An Exploration of Indigenous Peoples' Perspectives of Physical Literacy

By

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Abstract

Physical literacy is a key focus within physical education and sport policy and practice in Canada. Although physical literacy has been suggested to benefit the general population, the experiences of Indigenous peoples are noticeably absent in the physical literacy literature. To facilitate meaningful and inclusive sport policies and programs in Canada, it is necessary to develop a physical literacy evidence-base that is grounded in the voices of Indigenous peoples. The purpose of this research was to explore Indigenous peoples' perspectives of physical literacy. Two research questions were used to guide the research process: a) how do Indigenous coaches, educators, and youth mentors understand physical literacy?, and (b) what is the role of Indigenous coaches, educators, and youth mentors in facilitating physical literacy among Indigenous youth? Eleven Indigenous educators, coaches, and youth mentors served as collaborators in this community-based participatory research. One-on-one and sharing circle interviews were used to generate data. Collaborators' understandings of physical literacy, and their role in facilitating physical literacy among Indigenous youth, are represented by six themes: (a) wisdom sharing (b) being mindful in teachings, (c) youth-centered approaches, (d) active for life, (e) culture and spirituality as part of being active for life, and (f) relational support. Findings from this research contributes to a more in-depth understanding of physical literacy in the research literature, and how the concept is understood in practice. Importantly, findings from this research highlight practical suggestions for facilitating physical literacy amongst Indigenous youth that may support future physical education and sport initiatives that are inclusive of, and meaningful to, Indigenous youth.

Preface

This thesis is an original work by Autumn Nesdoly. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, “An Exploration of the Cultural Relevance of Physical Literacy ” Pro00082356, June 5, 2018.

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Prologue

As I reflect on how my journey to this field of research has been shaped, I cannot help but think about all the strong role models I have had in my life thus far. It is the experiences, passion, and challenging questions that they have shared with me that has fueled my interest in research. This, coupled with my own positive experiences participating in sport and physical education, has guided me here.

Research. Perhaps if it was not for my grade one teacher and family friend, Colleen Politano, who helped me to find the joy of reading, I may have stopped appreciating stories long ago. Maybe, it was how my parents always answered my questions with another question that conditioned me to want to know more, to hear more, to read more. It could have even been how Dr. P.J. Naylor introduced me to qualitative research and how my now supervisor, Dr. Tara-Leigh McHugh introduced me to community-based participatory research (CBPR). I can still remember the 'ah-ha!' moment that I had when I initially read about CBPR.

Physical literacy. My interest in physical literacy came easily given the exposure I had to the concept during my undergraduate degree. Arguably, it could have even been how closely I found that my own reasoning behind being active in life approached the definition that I began to understand. Quite honestly, it could have even been my cross-training coach growing up, Dave, that inspired such a strong understanding of the importance of being active for life within me.

Working with Indigenous peoples, as a non-Indigenous researcher. My gut reaction to this question, which is often posed, is always: why not? Understandably, due to the historical context in Canada my intentions as a non-Indigenous researcher working with Indigenous peoples is questioned. However, it is difficult to pinpoint the exact reason, if it is even just one at all, that I began working with Indigenous peoples. What I can say is that I am immensely

grateful to have had the opportunity to be a part of such genuine, honest, and insightful conversations with the collaborators whom I have had the privilege of working with on this project.

Here… I have made it to this point in my journey in research through the variety of experiences that have been shared with me. Such experiences lead me to begin to question the concept of physical literacy and how it is understood, particularly how it is understood by Indigenous peoples. My interests have been informed by conversations that I have had with Tara, and my colleague Michael, about how physical literacy was expressed by Indigenous peoples that they worked with in the north. It is the further discussions that I had with the collaborators on this project that have led to the purpose behind this research: to explore Indigenous peoples' perspectives of physical literacy. Specifically, this research has been guided by two overarching research questions a) how do Indigenous coaches, educators, and youth mentors understand physical literacy?, and b) what is the role of Indigenous coaches, educators, and youth mentors in facilitating physical literacy among Indigenous youth?

CHAPTER 1: REVIEW OF THE LITERATURE

Introduction

Over recent years the concept of physical literacy has gained popularity within physical education, as well as in the research literature (Edwards, Bryant, Keegan, Morgan & Jones, 2017). Physical literacy is also a key focus within sport policy and practice settings in Canada (e.g., Canadian Sport Policy, 2012). With its gain in popularity, there has been a push towards assessment and utilization of physical literacy in practice, specifically in Canada (Dudley, Cairney, Wainwright, Kriellaars & Mitchell, 2017; Tremblay & Longmuir, 2017). Although physical literacy has been suggested to benefit the general population (Crane, Naylor, Cook & Temple, 2015; Dudley, 2015; Giblin, Collins & Button, 2014), the cultural relevance of physical literacy is not well understood (Lynch & Soukup, 2016; Whitehead, 2013). Researchers (e.g., Whitehead, 2013) have described how physical literacy may be understood and experienced differently depending on cultural contexts, yet there is a dearth of research that has explored this notion. Nevertheless, resources (e.g., *Aboriginal Communities: Active for Life*) have been released by the Sport for Life Society (2017) that claim that "Developing physical literacy is the gateway to a more active and healthy [Indigenous] community" (p. 9). Although this may indeed be the case, the experiences of Indigenous peoples are noticeably absent in the physical literacy literature. It is necessary to develop an evidence-base that is grounded in the voices of Indigenous peoples to ensure that such messages regarding physical literacy are research informed. Such research could facilitate the development of local, provincial, and national sport and educational policies, programs, and initiatives that are inclusive of, and meaningful to, Indigenous peoples.

Physical Literacy Defined

Although many researchers credit Margret Whitehead for the initial conceptualization of the concept of physical literacy, Cairney, Dudley, Kwan, Bulten, and Kriellaars (2019) suggest that the concept of physical literacy can be dated back to the 1800's. Since modern re-conceptualization of physical literacy by Margret Whitehead, the specific definition has been continuously debated in the research literature. Whitehead (2001) conceptualized physical literacy as having the ability to "move with poise, economy, and confidence in a variety of physically challenging situations" (p. 131). She further described how motivation, confidence, and physical competence will contribute to an individual's self-efficacy in their active pursuits (Whitehead, 2013). Thus, individuals will take responsibility for maintaining purposeful participation in physical activity throughout their life course (Whitehead, 2001, 2007, 2013). In her conceptualization, a physically literate person will have the ability to anticipate an appropriate movement reaction in response to a variety of circumstances with their own creative expression (Whitehead, 2001, 2007, 2013). In other words, the actual movement pattern is not defined in terms of a sport specific skill, but instead as a response that exudes poise, economy, and confidence.

