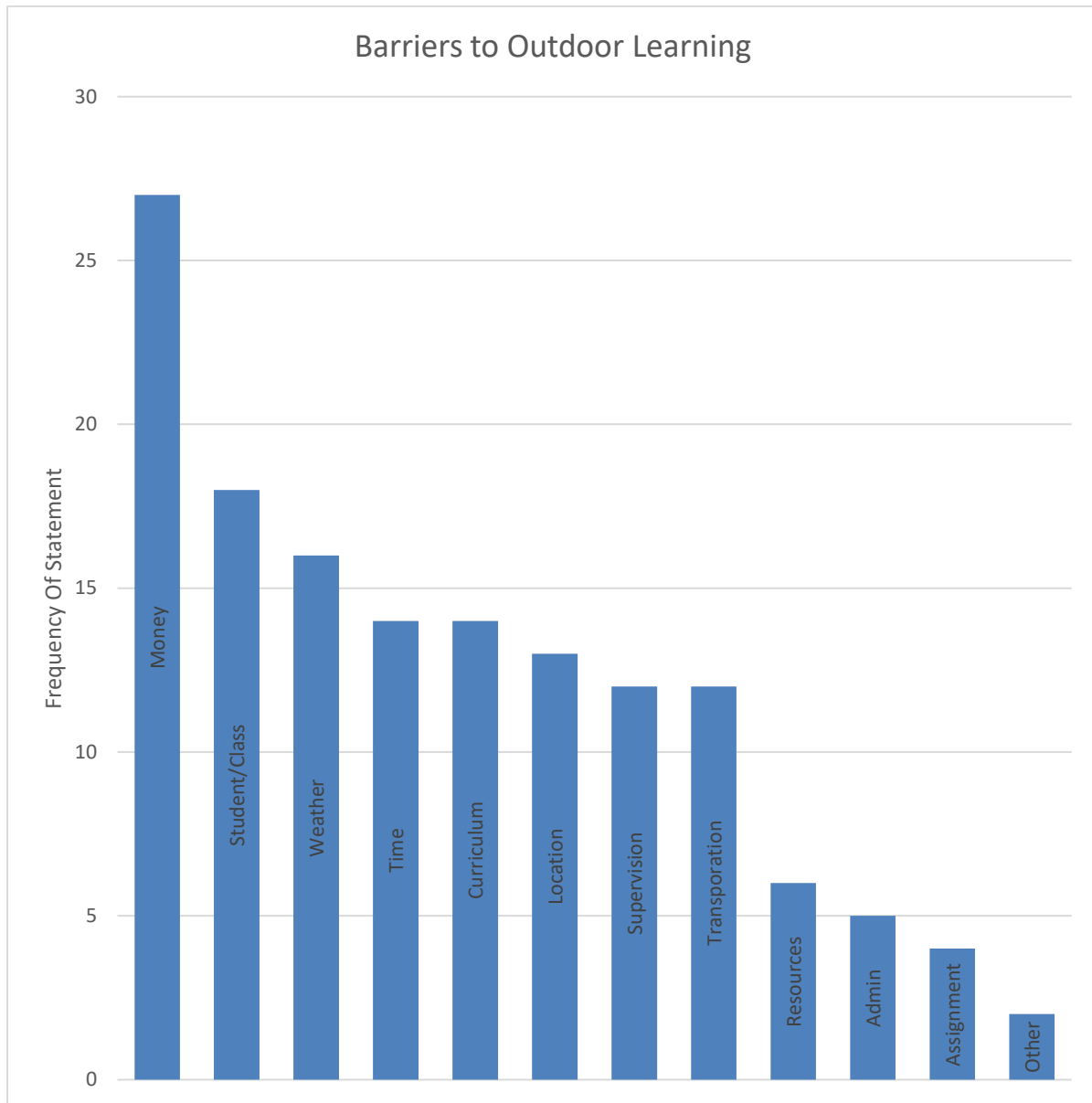


Figure 4.2 Responses to survey question about outdoor learning barriers.

4.1.4 Question 4- Supports

What supports would encourage you to take your students outside of the building more often?

Considering the most frequently mentioned barrier in the section above, it should come as no surprise that financial supports were the most frequent responses to this question, with them

referenced 26 times. Responses that I included in this group comprised transportation coverage, funds, grants, and “Guaranteed transportation and funding that doesn’t put the onus on the teacher to come up (with) its funds to engage in land-based learning activities”. I do agree with this teacher’s statement that teachers should not have to scrounge for funds but I also think that there are ways to make do with less that are not extremely onerous.

Not far behind financial supports, the next most frequently mentioned support was a group of responses concerning human capital, having people be supportive of their class and learning goals (referenced 25x). For example, having administrative support (4x), additional educational assistants (3x), parental support (4x), and enough volunteers for excursions (9x). Additionally, having experts on outdoor learning available for support was mentioned 4 times. Unfortunately, with austerity measures and cuts to education budgets, outdoor learning experts are increasingly losing their positions or having their roles scaled back.

A frequently referenced theme that emerged in the responses was the desire for specific outdoor training and resources. A variety of different options were mentioned, comprising 25 total responses. The most commonly listed element in this category was lesson ideas and plans with curricular connections (10x), followed by activity lists with curricular connections (3x) and then resources (3x). In general, one teacher expressed an interest in learning more about what was available and two others wanted “more options”. Regarding training, teachers responded that they were interested in teacher mentorships (2x), teacher inservices (1x), opportunities to see outdoor learning in action (1x), partnerships with grade alike classrooms, and having more specialized programming available (1x). I think that the main point here worth noting is that while teachers’ suggestions for training and/or resources varied, there was a strong overall interest in receiving some form of professional development from the group of respondents. This is mirrored in the final question of the survey as the majority of the group expressed an interest in learning more about land-based learning.

Facilities was the next most popular category, with 8 references, within which teachers listed wanting easier access to outdoors, an outdoor classroom, outdoor seating, and a place to store materials outside. Tied with the same number of references (8x), were supports for students and the class. Teachers expressed a desire for student preparedness for the weather (x4), increased maturity of their learners (x2), having students at grade level in core skills (x1), and strategies for behaviour (1x). I found this group of responses interesting, as many of them are

things that are outside of anyone's control and are not really feasible solutions to address the barriers than inhibit outdoor learning. In fact, many of the solutions listed overall in the survey were elements that would be hard to achieve: more money, free transit, students dressed properly, etc. This trend is further considered in chapter five.

Several solutions were listed 4 times; time, less administrative pressure, transportation, and scheduling. When time was mentioned, it was a straightforward request for more time in general to plan and so on. Similarly, transportation was an unelaborated request. Scheduling solutions included requests for days without release time or supervision, longer class times, double class periods, and more time with classes and scheduling flexibility. Less administrative pressure as a category involved considerations such as more trust in the teacher, less pressure to teach traditionally, less mandatory assessment, and less emphasis on learning improvement plans (required school-based goal setting).

With only three mentions, curriculum related supports were not as prominent as I would have thought given that it was brought up 14 times as a barrier in the question prior but I think that some respondents addressed that barrier through requests for lesson plans, and curricular activity suggestions. Specific curriculum solutions that I grouped together here included answers such as "explicit requirements within outcomes", "outcome evaluation to accomplish more of them per trip", and "how to integrate curriculum through low-cost, outdoor opportunities". These statements seemed to consider specific curriculum supports.

Finally, there were two outlier responses with "nothing" listed once and "summer" listed once.

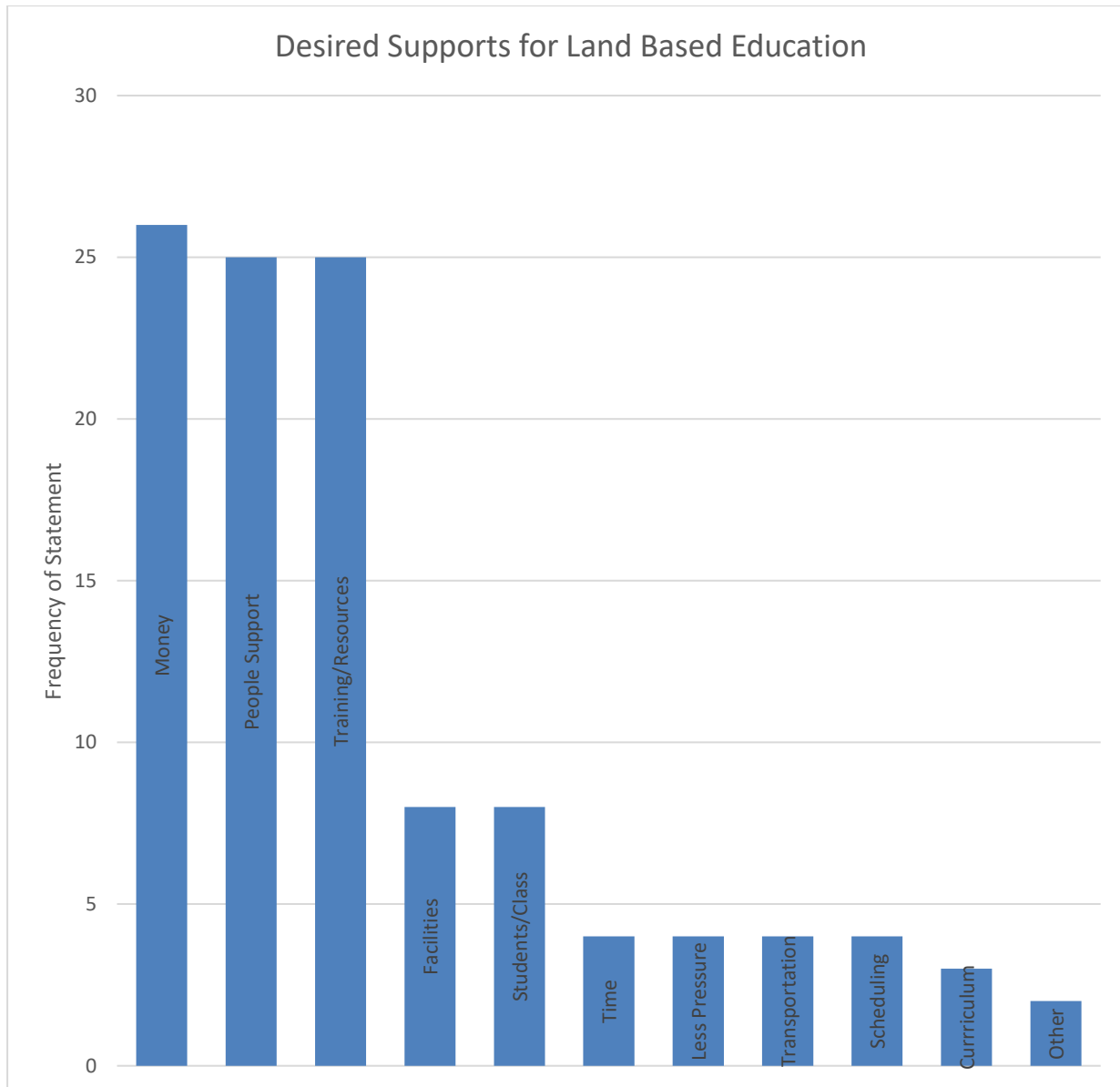


Figure 4.3 Responses to survey question about outdoor learning supports.

4.1.5 Question 5- Participation in Research

Would you like to increase the frequency and quality of time you spend outside the classroom with your students? Interested in learning more about land-based learning? If so, consider joining an action research group focused on increasing land-based learning. Contact Nicole Turner at nicole.turner@usask.ca to learn more.

The intention of this question was purely to recruit participants into the action research group but it was interesting to note how many individuals answered yes to the preamble questions leading up to the pitch. Out of 69 respondents, 39 answered in the affirmative, that they

would like to increase the frequency/quality of time that they spend outside the classroom with their students and that they were interested in learning more about land-based learning. On the other hand, 16 respondents skipped this question, leaving it blank, 4 said no, 3 said maybe and 5 had unclear responses. As mentioned in chapter 3, I should have perhaps reworded this question to be clearer. It was a bit too wordy and I think people were unsure how to respond or proceed. I would have thought with 39 affirmative responses that more than 10 would have followed up with an email but its hard to say definitively why they did not.

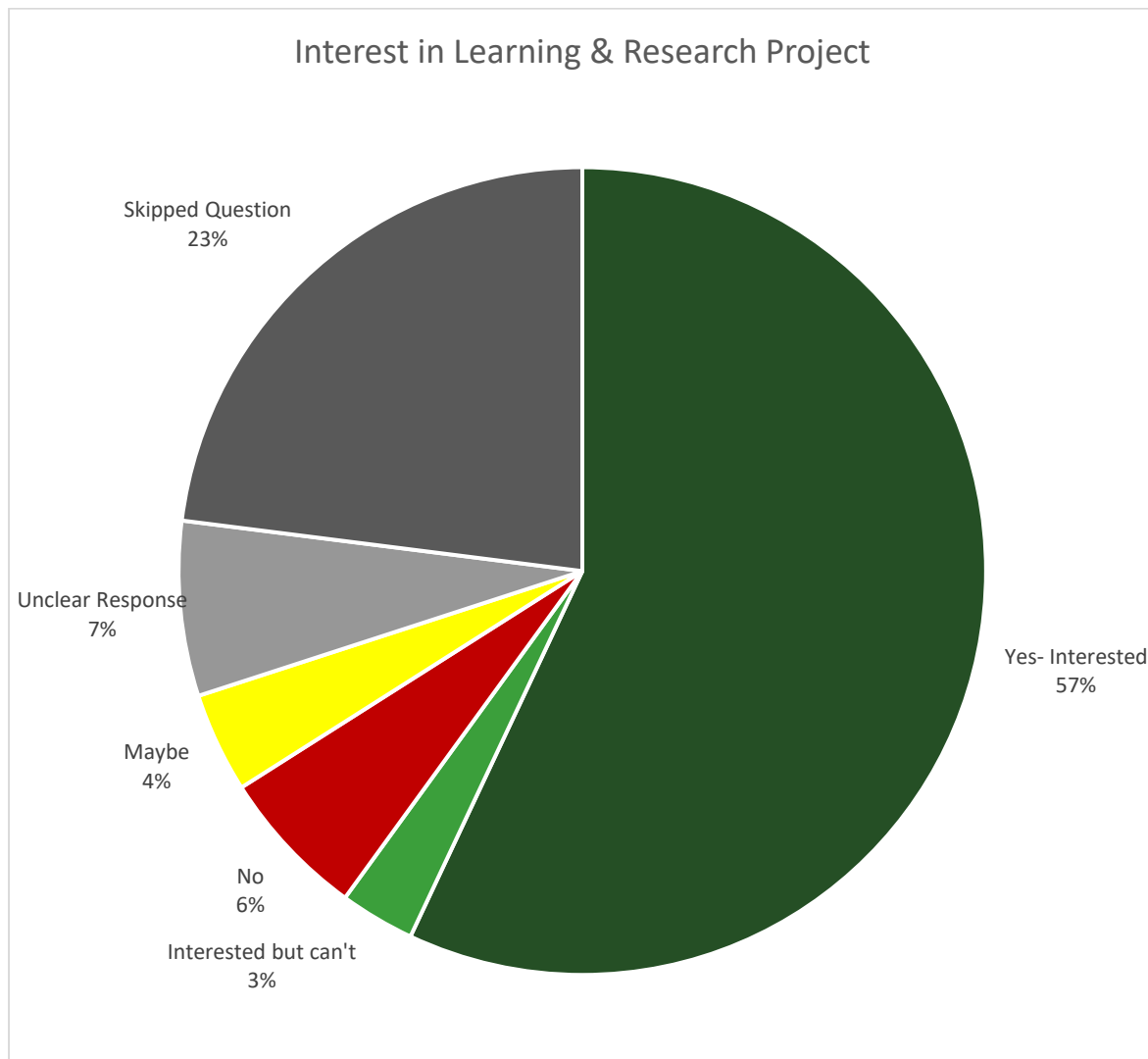


Figure 4.4 Responses to survey question about land-based learning interest.

Overall, the survey gave a quick overview of the mindsets of teachers regarding outdoor learning within GSCS, providing some insights into the range of experience and familiarity with

the pedagogy, barriers that are prominent across the division and a range of solutions, some proactive and achievable, and others frustrating indications of an underfunded and under supported education system. The most promising element revealed by the survey is the level of interest that teachers have for outdoor learning and their desire to learn more.

4.2 Action Research Project

4.2.1 Introduction

The remaining focus of this study involves the aforementioned action research project involving 7 teachers employed within GSCS schools teaching a range of grade levels from pre-school to grade 8. The impetus of this project was to work collaboratively on generating solutions to the barriers that inhibit outdoor learning. We met as a group three times to consider how can teachers be best supported in increasing outdoor learning practices. While the focus of the meetings was to brainstorm and dialogue effective supports for teachers, to set the foundation for the ensuing discussions, we also considered the benefits of outdoor learning and the barriers. I thought that starting off on a positive note would generate some excitement for the project. Once everyone felt inspired and motivated after considering all the wonderful benefits of outdoor learning that the participants shared, we shifted our attention to the barriers that stop us from engaging in this rich methodology. While I had intended on only discussing the benefits and barriers of outdoor learning at the first group meeting, challenges faced by the participants were regularly shared at all three of the meetings. Moving on from the first two points of conversation, the main focus for all three meetings was to be proactive and address the issues that teachers face by generating a list of materials, resources, and professional development opportunities. Based on the list brainstormed by the group and taking into consideration the individual requests and needs of the respective group members, I supported the educators in implementing the solutions that they thought would help increase outdoor learning. At our final meeting we assessed the effectiveness of the supports that had been provided up until that point and considered if there were any others that would be beneficial. These points of deliberation were included on a ‘midterm review’⁵ questionnaire that I had the participants complete at the third meeting in

⁵ The third meeting was intended to be a midterm review of the project with a plan for an additional meeting in May 2020 to complete the project. However, due to COVID-19, the project was modified and the third meeting became the final meeting. The goals for the planned meeting in May were instead achieved by the ‘final questionnaire’ sent in an email in March 2020.

January 2020 and again on a ‘final questionnaire’ that I sent them by email in March 2020. The participants also had the opportunity to share their outdoor learning highlights at the midterm review meeting and pinpoint what had been working well for them.

The following discussion will outline the main topics and points of significance that came out of these meetings and questionnaires. First, I will briefly summarize the main benefits of outdoor learning that the group shared at the first meeting. Secondly, I will provide an overview of the barriers to outdoor learning that the group came up with and experienced throughout the course of the project. Subsequently, I will review all of the supports the participants brainstormed as possible solutions to the barriers faced and I will share what was provided for the group in terms of supports, including materials, professional development, and resources. Then I will provide a summary of each participants’ experience and review their interpretation of the project. Finally, I will outline the thoughts the group shared regarding future considerations for the project, and what other supports might be helpful for teachers interested in outdoor learning.

4.2.2 Benefits

4.2.2.1 Students

The participants spoke passionately about all the benefits that they had witnessed with their students when engaged in outdoor learning. Their comments spoke to the advantages in development and growth of the whole person, not just one facet of their being but all encompassing, social-emotional, academic, spiritual, and physical.

A common refrain amongst the teachers, for social-emotional benefits, was that outdoor learning encouraged independence amongst their students, allowing them to step outside of their comfort zone, and develop their own sense of responsibility. They also found that learning outside the classroom promoted different interactions amongst peers and generally required less conflict management. The participants felt that students developed a sense of confidence and self-efficacy, when they were given space to explore and try new things. Additionally, they talked about the calming benefits that they witnessed in their students, how being outside helped to ground them, no matter what struggles they were dealing with. Amber spoke to this point in the following quote:

And the difference in the kids that are having trouble at home, are having mental struggles or anxiety or whatever, they’re just grounded when we get back and they’re calm and

happy. And everyone's usually getting along, just everything is taken out of them, all the pent up, everything just kind of gets let go. (Amber, Meeting #1)

Something about being outside the classroom, allows children to relax and interact more positively with each other. This calming influence also translates well when the class moves back inside, as the participants agreed that the students tend to be more focused after spending time outside.