Whitehead (2013) further emphasized that physical literacy is a journey that has no defined destination (i.e., an outcome). As such, physical literacy is a dynamic process whereby individuals could face setbacks, which may lead them to adjust their involvement in physical activity in a variety of movement contexts (Whitehead, 2013). Whitehead (2013) argued that every person can be physically literate. However, she describes a person to have a lapse in physical literacy when they lack motivation to participate in physically active pursuits due to hindering factors such as a lack of physical competence, confidence, or value of physical activity (Whitehead, 2007, 2013). In other words, a physically illiterate person will avoid physical

activity participation based on their previous, negative, experiences with the motivational climate in physical activity settings. Overall, Whitehead's (2013) conceptualization of physical literacy relates to an individual's disposition to use the strengths of their own experiences to garner their unique, embodied, capabilities in movement situations and beyond, rather than focusing on physical literacy as a specific set of skills to be achieved by every individual. Whitehead (2013) suggested that physical literacy should not replace, but instead work in concert with, the concept of physical education. Specifically, Whitehead (2013) described how educators can guide, support, and facilitate a positive environment that enables individuals to experience movement to strengthen their physical literacy repertoire through physical education.

Aside from Whitehead's (2001, 2010, 2013) process-orientated conceptualization of physical literacy, other researchers (i.e., Coyne et al., 2019; Larouche, Lloyd, Knight & Tremblay, 2011; Tremblay & Lloyd, 2010) have described physical literacy more as an outcome-orientated concept. Such positioning is supported by skills-based literacy research and practice, which indicates that individuals are either literate or not (Mills, 2005). Within Whitehead's (2001, 2010, 2013) modernization of the concept, a discrete binary (i.e., physically literate or not) is not well supported. However, in some researchers' interpretation of the concept, a binary does exist (Edwards et al., 2017). For instance, Tremblay and Lloyd (2010) describe physical literacy as an explicit outcome of quality physical education that is taught by informed knowledge holders rather than facilitated through interactions with certain environments, as per Whitehead's (2013) suggestion. The required components, as outlined by Tremblay and Lloyd (2010), are focused on the understanding of the characteristics, attributes, behaviours, and knowledge necessary for conscious awareness of what constitutes a healthy, active, lifestyle. As operationalized by Tremblay and Lloyd (2010), physical literacy has four inter-related domains:

physical fitness (e.g., muscular strength, flexibility), motor behaviour (e.g., fundamental movement skills), physical activity behaviour (e.g., participation in daily physical activity), and psycho-socio-cognitive factors (e.g., attitudes, knowledge, feelings). Tremblay and Lloyd (2010) described physical literacy as the ability to read, and react to, various conditions with the corresponding fundamental movement skills. However, fundamental movement skills were not discussed in Whitehead's (2001, 2010, 2013) conceptualizations of the concept.

While various researchers have shared their interpretations of physical literacy, a consensus statement was established in 2015 and there has been general support in the literature for the International Physical literacy Association's (IPLA) definition (see Longmuir & Tremblay, 2016). IPLA (2015) defined physical literacy as the "motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life." Even with the above consensus statement, there are still signs of disproportionate emphasis on the physical domain of physical literacy in policy, practice, and research settings (Edwards et al., 2017). As well, the role that culture may play in physical literacy is still unclear (Whitehead, 2013).

The physical competence component of physical literacy has received particular attention within the research literature. Physical competency is currently understood via the ability to perform fundamental movement skills (FMS; Tremblay & Lloyd, 2010). Such fundamental movement skills are categorized as locomotor, object manipulation, stability, and object-locomotor skills (Dudley et al., 2017; Tremblay & Lloyd, 2010). All together, each category is said to account for all types of movement necessary to be physically active for life (Dudley et al., 2017; Tremblay & Lloyd, 2010). However, instances of creative expression may not be captured within the current understanding of fundamental movement skills (Whitehead, 2013). In

addition, the types of fundamental movement skills assessed and explored in the literature are typically catered to able-bodied individuals, which directly impacts the inclusivity of the apparently holistic concept of physical literacy (Dudley, 2015). Strictly focusing on the physical component of physical literacy may narrow understandings of the concept, and such narrowing may not fully capture the broad understandings of physical literacy that individuals hold (Almond, 2013). Some researchers, such as Cale and Harris (2018), have suggested that merely having physical competency does not lead individuals to be active for life. The disproportionate focus on the physical domain does not support holistic understandings of the concept, nor account for why individuals who are physically competent routinely discontinue participation (e.g., burn out) in sport or physical activity (Cale & Harris, 2018). Although the concept of burn out in physical activity-related research is a very complex topic, it is conceivable that regardless of perceived physical competency there are other factors contributing to an individual's likelihood to continue their participation in activity. Therefore, the other components of the IPLA (2015) definition of physical literacy, specifically motivation, confidence, knowledge, and understanding, require attention in policy, research, and practice as well (Cale & Harris, 2018; Green, Roberts, Sheehan & Keegan, 2018; Edwards et al., 2017).

As previously mentioned, a consideration that may be overlooked within the concept of physical literacy is culture (Whitehead, 2013). It is well established that an individual's cultural background can play an integral role in shaping their understandings of concepts and activities (Krys et al., 2018; Zhang & Lauer, 2015). Difference in cultural norms can be seen when moving between geographically or socially created communities, and often local norms are shaped by greater cultural norms in which individuals are situated (Lewis, 2001). Specifically, when working with Indigenous youth, culture has been repeatedly emphasized as an important

component to their understandings of sport, physical activity, and recreation (Douglas & Halas, 2013; McHugh et al., 2018; Robinson, Barrett & Robinson, 2016). Therefore, it is important to consider the role of culture in Indigenous peoples' understandings of the concept of physical literacy.

Holistic Health Benefits

While the explicit benefits of physical literacy are not well-defined, the holistic benefits of physical literacy can be extrapolated from sport and physical activity-related literature. For example, it is well documented that physical activity is linked to positive physical and mental health outcomes (Buckley, Brough & Westaway, 2018; Chekroud et al., 2018). More specifically, an increase in moderate to vigorous physical activity (MVPA) is associated with reduced instances of all-cause mortality in various groups of individuals (Young & Haskell, 2018). Indeed, physical activity-related research has tended to focus on the physical benefits of being active; however, compelling holistic benefits of physical activity have also been presented in the literature. For example, participating in physical activity through sport has been suggested to provide individuals with the opportunity to build their social capital, communities, and strengthen pre-existing relationships (Edwards, 2015; Nicholson & Hoye, 2008). Such social benefits of sport and physical activity have been suggested to positively influence the mental health of individuals who participate (Crocker, 2015).

Specific to the context of the current study, two recent systematic reviews have outlined various holistic benefits that Indigenous peoples can experience through participation in sport and physical activity. Specifically, Bruner et al. (2016) described how sport and physical activity can, among many other benefits, facilitate leadership skills, self-worth, physical health, and fitness. Similarly, McHugh et al. (2018) described the potential emotional, mental, physical, and

spiritual benefits that Indigenous youth can experience through their participation in sport and recreation. Physical activity, including sport and recreation, may contribute positively to overall wellbeing, and physical literacy may provide a means for participating in a physically active lifestyle (Whitehead, 2013). The holistic health benefits associated with physical activity have understandably fueled research that aims to bridge theoretical understanding of physical literacy and practice (Dudley et al., 2017).

Measurement of Physical Literacy

Within the Canadian context, measurement of physical literacy is sufficiently supported in the literature. There are several researchers, from Canadian institutions, that have discussed the reliability and validity of measurement tools for charting physical literacy of children and youth (e.g., Stearns, Wohlers, McHugh, Kuzik & Spence, 2019; Tremblay & Lloyd, 2010). Although the current study is not focused on the measure of physical literacy, it is important to discuss this area of physical literacy research to provide background information as to how the concept is articulated in Canada. This section also highlights the discrepancy in the representation of each component of the IPLA (2015) definition of physical literacy, whereby the measurement of physical literacy is often tied to the physical competence of children and youth (Edwards et al., 2017). Therefore, a brief overview of each measurement tool is discussed.

Three measures of physical literacy that are commonly used in Canada are Passport for Life (2013), PLAYtools (CS4L, 2014), and Canadian Assessment of Physical Literacy (CAPL) or more recently CAPL-2 (HALO, 2017). Passport for Life was developed by Physical and Health Education Canada; it is described as a formative assessment tool, that "supports the awareness, assessment, development and advancement of physical literacy among students and teachers" (PHE, 2013). Assessment is conducted through online questionnaires answered by

students, and teacher-administered “movement tasks” (PHE, 2013). The tool assesses physical literacy within four key components: active participation, living skills, fitness skills, and movement skills (PHE, 2013). However, the physical domain (i.e., physical competence) is favoured over any other aspect of physical literacy within this assessment tool (Edwards et al., 2017). This may be due in part to the fact that physical measurement is more feasible compared to subjective measures of motivation and confidence (Cale & Harris, 2018).

The Canadian Sport for Life (CS4L) society developed the Physical Literacy Assessment for Youth tools, or simply PLAYtools (CS4L, 2014). PLAYtools is described as an entire suite (i.e., PLAYbasic, PLAYcoach, PLAYfun, PLAYinventory, PLAYparent) of tools that can be used in various sport and physical activity settings to assess physical literacy (CS4L, 2014). Similar to Passport for Life, the suite of PLAYTools (CS4L, 2014) assess the physical aspects of physical literacy and pay explicit attention to the idea of sport-specific fundamental movement skills. The suite of tools are informed by the Long-term Athlete Development (LTAD) model, National Coaching Certification Program (NCCP, 2016), and Sport Canada (CS4L, 2014). CSL4 (2014) developed the LTAD model and are closely affiliated with the NCCP and Sport Canada. This is important to note, as it demonstrates the sport-centered design of the tool itself.

There is limited published physical literacy research that has utilized any of the PLAYtools; however, the PLAYfun and PLAYbasic of the PLAYtools suite were recently compared for variability and reliability with youth (i.e., 90% Indigenous youth) living in Northern Canada (see Stearns et al., 2019). Stearns et al. (2019) found that the motor competence aspect of physical literacy among youth in grades 4-7 living in Northern Canada is most accurately assessed using the complete PLAYfun tool. While there is limited published physical

literacy research that has utilized the PLAYtools, it is promising to see that Indigenous youth were the focus of such research.

The Healthy Active Living and Obesity (HALO) group (2017), created the Canadian Assessment of Physical Literacy (CAPL) and subsequently the CAPL-2. These tools assess the four main aspects of the IPLA (2015) physical literacy definition (i.e., physical competence, motivation, confidence, and knowledge and understanding) within a battery of testing strategies (HALO, 2017; Edwards et al., 2018). A score is given to each domain and the sum of all domains is an individual's physical literacy score (HALO, 2017). Recently, strides have been taken to strengthen the motivation and confidence assessment domains of the tool (Gunnell et al., 2018). Although motivation and confidence were assessed in the original CAPL, the revised questionnaire for the CAPL-2 better aligns with the definition of motivation and confidence that are associated with the IPLA (2015) definition of physical literacy. Indeed, this is an important step forward in beginning to adequately assess all components of the commonly used IPLA definition of physical literacy.

Tension Between Measurement and Conceptual Understandings

Edwards et al. (2018) described how there has been increased efforts to measure physical literacy by various research groups and organizations. As well, in their review they argue that practitioners who use assessment tools without first understanding their own position on physical literacy may unintentionally inhibit the meaningful facilitation of the concept in practice settings. Specifically, Edwards et al. (2018) argue that a person who approaches physical literacy through a pragmatic lens, views measurement as a critical component of developing physical literacy. Realists, however, acknowledge the holistic nature of the concept and suggest that measuring physical literacy would contradict their understanding that the affective, cognitive, and physical

domains of a person cannot be separated (Edwards et al., 2018). Physical literacy initiatives have been developed without in-depth consideration of congruence between the developer's position on the topic (i.e., realist versus pragmatist) and program or strategy (Edwards et al., 2018; Robinson, Randall & Barrett, 2018). Robinson et al. (2018) conducted a qualitative study with 12 physical education teachers from four provinces. Findings from their research suggest that while such leaders were able to identify the holistic aspects of physical literacy, they more readily discussed the physical components compared to the affective (i.e., motivation and confidence), and cognitive (i.e., knowledge and understanding) components. The researchers suggested that the participants' understandings of physical literacy may be shaped by the available resources that primarily focus on the physical aspects of the concept. Thus, their conceptualizations did not necessarily align with the holistic nature of physical literacy that is described in the literature and within the IPLA (2015) definition of the concept (Robinson et al., 2018). As such, many practitioners and educators have become confused on how the concept should be facilitated in practice (Edwards et al., 2019; Green et al., 2018; Robinson et al., 2018).