Moreover, several participants found that academic growth was also nurtured when involved in outdoor learning and that engagement levels were often higher than in the classroom. When talking about the curricular outcomes in kindergarten, Candace remarked that she could easily cover seasonal changes by going outside:

It's just easy, fall you go outside, you take pictures, then winter, you go outside you take more pictures, draw pictures, you hit that whole curriculum outcome by just going outside a few times in each season and charting the differences. I mean, you hit everything and you don't have to talk a lot, they discover it themselves, it's such better learning when they discover it rather than you reading it in a book or telling them. (Candace, Meeting #1)

This type of intrinsic learning that Candace talks about should be the goal of education, students invested in their own learning because they are interested and engaged. This sentiment was mirrored by Mackenzie who finds that her students are more inquisitive when they are outside: "Yeah, I find more students are more engaged outside, they like to ask more questions. They're less worried about having wrong answers I suppose, just because we're all outside just figuring things out together" (Meeting #1). Increased student engagement was a recurring theme that was brought up at the meetings. Many spoke to this benefit, including Chris when reminiscing on his experiences with students at Eagle Creek (an outdoor learning centre within our division that recently closed with budget cuts):

I think there's something amazing too, just we teach a generation of kids that have such short attention spans and can get bored so quickly. But to be able to take them in the outdoors into a place... taking the kids pond dipping there. When you give them those opportunities where you just let them loose and they just go and they're having so much fun. It's pretty amazing to just see them engaged for 30 minutes -they're just going! (Chris, Meeting #1)

There were many enthusiastic stories similar to this one over the course of the project, when teachers would effuse about the excitement and engagement of their students when participating in outdoor learning.

There is also something spiritual that emerges when students connect with nature and develop relationships with others. Students start to see the bigger picture and become more attuned to the world around them. Shannon found this to be a benefit that she often saw with her class:

And I think for me, I feel like I've had a good successful day when a parent comes up and says, "Shannon, man, my kid stopped and looked at the clouds today!" Or, "They stopped and they were listening to birds today, what the heck!" Because they're so used to just rushing them from the car to the school, from the school to the activity, and just for the parent even to go, "How long has it been since I've done that, to stop and look at the clouds?" (Shannon, Meeting #1)

Children appreciating the natural world is not a listed goal of education, but has inherent value. It is unfortunate that spiritual considerations like these are not more prominent in our teaching agenda.

The physical benefits of outdoor learning were not explicitly mentioned by the group but they often emerged within the course of conversation. Participants shared stories of biking, tobogganing, canoeing, hiking, and so on, that highlighted the physical nature of outdoor learning. Even in winter months, when it is a struggle sometimes to get students outside for recess, Mackenzie referenced a story about her students tobogganing and how they could not get enough: "They're on the verge of frostbite, we gotta go in. But the kids, they will stay, once you get them out and doing stuff, they love to just hang out outside" (Mackenzie, Meeting #1). The physicality of learning is inherent to outdoor learning; when outside of the class, there are no requirements to stay sitting at a desk, table, or on the carpet. Moving around is often required to achieve the objective of the day's lesson.

4.2.2.2 Community

Besides benefits for the students, the teachers also commented on the benefits that they saw affecting the wider community. They shared stories which showcased how through their excursions outside the classroom, the students developed a broader understanding of the world

around them and the role that they play as individuals within a larger system. Lauren talked about her objectives when engaging in “urban-based land learning”:

I just think that it’s beneficial to see them step outside of their comfort zone, and they have to interact with- So they have to take the city bus everywhere, they have to interact with people that they wouldn’t have the chance to, and they’re in these situations where they’re uncomfortable. But then as a result of that you kind of see them grow and develop the confidence to try new things or talk to new people, and they have to become more engaged and aware citizens, which at the end of the day is what I’m hoping for because they gotta go out into the world and be competent adults. (Lauren, Meeting #1)

Even though engaged citizenship is listed as one of the broad areas of learning across Saskatchewan curriculum, I think that it is often overlooked. The importance of helping to nurture our students into becoming engaged citizens is something that cannot be overstated.

Stewardship was also a theme that came up in regards to the broader community benefits of outdoor learning. The participants talked about the importance of knowing and loving the natural world. Amber expressed this sentiment when talking about her regular class excursions to the river:

When we go outside to the river, I also notice that they are looking around our yard a little bit differently too at garbage, because we point out the garbage in the river and stuff. And then I heard once that the only way to bring awareness and change to the environment is get people to love it, love is the only reason you’re going to start making sacrifices for not using the plastics, not doing this, not doing that, so just trying to get them to appreciate and love all the different aspects of it so that they’ll start being better stewards. (Amber, Meeting #1)

If students have no experience or little relationship with nature, why would they feel the urgency or motivation to try and save it? Getting outside and seeing things, smelling, touching, tasting, and hearing things, gives students a much more intimate understanding and connection with the rest of the living world.

4.2.3 Barriers

4.2.3.1 Student and Class Challenges

Overwhelmingly, the barriers most discussed by the group had to do with the size and complexity of their classes. Every participant identified a least one variable, within this category that made outdoor learning challenging.

Lauren really struggled with the size of her class this past year, which saw her teaching 37 grade 8 students! She elaborated on the difficulty of this situation in her final questionnaire:

The number of students was easily my biggest limitation this year, without a doubt. It wasn't the fact of taking them out of the building as they were, generally speaking, a great group, but the obstacles for programming with that size. A number of activities/programs had caps of 30 (City of Saskatoon Zoo) so they would make accommodations to the program to work around our class size but it would change the logistics of the program. Arranging 37 kids on my own planned trips (Disc Golf) was doable, but it was a significant amount of work. (Lauren, Final Questionnaire)

Amber, similarly, had a large class of 34 grade 7 students but what became more of an issue for her was the complexity of her group. She had a student with autism who could not ride a bike and did not enjoy most physical activity, another student who could not handle the cold and one girl with Attention Deficit Hyperactivity Disorder (ADHD) who could not sit still for long. As a competent and experienced teacher, she had devised differentiation strategies for these students as best she could but then faced a new complicating factor in the fall, when she had three new students join her class with violent tendencies. This became her biggest barrier: "I got three violent ones, in November, so that's one of my challenges and frustrations, is I can't trust them. And I can't hardly leave my classroom, never mind the building because some of them take off or they snap" (Amber, Meeting #3). Trust is certainly an important factor when leaving the school grounds with a class and it only takes one or two students to ruin it for the group.

Chris on the other hand, had a smaller group this past year, but wondered about engaging students who are less interested in learning outside the class. As he pointed out, some students are invested right away, while others it is not so easy. Lauren suggested an explanation for this lackluster engagement:

I think that's also a potential barrier, is just that the generation of kids we're teaching are so accustomed to, someone had touched on it earlier, but you get dropped off at school,

you get picked up, and then some of them just are in their house and that's the extent of their day. So, to be outside is uncomfortable or boring, or whatever it might be, just because you've got everything you need in your house and why bother leaving. (Lauren, Meeting #1)

Many of us in western society do live in very hermetically controlled environments, that limits the amount of exposure that students have to the outside world. We are also living in the age of electronics and are competing with highly engaging digital platforms, social media, Netflix, video games, YouTube, etc. So, for many students, spending time outdoors is foreign and the slowed down pace unfamiliar.

Most of the teachers commented on the challenges of communication with English as an Additional Language (EAL) students and families, which is brought up again in another section. Sarah shared a situation in her class:

And I strongly believe it depends on your group too. I have two EAL boys who I had to be on top of then, he'd be all over the place, and then trying to translate and explain why you need to do this. And then he's still all over the place. It's like, it's a nightmare so I'd just rather not go. You know? Because of one student, literally sometimes. (Sarah, Meeting #2)

While teachers are committed to their students, and invest considerable time and effort differentiating for the diversity of learners and young people in their classes, sometimes the weight of addressing all these different needs can become overwhelming and limits the opportunities available.

4.2.3.2 Weather

Weather as a barrier came up a few times throughout our action research project, both in meetings and on the final questionnaires. Mackenzie, Chris, Shannon, and Candace, all identified the weather as being one of their main hindrances to outdoor learning throughout this past year. Undeniably, our cold weather months can restrict how often classes are able to go outside when they have to follow administrative temperature guidelines. For the most part though, the educators in our group did not seem to be the anchor holding their class back from going outside on days of inclement weather. It was quite the opposite, as they talked about the learning affordances of rainy, muddy days, and the joy of tobogganing even in the coldest of weather. Instead, it often came down to students not being adequately dressed for the cold or wet weather.

Shannon shares her frustration with this situation, when discussing her main limitation to outdoor learning in the final questionnaire:

Educating parents on dressing their children to go outside. Children not coming ready to learn outside once the weather got colder. I do have extra items to help keep them warm but not full class sets. I want the children to experience all weather. We live in Saskatchewan and it is cold for so much of the year that I want them to love going outside in the snow and cold but lack of outdoor gear was a limitation. (Shannon, Final Questionnaire)

Even with older students, as the middle years teachers pointed out, dressing weather-appropriate is an issue, although for different reasons. Instead it becomes an issue of not wanting to dress for the weather for fear of appearing uncool. Many grade 7 and 8 students would rather freeze in their hoodies and running shoes or spend their whole recess trying to sneak inside than dressing appropriately and enjoying the outdoors.

4.2.3.3 Lack of Support

Even though the group listed weather as a barrier, when consideration is given to the underlying factors that restricted outdoor learning for them during the colder months, it has less to do with the weather itself and more to do with an unsupportive environment. If families were willing and able to send their younger children dressed for the weather, if older students were willing to bring and wear the appropriate gear, and if the administrative rules regarding weather were not so strict, it would not matter so much if it was cold outside. Moreover, if education was properly funded, classes would be able to stock up on extra winter gear. Even when teachers are super motivated to thrive during the winter months, they encounter resistance. Lauren shared a situation at her school when they attempted to institute a Polar Bear club:

We kind of had an issue too, the school wanting to do a polar bear club where if they sign off, but no, not a chance. It will never happen. We tried and tried and tried, and it's a no go, even though there's three teachers who said, "Yeah, no problem. We'll go out with the kids." Not happening. (Lauren, Meeting #1)

The group discussed extensively the limitations of indoor recess and the downfalls of keeping students inside. They all agreed that -25 seemed like an arbitrary and unnecessary safety guideline. Of course, precautions need to be in place, like allowing for students to come in to warm up regularly but going outside for short periods of time will not hurt them. Similarly, the

group expressed frustration with indoor recesses when it was raining, as Shannon remarked “You’re not made of sugar, you’re not going to melt” (Shannon, Meeting #2). Again, protocols and routines around a rainy outdoor recess would need to be established, like parents sending extra socks and indoor supervisors diligently watching for students taking off their outdoor shoes, but it is not impossible.

In this same train of thought, the participants remarked on the seemingly excessive ‘safety’ restrictions for students during recess. Of course, keeping kids safe is paramount and no educator takes this lightly, but the group questioned if some of the rules were necessary.

Mackenzie and Sarah share the situations that they have encountered:

Mackenzie- At my school I feel like they’re worried about things, because we’re not allowed to be on ice, at our school. And I was told that I wasn’t supposed to let my kids jump off of our playground...

Sarah- My son comes home, “Yeah, we can’t jump in snow anymore.”

Sarah- “Cause it’s dangerous.” And then the next day, “We can’t play leapfrog.” I’m like, “Oh, okay.” My husband’s ...like, “What can they do? They’re grade eight, they can’t do anything?” (Mackenzie & Sarah, Meeting #3)

Undoubtedly, there could be more to the story in both situations. Perhaps there had been incidences in previous years that warranted a change in rules to avoid similar accidents happening again and of course, liability is always a concern. However, the number of restrictions placed on students often times seems over the top and limits their engagement and development. Kids need to have some risk in their lives to grow and learn.

Besides weather and safety constraints, another manifestation of lacking support included feeling pressure from administration to ‘teach the curriculum’ in a traditional manner, and having every excursion monitored for its curricular value. As Mackenzie mentioned: “I’ve also had administrators tell us not to go outside if there is no specific curricular outcome that you are getting that requires you to be outside” (Mackenzie, Meeting #1). Outdoor learning proponents would argue the opposite- why teach inside if the same outcome can be taught outside?

At a higher level, the Government of Saskatchewan has been less than supportive of teachers and sound teaching, as with each budget cut, Saskatoon school divisions are forced to make tough decisions with limited budgets. In GSCS, this led to several cuts to outdoor learning supports. Participants expressed frustration with the loss of environmental consultants over the

years and the more recent loss of both of our environmental centres. Thankfully, the FNMI team within our division has instituted land-based programming at one of the sites but programming there is limited in both time and scope.

Nothing is more discouraging than trying to institute good pedagogy but meeting resistance every step of the way from the people who should be supportive: students, parents, administration, the school division, and the Ministry of Education.

4.2.3.4 Time

Unfortunately, for most aspiring and active outdoor teachers we have to work within the confines of a colonial system, which means following the school schedule. Often times, we do not have much control over the layout of the school day, perhaps having some say in release time but often times not. Time was a variable often brought up by the participants, as they voiced frustrations trying to incorporate outdoor learning into a piece meal schedule, with frequent school-based interruptions. Many of them found that supervision, release time and mandatory school events made it difficult to find large chunks of uninterrupted time within the school day. Mackenzie made this point: “But also just I think the timing of the school schedule sometimes makes it a little bit difficult too. Sometimes I have things planned, and then the school has a plan” (Mackenzie, Meeting #1). Despite best efforts, time constraints can be a challenging barrier. Candace expressed this frustration in her final questionnaire, teaching kindergarten half time and release for only short periods in a day.

Additionally, the participants felt it was difficult to find the time to look through resources provided. Teachers are busy and with workload intensification in a time of austerity, they are getting even busier. It is tough for teachers to squeeze out any extra time between planning, assessment, extra curricular coaching and clubs, supervision, mandatory meetings, etc., to peruse through the abundance of resources that are shared with educators.

4.2.3.5 Supervision

Another big barrier, that the participants discussed at length, is the difficulty in securing enough adult volunteers when leaving the school on an excursion. Many found that the process of securing parent volunteers was one of the most problematic parts of organizing field trips. They surmised that many families had two parents working, who were not willing or able to take the time off, others might feel intimidated leading a group of kids, students might discourage their parents from attending out of fear of embarrassment and, finally, the required criminal record

check could be another deterrent. Moreover, one of the teachers identified the issue of keeping engagement up with a large group, when chaperones may not be familiar with the space or content being covered at the location. Keeping all students together when learning on location is not ideal or at times even feasible, so teachers are at times required to lean on their chaperones for supporting the learning, which may be an overwhelming task for some. The group recognized that supervision is necessary for safety and engagement reasons but found it to be a challenging requirement of outdoor learning.

4.2.3.6 Communication

Communication issues were also part of the discussion with the group. Several of the teachers struggled to communicate with their EAL families what winter clothing would be best for the cold weather. They recognized that for some families, buying the appropriate winter wear would be a financial burden but despite constraints found that newcomer families were eager to purchase whatever was suggested, which is why the teachers wanted to be clear about what clothes would be ideal for Saskatchewan winters. This issue was illustrated by Shannon who shared a funny, albeit regrettable situation she experienced with a family:

Shannon- The best was, it really explained- snowpants. I showed the parents snowpants. We talked about snowpants, snowpants, snowpants. So, then he came to school only wearing snowpants.

Shannon- So you know, we couldn't take off the snowpants! I was like, "Oh! Okay!"

Nicole- Nothing underneath?

Shannon- Nothing underneath!

Shannon- She thought that they wore them inside. This was a Canadian thing, you needed snowpants. You wear them day and night. And I'm like, "No, just outside." (Nicole & Shannon, Meeting #3)

As humorous as this story is, it points to the issue of communication in a system that has seen newcomer registration sky rocket in the last decade. For the 2019-2020 school year the GSCS division documented 2393 EAL students, up from 330 students in 2008 (GSCS, 2019).

The other communication challenge experienced by the participants is the breadth of information that is shared with teachers, which means that sometimes resources of interest can get overlooked. Conversely, administrators sometimes try to filter emails for their staff and that can also lead to missed opportunities for some educators. One situation in particular illustrates

this point; some of the participants had heard of the Nature City Festival and the opportunities available for classes, while others had not. Given that these were all teachers that would be especially interested in such an event, you would have thought everyone would have noticed it come through their email. So, either, they did not receive the information, or they were so overwhelmed by their inbox that they missed a great opportunity. Adding to this communication confusion, is the trend that some administrators are using Onenote⁶ to organize information shared with staff, which has its own complications.

4.2.3.7 Intrinsic Teacher Struggles and Increased Workload

For many of the teachers in the group, they felt as though their own lack of knowledge was a barrier to the quality of outdoor learning that they could provide. They believed they needed to know more nature facts or have greater familiarity with Indigenous knowledge that would help them to spark interest with their students when they are outside. Candace shared how she felt in this regard:

I mean, I can take my kids outside, but I'm kind of useless. To be honest. That's why I said I loved going with you. And we have this beautiful park, and it's within walking distance for my kindergartens. And we go there and we sketch trees and the kids will ask me all these questions, I'm like, "Yeah, Nicole knows that." [laughs] And some things I did learn from you and I have picked it up. But I would love to have that strong base of knowledge that you can point things out. (Candace, Meeting #1)

This sentiment was echoed by others in the group, that they did not feel as though they knew enough to make their outside excursions rich with learning.

Another teacher, in their final questionnaire, admitted honestly that they were probably their own biggest limitation to outdoor learning. Sarah struggled with the idea of going outside being "too much work" and she felt burdened by the pressure to cover curriculum. She said she would sometimes forget about her outdoor learning goal and thought that if she were more organized and included outdoor learning lessons in her agenda it would help to keep her on track.

I think this is a very real struggle that many teachers contend with, particularly if they do not have like-minded colleagues to keep them motivated. As the group participants and the survey respondents pointed out, planning for excursions can at times require extra organization and planning. Additional tasks can include switching supervision assignments if absent from the

⁶ Onenote is software that acts as a digital binder, organizing files

building during recess, arranging for transportation, ensuring enough adult supervision, creating and collecting consent forms, communicating the excursion with families and administration, missing prep time if gone from the building, and any number of other requirements. As Sarah candidly stated: “Sometimes it’s just easier to be in the classroom” (Meeting # 1).

4.2.3.8 Finances

Finances were not a barrier that came up as frequently within the action research group as they had in the division wide survey. There were a few moments when funding was referenced as an issue, but this group was also quite creative at stretching their classroom budget and accessing other funds, like environmental grants, to support their outdoor learning excursions. Moreover, during the course of this project, funds would have been a much less pressing concern, as their outdoor learning budgets were covered by the Stirling McDowell Grant.

4.2.3.9 Transportation

Transportation limitations was another barrier brought up by the group. While many had managed to avoid the issue of bus costs by taking advantage of the free transit for students offered by the city, they found that it still was not a perfect system. City transit has restrictions on when student groups can access bussing and how many students are allowed to ride the bus at a time. For one of our participants, the size cap was a real issue for her as she had 37 students this past year and the initial limit had been 30 students, recently upped to 35 students. Another participant found the times when the bussing was accessible to be a frustration and limitation. Other barriers included the hassle and unfamiliarity with booking online and safety concerns with taking public transit with younger students.

For others in the group, they faced barriers when trying to organize bike trips. Making sure that all students had bikes, helmets, and vests (a division requirement) was a challenge. Additionally, students will often come with varying ability and biking experience.

4.2.4 Solutions

4.2.4.1 Dialogue

Many solutions were shared by participants within the course of conversation during the action research meetings. Someone would bring up a challenge that they had encountered and often times someone else in the group would have advice to give or know of resources they could access. Many of the participants recognized that the dialogue that emerged from the meetings was one of the most helpful parts of the project. Being able to collaborate and develop relationships

with like-minded individuals proved to be very valuable. In the following section I will highlight some of the main points of interest that came out of the dialogue.