Physical educators are currently tasked across Canada to facilitate physical literacy as a major component of their curriculum (PHE, 2009). However, this is dependent on each province's Ministry of Education, as each Ministry is responsible for designing curriculum that aligns with provincial resources, needs, and policies (Kilborn, Larusso & Francis, 2016). Each Territory follows the provincial curriculum that they are nearest to; for instance, the Northwest Territories follows Alberta's curricula (Kilborn et al., 2016). According to PHE Canada (2009) "many provincial [Physical Education] curricula (i.e., British Columbia, Saskatchewan, Ontario, Newfoundland and Labrador) currently stress that students should become physically literate as a result of achieving grade specific standards, expectations, or outcomes"(p. 9). In Alberta

specifically, physical literacy is not highlighted as a component of the Alberta curriculum and the ways in which physical literacy is facilitated in Alberta is not standardized. However, many educators may be aware of the concept through their undergraduate education, coaching affiliation, or other personal experiences. In addition, schools in Alberta that utilize Ever Active Schools for comprehensive school health programming and initiatives may also be aware of physical literacy, as Ever Active Schools supports the concept (Ever Active Schools, 2019). There are several other organizations working with schools (e.g., Boks by Reboks Canada) in Alberta that emphasize the concept as well. Therefore, as educators working within Alberta schools it may be difficult to navigate the inter-workings of the concept, especially when the concept is not clearly outlined in the curriculum.

Research with Indigenous Peoples

While new published research continues to emerge in the physical literacy literature there is a clear lack of research pertaining to educators, coaches, and programmers understanding of physical literacy. In addition, there is an even greater lack of research exploring Indigenous peoples' understanding of the concept. The lack of research that explores Indigenous peoples' understanding of the concept is particularly problematic when considering the recent release of the Truth Reconciliation Commission's (TRC, 2015) testimony from survivors of residential schools. The TRC (2015) outlined 94 Calls to Action in an effort to address the legacy of residential schools and to support a process of reconciliation in Canada. Relevant to this specific research are the Calls to Action focused on *Education for Reconciliation* and *Sports and Reconciliation*. For instance, Call to Action #90 highlights the importance of ensuring that national sport policies, programs, and initiatives are inclusive of Indigenous peoples. As well, Call to Action #63 outlines the critical need to "buil[d] student capacity for intercultural

understanding, empathy, and mutual respect" (p. 7). An exploration into Indigenous peoples' meanings and experiences of physical literacy is necessary to support such Calls to Action and efforts for inclusive and culturally relevant pedagogy in physical education and sport settings.

In Alberta, the provincial Teaching Association (ATA, 2013) described their commitment to ensure that the learning outcomes of current and future curriculum are relevant to the perspectives and experiences of Indigenous students in Alberta. Researchers (e.g., Douglas & Halas, 2013) suggest that activities within a physical education setting that are culturally meaningful and relevant to Indigenous peoples aid in affirming cultural identities of Indigenous students. Robinson, Barrett, and Robinson (2016) explored the cultural relevancy of physical education pedagogy for Mi'kmaw peoples. Participants involved in this research suggested that there were missed opportunities for sports to be taught as cultural activities (Robinson et al., 2016). For example, they shared that the sport of hockey evolved from a game that the Mi'kmaq people traditionally played, and they expressed how incorporating this into physical education pedagogy could provide an opportunity for Indigenous youth to engage in culturally relevant physical education (Robinson et al., 2016). Findings from Robinson et al. (2016) highlight the importance of exploring Indigenous peoples' meanings and experiences of physical literacy. Specifically, such an exploration may provide the necessary knowledge for engaging Indigenous youth in culturally relevant physical education.

In consideration of Indigenous peoples, Sport for Life has developed resources for coaches, educators, and community members that state the important role of physical literacy in the lives of Indigenous peoples (e.g., *Aboriginal Communities: Active for Life [Sport for Life, 2017]*). According to Sport for Life (2017), "promoting physical literacy in our [Indigenous] communities is one of the keys to solving our inactivity problem" (p. 9). However, there is a lack

of a strong evidence-base to support this claim as the research cited in making this claim was based on broad physical activity and physical literacy research that was not grounded in the experiences of Indigenous peoples. It is necessary to engage in physical literacy research with Indigenous peoples to support the development of future policy and programming in sport and educational settings. More specifically, Forsyth (2014) argued that to develop inclusive, meaningful, and accessible sport and physical activity programming there is a need for a strong evidence-base that is grounded in the experiences of Indigenous peoples.

While there is limited research with Indigenous peoples that has specifically focused on physical literacy, Indigenous participants in a recent study focused on traditional games described how participation in traditional games can contribute to physical literacy (Dubnewick, Hopper, Spence & McHugh, 2018). However, the researchers found tension in using the term physical literacy, as the participants discussion was primarily focused on the physical movement skill that can be learned through participating in traditional games. Throughout the discussions, however, participants alluded to the important role of culture and traditional ways of knowing that are important considerations for facilitating physical literacy (Dubnewick et al., 2018). The important role of culture and traditional ways of knowing that were expressed in this research with Indigenous peoples are not as readily represented in the IPLA's (2015) definition of physical literacy. As such, the findings by Dubnewick et al. highlight the importance of considering Indigenous peoples' perspectives on physical literacy.

Aside from the research by Stearns et al. (2019), few physical literacy studies have included Indigenous peoples. Indigenous peoples have, however, been the focus of various sport, physical activity, and recreation studies conducted in Canada. Two recent reviews by Bruner et al. (2016) and McHugh et al. (2018) summarized much of the sport and physical activity

research that has been conducted with Indigenous youth in Canada, and both studies highlight the critical need to consider the central role of culture in such activities. The combined findings from Bruner et al. (2016) and McHugh et al. (2018) also suggest that sport and physical activity can provide valuable opportunities for transmitting and sharing Indigenous traditions and cultures. Considering the central role that culture plays in the sport and physical activity experiences of Indigenous people, there is a clear need to explore how culture may shape Indigenous peoples' understandings and experiences of physical literacy.

To date, I am unaware of any published research that has explored Indigenous peoples' understandings of physical literacy. It is necessary to develop a physical literacy evidence-base that is grounded in the voices of Indigenous peoples to address this clear gap in the literature. Historically, it has been demonstrated that ignoring colonized processes in sport, education, and the broader society leads to harmful consequences that could have been mitigated (Paraschak, 2013). Thus, the purpose of this research was to explore Indigenous peoples' perspectives of physical literacy. The overarching questions that guided this research process were: (a) how do Indigenous coaches, educators, and youth mentors understand physical literacy?, and (b) what is the role of Indigenous coaches, educators, and youth mentors in facilitating physical literacy among Indigenous youth?