Unsurprisingly, one of the main topics that the group generated ideas and suggestions for was regarding student challenges, as this was a barrier that came up frequently during our time together. Amber was a wealth of knowledge for setting up expectations and encouraging responsibility when engaging in outdoor learning with students. She talked about how she establishes ground rules and routines early on in the year with her students, scaffolding them one step at a time. Before they are able to go on a big bike trip across the city together, they first need to navigate the shorter distance to the river together. Amber explains:

So, when we do our first biking one, I'm stopping every 40 feet because we need to learn how to pull in tight and park fast. So, it's we're going out, we'll eventually get to the river, but we stop, "Why are we stopping so much?" I'd say, "Because we need to learn how to ride together." And we're building in more, or I hook in a rear-view mirror so I can see, and I'm pulling over the second anyone veers or is fooling around behind me. So it's really as much setting the stage. (Amber, Meeting #2)

When teachers have concerns about taking students outside the building due to behaviours or communication issues, the point that Amber makes is very valuable. Teachers have to start small, set the ground rules, experience small successes, and then can grow into bigger ones.

Amber also shared solutions she had come up with for specific student challenges. She knew she would have a student this year with autism and so she proactively reached out to the mother to address any issues that may arise with her son. Amber explained the type of pedagogy that she practiced in her class and the mom explained the particulars of her son's limitations. Together they worked out a plan that worked for them both. One of the solutions, which was ingenious, was to rent a trike for the student to use on bike trips as he was not able to ride a bicycle.

Additionally, we talked about student engagement and how to foster excitement for outdoor learning with students with limited outdoor experience and who seem fairly apathetic towards the idea. I suggested that it helps to have a hook right away at the beginning of the year. Instead of waiting until the end of the year, have a class camping trip right away in September. Or if that is not in the budget, then take the kids outside and engage them in a variety of team

building games. It is important to build a cohesive group that works well together if the goal is to spend time outside the building together.

While the participants talked extensively about the barriers of weather and lack of support, they also shared strategies for how to address these situations. Chris talked about the importance of communicating with families right away at the beginning of the year that the class would be spending a considerable amount of time outside and so children would need to be prepared for all weather. Additionally, when communicating with families about outdoor learning, we discussed the importance of addressing any pertinent safety concerns. Before any excursion outside the school, it is important to keep families in the loop, and pro-actively address any potential risks involved with the outing. I have found parents to be supportive of outdoor learning experiences, as long as they are aware of the plan and know that safety has been considered. The same can be said for administration, they are much more likely to be supportive of plans, if they are consulted with ahead of time and they can be assured that due diligence has been fulfilled in regards to risk management.

Concerning the lack of appropriate winter gear, the early years teachers had a few different strategies. They talked about the stock piles of extra clothing they had collected and bought to supplement what the students in their class did or did not bring. Candace talked about sending home pictures of appropriate winter wear to better communicate with her EAL families and also arranged for interpreters to help explain what clothing items are best for keeping kids warm.

The school schedule, and thus not having long enough blocks of time to take kids outside, was something problematic pointed out by the group. As a suggestion for consideration, I shared a solution that a colleague had come up with, which involved him asking his in-school administrator if he could have his supervision and prep time scheduled in such a way that would leave him with one full uninterrupted day with his students. That way he knew that he would always have one whole day available every week when he would not have to worry about switching supervision or prep and could take his kids outside the school. Several participants agreed that this was a great idea and Mackenzie shared in her final questionnaire that this is something that she tried to do as well:

This year I was able to work my schedule so that I had large amounts of time with my students without any interruptions due to gym, library, or release time. Other years that

has been a problem, but because I was thinking of incorporating the outdoors in my regular play, I was able to adjust my schedule. (Mackenzie, Final Questionnaire)

Another idea I shared was that teachers request the after-school bus supervision; that way the teacher will never have to worry about organizing to have recess supervision covered while out of the building. Unfortunately, it is impossible to add more hours to the day, but with forward thinking and a supportive administration, it is possible for teachers to rearrange their schedules to afford longer periods of uninterrupted time with students.

The group had quite a productive discussion about the issue of supervision and low parent engagement. Similar to the suggestion Chris had about early communication with families that the class would be going outdoors regularly, the group talked about the importance of communicating with families right away at the beginning of the year to make it clear that they will frequently require parent volunteers. This strategy also goes for the students; if they want to go on field trips, they will have to encourage their parents to supervise. Chris talked about creating a classroom culture and Amber shared that she would encourage appreciation for parent support with her students: “I just tell them, without them we’re not going. So, go love on them, convince them to come, because otherwise we’re not going. And I said, ‘When they are there you thank them all day long’” (Amber, Meeting #1). Setting and sharing class goals at the beginning of the year makes it clear to students and parents what the expectations are and what kind of support the class will need. I shared with the group what I used to do with my kindergarten families:

But if somehow you can set that precedence at the beginning of the year, even if it’s just with a note home or an email or however you communicate, just saying, ‘We want you. We want parents involved, we want grandparents involved, we want adults involved. We will be going outside a lot, we cannot do it without adults.’ Maybe just at the start of the year, send home a criminal record check to everyone, and maybe that first day of school, ‘these are the hours, you can do it online, do this as soon as possible.’ (Nicole, Meeting #1)

The easier that teachers can make it on families the better. Also, families need constant reminders (as many of us do), as it is easy to overlook an email or misplace a note. Moreover, an additional point I brought up as a suggestion was to look beyond the immediate family and encourage families to send grandparents, nannies, older siblings, aunties, uncles, etc. As long as they have

been vetted by the immediate family, and have a recent criminal record check, these extended family members open up the possibilities of attracting more adult supervision. Amber also shared that she would be getting an intern, so that she would have an additional adult for the fall term.

The teachers were also concerned about their lack of nature knowledge, and participants shared some of their suggestions, including nature apps and resources available through Meewasin that help guide nature novice teachers. Shannon was very eager to share an app she had discovered:

iNaturalist. I'm obsessed! I'm constantly taking pictures now of plant and flowers. So honestly, an app... Not knowing birds, I know you had mentioned that before, not knowing birds' names, not knowing plants. But iNaturalist, and it's really, really good. iNaturalist. It has a huge inventory of plants. And if you don't know it, you take a picture and someone else will comment and say, 'Shannon, that's a wild flower of Saskatchewan named blah, blah, blah.' It's amazing! (Shannon, Meeting #1)

Many of the participants agreed that this was a great resource that could supplement their knowledge when out exploring. Many elementary teachers do not have science backgrounds and so teaching science-based information can seem intimidating. The group felt if they had more content knowledge relating to nature, as well as some familiarity with Indigenous knowledge, they would be more confident taking their kids outside. Even within the meetings, when I would share a few biology tidbits related to what we were talking about, the participants acknowledged the new information with gratitude.

Another point of discussion within the group was the idea of 'Think Outside First'. We talked about how this would help to keep outdoor learning at the forefront of planning. Instead of trying to fit outdoor learning into a schedule filled with indoor activities, how can the teacher achieve all those same objectives outside? This does not necessarily mean taking what has already been planned for indoors and doing it outside because this will not necessarily fit, and therefore will lead to frustration when it does not go over well. More so, it means what activities can a teacher do outside that will fulfill the curriculum the teacher was hoping to hit this month. This point hit home with Shannon and she shared her understanding of the concept:

And I think that's just shifting our perspective again, as educators, thinking outside first, and then working backwards. Because I know we just talked about it, 'I've got this wonderful art craft.' Well if I take it outside the winds gonna blow it away, and it's gonna

be a nightmare. Well no, let's take a step back and let's think. So, we are outside, what can I do outside that's art related, or whatever. Just having that mind shift and that mindset of making it a priority to do it outside. (Shannon, Meeting #2)

Thinking outside first does not come easily to teachers who have spent their whole careers primarily teaching inside, but, hopefully, the idea becomes planted in the back of their minds, and once in awhile pops up to remind them to consider outdoor learning when they are planning.

Finances was the number one barrier listed by the division survey respondents but it did not come up as much with the action research group. The participants were quite adept at stretching a budget and finding free opportunities or tools to access. One of these that was talked about at length was the free public bussing offered by the City of Saskatoon. Candace, who teaches kindergarten, thought that the public bus would potentially be too hard with the little ones. Both Mackenzie and I shared that we had taken our kindergarten classes on the city bus before. Mackenzie had a great suggestion to make the process less intimidating; she scaffolds her group, starting with a short bus trip to a nearby park. That way the students become familiar with the process beginning with a short trip.

Additionally, to help cover costs, the group talked about the opportunities that exist for grant funding. In the past Chris had considerable success submitting grant applications to various organizations which he shared with the group. Nonetheless, he did admit that he now preferred taking the free city bus for excursions, rather than try and raise funds to cover transportation costs through grant applications.

One point of consideration that we discussed at length was the learning affordances in our own school grounds and local community. Often times, outdoor learning is thought about exclusively in terms of getting on a bus and going somewhere far away, however there are plenty of learning opportunities much closer to home. Sarah asked for suggestions on how to use the rock circle that was outside her building and the group gave her several ideas. She was also considering an amphitheater near her school as a potential learning location. Mackenzie suggested that it would be a great spot to do class presentations. Shannon agreed that these were great ideas and offered her own thoughts on the matter:

And good for you to be thinking in your community, I think that was something when you said that Nicole, like, I never really thought about land-based learning about going into the community, even if it's in a building or outside of the building. Really just thinking

about, what do we have in our community? Yeah, I think it's just a different way to look at it. (Shannon, Meeting #2)

Often there are several great learning locations near schools but it requires thinking creatively and considering possibilities other than the standard school division field trips. Another great possibility, on this same line of thinking that the group discussed was the development of outdoor learning spaces on the school grounds. Candace had previously worked at a school with an excellent outdoor learning space and was struggling to adjust to being at a school that did not have one. The group discussed how they could go about developing a space at a school, and how families had a lot to offer in support for such a project. Again, communication was a key consideration as Shannon shared that someone she knew was trying to encourage their children's home and school association to develop an outdoor learning space and it was not particularly well received. Interestingly, one of the participants taught at that school and had no idea that this had been presented as an option. It was disappointing to her that she had missed out on an opportunity to support a project that would have really benefitted her teaching and students.

A great suggestion was provided by Amber, when she encouraged the group to find a like-minded teacher in the school that they could partner up with and help mentor. Not only would this help save on bus costs, if going on joint trips, but its also great to have a like-minded individual in the building to bounce ideas off and share resources. Amber shared a story that demonstrated how this had inadvertently worked out for her, when looking for someone to share a bus with her to the Remai, and also spend the day down at the river. The other teacher had initially been hesitant to spend the whole day on a field trip, and then was even more leery on the day when the weather started to turn. However, Amber convinced her to stay and now this colleague raves about what a good trip that they had together and looks forward to doing something together again.

The group had so many good ideas, resources, learning locations, and professional development suggestions that they shared throughout our time together. Some of the other ideas they discussed included: student solo time, geocaching, pond dipping, and developing a 'wing string'. One suggestion regarding solo time, which is taking kids outside to spend time sitting quietly by themselves in nature, included providing a booklet of tasks for students with ADHD during solo time. Geocaching is a global game, where people use compasses to find hidden 'treasure' in particular locations; there are many geocaches already stored in this community.

Pond dipping involves scooping invertebrates out of the water and investigating what they are, and during pond dipping observations, children can observe ecological relationships. Developing a ‘wing string’ involves a cord with the wingspan of different local species of birds’ wings marked out. A few resource suggestions that were also shared were the kits and resources available through our division that could help support outdoor learning, like bike vests, and nature artifact kits, and, also those offered by Agriculture in the Classroom, such as the grow a pizza program.

The group also talked about the learning affordances at the Natural History Museum and a professional development opportunity offered by the City of Saskatoon called “Students for a Sustainable Future”, a four half day workshop series, that takes place in different learning locations within Saskatoon.

A particularly good idea was suggested by Candace, when Sarah was sharing her concerns about balancing curriculum with outdoor learning. Sarah talked about a great experience her students had outside tobogganing one day during class time:

So I said, “We’ll go use the crazy carpets after recess.” And it was, they were thrilled. Just that, getting outside for 20 minutes extra. And I just said, “Whatever was planned is not happening.” But again, it’s finding the time because it’s like, “Oh shoot, when am I going to cover that.” I’m so tied to getting through the math curriculum. (Sarah, Meeting #3)

Sarah expressed a fairly common teacher anxiety about getting through all the required curriculum. However, Candace pointed out she did not need to choose between curriculum and outdoor learning as there are plenty of outcomes that can be covered while sledding. She noted that she could address math and science, as sledding covers position, motion, and friction, and the students could time each other and measure the distance covered.

4.2.4.2 Specific Supports

Beyond the solutions shared through dialogue during our meetings, the group also came up with specific supports that they thought would help them to improve the frequency and quality of outdoor learning they were providing their students. Between the conversations we had during our meetings and the wish lists I had the participants complete at the end of the second meeting, the group generated a substantial list of supports. I have divided up their suggestions into three big groups: material items (things like binoculars), resources containing helpful knowledge (things like books or unit plans), and professional development opportunities (such as learning

from other people). Please review Appendix H for a list of ideas brainstormed by the group and Appendix I for the specific participant requests. I duplicated the participant request table and added highlights to show what the participants received over the course of our time together. See Appendix M. The blue highlights indicate the items or opportunities that the participants received, the yellow highlights show which items were still in progress or were planned for the future when COVID-19 hit, and the red highlights designate the opportunities that the participants were offered but were unable to attend.

The material items requested by the group included: bike vests, binoculars, bug catchers/habitats, class sets of clipboards, compasses, gardening gloves, gardening tools, hand held microscopes, large loose parts like stumps and boulders, resource bins, outdoor storage box, snow shovels, and tape measurers. A few teachers also liked the idea of a “Grab & Go Bag” which is a backpack filled with helpful items for teaching kids outdoors. To help them complete their own “Grab & Go Bags” they requested the following: a backpack, first aid kit, hand sanitizer, bug spray, sunscreen, multi-tool, compass, small portable packages of tissue and a whistle. Thanks to a Stirling McDowell grant the participants were able to receive almost all of the items they listed. The only exceptions were the bike vests and the outdoor storage box, as I was waiting until further along in the project to see if I would have enough money left to make these larger purchases.

The group also wanted to know what material items were available for borrowing through the division or other outdoor learning organizations in the community like Sask Outdoors. Candace made the point that some of the items the teachers requested could be items shared throughout the division or a school. When discussing pond dipping kits, the group wondered if there was already a set available for borrowing through the division, as they recognized that they probably would not need their own exclusive set of this resource. They had a similar conversation regarding bike vests and compasses. Compiling a list of available outdoor learning materials for borrowing was a project that was still in process when COVID-19 hit.

The resources that the group thought would be helpful were quite varied but there was one overlying feature that they insisted was key- quick, simple, and easy to use. Nothing bulky, with dense text that would require too much time to go through. Probably the most popular idea that was generated was cheat sheets, something that educators could take in the field and pull out for quick reference to share a few interesting facts or questions, regarding nature or Indigenous

knowledge, that would supplement their exploration. See Appendix N for an example. The following discussion illustrates their interest in this resource:

Candace: I think that would help me because I mean, we love going and we'll explore, but I just feel bad that I don't even have things to spark their... I don't know. Just for example, there was the one tree and it had- sunscreen in it. And so when I find it, there's some actually in this part too, and I said, "So what do you think? They used it as sunscreen. Are there any other things we could use these trees for?" But just to have that initial spark that they started looking, everyone had sunscreen by the end of our trip.

Shannon: I love that.

Candace: Like, I want little tidbits like that just to-

Shannon: Enhance the outdoor education.

Candace: Yeah. And just enhance it. And even just to spark an interest. They were all so pumped about that one, that was one of the few things that I did know and they all went, 'What else is there?'

Shannon: 'I don't know! That was the one thing I know!'

Mackenzie: I'd also like to be able to bring it back to Indigenous knowledge, kind of like what we were talking about. But I don't have that knowledge either. So, I guess more just having more personal knowledge to be able to offer, like you said, those provocation questions, or just anything to spark any kind of conversation instead of just, 'I like it out here.' (Candace, Shannon & Mackenzie, Meeting #1)

The group agreed though that whatever was developed, it needed to be a quick, condensed reference guide, as they have seen other resource binders with information that are too thick and not very user friendly. Developing a set of cheat sheets became quite a large project as there were so many topics for consideration, prairie plant and animals, wetland plants and animals, decomposers, rocks, and Indigenous knowledge. The development of this resource is ongoing.

Another support that the group agreed would be very helpful, was a platform that provided a compilation of relevant outdoor learning resources. They wanted to be able to go to one place and find information on what is available to borrow, contact information for expert guides, city bus booking guidance, possible environmental grants, digital resources, etc. Again, the reoccurring message was to keep it simple and not overladen with excessive content that would make it difficult to navigate. The group suggested that whatever platform was created to

serve this purpose could be an ever-growing resource, that teachers could also contribute resources or outdoor learning supports. This is also a larger project that was interrupted by COVID-19, with goals for completion over the summer 2020.

A resource that the group felt could be included in the aforementioned database would be a list of field trip opportunities in and around the city. They thought it would be valuable to have a collection of spaces that were already vetted that could provide inspiration for excursions with their classes. Amber added that it would be particularly helpful if there was a short video showcasing the local outdoor learning spaces that teachers could watch to get a strong sense of the space before visiting. I noted that there was a book already in existence that could be helpful in this regard called “A Guide to Nature Viewing Sites in and Around Saskatoon” and that it was available in their school libraries. Additionally, I suggested they check out a website called “Saskhiker” which could also provide inspiration. Finally, Sask Outdoors is presently working on creating an interactive map resource that educators can access online and that the public can contribute their favourite place-based learning activities complete with a video showcase.

Building on this point Sarah felt it would be appreciated if spaces without a guide had self-guiding information available for teachers. This would be particularly useful for natural spaces that do not have exhibits or placards for teachers to read and follow, because trips can be a bit daunting when the teacher does not know where to go or what is of interest. I shared a few resources with the participants that I had created over the years that I thought would be helpful. They included Grassland and Wetland PowerPoints, a North East Swale specific PowerPoint, a prairie plant guide sheet, a local birding guide sheet, and a wetlands invertebrates guide sheet, amongst a few other things. I also suggested that having a few nature field guides might make them feel more confident, as they can reference them when learning in natural spaces. I brought a variety of nature field guides and smaller ‘pocket guides’ for the participants to peruse and identify a few that they thought would help to support their practice. All the participants received field guides or pocket guides on the topics that they expressed interest in having more knowledge. Moreover, at the second meeting the group was able to look through a large collection of outdoor learning related books to identify anything that they thought would be of value. These types of books can also help increase confidence when venturing to nature-based spaces as they can provide helpful hints, suggestions for activities, and guiding questions for

consideration. A few of the participants expressed an interest in 1 or 2 books and I was able to provide them with the requested titles.

The participants were also very enthusiastic about the idea of having a collection of research tidbits that highlighted the importance and potential of outdoor learning. They felt that having facts and evidence on their side would help to generate support amongst families, administration, and their colleagues. Shannon explained her desire for this resource:

One thing that I know I struggle with, and just one thing I'd like to get a little better about is just communicating to parents the benefits. Like, I know why it's good, I understand, but just having the knowledge and kind of the back-up to say to parents, 'This is why I'm going outside, this is why I'm requesting that they have winter boots in winter.' Just having that kind of knowledge, and just to have support from the community. And I don't really have to worry about admin, but I do kind of because I'm a guest in their space (as a private preschool), so even just communicating with the administration as to why we're outside when we're outside, just having the knowledge and support. (Shannon, Meeting #2)

The group agreed with Shannon, that it would be very beneficial to have infographics, short statements, or memes validating outdoor learning. A compilation of short concise statements that could be easily added to a class newsletter or pasted into an email. This resource was easy to compile, using items already created and was shared with the participants early on in the summer of 2019.

A resource idea that Candace suggested for developing an outdoor space at a school was well received by the group. They agreed that having a guide to creating an outdoor space would make the task seem less daunting. Candace felt intimidated by the administrative nuances that need to be considered for developing a bigger project such as this and wanted some guidance for designing and planning a space. She felt as if she had a step by step guide or a blueprint for moving forward it would be very helpful. I inquired with the building services department in our division and got more information surrounding the implementation of an outdoor learning space. I also gathered some resources from online and took pictures of existing spaces around Saskatoon. I compiled all this information into a digital folder that I shared with the group and also made a hard copy version for Candace to use.

Chris talked about the usefulness of having a calendar for the school year that would outline important dates to keep in mind when planning for outdoor learning. It could include information regarding grant deadlines, events in the community, professional development workshops, and online webinars. I shared with the group a resource already in existence that could serve this purpose, the online blog Ecofriendly Sask has a calendar that they regularly update with this kind of information.

When we were discussing the importance of starting the year with a spark to encourage positive group dynamics and intrinsic motivation to participate in outdoor learning activities, the group wondered if there might be a helpful resource that outlined different outdoor team building activities. They suggested a top ten compilation of the best team building exercises. There is an educator in the city, Chris Clark, who has created just such a resource and so I contacted him to see if I could purchase copies of his book “Anchor’s Away!” to share with the participants interested in my group. He was happy to help support and those that were interested each received a copy. Although more than 10 activities, this book provides a rich resource full of a variety of team building games.

The group also felt it would be of benefit to have guide sheets to help support adult chaperones on field trips. They have found that often times adult chaperones will quickly speed through place-based learning sites without taking the time to consider all the learning affordances. Understandably so, they admitted, as most of their family chaperones are not educators and are not sure what to focus on or talk about. The participants were adamant that they did not want to overwhelm their parents either or discourage them from volunteering again. So, they felt if they had a document to give parents with a bit of background information, questions to ask the students or small objectives to achieve, it might help support quality supervision. Candace pointed out that some sites like the Natural History Museum already have resources developed but not all spaces have such a guide. This was a work in progress when COVID-19 interrupted the research project.

Chris pointed out that the reflections that outdoor educators often get students to complete during or after field trips can sometime become redundant and they lose motivation to complete. He wondered if there were any suggestions to address this issue. I suggested that by providing a variety of ways to respond it might increase student engagement. A resource that I suggested might be helpful would be a Bingo style reflection page that the students use throughout a unit or

the year. On it would be several options for responding to an experience such as a short reflection, a drawing, a poem, a comic strip, an infographic, 10 takeaway points, a song, etc. Chris wondered if there was already a resource developed that could be shared. I had planned on creating something but COVID-19 ended the research project before I was finished.

The professional development supports that the participants requested were intended to provide personal guidance in outdoor learning, utilizing the knowledge of experts, colleagues and students. Please see Appendix O for the opportunities provided and which participants were able to attend. One of the reoccurring requests from the participants was to have teacher field trips to local outdoor learning locations with expert guides so that they could familiarize themselves with the spaces and learn more about them. Candace speaks to her interest in this support:

So Nicole, what we used to do is we'd take both classes and Nicole would do the educational part and I would do the parent scavenger hunt part, just the fun part. But then Nicole did take me and then she showed me the thing that she did, and it really did help. So that's one thing, like if you were willing to take us to different places. (Candace, Meeting #1)

I was able to provide a field trip for some of the participants to the Saskatoon Natural Grasslands and Kenton Lysak, a senior interpreter with Meewasin, was available to provide a tour of the North East Swale. Chris Clark, founder of Let's Lead, a place-based leadership program for grade 8 students, was also able to join us in the Prairie Habitat Garden at the University of Saskatchewan to talk more about the work that he has done with outdoor learning. Candace and Amber both asked if they could have guidance in specific spaces near their schools and I met with them to tour their respective natural spaces. Additionally, I tried to organize a trip to Chappell Marsh on two different occasions but was unable to arrange for a time that worked for the group participants.

Moreover, the participants thought it would be helpful to have an expert guide come with them and their class on an outdoor learning field trip to help tour the space and provide mentorship. Particularly when visiting somewhere for the first time, they felt this would be helpful and give them confidence to hopefully return to these spaces alone sometime in the future.

The group also felt it would be beneficial to have an official outdoor learning expert at the division level who could provide ongoing support in this field. They reminisced about a past

employee who used to hold this post and how much they valued his guidance and expertise. Unfortunately, when he moved on, the school division subsumed his role into another consultant's duties, making it very challenging for the new person to properly fulfill his mandate to the same capacity.

An experiential learning exercise that the group thought would be valuable was to spend the day with Ecojustice, a grade 8 land-based program in the city. They recognized that sometimes it is hard to visualize what outdoor learning can look like and they thought it would be helpful to see it playing out in real life. As I took on the second teacher position with Ecojustice in the 2019-2020 school year, I was well positioned to make this opportunity available. Unfortunately, despite extending an open invitation for anytime throughout the year, and providing an itemized list of days that might provide the richest learning experiences, none of the participants were able to attend a day with Ecojustice.

Alternatively, Ecojustice was able to partner up with two of the participants' classes for student mentorship experiences, which worked out well, as the group had suggested that there could be potential in providing this type of opportunity. In the fall, Ecojustice met up with Sarah's grade 3 class and we rode our bikes to a nearby natural space. The grade 8 and grade 3 students formed mini care partnerships and explored the space together. Initially we tried to arrange for a bike trip with Chris' grade 7 class to the Saskatoon Natural Grasslands but the weather was less than ideal on the days we had scheduled and Chris chose to cancel. Instead Ecojustice came to visit their class and we spent a day together teaching and learning about the grasslands.

One other professional development support that the group identified was to attend an outdoor training event at the beginning of the year to motivate them to engage in outdoor learning with their students. In September, myself and 4 participants attended an event called the Women's Outdoor Weekend put on by the Saskatchewan Wildlife Federation. During that time together we enjoyed outdoor activities and learning, as well as the company of like-minded educators.

4.2.5 Review of Participants' Experience

The participants each received a different combination of materials, resources, and professional development opportunities based on their respective needs and what they thought would be helpful for their practice. Each of them also came into the project with a range of

experience and familiarity with outdoor learning. Therefore, each participant came away with their own unique variation of growth and interpretation of the project. Given this distinction, in the following section I will review each participants' experience individually based on what they shared during the midterm review meeting and on their final questionnaire.

4.2.5.1 Amber

Amber, grade 7 teacher, was able to take her students outside approximately 8 times which she admitted was less than previous years. She explained that this was due to a number of externalities including the size of her class, which comprised 34 students, and the complexity of her class which included students who were violent, flight risks, had other high needs, and one who had autism. Additionally, her schedule which did not have her teaching science or social studies, and then finally COVID-19, meant that they were not able to go on field trips planned for the spring. She found that while they did not get out more than in years past, she did vary her instruction and pedagogy:

We did not get out MORE than in previous years, however, I found that I tried different things and took some risks that I hadn't in previous years, and we did very different things than in previous years, so that was awesome! I expanded my repertoire. (Amber, Final Questionnaire)

Although Amber was not able to get outside more frequently with her students during the study, she did list many outdoor learning highlights throughout the year: reading poetry outside in the school yard, taking her kids to the mall to do English Language Arts (ELA) and math, camping at Pike Lake in the fall, engaging in Chris Clark's teamwork games, visiting the North East Swale, hiking at Eagle Creek, and riding their bikes to the river. Two stories that she shared stood out for me as highlighting the benefits of outdoor learning. One was reading poetry outside with her students which she described:

And then we went, even just they wrote bio-poems, and I was like, "We're gonna go read them, but we're gonna read them under this huge canopy tree," that we had. And the kids were just like [gasps]. And they were just calm. It was really phenomenal. They're like, "I didn't expect to feel like this." I'm like, "Yeah!". (Amber, Meeting #3)

A simple exercise which increased the social-emotional state of mind for the students. The other story she shared, which I found remarkable was on her trip to Eagle Creek:

And then when we went to Eagle Creek, I had my autistic boy was like, “I never thought I’d say this, but, I’m enjoying nature for what it is and not what it can do for me!” And he’s a guy who sits. PhysEd? No. Do anything? Nope. And I said, “Alright, you hang out here. I’m gonna go walk up the hill.” “Okay.” And then he’s like following behind me and he catches up to me, and he’s walking the hill. And I’m like, holy cow, he made it half an hour when we were camping and he’s like, “Mom!” And he just followed and stayed, and we were mountain climbing. I was like, wow. (Amber, Meeting #3)

Despite adversity in the past, and resistance to physical education, Amber’s student with autism found his place in nature out at Eagle Creek and was engaged in the day’s activities.

On her final questionnaire, Amber expressed that all the supports she had received were helpful and that it was challenging to rank them, as they were pretty well on the same level for helpfulness. She listed having a like-mind community which provided accountability and answers for questions as the most valuable support she had received. This was followed closely by the guided field trips that she was able to attend at the North East Swale and the Prairie Habitat Garden, with experts Kenton Lysak and Chris Clark, respectively. Then she stated that the one on one session that we had together was beneficial in providing ways to tie outdoor learning into the neighbourhood surrounding her school focusing on specific outcomes. Next, she explained that the field guides and tools that were provided were a big hit with her students and she found the information shared on the flash drive (resources) helpful. She appreciated having guidance with grant writing and having examples provided to work from. Then Amber explained how the Women’s Outdoor Weekend (WOW) event that we attended at the beginning of the year with some of the other participants encouraged relationship building with like-minded colleagues. Finally, she valued her Sask Outdoors membership but did not get a chance to attend any of the professional development opportunities they had organized. As a footnote, she noted that while COVID-19 restricted her from attending any professional development opportunities and from attending a day in the life with Ecojustice, she felt strongly that if she had been able to take advantage of these opportunities, particularly with the benefit of sub cost coverage, she would have ranked them high on her list of helpful supports.

Overall, Amber felt that the project best supported her by providing her with a like-minded community. She elaborated on this point:

The most profound way that I was impacted through the action research project was it gave me a community. Being with like-minded teachers seeking the same outcome brought out fantastic ideas and spurred me to take action and to take new “risks”- in that I tried things that I hadn’t thought about or thought I might never do. Hearing that other people did it and be able to ask questions around the logistics of how to do it with students let my confidence grow and helped me to plan and make it a reality...it also gave me insight that I was able to bring to the table to admin when asking for the go-ahead to take my class out on a new academic adventure. (Amber, Final Questionnaire)

For Amber, the community provided by the research group was the element that best supported her efforts to improve the quality and quantity of outdoor learning in her class.

4.2.5.2 Candace

Candace, kindergarten and grade 2/3 release teacher, was able to get outside with her students 1-2 times a week when the weather was nice and 0-1 times a week when the weather was poor. Similar to Amber, she felt like she was able to get outside less this year compared to other years due to a change in learning environment. In other schools that she had worked at she had access to an outdoor classroom which enabled her to be outside far more. However, like Amber, she felt that the project had “*HUGELY*” improved the quality of the learning that she was doing with her class. Outdoor learning highlights for her were being able to get outside more consistently with her students, seeing the engagement of the students with the field guides, incorporating curriculum into tobogganing with her grade 2/3 science class, and facilitating quiet, mindfulness moments in nature with her kindergarten class. Candace spoke to the interest in bugs the students developed when they had access to a guide book:

I had the bug field guide...It was a book. But it was really, really good. And you know what, all of a sudden, they were trying to identify a bug, but then they found all these other bugs. It brought on a whole conversation. It was fantastic. Fantastic. I loved it.

(Candace, Meeting #3)

Knowing the name of a living thing takes it from being some unknown, unfamiliar creature to something more familiar. Candace also spoke highly of spending quiet time in nature with her students: “Another highlight was time spent in silence in nature with my Kindergarten class. I truly loved it and will definitely make it part of my routine in Kindergarten” (Candace, Final

Questionnaire). This was something she never considered trying with her kindergarten students and ended up loving the practice.

Overall, Candace claimed that all the supplies and resources had been helpful. She especially found the field trips and time spent with the group beneficial. In particular, Candace spoke to the benefits of having a personalized tour of a naturalized space near her school. Moreover, Candace pointed out the value in having access to an outdoor learning facilitator, as I was able to provide knowledge, ideas, supports, and materials. She felt like the information on the memory stick would also prove to be valuable but with the year cut short, did not have the opportunity to use it. Like Amber, Candace stated the element of the project that best supported her was the group itself: “The ideas generated by the group gave me new things to do. The ideas gave me courage to try new things. It got me thinking of other ways to try to do things outside of the school” (Candace, Final Questionnaire).

4.2.5.3 Chris

Chris, grade 7 teacher, was able to get outside the classroom more than 10 times with his students and felt that he had “absolutely” improved the frequency of outdoor learning. For Chris, his outdoor learning highlights included the day Ecojustice spent with his class, the engagement of his class with the new outdoor learning tools, the multiple trips to a nearby wetland and taking the city bus with his class for the first time. One story, shared by Chris, in particular stood out to me:

We’re just a block away from the pond. So we went out there many days... And this one boy... the bell rang at the end of the day, and he’s still sitting there at the table in the class, I’m like, “Hey, are you gonna go home?”

He’s like, “I gotta finish something here.” Just ignore him for a bit. He’s still sitting there and I’m like, “What’s going on?” And he had brought back these bugs and leaves, and he’s like, “Yeah, I just actually got some artifacts here. I just need to spend some more time examining them and checking this stuff out. I just gotta figure out here, don’t worry. I’ll be fine here. It’s okay.” But it actually was really exciting as a teacher, right, when you actually see a student engaged. (Chris, Meeting #3)

The tools had brought a new level of engagement with his students, so much so, that this one did not want to leave!

Chris also spoke emphatically about the city bus and how taking public transit was a highlight with his class. Despite the fact that the duration of the trips is longer and the booking a bit more challenging than taking a school bus, he felt it was completely worth it, “They had so much fun. They were so excited about it” (Chris, Meeting #3). He also pointed out that taking city transit saved him \$500 this year and that he vastly preferred the city bus over the hassle of applying for grants.

Overall, Chris pointed out the value in visiting the same location multiple times: “Just going doing one trip somewhere doesn’t always do it. But sometimes multiple trips, sometimes to the same place. Helping kids connect with that space makes a world of difference” (Chris, Meeting #3). His class had enjoyed visiting the nearby pond to help them cover their ecosystem sciences objectives.

Chris felt that the most helpful supports were the binoculars, pocket microscopes, clipboards and “Grab & Go Bag”. He found that the tools helped the students to connect with nature on a whole new level. Otherwise, Chris spoke to the value of being part of a group which kept him motivated to get outside. In regards to a question on the final questionnaire that asked how the project was best able to support, Chris stated that “pretty much everything you’ve done and given me has been helpful” (Chris, Final Questionnaire). He did elaborate stating that he found the following elements helpful: one on one planning time with me, grant writing support, digital resources, and site-specific information.

4.2.5.4 Lauren

Lauren, grade 8 teacher, was able to get out of the building for “bigger trips” requiring city bus transportation seven times and went on trips around her school that students could walk to, a handful of times. Unfortunately, given the circumstances of how our year ended, she felt that she had not increased the amount of outdoor learning she was practicing with her students. Lauren had many more trips planned for the spring that were not able to happen due to COVID-19. She also felt restricted by the sheer size of her class; with 37 students she was unable to access some programming that was capped at 30 students or required adult to student ratios that could not be provided.

In general, for Lauren, the highlights of outdoor learning included seeing the students engage in their learning and with each other in different ways, in different locations. She talked specifically about the experiences they had riding the city bus, participating in the biodiversity

program at the zoo, and playing disc golf in the snow. Similar to Chris, Lauren found the free city bussing to be extremely helpful, particularly now that they had increased their maximum cap size to 35 students. She pointed out different benefits to riding the bus: “I think my favourite is that they just have to sit next to strangers, and some of them strike up conversations. Sometimes they’re uncomfortable, and it’s like, this is a part of it... Some of them don’t experience diversity outside of their little school community or anything like that” (Lauren, Meeting #3). Lauren finds that riding the bus helps to build confidence and empathy with her students.

Another highlight for her was when they went disc golfing in the fall and it was snowy and cold: “They still talk about how much fun it was ‘cause they were out there. It had snowed, it was cold, we were losing discs. But they loved it” (Lauren, Meeting #3). Often if the kids are engaged, inclement weather becomes a non-issue.

As many of the others indicated, Lauren also found that the support and ideas from the group was the most helpful element of the project. She liked hearing what others were doing with their classes to engage in outdoor learning and found the information about grants particularly helpful. Lauren “loved having the opportunity to talk and engage with like-minded educators” (Lauren, Final Questionnaire). She also found it beneficial to be made aware of the different environmental education groups within Saskatoon and the variety of resources and opportunities that they provide. Lastly, Lauren spoke of the resources that I had provided as being “super helpful in increasing land-based pedagogy” (Lauren, Final Questionnaire). She was also looking forward to trying out the compasses that I had purchased for her but did not get a chance due to COVID-19.

4.2.5.5 Mackenzie

Mackenzie, full time kindergarten teacher, got started with outdoor learning with her class within the first few weeks of school and tried to maintain a habit of going outside once a week with each kindergarten group. She felt that she was able to increase the quantity of outdoor learning with her class, because she had made a plan to incorporate more outdoor learning before the school year even began. Moreover, this was possible “because the students constantly asking to go on outdoor adventures. They began to be the catalyst to more outdoor learning experiences” (Mackenzie, Final Questionnaire). Mackenzie was pleased to have gotten outside more often and now would like to work on improving the quality of her outdoor programming. She felt like the

quality of her program had gotten better and attributed that improvement to the resources and materials that were made accessible.

Overall, Mackenzie's outdoor learning highlight was the excitement and energy of her students, "They were always excited when they saw on our daily schedule that we would be going on a nature walk or outdoor adventure" (Mackenzie, Final Questionnaire). Specifically, she enjoyed taking her students to the nearby natural space adjacent to her school which gave them the chance to practice their French vocabulary in a real life setting and gave her more active students a way to focus. Mackenzie also enjoyed having the shovels to engage students in winter play outdoors. The kids would have so much fun that they would not want to come back in as Mackenzie pointed out: "We went early and we stayed out all recess, and they were like, 'That was so short!' I was like, 'You were outside for a really long-time you guys'" (Mackenzie, Meeting #3).

Mackenzie felt that the most helpful supports were the resources provided including quick facts, the Exploring Nature with Children document, the outdoor math book, the materials provided for the students, such as the shovels, and the in-person experiences in nature. Mackenzie spoke to the support the project provided:

Having access to high quality resources and materials were the best supports. The books offered were specific to our place so I didn't need to double check and research that the information that I was learning about was from somewhere else. The personal experiences in nature in our place were also very beneficial (WOW weekend and NE Swale with Kenton). It reminded me of what this specific place has to offer. I think that it is important for us to understand the importance and the history and the nature in the space where we are teaching and learning. (Mackenzie, Meeting #3)

Mackenzie had also really been looking forward to a collaborative walk through the Grasslands but unfortunately it was cancelled due to the pandemic.

4.2.5.6 Shannon

Shannon, preschool teacher, was able to take her students outside for 30 minutes to 2 hours once a week depending on what they had planned that week. She admitted that she had already been taking her classes outside once a week but that the project encouraged her to go outside for even longer. She felt that talking to other teachers and hearing about their issues

helped her to think about what was holding her back from going out more. Shannon found that she is more likely to problem solve any issues now and works harder to get outside.

Highlights for Shannon were innumerable as she felt there was not “one major highlight as each class outside had its own magic” (Shannon, Final Questionnaire). She enjoyed watching the students engage in creative, open-ended play and having small risk-taking experiences. Shannon felt like the students developed a strong sense of community while outside and were building better comprehension of academic concepts. As she stated: “I saw real authentic learning... Every week our time outside was amazing and motivated me to do it again next week!” (Shannon, Final Questionnaire). One specific story she shared speaks to the potential of outside learning. One day in the winter, Shannon had her 13-year-old daughter join her at school and was helping out during their outside exploration time. Initially, her daughter had this to say about the experience, “Mom, this class is so awesome! What a great job you have! This is incredible!” After they transitioned inside, the behavioural issues that were not apparent outside became much more obvious and her daughter recognized the difference. As Shannon pointed out, “It speaks volumes too, how outside if we give them the opportunity...they don’t have walls to bounce off of” (Shannon, Meeting #3). She recognized that with her students, behaviour management was much less of an issue outside.