CHAPTER 2: METHODS

Researcher Position

As a non-Indigenous researcher working in collaboration with Indigenous peoples, it was important that I continuously reflected on my privilege in society to strengthen the foundation for respectful relationships throughout this research process. Reflection is not a passive activity (Mann, Gordon & MacLeod, 2009); therefore, I continuously reflected on my own position within this research. Since the past has negatively shaped Indigenous peoples' perceptions of research (Schinke, Smith & McGannon, 2013), it was important that I was cognisant of the power that I inherently hold as an academic researcher and acted to diffuse this given privilege of power. Due to the nature of the research purpose, it was important for me to remain reflexive about how my positive physical activity, physical education, and sport experiences have shaped the value I place on active pursuits as this may not be the case for all individuals that collaborated on this project. It should be noted that, in terms of physical literacy, I consider myself a realist as described by Edwards and colleagues (2018). Thus, it was important that I was precautious in my approach to this research phrasing to ensure that I was not asserting this assumption onto the collaborators of this project nor channelling my assumptions into their described interpretations of the concept.

It is critical to acknowledge that there are historical underpinnings that have shaped current best practices in research with Indigenous peoples (Bull, 2010). Throughout history, Indigenous peoples have been mistreated, misrepresented, and/or exploited by the research process (Schinke et al., 2013). As such, research within Indigenous communities has invoked a sense of mistrust, which has led communities to be apprehensive about research involving their community (Bull, 2010). The mistrust that is felt by many Indigenous peoples is bolstered by the

unethical research practices that were commonly used in the past (Bull, 2010). Therefore, I placed significant emphasis onto meaningfully collaborating and critically reflecting throughout this research project to support my efforts to maintain a respectful research process.

Ethical Considerations

This research was approved by the Research Ethics Board at the University of Alberta (see Appendix A). The suggestions in Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada in the second edition of the Tri-Council Policy Statement (TCPS-2, 2014) were used as a guide to support an ethical research process. As per these suggestions, the three core principles (i.e., Respect for Persons, Justice, Concern for Welfare) within Chapter 9 of the TCPS-2 (2014) were followed. In terms of *Respect for Persons*, receiving and maintaining continuously free and informed consent from all participants (TCPS-2, 2014), was a priority within this study. As part of the prescribed western process for receiving informed consent, such documents were signed by all collaborators involved in this study (see Appendix B). The individuals involved in this study approached the research with an expectation of signing consent forms, as a result of their previous experiences with such research processes. In addition, the collaborators and I had ongoing conversations regarding the research process to maintain informed consent throughout the project.

According to the TCPS-2 (2014), *Justice* relates to mitigating the power imbalances between researcher and participant regardless of whether this discrepancy is real or perceived. Considering my position as a non-Indigenous researcher, it was important for me to continuously reflect on my own assumptions to actively disrupt the discrepancy in power that was passively created through my inherited position in society. As part of my commitment to actively disrupting my position of power, I engaged in reflexive conversations with colleagues, family

members, and friends to attempt to challenge deeply rooted assumptions that may have gone unnoticed. Although, at times, these conversations had nothing to do with physical literacy, sport, or research, they helped me to understand my own positionality better.

When working with Indigenous peoples in research, it is important that there is concern for a collective well-being and capacity for individuals to maintain their culture, language, and identity (TCPS-2, 2014). *Concern for Welfare* of the collaborators was acknowledged, in part, through the above processes of maintaining continuous informed consent and actively attempting to mitigate power imbalances.

Research Approach

I approached this research with a participatory worldview that favoured tenets of community-based participatory research (CBPR) methods. Participatory approaches, such as CBPR, emerged as a deliberate form of resistance to traditional research practices (Cargo & Mercer, 2008). Although CBPR may be considered a Western approach to research, as it has largely been developed by Western scholars (Bull, 2010), the overarching goal of CBPR is to create positive social change by involving participants as researchers (Cargo & Mercer, 2008). CBPR is guided by a number of principles, including: researching areas that are of concern to community, seeing multiple ways of knowing as a positive, developing community capacity, working to maintain an equitable partnership, and respecting the cultural practices of community (Cargo & Mercer, 2008; D'Alonzo, 2010; Fletcher, 2003). When working with Indigenous peoples, CBPR offers a promising avenue for open dialogue between local partners and the academy (Fletcher, 2003). Bull (2010) explained how the collaborative processes that are inherent in CBPR help to mitigate the power structure that is apparent in traditional research practices within academia (i.e., positivist approaches). Further, the flexible nature of

collaboration within a CBPR approach supports endeavors to work with Indigenous peoples in research practice (Fletcher, 2003). As well, ethical guidelines (e.g., TCPS-2) have indicated that Indigenous peoples should be provided with opportunities to engage in research as equal partners. Therefore, the group of people that were involved in this project were engaged as collaborators. In keeping with the emergent nature of CBPR, the research project, as it was initially conceptualized, was subject to change as the project progressed.

Collaborators

A total of eleven Indigenous peoples (10 women, 1 man) actively participated in this study as collaborators. All collaborators lived and worked in Alberta, and self-identified as Indigenous. Within this research, Indigenous refers to a person that is First Nations, Inuit, or Métis (as per Indigenous Foundations, 2009). All collaborators identified as either an Indigenous educator, coach, youth mentor, or a combination of the three. For the purpose of this study, educators were described as people who currently work, or had worked, within the school system teaching youth, or more specifically Indigenous youth. Educators in this study did not necessarily hold traditional teaching positions but instead included graduation coaches, school liaisons, and physical literacy coordinators. Coaches were described as people who worked with Indigenous youth in a coaching capacity within a school or extracurricular sport setting. A youth mentor was described as someone who worked with youth outside of the education system. For example, this could be working as a big brother/sister in the Big Brother, Big Sister program; working as a youth mentor or coordinator for a not-for profit organization; or volunteering time to mentor youth some capacity. In all cases, the mentors within this study were involved in some type of sport or activity with youth. The knowledge held by the collaborators was shaped by the

experiences that they had as Indigenous educators, coaches, and youth mentors working with Indigenous youth. Such knowledge was integral to exploring the study purpose and questions.

All collaborators were purposefully selected through a known sponsor approach through my social networks or those of my graduate supervisor (Dr. Tara-Leigh McHugh), who has developed strong relationships with Indigenous community partners in Edmonton because of her research over the past 10 years. A known sponsor, as defined by Patton (2002), is someone who has a legitimate relationship with the group of interest. The known sponsors for this research project were two Indigenous school liaison coordinators who work within a school system in Alberta. The known sponsors were asked to identify Indigenous collaborators whom they felt could provide in-depth insights into the concept of physical literacy. All collaborators worked with youth within physical activity settings in some capacity. Although not every collaborator knew what physical literacy was prior to commencing this project, all collaborators had a general understanding of what it might mean, and more importantly, what it means to them. Throughout all modes of presentation of the findings from this study, pseudonyms replaced the names of the collaborators to protect their anonymity in this project. The collaborators that participated in this project were provided the opportunity to choose their own pseudonym.