One of the most helpful supports for Shannon was the “Grab & Go Bag”, stocked and ready to go for outside learning. She said having that backpack meant she always felt prepared for outdoor learning, “Then I’m not trying scramble together and get everything together. ‘Do I have tissue for all those runny noses? Do I have this?’ Just having that backpack at the door, there’s no excuse, I’m grabbing it and we’re going” (Shannon, Meeting #3). Chris also shared the same sentiment about the “Grab & Go Bag” he received.

Another resource that Shannon felt was particularly helpful was the book “Teaching Dirty”, which she used to educate parents and her new teaching staff. She found it easy to flip through and had great tips and ideas. Shannon also mentioned that her students loved using the magnifying glasses, bug catchers, and were interested in the compass.

One of the ways that Shannon identified that the project best supported her was through increasing her outdoor knowledge. She felt this was an area that she could improve and she found that by going on the nature walks with the group she was able to gain some great basic

knowledge and grow in confidence. For similar reasons she thinks that the flash drive filled with resources will help to support her when going outside.

Overall, one takeaway that stuck with Shannon was the idea I had shared with her about ‘thinking outside first’, which was mentioned in the dialogue solutions section above. She said this refrain would play over in her head, reminding her to plan for outside learning experiences: “But I just hear Nicole’s voice in my head. And what I hear is, think outside first. Often, Nicole, you are in my brain, because that’s what I hear often is ‘think outside first, think outside first’” (Shannon, Meeting #3). For Shannon this helped her to remain focused on her goal of increasing outdoor learning with her students.

4.2.5.7 Sarah

Sarah, grade 3 teacher, got outside with her class in the fall approximately 6 times. She stated that since being involved in the study she had definitely made more attempts to take learning outside. It made her more conscious of outdoor learning and encouraged her to put her “ideas into practice rather than just ‘thinking’ about it” (Sarah, Final Questionnaire). Highlights for Sarah included the trip to a nearby natural space with the Ecojustice students, spending time in their schoolyard studying plants, using the rock circle in front of their school for ELA and getting out sledding in the winter. The trip to the natural space stood out for Sarah as the biggest highlight. She said that the students really enjoyed it and it was informative. Sarah spoke more about the experience: “It’s something right in our neighbourhood, so I thought it was really good that they were learning about that” (Sarah, Meeting #3). Learning through nearby nature holds so much potential for positive student growth. The students also spoke highly of the solo time that they experienced at the end of that particular trip which Sarah shared:

And then when we wrote about our experience in our journals after, a lot of kids wrote about the – and they always end it, ‘And we got to lay quietly for five’ and we were rushed. They probably could’ve used more. ‘But we got to lay quietly in the grass’.

(Sarah, Meeting #3)

Having quiet, mindfulness time in nature is so beneficial for students’ mental health and spirit.

Some of the supports that Sarah found useful were the class set of clipboards (which were also utilized by others in the school), the plant cheat sheet, the grasslands PowerPoint, and the reference books. More than anything though, Sarah appreciated the support touring the students at the natural space, “Both your knowledge of what/how to share information and the help with

the Ecojustice students were equally valuable and helped convince me to do this excursion” (Sarah, Final Questionnaire). For Sarah, having someone with experience accompanying her on fieldtrips was comforting and helped to build her confidence to try on her own sometime in the future.

Overall, Sarah felt that the project best supported her by supplying many useful tools and resources, by enabling an opportunity for student and teacher mentorship, and by providing a motivational, teacher camping trip in the fall (Women’s Outdoor Weekend).

4.2.6 Future Considerations

The January meeting was intended to be a midterm review of the project thus far, with the participants encouraged to share what other supports that they thought would be helpful, having spent half a year working on improving outdoor learning with their class. Given their feedback, I had planned on providing and facilitating any new materials, resources, and professional development that they felt would be of value. A theme that stood out amongst the participants during our midterm review was their interest in learning more about Indigenous knowledge. Therefore, most of the professional development opportunities that were planned for the rest of the year were focused on this goal. I felt this was particularly valuable given the epistemological roots of land-based learning and the importance of acknowledging Indigeneity. Unfortunately, the year was cut short due to COVID-19 and I was unable to deliver on their requests. My intent was to include and honor Indigenous knowledge, by meeting up with Indigenous knowledge keepers but COVID-19 prevented me from offering these opportunities to my participants. However, I believe this information is important to consider, as it provides insight into the supports deemed valuable by teachers striving to increase land-based learning pedagogy into their practice. Additionally, the participants were asked in their final questionnaire what supports they thought would be the most beneficial for other teachers wanting to engage in land-based education. In the following section, I will provide a brief overview of the different materials, resources, and professional development that the group was still hoping to receive and will point out the supports that the participants believed would be helpful for others in the same position.

4.2.6.1 Materials

At the start of the midterm review meeting I shared what had been provided up until that point. Upon hearing what others in the group had received it sparked interest in those materials for others. Also, given time to think about what other materials would be useful, some

participants wanted to add a few things to their wish lists. For Chris, he continued to want bike vests for his class and thought compasses could also be useful. Sarah was intrigued by the idea of pocket microscopes. Mackenzie and Shannon both agreed that a wagon would be handy, in fact Shannon identified having a wagon as one of the key supports for teachers in her final questionnaire. Mackenzie also thought tweezers and eye droppers would be of value. Lauren was hoping for a class set of clipboards. Sarah and Shannon both remarked on their final questionnaires that they thought having a “Grab & Go bag” was of huge benefit to anyone trying to engage in more outdoor learning. As Shannon stated: “The backpack simplified the process of getting ready to go outside. I knew that I had everything I needed to be outside with the children and only made minor changes and additions depending on the weather and activity” (Shannon, Final Questionnaire). And as Lauren pointed out, money is always helpful.

4.2.6.2 Resources

The group reiterated the need for a platform to organize all the resources so that they would be easy to access and find. I had been sharing some resources through Onedrive⁷ and email and the group members admitted that it was easy for them to get lost on their computers. As a response to this, I suggested that I could load all the resources onto flash drives for them until I was able to set up something more finessed. The participants thought this would help. Chris suggested that the most helpful way to support teachers with outdoor learning would be to upload my content to Onestop⁸, keeping it simple, clear, and well organized.

Many of the participants were still eager to receive the “cheat sheets” that I had been developing and Sarah felt that they would be a good resource for other teachers as well. Mackenzie and Candace felt like it would also be helpful to have some guiding questions added to the resource so that they could encourage inquiry with their students. Amber was hoping that there would be information on identifying birds by their silhouettes, as well as information on identifying trees.

One question that kept popping up in our meetings was “What does the division have available for outdoor learning resources?” The participants wanted to know where to find these resources and what the process was for booking.

⁷ Onedrive is an online database that allows teachers to access their saved files from any computer and also to easily share files with others in the division.

⁸ Onestop is the division website which stores all the division approved resources for staff to access.

Shannon thought that the “*Teaching Dirty*” book, or similar reference books, would be really helpful for teachers trying to incorporate outdoor teaching into their practice. She was also hoping for more resources to educate families on the merits of outdoor learning and how to dress for outdoor learning. Shannon said that she had used what I had already sent out but was “always looking for new ways to educate parents and families” (Shannon, Final Questionnaire). Moreover, Lauren thought it would be important to have EAL considerations when communicating with students and families.

4.2.6.3 Professional Development

The group in general expressed a considerable amount of interest in attending professional development workshops but struggled with attendance due to busy schedules. At the midterm review, several participants reiterated that they were still interested, so I presented a few options. When I followed up by email there were some interested in a Sask Outdoors Workshop called Project Wet and another joint workshop called Project Wild/Below Zero. I had also suggested that we could take a PD day with the sub cost covered by the research grant so that we could get together and spend time going through resources and planning. This was a very popular idea and most members of the group expressed interest in attending.

Overall, the theme that most interested the group discussed at the midterm meeting, was Indigenous ways of knowing. This was an area that many of the participants expressed that they would like to learn more about. Given that I am non-Indigenous, I knew that I would need to reach out to Indigenous knowledge keepers to address this area of interest. I suggested that I could try to arrange for the group to attend a sweat ceremony and a treaty culture camp. I also contacted one of our FNMI consultants with the division and asked if there were any land-based learning professional development opportunities that he knew of and he invited our group to come out to Eagle Creek to test run some new programming he was developing. The group was very excited for these learning opportunities but unfortunately, they were all scheduled for the spring. In general, the group felt it was important to learn more about how to incorporate treaty and social studies into outdoor learning, and connect to Indigenous ways of knowing. Amber felt that having FNMI content knowledge was one of the significant ways to encourage land-based learning with other teachers.

Several participants expressed a desire to go on teacher field trips to the locations that they had missed out on. Mackenzie was really hoping to go with me or Ecojustice to the

Saskatoon Natural Grasslands, and Amber was hoping to get a tour of the Grasslands, as well as, Chappell Marsh. Both Amber and Mackenzie expressed in their final questionnaire the importance for teachers to gain knowledge and experience with particular field trip spots. Mackenzie felt the following would be helpful for teachers: “Before the school year begins, having an outdoor PD such as a walk through the grasslands, NE Swale, riverbank, somewhere close to your work place, and brainstorm simple activities and ideas” (Mackenzie, Final Questionnaire). In addition, Candace thought it would be a great support to always have a “Nicole or a resource person” available to help provide guidance for trips to various spaces (Final Questionnaire).

A sentiment shared by Amber and Candace was their desire to have an outdoor learning support group that would extend beyond the research project. They both mentioned in the final questionnaire that they thought it would be particularly helpful for accountability, motivation, and a resource to access with questions or for inspiration. For similar reasons, Amber thought it would be supportive to encourage mentorship between teachers with outdoor learning experience and those who are interested but need guidance.

Shannon mentioned that she was disappointed to have missed the grant writing meeting and was hoping to access this opportunity in the future. I suggested that this was a possibility but that I could also provide grant editing support via email.

Lauren made an interesting point regarding PD, suggesting that they are often attended by those who already have interest and experience in the topic. Instead she argued:

I think having school divisions, or even schools as a whole really promote the importance of land-based learning would make a huge difference. Support from administration and promotion of these different activities/learning opportunities would be instrumental in getting parents and the community involved and open the doors to even more learning opportunities. I think that there is this idea that if kids leave the classroom they are ‘wasting time’ or somehow not learning, when in reality they are more engaged in activities taking place outside the limited dimensions of the classroom. (Lauren, Final Questionnaire)

This was a big picture solution that had not been brought up as a solution very often throughout the action research project but was certainly one worth considering.

Chapter 5: Critical Reflections

After reviewing all the data and applying a thematic analysis, I found that there were several main points for further consideration. First of all, I will discuss what I think are the main takeaways from the division wide survey. Secondly, I will consider the action research group participants, the barriers they encountered, and how they worked on finding solutions. Following that will be a reflection upon the overarching limitations that teachers face when trying to pursue outdoor learning. Next, I will review the supports the group often discussed and identified as elements they found most helpful. In general, there were also important considerations that emerged regarding outdoor learning materials, resources, and professional development. Additionally, there were key points that emerged for teachers interested in outdoor learning and how they can set themselves up for success.

5.1 Survey Reflections

The results of the survey indicate that there is a strong interest in outdoor learning. While the respondents represented only a small section of the approximately 1000 teachers employed within GSCS, the fact that 69 teachers took the time to respond should not be understated. Teachers are busy, particularly in the spring and it is very easy to quickly delete an email rather than add something else to a to do list. Yet, 69 educators took the time to read the email and complete the survey. Every one of the respondents recognized the value in outdoor learning and the majority expressed an interest in learning more. However, many of these teachers need support if they are to increase outdoor learning in their own practice. While they may be appreciative of this pedagogy, half of the respondents were only taking their class out once a month at best. I found this surprising, as I had assumed that those who would be most willing to complete the survey would be educators already invested in outdoor learning. Again though, I feel this indicates an interest in the pedagogy but a lack of training or familiarity.

Overall, I was surprised to see how few teachers within GSCS are active outdoor educators. Of course, there are likely others who did not complete the survey who may regularly practice the methodology but with only 23 teachers who indicated taking their students out at least one time a week, I was taken aback. As someone who is an active outdoor educator, I had assumed that there would be others doing the same, and there are, but not as many as I would have thought. Upon reflection though, I should not have been surprised, as I have collected evidence over the years as to the low levels of outdoor learning taking place. Working for

Ecology Camp for Kids, I frequented the Saskatoon Natural Grasslands during the nicest months of the year for almost five years and almost never saw other classes visiting the space. I would take grade 2 classes to the Grasslands for the full day, nearly every day of the week in May, June, September, and October and rarely encountered another class, despite two schools within very close walking distance. Additionally, at all three of the schools that I have worked at over the past six years, again, it was very infrequently that I would see other students outside learning. There would be the occasional class playing sports for physical education or reading if the weather was nice. Without question, given the training and experience that most teachers have, taking students outside to learn is not intuitive. However, as the survey results suggest, there is a desire to remedy this situation.

While some teachers may have a desire to increase their engagement in outdoor learning, the survey results seemed to suggest that they feel stuck behind barriers and unsure how to move forward. For many respondents, the answers they gave to the survey question about helpful supports, seemed to be somewhat defeatist. For example, one respondent wrote “bus money” for a barrier and then again wrote “bus money” as a solution. Of course, it makes sense that if a barrier can be removed than it should allow for greater engagement in outdoor learning. Without a doubt, an increase in transportation funding would make it easier to engage in outdoor learning, however, this seems unlikely to happen anytime soon, with the continued declining investment in Saskatchewan education. The support that they listed was honest and understandable but not very realistic. I found that several of the respondents answered in such a way, almost as though they were leaning into their excuses as justification for why they were not able to get outside more often. As a researcher who was trying to consider realistic supports that could be implemented that would help to foster more outdoor learning, I was somewhat discouraged when people listed supports that were largely unachievable. I should have been more explicit in my questioning, perhaps adding a list of options to choose from or to give suggestions, or reframing the question “what professional development resources (materials/training) would help support outdoor learning in your teaching practice?” I kept the question broad to see what people would identify as the key elements to increasing outdoor learning but did not consider that they would list answers that would be largely unattainable from a professional development point of view.

On the same point, I wondered if teachers were expressing their frustration with the lack of support they were receiving. In other words, ‘if I had access to proper funding, I would be able

to pursue best teaching practices'. Similarly, another respondent listed children not dressed for the weather as a barrier and then listed "parent support in dressing children for the weather" as a solution. Again, not really something that can be controlled but I sensed they were feeling frustrated. Alternatively, I wondered if respondents did not know what kind of achievable supports could address the barriers they were encountering. For example, concerning children ill prepared for the weather, supports that could help include: communication resources with visuals, helping families to visualize the winter items that they should be sending to school; collecting lost and found items at the end of the school year that go unclaimed to keep as back ups; asking colleagues for any of their children's hand me downs that they are willing to donate. Moving beyond deficit thinking, a growth mindset paves the way for making change and improving the teacher's ability to teach outside, even in winter. Yet, teachers only know what they know, and so would benefit from having opportunities to learn and grow with assistance from others. Thinking proactively and brainstorming realizable solutions was what I was hoping to encourage with my action research group.

5.2 Committed and Creative Educators

Upon reflection, the action research group was likely not a true reflection of teachers within GSCS, as several participants had quite a bit of experience with outdoor learning already. Overall though, the group provided a range of familiarity with learning outdoors. For some, it was something that they regularly scheduled into their year, and for others it was a fairly new concept that they were trying to integrate more into their practice. The dynamics of the group was quite productive, as everyone had ideas and experiences to share. One important point to note is that all the teachers in the group had experience in the grade level that they were currently teaching, and they had all been teaching for at least 6 years, with a group average of 17 years. I think this speaks to the difficulty of being a new teacher, and how it would be challenging to invest fully in adapting pedagogy when just starting out. The teachers in this group were in a comfortable position to be able to work on professional development. Not that they had easy teaching assignments but were at least familiar with their role.

In many ways the educators in this group provided affirmation to the opinion I presented in chapter one, regarding motivation and worldview being the integral factors that limit or encourage teacher investment in outdoor learning. If a teacher believes there is value in teaching outside the classroom and is committed to adjusting their practice, then they will find ways

around any barriers that they encounter. I found this to be true of the participants in my group. Lack of money was the number one barrier brought up in the division survey but many members of my group found ways to stretch and augment their classroom budgets. Chris was well versed in applying for grants to fund his class excursions, Lauren took advantage of the free city transit for students, Amber went on bike trips with her class to access different learning locations, and the early learning educators all took advantage of nearby nature to engage in outdoor learning. Of the other four participants, Mackenzie had access to a natural space right outside her school, Candace would walk her students to a nearby naturalized park, and Shannon and her preschoolers would often visit a large grove of trees in her schoolyard. The group showcased a variety of ways a committed teacher could work around the barrier of limited funds. They also discussed other ways of stretching a budget within the course of our project, including partnering up with another class for a field trip to share the school bus cost and taking advantage of community spaces that are within walking distance. In reality, there are many free opportunities for outdoor learning in Saskatoon, and so it is unfortunate that so many educators in the survey believed that money was their number one constraint.

As a group, even though they faced many of the same barriers and challenges that the survey respondents encountered, they were creative and dedicated to solving their problems. For example, even though the group expressed frustration with their students not being dressed appropriately for the weather, Shannon and Candace had come up with solutions to help address the issue. Amber faced a variety of needs in her class but found ways to accommodate, like her one student and the trike. Lauren had a gigantic class but found ways to adapt her lessons and excursions. Sarah was trying out biking with her class for the first time and so had them practice in the school yard so that they would be prepared for their longer excursion. Chris did not receive a grant that he normally uses to cover transportation cost, so instead he tried out the free city transit for the first time and ended up loving the experience. Mackenzie proactively arranged her schedule so that she could afford more time to outdoor learning.

Additionally, this was a group that was eager and willing to share advice or solutions that worked well for them. When participants would bring up challenges, the group would offer up suggestions and it really did generate a culture of encouragement, which was an objective that I had hoped we would achieve. It felt like we were able to realise what Coe (2017) argued in their paper regarding limitations to outdoor learning:

By shifting from a culture of excuse, where concerns and apprehensions act as obstacles preventing outdoor learning, to a model of encouragement, where concerns and apprehensions are foundational in the creation of a safe and holistic educational program, a pedagogical space connecting theory and practice emerges. It is within this newly found space where the barriers to outdoor practice within Canadian schools can be overcome (p. 7). Contrary to creating excuses, the group dynamic promoted effective dialogue which helped participants to move forward in their practice. This also supports Mezirow's theory on effective professional development which he states requires dialogue, critical reflection, and experiential learning (2002). The action research group certainly benefited from the dialogue that transpired at our three meetings. In fact, everyone remarked on the benefit of having a like minded community to share ideas and barriers with and journey together towards increasing outdoor learning.

That being said, most teachers do not have access to a supportive group which can provide suggestions and solutions for the barriers they are facing, which could lead to frustration and a sense of powerlessness. The respondents to the survey may be unaware of free locations and programming in the city or lack the skills and knowledge to confidently take students into nearby natural spaces or how to book and ride the city bus. Also, lack of experience with the pedagogy makes it hard to imagine how curriculum can be covered outside of the classroom. Sarah, for example, felt pressure to get the curriculum covered but clearly saw the value in getting outside with her students, but she was just not sure how to connect the two. Indeed, very few educators have had the opportunity to experience or witness outdoor learning in action. Most of the teachers, myself included, attended K-12 education in a traditional, colonial format. Again, this points to the need for outdoor learning training and professional development opportunities.

5.3 Systemic Limitations on Outdoor Learning

The reality of education in Saskatchewan for many teachers involves large class sizes, and a range of complex student needs with minimal support available. Beyond the regular classroom workload, there are extra-curricular expectations, supervision, mandatory assessments, paper work, meetings, and so on. Educators are increasingly asked to do more with less. Teachers are busy, stressed, and overworked, so even with a worldview that values outdoor learning and strong motivation, the challenges that teachers face in an unsupportive environment can be enough of a deterrent that teachers will be defeated. The onus for improving educational opportunities for students should not be placed solely on the teacher- the whole educational

system should be working towards supporting classrooms and sound pedagogy. This is similar for the dedicated environmentalist, who changes everything they can about their personal lifestyle to becoming more environmentally friendly, recycling, composting, biking, mending, etc. but meanwhile the government is providing subsidies and bailouts to large resource extraction companies, and providing little to no investment in green industries. Yes, individual actions are important, and one person can make a difference; however, they should not have to act alone, when the benefits of their cause are so great. Ideally, the larger power structure around them would be supportive and encouraging them to further their admirable objectives.

There are many actions that could be taken by the educational system that could support outdoor and land-based learning. Having a ministry of education that: adequately funds education so that teachers are able to pursue best teaching practices by minimizing classroom sizes, that provides appropriate professional support for students with needs, and that maximizes teacher prep and PD time would improve the situation. Having a division that: supports teacher professionalism, allows them to pursue professional development in areas that interest them, (rather than enforcing superintendent passion projects) would also improve the situation. Less mandatory assessment, paperwork, and fewer meetings, would allow teachers to pursue areas of professional improvement. Most teachers are intrinsically motivated to bettering their practice. Moreover, divisions should promote and provide access to both outdoor learning and land-based learning professional development, consultants, learning leaders, and support the creation of a likeminded community of outdoor educators (or other groups as teachers choose to be involved in). At the school level, having an administration that sees the value in outdoor learning and supports classroom endeavors to get outside helps to create this culture of support. This involves reducing the number of required school-based events and loosening the restrictions on leaving the school. Administrations should be supportive of teacher initiative projects like Polar Bear clubs, school gardening projects, and outdoor learning. Creating a culture of support is one of the key variables to increasing teacher's engagement in outdoor learning, whereas being constantly bombarded with extraneous additions to teacher workload drains time and energy away from even the most motivated and well-meaning teachers. Knowing that administration and division supports a committed teacher's endeavors and that administration and division actively works to remove barriers to getting outside will go a long way. Similarly, having family support is

important, and the communication sent home from the school can also support an outdoor school culture. As Lauren said:

Support from administration and promotion of these different activities/learning opportunities would be instrumental in getting parents and the community involved and open the doors to even more learning opportunities. I think that there is this idea that if kids leave the classroom they are ‘wasting time’ or somehow not learning, when in reality they are more engaged in activities taking place outside the limited dimensions of the classroom. (Lauren, Final Questionnaire)

School leadership has a big part to play in changing this perception. If the narrative promoted by the school stresses the importance of outdoor learning and highlights the benefits of learning outside the classroom, this helps to create a supportive environment.

My initial perception of the situation has shifted from blaming lackluster teacher investment to blaming the system for not being supportive enough. Yes, teachers need to do their part and motivated teachers are able to overcome barriers, but teachers should not be engaged in this fight alone. The Ministry, the school divisions, school administrations, school staffs should be battling alongside teachers. Supposedly, we all want what is best for children, so the system should be in support of outdoor learning. Teaching is not an easy role and its unfair to blame teachers who lose motivation when faced with barriers. Everyone tries their best but sometimes to survive teaching, teachers just need to tread water to keep themselves afloat. Swimming upstream is exhausting, when going against the current and doing things differently then everyone else. If there are too many rocks in the way or if the current becomes too strong, even the most ardent ‘swimmer’ can become fatigued. An educator may know what they are doing is right but when the environment around them is draining it becomes very tempting to fall back in line with the status quo and do what is easy and accepted. And I do not think that is an individual’s personal failing- I think that is human nature. In times of stress, people tend to fall back into familiar patterns.

5.4 Supportive Relationships

Having a like-minded community ended up being one of the most valued supports for the group. They appreciated having the time and opportunity to meet up with other educators who shared similar values and goals. The meetings provided a great opportunity for the teachers to connect, to share ideas, highlights, challenges, and solutions. Bentley (2010), Lowenstein et al.

(2010), and S. Ritchie (2012) emphasized this positive outcome attributed to bringing allies together, which creates a larger source for resources. Many of the participants suggested that the group itself helped to keep them motivated, knowing that they were part of a project with other people working towards the same goal. This was a point that S. Ritchie (2012) discussed extensively in their writing, that having a group of like-minded individuals creates a sense of solidarity and helps solidify commitment even when faced with adversity. As mentioned in the section above and thoroughly outlined in Chapter 4, many solutions were generated right away within the dialogue of the meetings. This was a recurring theme that I noted in my literature review; many authors (Brown, 2005; Hill, 2012; S. Ritchie, 2012; Nielsen et al., 2012; Lowenstein et al., 2010) highlighted the learning and growth that can come from having a supportive, like-minded community. Coming together three times provided a great opportunity for collaboration.

Beyond the action research meetings themselves, the group also appreciated the other opportunities that were presented for networking with other similarly minded people, like WOW and the Sask Outdoors events. The women that were able to attend WOW spoke highly of the experience and said it left them feeling inspired and motivated to pursue outdoor learning with their students. I also purchased Sask Outdoors memberships for everyone in the group who did not already have one, which opened up a rich avenue of opportunities. Sask Outdoors often hosts little events to bring together like-minded folk and have many PD options throughout the year. I know that Shannon really enjoyed her experience attending a workshop put on by Sask Outdoors that helped her to grow her network and gave her lots of ideas.

5.5 Content Knowledge

The participants also acknowledged their lack of knowledge of the natural world and Indigenous content and epistemology. They recognized their shortcomings in these areas and were hoping to learn more. Unfortunately, many elementary school teachers do not have science backgrounds, which could provide them with biological and ecological knowledge that could enhance student learning when outdoors. Moreover, GSCS does not presently offer any professional development on outdoor learning or anti-racist pedagogy. Without any background education or training in these areas, it is no wonder that educators lack the confidence to get outside with their students. This was a point that Hill (2012) expressed, “in order to develop competence in any area of inquiry, teachers must have a deep factual knowledge”. It would be of

great benefit for teachers to have access to supports which could help them learn more about the land, sustainability, Indigenous ways of knowing, and anti-racism theory.

Throughout all three of the meetings, the participants expressed an interest in having resources and training that would help them to gain a better understanding of the natural world and Indigenous knowledge. In particular, the group was eager to have ‘cheat sheets’ with key facts, and prompting questions to help spark interest and learning when they are engaged in outdoor learning. At the third meeting, the group was especially interested in having more opportunities to learn about Indigenous culture and ways of knowing. Many of the participants were very excited by the prospects of attending a sweat ceremony and an Indigenous treaty culture camp. I was also able to connect with one of the FNMI consultants with the division and they offered to have us attend a land-based professional development session out at Eagle Creek. Unfortunately, all of these opportunities were scheduled for the spring and with COVID-19, they were all cancelled. The group thought it was important to have more social studies connections to outdoor learning, so that they would be better able to teach the Treaty outcomes authentically and with a richer understanding of Indigenous epistemology.

Additionally, there are logistical considerations that would be helpful to know, for example, if teachers knew which spaces in Saskatoon offered valuable learning affordances. There are plenty of opportunities for outdoor learning in the city both in natural and built environments but teachers are not always aware that they exist or that they are well suited for learning with children. Similarly, there are many great like-minded organizations that offer opportunities for students and have resources to share. The Stewart Resource Library alone, has plenty of excellent books on the subject of outdoor learning. Online, there are vast amounts of ideas for inspiration. However, there were a couple important points that the participants kept bringing up. First off, resources and opportunities are great but if teachers do not know they exist then they are useless. Secondly and related to the first, teachers are inundated with resources, emails, opportunities and so they stressed that it would be extremely helpful to have a streamlined database that organized all the most important resources for outdoor learning. That way, it would be easier for teachers to know what was most relevant.

5.6 Action Competence

Connected to the importance of having a strong knowledge base to support outdoor learning, the teachers also wanted to have experience and guidance in the field. Similar to the

what Anderson et al. (2015) discovered in their research, teachers need assistance incorporating pedagogies into their practice, bridging the divide between knowledge and action. In fact, the value of action competency was stressed by many of the researchers whose work I reviewed in chapter 2 (Brown, 2005; Furman, 2012; Hill, 2012; Lowenstein et al., 2010; and Nielsen et al., 2012).

The participants were very interested in having guided teacher field trips, as well as having expert guides help to facilitate outdoor learning experiences with their classes. We visited a few different locations in the city and the participants spoke highly of the experiences. Amber and Candace both spoke to the value of having me visit their local nature spaces and discuss the learning potential in their communities. Several of the participants were eager to have Kenton Lysak, a senior interpreter, work with their classes and were also grateful for the tour he gave us of the NES. Unfortunately, people in roles such as these, are very popular and hard to book. Ideally, there would be more facilitators like Kenton who could help support teachers in the field. With budget cuts, however, GSCS is moving in the opposite direction, as the environmental interpreters out at Blackstrap and Eagle Creek were laid off, when the environmental centres were closed. As Sarah pointed out, sometimes a teacher needs an expert to support how a trip might take place, and to provide the teacher with some experience and familiarity. This leads to greater confidence to learning on their own. This mirrors what Lowenstein et al. also discovered, that a successful way to increase a teacher's sense of efficacy is by watching others model different learner activities (2010). Sarah found that the joint trip out to their local natural space with her grade 3 class and my grade 8 Ecojustice class was the most helpful support she received. She appreciated that I was able to share my knowledge and demonstrated how to disseminate information to the students in the field. Having the EcoJustice students along to help mentor her younger students was also helpful.

When I first started working at Ecology Camp for Kids, I probably knew more about the rainforest than I did about the grasslands but my primary role was leading every grade 2 class in the public school division on a field trip to the Saskatoon Natural Grasslands. My boss and mentor, Melanie Elliott, was not a big believer in traditional educational models and so my training consisted of one tour of the space with her and then I was on my own. At the time, I was terrified and upset that I did not receive more guidance; however, over time, I grew to appreciate her learn-by-doing approach. Using my field guides for reference when I did not know something

and exploring the space alongside the students made me realize the benefit of experiential learning. However, I certainly did need that first round with Melanie to lay the groundwork for me to be able to visualize the space and have some sense of what I was doing. Additionally, when the field trip for the day was done, I would come back to the office and share what happened with Melanie. She often shared new information or advice when it was relevant to the day's excursion. I believe the same thing would be valuable for teachers new to outdoor learning. They need a mentor to get them started and ideally be able to provide ongoing support when necessary. This was a point that Amber brought up and I think she made a strong argument. Teachers who are more experienced in outdoor learning could help to mentor colleagues who are interested in the pedagogy but are not sure where to start.

Additionally, the group felt there would be value in having a specific outdoor learning consultant at the division, who could be a constant source of support. They agreed that a colleague who had held that role in the past was very helpful and supportive. It would be beneficial to have someone who could help address educators' concerns, such as what to pack on a field trip, how to book the free city bus, what the necessary steps are for building an outdoor learning space, how the circle of rocks outside a particular school can be used, etc. There are many logistical elements to outdoor learning that are challenging to do if never experienced before. Having someone in the role of outdoor learning consultant would be a great person to field these types of concerns.

5.7 Worldview and Motivation

For any type of professional development to be effective, there has to be intrinsic motivation to learn and grow. If a participant is not receptive to the ideas or is not willing to put in the work because they are not convinced of the merits of the pedagogy, there will be very limited success. Given the structure of the study, I had hoped that I would attract participants who would be invested in learning more about outdoor learning. They had to first read an email, fill out a survey and then email me to indicate their interest. I figured that by completing these steps they must be motivated. Due to this assumption, I did not feel as though I had to convince them of the merits of outdoor learning but there were a few factors included in the project that helped to keep commitment high. Many of the participants identified the group and our time together as valuable for keeping them motivated. The individuals who attended the WOW event also felt like this opportunity inspired them and reinforced the value in getting outside. Moreover, the benefits

that the participants were observing in their students solidified their investment in the pedagogy. Additionally, participants identified their own strategies and reasons for staying motivated. Mackenzie talked about the goal setting she did before the start of the year and how setting up a routine helped to keep her on track, as the students would remind her if she forgot. Shannon talked about the message I shared with her, ‘think outside first’, and how this helped her to prioritize outdoor learning. A couple of the participants wondered if having the importance of outdoor learning facts displayed in their class would help to provide inspiration. Furthermore, Amber suggested that acting as a mentor (or mentee) to someone in their school might help to keep them motivated by fostering a sense of solidarity.

5.8 General Considerations for Outdoor Learning

Again, with time limitations and volume of resources, “simple” was an overarching and recurring theme. The participants were adamant that any resources developed to support outdoor learning needed to be straightforward, clear, and easy to find and access. The group was aware of other resources that were available but found them too thick and cumbersome and difficult to navigate. A resource that Mackenzie found online proved to be quite popular with the early years teachers. It provided simple outdoor activity suggestions, in a straight forward manner, and was nicely organized, and easy to use. When I brought a few examples of the cheat sheets I was developing for the group, their feedback was to make the pictures bigger and list the information in bullet form. They wanted only the main points. They also appreciated that the resources I shared with them which included field guides, PowerPoints, and lesson plans were tailored to our local environment. Sometimes there are great resources developed elsewhere but they do not match the local learning space, which can be frustrating and confusing. Instead of having to cull through resources and find what was applicable here, I had already done that work for them, which they found helpful.

A common complaint in our division is that helpful resources will be developed but then they are impossible to find. Onestop, as its name suggests, is supposed to be the main division database for all the resources developed and available for teachers to use. However, it is a nightmare to navigate and the search function does not work well. Additionally, administrators have also been encouraged to use Onenote, an organizational software, and at times items will be shared through Onedrive, our division server. Between the three different “One” platforms that our division uses to share information and resources, it becomes challenging to remember where

valuable resources can be found. So, the group thought that it would be ideal, to have a platform that was well organized, that included all the resources that could help support outdoor learning. In essence, they wanted a new revamped “Onestop” that would be specific to outdoor learning. They also thought it would be valuable to make it so teachers could also contribute any new resources that they may have come across. Everyone has different connections, follows different groups on social media, belongs to different organizations and so teachers themselves are often finding great things that could and should be shared with others. The group felt it would be important to keep the database ‘evergreen’ so that it was constantly updated with new items. In a perfect world, if there was an outdoor learning consultant, they could be the gate keeper and caretaker of this database.

Similar to their frustrations with finding resources, the group also wondered what materials were available from the division to borrow. They recognized that they did not need their own personal set of certain things, like GPSs and were happy to share with others. I had pointed out that there were amazing animal artifact kits that were put together by the Saskatoon Zoo Society accessible through the division and that no one seemed to borrow them. The group wondered how they did not know about them and asked where to find them. I tried describing the steps to take and then worried I was leading them astray so looked it up on my phone to confirm and could not find them myself! I am not sure what could be done differently within the system that we have but it is unfortunate that we do have some well-developed kits and materials through the division that are not being accessed. Chris suggested that an organized list of available resources and materials and how to access them, could be included in the outdoor learning database they envisioned. The group questioned what else the division might have that could be helpful. There were queries about bike vests and sizes, if there were pond dipping supplies, or compasses. At this point, there does not seem to be a clear sense of what the division has for outdoor learning materials.

One thing did become clear regarding resources and materials over the course of the project: there was no one clear cut list of what everyone wanted or needed. Everyone had varying requests based on what they already had, what they thought they would use, their grade level and their interests. Thanks to the Stirling McDowell grant we were able to buy almost everything that the group wanted and no two participants’ lists of resources and materials were the same. The resources they requested were personalized to their situations and tailored to their needs. From a

budgetary point of view, this was also more practical. I could have assumed what I thought everyone would need and bought them all the same items but there likely would have been redundancies, items that people already had and other items that would have collected dust because they did not suit that participant's interests or grade level.

Similarly, with the professional development opportunities, the group brainstormed ideas based on the barriers they were facing and agreed on solutions that could be helpful, but when it came to attendance, the participants joined the opportunities that most interested them or suited their teaching situation. Interestingly, all the participants expressed a desire to attend a Sask Outdoors workshop but in the end, only one participant took advantage of the opportunity. There were a couple more scheduled for the spring, so perhaps attendance would have increased, but I found that the teachers struggled to give up their precious free time outside of school. As mentioned before, teachers are busy and overworked, so it is difficult to allocate more time outside of school to professional development. That being said, four participants gladly participated in the WOW event, which was a whole weekend. I was surprised that attendance was this high but wondered if it was because it was also a social weekend away.

Overall, I think it would be hard to generalize a specific combination of materials, resources, and professional development that everyone should receive to progress in their outdoor learning practice. As Stringer (2014) pointed out: "The problem with generalized recipe-like solutions is that they fail to take account of the underlying issues that have made the experience problematic for participants in the first place". Everyone's situation and experiences were unique and while participants faced similar barriers, the exact combination of constraints was not the same and so their desired supports varied as well. Similar to our students- one size does not fit all for supporting teachers.

5.9 Setting Yourself Up for Success

There were a few variables that the participants realized would help pave the way for more outdoor learning with their students, particularly if they set them up early in the year. One important variable that kept coming up within our discussions was communication. To help generate support for an educational program which will involve leaving the classroom and being outside regularly, it is beneficial to inform anyone who could be implicated early on. Teachers should establish a classroom culture right away in September, letting the students, their families, and the in-school administrators know that this is going to be a part of the routine in the class,

and explain why. As well, teachers should outline what they will need to make this plan possible, asking families and students to ensure they are prepared for all weather, and making it clear that adult volunteers will be needed. Make it easy on parents and send home the required paperwork for procuring a criminal record check and outline the times that they are open and what they will need. When I taught kindergarten, I used to schedule our larger, need-to-get-on-a-bus field trips, before the school year even started so that when I would meet families during the first week of September when they would attend school with their child for a half day (gradual entry), I would get them to sign all the permission forms right then and there and ask for parent volunteers to sign up ahead of time. If supervision is a barrier, teachers should make it as easy as possible for parents to help out.

Another way that communication helps to alleviate barriers and establish support, is when safety concerns are clearly addressed up front so that families do not worry that the risks have not been considered. Reassure families that there is a safety plan, as well as a back-up plan in case of emergency. Similarly, to gain administrative approval for excursions, teachers should communicate this early, before the planned excursion, letting the administrators know what the plan is and that risks have been considered. Administrators do not like to be blindsided, and when teachers are proactive, if there were ever a parent complaint, the administrators would be more likely and willing to provide support.

Additionally, if a teacher has concerns about student behaviour and engagement, it helps to start the year with clear expectations for excursions and to inform the children what the goals are for the class. Moreover, it helps to provide opportunities for scaffolding. This was something that several of the participants did with their students, which helped them to achieve small successes before attempting bigger ones. Additionally, if teachers are able to start the year off with an engaging hook, it also encourages students to support outdoor learning. I suggested to the participants that they start the year with a team building experience, which could be the class camping trip or simply playing camp games together in the park. Relationship building is so important and shared memories can play a powerful role in bringing people together.

The other strategy that worked well for Mackenzie, was arranging her schedule before the year started, so that she had long blocks of uninterrupted time with her students. She knew this would remove a barrier for her and make it easier for her to get outside with her kindergartners. Furthermore, she set a goal for herself to get outside at least once a week. Mackenzie found that

starting the year with a plan already in place made it easier for her to achieve her goal, particularly as the students got used to the routine and would remind her if she had forgotten or was not feeling as motivated that day. Conversely, Sarah admitted that she struggled to get outside regularly as she did not have a routine in place and would lose motivation when considering curriculum pressure. She thought it would help her practice, if she started including outdoor learning in her planner, to remind her of her goals and to block time out for trips outside the classroom. Due to the fact that we first met in the spring, the teachers were able to plan ahead of time what their goals for the next year would be. Having that advance planning helped some of the participants to achieve objectives for their classes.