Data Generation

The collaborators on this research project were provided the opportunity to participate in either a one-on-one or sharing circle interview. Interviews are typically used in qualitative research as means to generate data (Kowalski, McHugh, Sabiston & Ferguson, 2018; Kvale, 2008). The relational nature of interviews aligns with the CBPR approach of this study. Specifically, as Kowalski et al. (2018) suggested, interviews offer an opportunity for interviewees and interviewers to work together to generate data, particularly when the interviews

are semi-structured. Interviews also support interviewees to openly discuss their experiences related to the topic in question. Both one-on-one and sharing circle interviews were used in this study.

Of the eleven collaborators, seven chose to participate in a sharing circle, and four chose to participate in a one-on-one interview. The choice between the two interview types (i.e., sharing circle or one-on-one) was provided as many individuals involved indicated that the flexibility in interview type gave them more opportunity to be involved in the research project. All interviews were conducted in places that were convenient to the collaborators, and then audio-recorded and transcribed.

Interviews are often used in sport and physical activity research seeking to better understand the experiences of Indigenous peoples (McHugh et al., 2018). Mason and Koehli (2012) described how one-on-one interviews provide opportunities to explore personal experiences of Indigenous peoples in a private setting. More importantly, the use of one-on-one interviews may aid in strengthening the relationship between the researcher and the individuals involved (Mason & Koehli, 2012). Sharing circles have been described as a relevant process for generating knowledge among Indigenous peoples in a group setting (Lavallee, 2009). The specific cultural principles that guide sharing circle discussions allow for equal power balance between facilitator and group members (Lavallee, 2009).

Similar to previous physical activity-related research with Indigenous peoples (e.g., McHugh, Coppola & Sinclair, 2013), the interviews were semi-structured in nature. Open-ended questions, probes, and support questions were developed based on the physical literacy and Indigenous sport literature, as well as feedback provided by the supervisory committee and collaborators (see Appendix C for the interview guide). The process typically described in CBPR

literature is to consult key members of the community prior to beginning interviews (Horowitz, Robinson & Seifer, 2009). In addition to consulting with the known sponsors prior to the interviews, the known sponsors also participated and helped facilitate the sharing circle. The sharing circle and one-on-one interviews were formatted to provide opportunities for collaborators to give additional feedback about the proposed interview guide including how it could be improved, and if there was anything they thought should be added or deleted. Based on the sharing circle interview, it was evident that the collaborators emphasized their role in *facilitating* physical literacy among Indigenous youth more than focusing on their own meanings and experiences of the concept. Thus, through the collaborator's consultation and support from the supervisory committee, the research questions were slightly modified for the following one-on-one interviews.

The seven members of the sharing circle knew and were very familiar with each other, as they all worked within the same school division. Interviewing intact groups such as this is common in CBPR research, especially when a project is based in a geographically located community (Horowitz et al., 2009; Wallerstein, Duran, Oetzel & Minkler, 2017). The strengths of interviewing intact groups is that the group may feel comfortable speaking with each other, as they are familiar with one another (Bloor, Frankland, Thomas & Robson, 2001; Hofmeyer & Scott, 2007). This was evident in this specific project, as the group often laughed and made jokes throughout the interview. The comfort that was apparent in the sharing circle supported a dynamic discussion (Bloor et al., 2001; Hofmeyer & Scott, 2007). At times in the interview the group did not agree with each other, but once each perspective was understood a common understanding was achieved. For example, the group was undecided on which was the most important component of physical literacy; however, after much conversation, the group

acknowledged that all aspects together (i.e., confidence, motivation, physical competence, knowledge and understanding) made physical literacy an all-encompassing term.

Not all individuals were able to meet in person for a one-on-one or sharing circle interview, as their jobs required them to travel throughout the province and the rest of the country. For this reason, two one-on-one interviews were conducted over the telephone. Phone interviews are increasingly being used in research (Irvine, 2011). Researchers (e.g., Irvine, Drew & Sainsbury, 2013; Knox & Burkard, 2009) suggest that phone interviews offer ample opportunity for participants to share their experiences. Sturges and Hanrahan (2004) suggest that when compared to face-to-face interviews, over the phone interviews generated similar results. However, there are some researchers that disagree with the ability of the phone interview to provide in-depth insights into the questions posed (see Gillham, 2005). Due to the pre-existing relationships I had with the two collaborators that were interviewed over the phone, I believe that the data generated likely facilitated a depth and richness that would be comparable to face-to-face interviews.

Data Analysis

A process of content analysis was used to analyze the transcripts. The use of content analysis is consistent with various other forms of CBPR sport and physical-activity related research with Indigenous peoples (see McHugh, Coppola, Holt & Andersen, 2015). Additionally, content analysis is often used when text is the primary form of data and when little is known about the topic being explored (Elo & Kyngas, 2008). Specifically, Elo and Kyngas' (2008) three phase approach (i.e., preparation, organization, reporting) was used to analyze the findings. During the *preparation* phase, the unit of analysis was selected. Specifically, the words and sentences of the collaborators were the units of analysis. Following this decision, the transcripts

were read and re-read by myself numerous times to establish in-depth familiarity with the data. In the second phase, the process of *organization* began. An open coding strategy was used to organize the data. Open coding is described as the process that results in theme identification with the support of a codebook (Morse, 2000). Specifically, for this research, content-specific headings were created within each transcript, which subsequently supported the generation of categories within a codebook. Higher order theme headings were then created after grouping content-specific headings. To ease this process, as Morse and Field (2002) suggested, I drew out multiple variations of a tree-diagram to visualize the relationships between themes. After these two phases were complete, the process of *reporting* took place. Reporting was established through the use of direct quotes from the collaborators to represent themes.

It should be noted that the collaborators were invited to take part in the reporting phase of the content analysis. Thus, meetings were set up between myself and the collaborators to discuss the findings. Although all collaborators were given the option to review their transcripts after they were completed, all opted for a meeting to discuss the findings at a later date instead. The findings were compiled and discussed with individuals, and additions were made as the collaborators saw fit. Once the final draft of the results section was completed, we met for a second time to review and edit the draft. It should be noted that the members of the sharing circle decided to have one member of the group, the known sponsor, make edits on their behalf. After feedback from collaborators was incorporated into the final reporting of the results, the final draft was sent to all individuals to review and provide their final thoughts and feedback.