Finally, one other consideration that a few of the participants found very helpful that set them up for success was having a “Grab & Go” backpack. Before the school year even starts, packing up a bag with items that help to facilitate outdoor learning, that way, when the opportunity, weather, or mood strikes, there is no need to fumble around trying to find all the things that might be needed. Items that a teacher may want to pack include tissue, Band-Aids, bug spray, sunscreen, bug catchers, magnifying glass, nature guides, compass, whistle, extra clothes (mittens, ball cap), etc. When teachers start the year prepared, with a plan in place and a goal in mind, they are more likely to find success.

5.10 Authentic Land-based Learning

After the project ended prematurely, I realized I had not provided the necessary components to achieve authentic land-based professional development. This reality came about due to several different factors. When searching for appropriate articles for my literature review, I struggled to find articles that covered both land based learning and professional development and so I supplemented with articles that considered place-based learning, community-based learning, environmental education, outdoor education, or social justice education, and professional development. Using these articles as placeholders for more specific information on supporting teachers in land-based learning, I discerned what I believed to be the important points to consider. While the information gleaned from the literature review did provide valuable insights in how to provide effective professional development in outdoor learning and critical education in general, it did not elucidate the key points that sets land-based learning apart from other pedagogies and methodologies. As such, I missed out on crucial variables that should be considered when

attempting to facilitate land-based learning professional development. While I had read several articles on land-based learning, the research presented was often written in a narrative style or highlighted the benefits of land-based learning by showcasing work already being done in this field. I was unable to find any articles that were more proscriptive, offering advice or guidance on the methods to best support teachers in land-based education.

Given what I understood about land-based learning before hand, I knew that the inclusion of indigeneity would be important given the Indigenous roots of the pedagogy and so I planned to offer opportunities to my participants for learning more about Indigenous ways of knowing. Acknowledging my own limitations due to my positionality, I intended to reach out to Indigenous elders and knowledge keepers who could help support the learning and growth of the group in this regard. Thankfully, the group did express a desire to know more about Indigenous ways of knowing and attend different educational opportunities on this theme. I arranged for a few experiences in the spring but due to COVID-19, they had to be cancelled and so the project lacked the crucial Indigenous content and perspective needed for true land-based learning. What is more, I questioned my ability to lead such a project as a settler and should have at the very least consulted with an Indigenous, land-based, knowledge keeper for advice, but more authentically, I should have found an Indigenous, land-based, educator who could have supported the research throughout. That way, Indigenous worldview and ontology would have permeated the whole project, rather than being limited to a few isolated experiences.

Additionally, I should have made the critical component of land-based learning more explicit and better explained to the group that part of the motivation for this project was to move away from colonial methods of teaching. Despite my desire to follow the lead of the participants, I should have made space for the group to consider the colonial legacy on the land in Saskatchewan and critically reflect on their own positionality. As Brown suggests, its important for teachers to consider their embedded mindsets, worldviews and values and how these influence their teaching practice (2005). Hill also believed that it was important for teachers to wrestle with their own philosophies and to think critically, which impacts their pedagogy (2012). I feel as though I could have done more to support my participants in this area, to ensure that I was staying true to the pedagogy and helping them to think critically. I strayed from the foundational components of land-based learning and as such, acknowledged the shortcomings of my project in this area. In the end, I was unable to support my participants in true land-based

learning but instead provided professional development for outdoor learning more generally. I discuss the implications of this further in the limitations of research section in chapter 6.

Chapter 6: Moving Forward with Outdoor Learning

6.1 Implications of Research

Going forward, given what I learned from this research project, if I were to develop a program of support for teachers interested in outdoor learning it would include a combination of the elements discussed in chapter five. Building on these considerations, moving into land-based learning, professional development would need to acknowledge the Indigenous epistemologies of the paradigm and have indigeneity embedded within the content and delivery of the training. Ideally, one or both of the facilitators would be Indigenous, or a non-Indigenous settler would have to acknowledge the limitations of what they know and reach out to elders or knowledge keepers who could help support the program. The work provided by Indigenous folk needs to be acknowledged and remunerated appropriately; as well facilitators should approach the collaboration with reciprocity in mind. As part of the programming, participants should be encouraged to consider their own positionality and guided through critical self-reflection exercises. Background information should be delivered that provides an overview of colonialism in Saskatchewan, the connection to outdoor education, and how educators need to be constantly considering the role that they play out in the community. Participants should be conscientious of how they enter spaces, what role they play while present and how the space is left after they are gone.

I think it is important to incorporate a multi-dimensional approach, to improve content knowledge, foster a sense of solidarity, develop action competency and encourage a strong sense of why this learning is important. Additionally, experiential learning should be a major component of the programming, with experiences provided for educators that showcase possible outdoor learning locations and allow for them to learn from experts in the field. Mentorship would be of real benefit if possible, as well as opportunities to see outdoor learning in action. Also, time must be found to try out different outdoor learning activities so that teachers have some familiarity like orienteering with a compass, pond dipping, solo time, using field guides or identification apps, and team building activities.

Moreover, the programming should be flexible to the interest and needs of the participants, incorporating their concerns and limitations and working with them from where they are at in their learning journey. Given this consideration, an effective professional development program would likely be small or able to break off into smaller groups so that dialogue and

training could be geared towards the needs of the group. Collaboration amongst participants should be encouraged and discussion time should be built into the program.

Considerations should be given to materials (tools), resources (informational documents), and professional development (learning from people). Its unlikely that tools and books could be provided for all participants but examples could be brought, their learning potential highlighted and purchasing information could be outlined. Any free resources or opportunities available could be shared, with details provided for how to access. Upcoming professional development opportunities being offered by like- minded organizations in the community should be communicated in advance with clear explanations of how to participate. Moreover, it would be of value to have time built into the programming to give participants a chance to look through resources and plan lessons, units and excursions for their classes.

As much as possible, free outdoor learning locations, opportunities, and supports should be highlighted. Learning through nearby nature should be encouraged and participants should be coached to consider the spaces within their school community that offer valuable learning affordances. Teachers should be taught to think creatively for ways to stretch a classroom budget and provide more opportunities for students. Outdoor learning is not defined by field trips on a bus to a far off location; opportunities exist in the schoolyard, community grocery store, local community garden, etc. Lots of barriers go away when the location is close: no need for bus money, lower needs for supervision (if close and let administration know), no hassle or worries about booking a bus, easier to fit into schedule (go outside for an hour), and so on. It is also important for students to better understand their own home communities. Another consideration would be to help teachers develop an outdoor learning space at their school. Alternatively, when considering destinations further from the school, the participants spoke highly of the free city transit program for students and an overview of how to access this support would be beneficial.

Another important aspect to consider is coaching teachers on how to set up for success, which would include variables such as: making a plan early in the year, communicating goals, excursions, safety plans and support needed with families and administration, engaging students with a team building exercise or excursion, organizing and collecting outdoor learning materials, prepping a “Grab & Go” backpack, gathering extra winter clothes and water bottles, setting clear expectations and scaffolding student behaviour and skills, blocked scheduling, planning proactive

differentiation for students with unique needs, thinking outside first when planning, and promoting the benefits of outdoor learning with everyone!

In general, it is important that the program have continuity, so that participants have the chance to try new things and then get feedback from the group when they encounter barriers. Also, so that participants stay motivated and committed to their learning and growth. Ideally, an extended workshop could be provided early in the year to front load the programming and then provide shorter follow up gatherings regularly throughout the rest of the year. Given the workload and busy schedule of teachers, preferably outdoor learning opportunities could be held during the school day and supported by school divisions and administrations. Otherwise, the follow up meetings should be kept brief and held shortly after school dismisses, to address the scheduling difficulties that often occur when professional development is held outside of the school schedule. Personally, I think PD is more appealing when food and drink are available, and so meeting at a restaurant is desirable.

6.2 Limitations of Research

There was not much constructive criticism given throughout the project and I think that is partially due to people's hesitation to be critical/negative with colleagues and friends. I thought that there might have been materials, resources, or professional development opportunities that would have stood out for the participants as ineffective or not that helpful, but there was very little criticism given or specific items identified negatively. I also wondered if an individual would be able to tell how useful something had been in their own personal practice. For example, a participant might have expressed that their students really enjoyed using the pocket microscopes but they only had the opportunity to use them one time throughout the school year. So yes, perhaps pocket microscopes are a great resource for the school division or a school at large to have but not something that every class needs to have. Due to the fact that we met in large groups and I had participants fill out their own personal reflective sheets, there was not really an opportunity to follow up with participants on specific comments they made to distinguish the actual effectiveness of supports in their practice. A related limitation, was that during group discussions some were more willing to share or had more to say than others which could lead to a false sense of prevalence of certain barriers and solutions.

Additionally, given the breadth of supports that the participants outlined and the issues I had scheduling with the group, I was not able to provide everything that they outlined. I was

working with limited time available (teaching full time at the same time as doing this research) and a limited budget so I had to prioritize some supports over others. It might have been of benefit to have the participants rate which items they thought would be the most helpful but I only asked them to write down anything that they thought would help. In the end, the project was cut short, so I had even less opportunity to finish developing and distributing some of the resources, and did not get the chance to fulfill other professional development opportunities.

An unfortunate limitation of my research was my inability to include Indigenous knowledge in a meaningful way, due to my own positionality and COVID-19 interrupting our project. Upon reflection, I questioned the appropriateness of me trying to lead a land-based learning research project; despite my best efforts at acknowledging the limits of my positionality, the learning would have been more authentic had there been an Indigenous co-facilitator with a strong understanding of land-based education. The group had expressed an interest in learning more about Indigenous knowledge and I reached out to Indigenous leaders and teachers to help support our growth and understanding. There had been several opportunities planned, including a sweat ceremony, working with an Indigenous land-based learning consultant, and participating in a treaty culture camp, but they all had to be cancelled due to the pandemic. I am hopeful to arrange for these opportunities in the future but they will be outside the scope of this project. Additionally, I failed to include critical self-reflection as a component of the action research study, as I was focused on following the voices of my participants. Unsurprisingly, the participants did not request to think critically about their own positionality and privilege, which also diminished the strength of my project as a land-based project. In the end, I decided my project did not specifically promote land-based learning, although this had been the goal; instead it helped to support the participants to increase the quantity and quality of outdoor learning in their practice.

6.3 Possible Areas for Future Study

While I would have liked to work with teachers from kindergarten to grade 12, it was not feasible for me to achieve success with that broad of a spectrum and with the number of interested teachers who came forward. However, I think it would be very valuable for a similar research project to be developed that worked exclusively with high school teachers. There were respondents to the survey who indicated that they taught high school and found value in outdoor learning but struggled with the barriers they faced in their teaching assignments. There would

likely be some challenges that would overlap with elementary school teachers but others that would be totally unique. Given the opportunity to collaborate with other like-minded secondary teachers, with the guidance of a facilitator who had experience leading outdoor learning at a high school level, there could be some very interesting and illuminating results.

Another interesting area of study would be to pick specific elements of support and develop a project that would look at the effectiveness of that particular strategy in promoting outdoor learning. For example, an examination of a mentorship or outdoor learning community could demonstrate how well those programs helped to support teachers in facilitating outdoor learning.

This research project worked with educators who already saw the value in outdoor learning and, in chapter one, I identified intrinsic motivation as a key variable of successful professional development. As such, it would be interesting to have someone develop a research project that considered how we instill this sense of motivation and commitment in educators who do not believe that outdoor learning is valuable.

Given the limits of my own positionality as discussed above, I think it would be valuable to have a similar project developed with an authentic land-based focus, with greater inclusion of indigeneity, led by an Indigenous facilitator but continuing to support a variety of educators from settler, newcomer, and Indigenous backgrounds. The reality of education at this point is that most educators are of settler ancestry but there is real value in having all teachers come to a greater understanding of Indigenous knowledge and epistemology. With the goals of reconciliation and decolonization in mind, I feel that it is important to include other ways of knowing and learning into our practice and move away from the industrial, colonial model of sitting quietly at a desk ingesting information. More teachers should be supported and encouraged to teach using experiential, hands on, interactive, community-based education, that is integrated and connected to the land.

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Appendix A: Land-based Learning- Survey

1. Approximately how often do you take your class outside of the school building (to the school yard, nearby park, community spaces within walking distance, field trips within the city, etc.) throughout the year?
2. Do you think that there is value in getting your students outside of the school?
3. What hinders you from taking your students outside of the school more often?
4. What supports would encourage you to take your students outside of the building more often?
5. Would you like to increase the frequency and quality of time you spend outside the classroom with your students? Interested in learning more about land-based learning? If so, consider joining an action research group focused on increasing land-based learning. Contact Nicole Turner at nicole.turner@usask.ca to learn more.

Appendix B: Content of Survey Invitation Email

WANT TO GET YOUR STUDENTS OUTSIDE MORE OFTEN?!

WANT TO INCREASE LAND-BASED LEARNING?!



Help support a fellow GSCS employee (Nicole Turner) conduct research in this area by completing a short, 5 minute survey. Consent is implied through participation. Completed surveys will remain anonymous.

Link to Survey- <https://www.surveymonkey.com/r/GG93QY5>

Brief overview of the research project:

Land-based learning is a transformative tool, which has the capacity to improve the lives of our students, foster reconciliation and increase grassroots development. This research project will consider the current status of land-based learning within GSCS and then subsequently will work with a small group of educators on integrating more land-based practices. Working collaboratively, the group of teachers will consider solutions and supports that would best address the barriers and challenges that inhibit land-based learning in their unique teaching situations. Once a course of action has been decided upon, each educator will be supported in implementing the steps necessary to achieving the goal of increased land-based education.

Appendix C: Survey Consent Form



✦ College of Education
Department of Educational Foundations
28 Campus Drive Saskatoon SK S7N 0X1 Canada
Ph: 306-966-7514 Fx: 306-966-7549
Email: efdt.office@usask.ca

Participant Consent Form

You are invited to participate in a research study entitled: “Breaking out of the ‘Textbox’- Increasing Land-Based Learning”

Researcher(s): Nicole Turner, Graduate student, Department of Educational Foundations, University of Saskatchewan, (306)966-7582, Nicole.turner@usask.ca

Supervisor: Janet McVittie, Department of Educational Foundations, (306)966-7582, janet.mcvittie@usask.ca

Purpose(s) and Objective(s) of the Research:

This research project will consider how often elementary teachers are presently taking their students outside the classroom and then subsequently will work with a small group of teachers integrating more land-based practices.

Procedures:

- Participants will be asked to complete a short survey, using Survey Monkey, about land-based learning. Please see Survey Monkey privacy policy- https://www.surveymonkey.com/mp/legal/privacy-policy/?ut_source=footer

Potential Benefits:

Land-based learning is a transformative tool, which has the capacity to improve the lives of our students, foster reconciliation, and increase grassroots development. It is empowering and engaging for both students and educators alike.

Anonymity and Confidentiality:

- The data from this research project may be published and presented at conferences; however, your identity and data will be kept anonymous.
- Collected data will be used in a thesis paper as a requirement to complete a Masters of Education and may be published and presented through Stirling McDowell if grant is obtained.

Storage of Data:

- All data collected will be kept in the secure U of S Cabinet.
- The research project results and associated material will be safeguarded and securely stored by Janet McVittie at the University for a minimum of five years post publication. When the data are no longer required, they will then be appropriately destroyed.

Right to Withdraw:

- Your participation is voluntary and you can answer only those questions that you are comfortable with. You may withdraw from the research project for any reason, at any time without

explanation or penalty of any sort. Should you wish to withdraw, your data will not be removed from the study due to its anonymous nature.

Follow up:

- If interested in learning about the research findings, the lead researcher may be contacted for a summary.
- The data collected will be included as part of a Masters' thesis and available for public viewing once completed on the University of Saskatchewan website.

Consent:

- Please retain a copy of this consent form for your records.
- By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study.

Questions or Concerns:

- Contact the researcher(s) using the information at the top of page 1;
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Appendix D: Action Research Consent Form



College of Education
Department of Educational Foundations
28 Campus Drive Saskatoon SK S7N 0X1 Canada
Ph: 306-966-7514 Fx: 306-966-7549
Email: efdt.office@usask.ca

Participant Consent Form

You are invited to participate in a research study entitled: “Breaking out of the ‘Textbox’- Increasing Land-Based Learning”

Researcher(s): Nicole Turner, Graduate student, Department of Educational Foundations, University of Saskatchewan, (306)966-7582, Nicole.turner@usask.ca

Supervisor: Janet McVittie, Department of Educational Foundations, (306)966-7582, janet.mcvittie@usask.ca

Purpose(s) and Objective(s) of the Research:

This research project will consider how often elementary teachers are presently taking their students outside the classroom and then subsequently will work with a small group of teachers integrating more land-based practices. Working collaboratively, the group of teachers will consider solutions and supports that would best address the barriers and challenges that inhibit land-based learning in their unique teaching situations. Once a course of action has been decided upon, each teacher will be supported in implementing the steps necessary to achieving the goal of increased land-based education. The objective is to increase the number of times and the meaningfulness of the learning when teachers take their students outside the school building.

Procedures:

- Participants will be classroom based teachers.
- Participants will be asked to complete a short survey, using the online program Survey Monkey, about land-based learning. Please see privacy policy of Survey Monkey- https://www.surveymonkey.com/mp/legal/privacy-policy/?ut_source=footer
- Participants will first meet as a small action research group on two different occasions to discuss the merits, barriers and supports for land-based learning. Midway through the school year they will meet again to discuss their progress and/or challenges. Finally, the participants will meet one last time at the end of the school year to discuss the results of the project.
- The researcher, Nicole Turner, will assist the participants by organizing and/or gathering agreed upon resources or supports.
- Participants will be encouraged to facilitate more land-based learning with their classes.
- Meetings will take place in an agreed upon location, likely a restaurant or coffee shop and will be approximately 2 hours. Meetings will be audio recorded, and notes may be taken by the researcher. Audio recordings will be transcribed and returned to participants for review.
- Participants will be encouraged to ask any questions regarding the procedures and goals of the study or their role.

Funded by: Received a Stirling McDowell Grant through the Saskatoon Teachers' Federation.

Potential Benefits:

Land-based learning is a transformative tool, which has the capacity to improve the lives of our students, foster reconciliation, and increase grassroots development. It is empowering and engaging for both students and educators alike. I believe that there is great value in increasing land-based learning in our educational system and this research project will provide insight into how best we can support the typical classroom teacher into transforming their practice.

Anonymity and Confidentiality:

- The data from this research project may be published and presented at conferences; however, your identity and data will be kept anonymous. Although we will report direct quotations from the interview, you will be given a pseudonym, and all identifying information, such as your teaching placement, will be removed from our report.
- The Consent Forms will be stored separately from the data collected, so that it will not be possible to associate a name with any given set of responses.
- The researcher will undertake to safeguard the confidentiality of the discussions had within the action research group, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the group by not disclosing the contents of this discussion outside the group, and be aware that others may not respect your confidentiality.
- After our group meetings, and prior to the data being analysed, you will be given the opportunity to review the transcript of your interview, and to add, alter, or delete information from the transcripts as you see fit within one month of receiving the document.
- An audio recording device will be used to record the group meetings. You may request that the recording device be turned off any time without giving any reason.
- The recorded data will be transcribed by the Social Sciences Research Laboratory at the University of Saskatchewan. They will be requested to sign a confidentiality agreement.
- Collected data will be used in a thesis paper as a requirement to complete a Masters of Education and may be published and presented through Stirling McDowell if grant is obtained.

Storage of Data:

- All data collected- digital surveys, email conversations, journal notes, and transcriptions will be kept in the secure U of S Cabinet.
- The research project results and associated material will be safeguarded and securely stored by Janet McVittie at the University for a minimum of five years post publication. When the data are no longer required, they will then be appropriately destroyed.

Right to Withdraw:

- Your participation is voluntary and you can answer only those questions that you are comfortable with.
- You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.