Rigour

To establish rigour, Schinke et al.'s (2013) characterizing traits for judging community-based research were followed. Specifically, Schinke and colleagues' (2013) characterizing traits of *community driven research*, *local practices/methods*, *decentralizing university academics*, and

prolonged engagement were maintained in this research process. This research was *community driven* as the research topic, questions, purpose, methods, and results were shaped by collaborators that participated in this research project. *Local practices/methods* were also utilized. For example, the way the collaborators shared in the sharing circle interview was specific to the practices of the group, rather than bound to academic group interview structures. As well, by having the known sponsor co-facilitate the sharing circle, it was possible to integrate local practices in which the group was familiar. The *decentralizing of university academics* was also important within this research. As one example of this, when we met for face-to-face interviews, we met in their spaces rather than on campus. As well, the collaborators played a significant role in the data analysis, and the reporting of findings more specifically. *Prolonged engagement* with this community (via the known sponsors) was maintained, as this is an extension of the research of my supervisor, who has an ongoing and trusting relationship with the known sponsors of this research. As well, in terms of prolonged engagement, I engaged in multiple conversations and meetings with the collaborators throughout the study to inform various aspects of this research process, including data generation and analysis.

CHAPTER 3: RESULTS

The purpose of this research was to explore Indigenous peoples' perspectives of physical literacy. The guiding questions aimed to explore how Indigenous educators, coaches, and mentors understand physical literacy, and their role in facilitating physical literacy among Indigenous youth. The findings are represented by six themes: (a) wisdom sharing, (b) being mindful in teachings, (c) youth-centered approaches, (d) active for life, (e) culture and spirituality as part of being active for life, and (f) relational support.

Wisdom Sharing

The collaborators on this research project shared their understandings of the term physical literacy and, within their descriptions, they emphasized the importance of understanding and learning about being active for life. The collaborators emphasized how each component of physical literacy (i.e., motivation, confidence, physical competence, knowledge, and understanding) was of equal importance for continuing activity throughout their life. However, the collaborators suggested that developing the "value" and "responsibility" for being active for life, particularly among youth, are crucial as they are often described as the most difficult components to foster and maintain. The collaborators articulated the important role that they each play in supporting the development to value and take responsibility for engagement in physical activities for life amongst Indigenous youth. They offered suggestions on ways to facilitate such development through processes of wisdom sharing. Specifically, wisdom sharing was described as sharing knowledge through stories and pictures with youth, or through a process of role modelling.

Elisapee said that physical literacy means, "how to be active, and how to learn to be active". She stressed that the term is "not just *being* physical but is *learning* about it and reading

about it" too. Similarly, Athena described physical literacy as, "just understanding the benefits of being active, understanding the benefits of having that in your lifestyle." The collaborators explained how they, as educators, coaches, and mentors, play an important role in facilitating physical literacy through wisdom sharing.

Athena described the success she has had in the past with "wisdom sharing". She described wisdom sharing as a process of sharing knowledge and history with Indigenous youth through pictures and stories. In her experience, learning the history "really strikes a chord with [Indigenous] youth." Athena sees importance in Indigenous youth connecting with history. In her experience it has helped to facilitate deep conversation with, and supported critical observations by, youth. Athena shared the following story to expand on the process of wisdom sharing she had used before:

> I had old black and white [photos] where we had slim trim Elders dressed in their traditional regalia. It wasn't even regalia back then 'cause that's just how they were. They just dressed like that all the time and they were active and there were old men working on the land or sitting there as compared to some of our commonplace modern-day Elders where there's a lot of obesity, and there's a lot of sedentary lifestyle. So we have to, and I remember saying like 'we weren't big back in the day'. If we were big, we were big, hardy, and strong, not obese and overweight and had chronic diseases or all of those things. So it's really good to understand the history of who we are and understand the history of our lifestyle being nomadic and always moving with the land and the animals and the cycles of nature… 'cause I think if we don't learn from our history how can we survive in the future?

Athena suggested that by engaging youth in important conversations about the historical context of physical activities and active lifestyles, it may support youth in understanding and taking responsibility for their physical activity.

Elisapee also described a similar process of wisdom sharing, albeit she did not refer to it using this specific terminology. She described a time that she presented her culture to a group of students with whom she was working:

> I had to do a presentation on Inuit and it was really cool to learn about our traditional hunting games…it made me more proud to be Inuit and I guess like learning more about what we did before contact, and wanting to learn more, and wanting to do some of it. Cause I was watching some old footage of an Inuit man jumping a certain way on the snow to create an air bubble so the seals would come up, and that is how he hunted seals and the way he learned how to hunt seals… he watched the polar bears. So, like the polar bears taught us how to hunt. I was like 'that is SO freaking cool' like, my people are so freaking cool. So, I want to learn more of that and be able to do it and then hopefully get youth involved….in P.E. class instead of doing fitness tests, I'd rather have learned how the polar bear has taught my people how to hunt…it has more context. It actually serves a real purpose, in my opinion. In that everything physical that we did had a purpose, it was fun, or it was for survival.

Elisapee's experience demonstrates how sharing culture, history, or simply knowledge of physical activity can support Indigenous youth in their understanding of physical literacy.

The collaborators described how wisdom sharing could take place through role modeling. Jessica described how role modeling could be as simple as her saying to her students "last night I went to Bikram [yoga] for an hour". She described how such brief statements could get her students interested in such activities, as "…just giving them experiences and kind of encouraging it and showing them that I participate in physical exercise and that I think it's important, and hopefully that'll shadow into their own lives a little bit." The collaborators explained how coaches, educators, and mentors serve as role models and could use "teaching moments" to demonstrate how physical activity is important in the facilitation of physical literacy to youth. Jennifer explained how a "teaching moment" could include, for example, taking the stairs instead of the elevator with youth when both options are available.

Although it was discussed that educators, coaches, and mentors have an important role in role modeling physical activity and other healthy behaviours to youth, Clara noted the importance of discussing physical literacy with the broader community so that everyone understands their role. She said,

> I think a lot of our communities aren't at the point yet where they're suddenly going to be able to run their own physical literacy programming at a highly effective rate. But at least starting the process of having these sorts of discussions with people that buy in, with stakeholders, with individuals that want to make change... and understanding from their perspective why they think it's important. And trying to put together ways to get over those barriers and trying them out because the only way that we're going to be able to address these barriers is by working with the communities and trying their ideas first.

As stated by Clara, it is important that there is buy-in from the whole community and role modeling is just one way for knowledge holders (e.g., educators, coaches, mentors, community champions) to achieve this.

Being Mindful in Teachings

Each collaborator discussed their role in facilitating physical literacy among Indigenous youth. In describing their roles, the collaborators highlighted the importance of being mindful in the approach to teaching and facilitating physical literacy. They described the differences in responsibility that Indigenous youth may have compared to non-Indigenous youth, and the importance for individuals working with youth to be mindful of such differences. The collaborators offered practical suggestions for creating positive environments for Indigenous youth to maintain motivation and confidence to participate. Specifically, they shared the impact of using humour and humility to create such environments for Indigenous youth.