- Should you wish to withdraw, your data from the online survey cannot be deleted due to its anonymous nature and data from group interviews cannot be withdrawn because what one person says affects what others say.
- Your right to withdraw data from the study will apply until the analysis of data has started.

Follow up:

- A summary of the results will be emailed to all participants.

Questions or Concerns:

- Contact the researcher(s) using the information at the top of page 1;
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Continued or On-going Consent:

- In this situation, consent is implied for all of the action research group meetings.

SIGNED CONSENT

Your signature below indicates that you have read and understand the description provided; I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.

<i>Name of Participant</i>	<i>Signature</i>	<i>Date</i>
<i>Researcher's Signature</i>	<i>Date</i>	

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix E: Timeline

- May 11, 2019- Sent out survey by email to all teachers in GSCS. Purposive recruitment of potential participants.
- June 11, 2019- First meeting with action research group. Discussed the benefits of land-based learning, barriers and possible solutions.
- June 26, 2019- Second meeting with action research group. Focused on possible solutions, resources and supports to improve frequency of land-based learning. Had participants complete “Wish Lists”- personalized requests for resources and supports.
- July 2019 - January 2020- Gathered and delivered specific tools, materials and resources.
- July - March, 2019- Offered and provided different opportunities for professional development.
- January 29, 2020- Final group meeting. Participants reviewed experience thus far. Had participants complete “Midterm Review”- providing some written feedback (This ended up being our final meeting due to COVID-19 but was initially planned to only be a midterm review).
- March 26, 2020- Participants sent final summative questionnaire by email for evaluative purposes to conclude research project.
- May 2019 - May 2020- Regular communication with participants.

Appendix F: Interview Questions

- How often do you presently take your students outside of the school building in a school year?
- Do you think there is value in getting your students outside of the school building?
- What do you believe are the benefits in getting your students outside of the school building?
- What are the biggest challenges or barriers to getting your students outside of the school building?
- What are some of the supports and resources that have encouraged or assisted you in getting your kids outside?
- What supports or resources do you think would be helpful and would encourage you in getting your kids outside?

Appendix G: Wish List

WISH LIST (supports/resources)

Books/Materials

1. _____

2. _____

3. _____

4. _____

Appendix H: Possible Supports Compilation

Possible Supports/Resources

- Role Modelling- Watching others leading fieldtrips- be onsite with them and/or pair up with another class - In class/in field support from experienced land-based educator- Example- Spend a day with Ecojustice (grade 8 outdoor ed program) or with Kindercare (outdoor playschool)- sub coverage available
- PD- Education for myself- ecology, biology, ethnobotany, etc. Sub coverage available
- Location list- List of possible field trip spots & possible things to do/learn- Map/ Geographical groupings of good sites to maximize time away on field trip
- Self guiding info- site specific-things to look for
- Need for nature proof- Ready made “evidence” to back up land-based education- Quick facts for sharing with admin/families
- Grant writing support (Who, when, how)- List of grants and groups for funding, mentorship
- Like-Minded meeting- PD/social gathering for land based educators to share & build community
- Digital resources- Good sites & apps list that support outdoor learning
- Funding: interpreters, bussing, etc.
- Site tours- guided tours of Saskatoon locales for families with knowledgeable interpreter (Ex. Kenton Lysak, Delvin, Chris Clark (Let’s Lead), Nicole etc.)
- Site visits- Check out other outdoor learning classrooms/spaces in and around Saskatoon
- Interpreter support- having an interpreter come work with class
- Info at a glance- general “cheat” sheet for local nature talking points in Saskatoon (Plants/birds/history/nature)- can be used at North East Swale and Grasslands
- Mentorship- Collaborative curricular planning with experienced land-based educator (Nicole).
- Outdoor space- Ideas for setting up outdoor space, multi-year plan, site specific design with considerations for division requirements/restrictions
- Calendar- year at a glance with dates of special events with an outdoor element
- SaskOutdoors PD opportunities: Project Wet (wetlands), Project Wild (nature), Below Zero (winter), Flying Wild (birds) and Growing up wild (nature early years)
- Transit support- walk through of free bus booking system
- Indigenous Ways of Knowing opportunity- Attend a sweat ceremony, powwow, treaty culture camp
- Contact City of Saskatoon for Sustainable Futures- backpack project or other supportive resources?
- Video resource of spaces
- What to pack list?
- Land based connections to social studies content

Books/Materials

- Hand-held microscopes
- Binoculars
- Land-based/outdoor learning books
- Set of bike vests
- Class set of clipboards
- Grab & Go outdoor bag- complete with materials to use & learn outside
- Loose parts for outdoor learning (large logs, rocks, stumps, etc.)
- Bug habitats or terrariums
- Resource bins or outdoor storage bin with materials for outdoor learning (chalk, binoculars, magnifying glasses, gardening tools, sand toys, wood cookies, snow shovels, etc.)
- Membership with Sask Outdoors
- Set of field guides
- “Anchor’s Away”- Team building activities

Appendix I: Participant Requests

SUPPORTS	Amber- Grade 7	Candace- K & Gr 2/3	Chris- Grade 7	Lauren- Grade 8	Mackenzie- K	Shannon- Preschool	Sarah- Grade 3
Funding			X				X- Expert- Kenton Lysak
RESOURCES							
Calendar			U	X		X	
Cheat Sheet	X		U	X	X	X	X
Digital Resources	X		U		X		
Land-based/Outdoor Learning Books	U- Anchor's Away		U- Anchor's Away	U- Anchor's Away	X- 50 Fantastic ideas for math outdoors	X- 50 Fantastic Ideas for Math Outdoors, Dirty Teaching	U- Anchor's Away
Location List	X		U	X	X		
Nature Field Guides	U- Edible & Medicinal Plants, Birds, Rocks & Minerals, Pocket Guide- Animals Tracks	U- Bug guide, Edible & Medicinal Plants, Pocket Guide- Trees of Western Canada	U-Edible & Medicinal Plants, Birds, Rocks & Minerals, Pocket guide- Animal Tracks, Pocket Guide-Night Skies	U- Edible & Medicinal Plants	U- Edible & Medicinal Plants, Sask & Manitoba Nature Guide, Pocket Guide- Animal Tracks	U- Insects & Birds	U- Insects & Birds
Need for Nature Proof	X	X	U		X	X	
Outdoor Space Guidance		X			X		
Self Guiding Info- Site Specific	X		U				
Video Field Site Resources	U						
PROFESSIONAL DEVELOPMENT							
Curricular Planning Mentorship			X				
Grant Writing Support	X		U	X	X	X	
Indigenous Ways of Knowing			U- Treaty Culture Camp	X			
Interpreter support class			X- Expert- Kenton Lysak NES & Grasslands				X- Expert- Kenton Lysak NES Funds
Like-Minded Meeting	X		U	X		X	
PD- Natural History	X		X	X			
PD- Sask Outdoors			X		X	X	
Role Modeling	X- Pair up classes & watch others leading field trip		X- Day with Ecojustice	U- Day with Ecojustice			
Teacher Site Tours	X	X	U			X	
Site Visits with Class			U				
Social studies connections	U						
Transit Support							X
MATERIALS							
Bike Vests			X	X			
Binoculars	X-6	U	X- Class set		U	U	U
Bubble toys							
Bug habitats/terrariums		U			X	U	U- small ones
Chalk							
Class set of Clipboards			X			U (not class set)	X-30
Compasses				X			
Gardening Gloves					U		
Gardening Tools					U		
Grab & Go Bag Items			U			X	
Hand held magnifying glasses		U		X		U	U
Hand held Microscopes	X-6		X				
Large Loose Parts					X logs, rocks, etc.		
Measuring tools (tape, meter sticks, rulers)					U	U	
Resource Bins/Outdoor Storage Box				X			
Sand toys							
Snow shovels					U		

Appendix J: Midterm Review Sheet

WISH LIST

Participant- EXAMPLE

Possible Supports/Resources

- Double-sided fact sheet with photos (plants/flowers/birds/animals)- laminated for the North East Swale
- Have Meewasin interpreter Kenton Lysak- join my class at Northeast Swale (since I've heard such great things about him) *need funds to hire him for program
- Someone to walk me through route/booking for free city transit

Books/Materials

1. Cost of interpreter from Meewasin
2. Set of 30 clipboards

Updated: binoculars, bug catchers, field guides, Anchor's Away, magnifying glasses

Supports/Resources Received/Participated to Date:

Saskatoon Natural Grasslands- Tuesday, July 23 9:00-10:30

Shared Grasslands Resources through Onedrive- July 22, 2019 (Flash drive now)

Shared Outside lesson resources through Onedrive- July 23, 2019 (Flash drive now)

Shared "Field Trip Teacher Backpack" via email (Flash drive now)

Chris Clark Meeting- Prairie Habitat Garden- Tuesday, August 20- 9:00-11:00

Kenton Lysak- North East Swale- Thursday, August 22- 9:00-12:00

Shared Nature Importance Facts- Infographics & Articles- August 28th (Flash drive now)

WOW PD weekend-Sept 27-29

NES field trip with class- Oct 16, 2019

Shared Grant Excel spread sheet (Flash drive now)

Sask Outdoor Membership

Early learning resource- Exploring Nature with Children

Materials: Book- Anchor's Away, Field Guide- Edible & Medicinal Plants, Field Guide- Birds, Field Guide- Rocks & Minerals, Pocket Guide- Animal Tracks, Binoculars (x6), Clipboards (x30), Bug catchers (small), Magnifying glasses

MIDTERM REVIEW:

Highlights/Successes with Land-Based Learning:

Challenges/Frustrations limiting Land-Based Learning:

Supports/Resources that have been Beneficial/Helpful:

Supports/Resources that could be Improved/Omitted:

Other Supports/Resources that could be Beneficial/Helpful:

Appendix K: Midterm Review Updated Requests

SUPPORTS	Amber- Grade 7	Candace- K & Gr 2/3	Chris- Grade 7	Lauren- Grade 8	Mackenzie- K	Shannon- Preschool	Sarah- Grade 3
Resources							
Bird Silhouette Pamphlet	x						
Cheat Sheets	x						x
EAL Considerations				x			
Good Guiding Questions					x		
Professional Development							
Below Zero Class	x						
Bike trip to NES with Eco							x
Day with Ecojustice	x						
Grant Writing						x	
Grasslands w Nicole or Eco					x		
Indigenous Ways of Knowing						x	
Sweat Ceremony				x			
Time					x		
Tour of Chappell Marsh	x						
Tour of Grasslands	x				x		
Treaty Cultural Camp	x	x					
Treaty Learning				x			
MATERIALS							
Bike Vests			x				
Clipboards				x			
Eye Droppers					x		
Pocket Microscopes							x
Tree ID Pamphlet	x						
Tweezers					x		
Wagon					x		

Appendix L: Final Summative Reflection

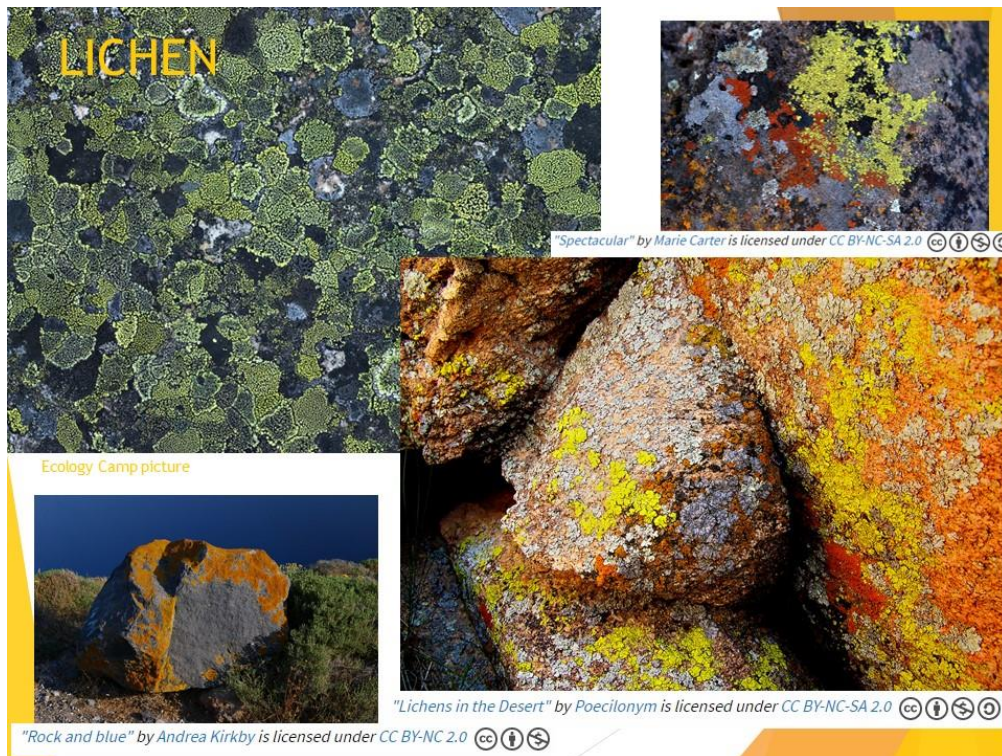
- 1. How many times were you able to get outside the school with your students this year and what were some of your land based learning highlights & successes?**
- 2. Were you able to increase the quantity and quality of land based learning with your class compared to previous years?**
- 3. In what way did the action research project best support you in integrating more land based learning into your practice?**
- 4. What was the most helpful element (resource/support) for increasing land based pedagogy in your practice?**
- 5. What was the biggest limitation to land based learning with your students?**
- 6. Were there any supports or resources that did not prove to be as helpful as you had hoped?**
- 7. Were there any other supports or resources that you think would be helpful?**
- 8. What do you think would be the most helpful support or resource for teachers to increase the frequency of land based learning in their classrooms?**
- 9. Do you have any other thoughts or closing remarks regarding land based learning?**

Appendix M: Supports Participants Received

SUPPORTS	Amber- Grade 7	Candace- K & Gr 2/3	Chris- Grade 7	Lauren- Grade 8	Mackenzie- K	Shannon- Preschool	Sarah- Grade 3
Funding			X				X- Expert- Kenton Lysak
RESOURCES							
Calendar			U	X		X	
Cheat Sheet	X		U	X	X	X	X
Digital Resources	X		U		X		
Land-based/Outdoor Learning Books	U- Anchor's Away		U- Anchor's Away	U- Anchor's Away	X- 50 Fantastic ideas for math outdoors	X- 50 Fantastic Ideas for Math Outdoors, Dirty Teaching	U- Anchor's Away
Location List	X		U	X	X		
Nature Field Guides	U- Edible & Medicinal Plants, Birds, Rocks & Minerals, Pocket Guide- Animals Tracks	U- Bug guide, Edible & Medicinal Plants, Pocket Guide- Trees of Western Canada	U-Edible & Medicinal Plants, Birds, Rocks & Minerals, Pocket guide- Animal Tracks, Pocket Guide-Night Skies	U- Edible & Medicinal Plants	U- Edible & Medicinal Plants, Sask & Man	U- Insects & Birds	U- Insects & Birds
Need for Nature Proof	X	X	U		X	X	
Outdoor Space Guidance		X- Binder			X- Digital Resources		
Self Guiding Info- Site Specific	X- NES PP		U- Grasslands presentation				
Video Field Site Resources	U						
PROFESSIONAL DEVELOPMENT							
Curricular Planning Mentorship			X- Grade 7 Ecosystem Unit				
Grant Writing Support	X		U	X	X	X	
Indigenous Ways of Knowing			U- Treaty Culture Camp	X			
Interpreter support class			X- Expert- Kenton Lysak NES & Grasslands				X- Expert- Kenton Lysak NES Funds
Like-Minded Meeting	X- Nachos & Nature, WOW Weekend		U	X		X- Nachos & Nature	
PD- Natural History	X- WOW Weekend		X	X			
PD- Sask Outdoors			X		X	X- Below Zero/Project Wild	
Role Modeling	X- Pair up classes & watch others leading field trip		X- Day with Ecojustice	U- Day with Ecojustice			
Teacher Site Tours	X- NES, Prairie Habitat Garden, North End River	X- Heritage Park, Grasslands, NES	U- Grasslands, NES			X- Grasslands	
Site Visits with Class			U				
Social studies connections	U						
Transit Support							X
MATERIALS							
Bike Vests			X	X			
Binoculars	X-6	U-6	Wanted class set- Got 6		U-6	U-6	U-6
Bubble toys							
Bug habitats/terrariums		U-8			X-8	U-8	U- small ones- 10
Chalk							
Class set of Clipboards			X-30			U (not class set)- 6	X-30
Compasses				X-20			
Gardening Gloves					U-8		
Gardening Tools					U- 2 sets		
Grab & Go Bag Items			U- 2 Magnifying glasses, first aid kit, portable tissue, bug spray, sunscreen, whistle, hand sanitizer, natural artifacts				
Hand held magnifying glasses		U-6		X-30		X- First aid kit, compass, multi-tool	U-6
Hand held Microscopes	X-6		X-6				
Large Loose Parts					X logs, rocks, etc.		
Measuring tools (tape, meter sticks, rulers)					U-Measuring Tape- 5	U-Measuring Tape- 5	
Resource Bins/Outdoor Storage Box				X			
Sand toys							
Snow shovels					U-6		

*Blue highlights indicate items that were received. ** Yellow highlights indicate that those items were still in progress or planned for the future when COVID-19 hit. ***Red highlights indicate that opportunity was provided but that participant was unable to attend.

Appendix N: Cheat Sheet Example



LICHEN

- ▶ Found in a variety of colours: orange, green, black, yellow, pink, grey, etc. **Looks like modern art!**
- ▶ Combination of two organisms: **Algae and Fungi** working together. The fungi provides structure, and the algae provides food. Lichen is both a decomposer & a producer! Combined, lichen produces an acid, which is able to **break down rocks** (over a long period of time)!
- ▶ Lichens have been used by humans as **food** and as sources of **medicine** and **dye**. They also provide two-thirds of the food supply for the **caribou** that roam the far northern ranges.
- ▶ **Not moss!** Although they grow in similar habitats, they are not similar in anyway to mosses or other members of the plant kingdom. They do not have any roots, stems or leaves and their chloroplasts are contained only in the algae on the top surface of the lichen.

<https://www.britannica.com/science/lichen>

<https://www.fs.fed.us/wildflowers/beauty/lichens/biology.shtml>

Appendix O: Opportunities and Attendance

	Amber- Grade 7	Candace- K & Gr 2/3	Chris- Grade 7	Lauren- Grade 7/8	Mackenzie- K	Shannon- Preschool	Sarah- Grade 3/4
Saskatoon Natural Grasslands- Tuesday, July 23, 9:00-10:30		X	X			X	X
Jeff Baker- Indigenous Science Research- July 30-Aug 2							
Chappell Marsh- Friday, July 26, 9:00-10:30 Postponed.							
Chappell Marsh- Wednesday, August 7, 9:00-11:00 Postponed.						X	X
Heritage Park- Tuesday, August 6, 9:00-2:00		X					
River walk- North End, 9:00-12:00	X						
Chris Clark Meeting- Prairie Habitat Garden- Tuesday, August 20, 9:00- 11:00	X						X
Kenton Lysak- North East Swale- Thursday, August 22, 9:00-12:00	X	X	X		X		X
Unit Planning- Chris- Sept 10, 2019			X				
Grant Workshop- Broadway Roastery- 8:00-10:00	X						
WOW PD weekend-Sept 27-29	X	X			X		X
NES field trip with Sarah's class- Oct 16, 2019							X
Grasslands Field Trip- Class presentation- Chris' class- October 29, 2019			X				
Growing up Wild- Oct 25							
Invitation to attend Showcase of Learning- Oct 22, 2019							
Offered Day in the Life of Ecojustice- Open Ended							
Nachos & Nature- Sask Outdoors- Saturday, Dec 14th	X					X	
Winterful PD- Saturday, February 29th, 1:00-3:30							
Project Wild/Below Zero- Saturday, March 7th, 9:30-4:00						X	