Both Melody and Brent shared that they felt Indigenous youth are interested in developing their physical literacy. Melody explained how:

> …just being physical in general pays a huge role in [her students'] lives in a positive way… and it is such an important thing because it gives them a sense of community that they maybe don't have in other parts of their lives.

However, Melody and Brent noted that Indigenous youth often have difficulty entering the community of physical activity which can be compounded by the approach that educators, coaches, and mentors choose to take in facilitating physical literacy. For instance, Darby explained, "a weakness in teaching [physical literacy] would occur when the bar is put to high.

[Physical literacy] needs to be taught to them where they are at so that they don't get overwhelmed." Thus, it is important for educators, coaches, and mentors to be mindful when working with Indigenous youth.

A common thread in the conversations was that often Indigenous youth have different responsibilities than non-Indigenous youth. As Elisapee pointed out, a large part of motivating Indigenous youth is giving them space for them to be kids while still recognizing that Indigenous youth often are not able to "just be kids". As Jana suggested, "our kids have other responsibilities…. They have to babysit, right? They can't show up for practice 5 times a week." To demonstrate this further, Elisapee highlighted her own experiences growing up as an Indigenous youth in an urban centre. She explained how she had two younger siblings to take care of while her mom was at work, how she worked and went to school, and how she tried to make time for extracurricular activities. She explained how all these responsibilities made activities in physical education, like dodgeball, seem trivial. As Elisapee explained, "I would have rather been at work, or anywhere else besides playing dodgeball." Jessica shared a similar sentiment about the importance of being mindful in her teachings. She said:

> For motivation you really have to find something that is intrinsically motivating to students. I guess you could do dodgeball. If everyone just goes back to dodgeball… but really, who wants to play dodgeball? So, just seeing what kids are actually interested in, if there's specific sports, if there's yoga's…There's all different kind of avenues. I guess physical activities range so much that it's just kind of like keying into their motivation, would be like keying into their interests.

Athena discussed how humour could be used to engage and connect students, particularly in the context of physical education. To demonstrate this point, she shared some of the best practices she has seen used by physical educators with whom she works. She shared that a colleague of hers, who teaches an all girls high school physical education class, has designated Wednesday classes as "Sweat Your Eyebrows off Wednesdays", which plays into the current

popular make-up trend where women and girls fill in, or colour, their eyebrows to make them appear thick, dark, and full. By identifying this commonality amongst the students, confidence and motivation to participate was garnered in the students according to Athena. Athena shared the importance of using such practices:

> Their willingness to want to try, their willingness to check out new things, especially if it is framed with fun, y'know? I think that it's important to frame things with fun or something that connects them… [Sweat Your Eyebrows off Wednesday] connects the girls and it connects the humour 'cause humour is huge in our communities. So, I think that's a really good thing.

In addition to humor, Melody also noted that it is important to be mindful to direct youth into programs that will facilitate lifelong activity. She described the importance of ensuring that "kids are in the right environment." She further stated,

> … If we went and threw them into the soccer academy or athletic leadership class, our kids would be so isolated in that like…these kids are together all the time in an organized sport, and I don't fit into this' instead of making sure there are different levels of [competition].

In her experience, Melody described how she has noticed that the Indigenous youth are often intimidated by physical activity. As such, Jessica shared how the intimidation factor that can come with physical activity is the reason why it is important to keep the climate of instruction as non-judgemental as possible.

Elisapee highlighted the importance of humility in facilitating a positive environment for Indigenous youth to develop their physical literacy. When working in positions of authority she suggested that people should approach their instruction with humility, as she shared: "when [the youth she works with] see me make mistakes or be embarrassing, the more they'll see they can make those mistakes and be embarrassed and know that it is a safe place to be." Clara shared a similar notion in reflecting on her experience as a physical literacy coordinator:

> It's being honest with the kids. Y'know there are some days where I'd show up and something wasn't working out, so I'd be like 'OK, what do you guys want to do?' And their answer would be like 'well, let's go for a walk along the river' or 'let's go out into the woods', or 'let's just play a game of bump', or maybe 'we'll just color for today'. Like those are the things you have to be OK with and support them in and let them experience.

Jessica shared her experience leading a "boot camp" last year with her students. In reflecting on the boot camp's success, Jessica said, "we had a good time because we were all trying to get in shape together." She shared how using friendly competition between herself and her students helped to make it enjoyable for the students. For instance, her students would challenge her to see who could last longer in a wall sit and she was often beat by her students. Taking part in the boot camp activities and showing humility in her own physical ability helped to encourage her students throughout the program; perhaps, similar to Elisapee and Clara's experience.

Brent and Jennifer shared the importance of being mindful of how sporting opportunities, or lack thereof, could be detrimental to Indigenous youth's overall experiences of physical activity. Brent stated,

> When a student goes and puts themselves out there, they're like 'I guess I'll go try out for volleyball' and it's just so harsh right. It's like 'nope, no you didn't make the team… sorry' it's so cold and black and white and I think that everyone here has talked about the importance of community and there is such a lack of that in sports, or in physical literacy in general because we should be having those conversations with kids and have other resources, right?

Further elaborating on such challenges, Melody described how certain activities have their own communities, like yoga or hockey. As such, trying to join a hockey or yoga community can be very daunting. Darby described how an Indigenous youth might even feel isolated by their peers. She imagined that if a peer group only participated in certain activities, it might be difficult for youth to have the confidence to step out on their own and say, "come on guys, let's try this". Overall, members of the group suggested that in order to effectively facilitate physical literacy as

an educator, coach, or mentor it is important to be mindful in the approach taken in working with Indigenous youth.

Youth-Centered Approaches

All collaborators acknowledged the important role of confidence in physical literacy and suggested that using youth-centered approaches could strengthen the confidence of Indigenous youth. Youth-centered approaches were defined as meaningfully engaging youth in the instruction, and even at times planning, of physical activity, sport, and physical education programming. Collaborators discussed the importance of providing youth with opportunities to have authority in choosing which activities to participate in and reiterated that youth are experts in their own right. The collaborators discussed the potential impact of making activities relevant to the interest of youth, as a means to encourage the development of confidence and motivation.

In reflecting on the opportunities she had growing up, Elisapee shared stories from her own physical education experience. She compared her experience in two different physical education classes. With respect to one teacher, Elisapee shared: "Y'know, [the teacher] would always make jokes to me about how I am so small and stuff like that, but she would also be really encouraging. I enjoyed P.E. with her!" Elisapee described how her height, being under five feet, would often make her feel like she was unable to participate in contemporary physical activities like basketball, volleyball, or baseball. However, this specific physical education teacher provided encouragement and made her feel like she was indeed capable of participating in various activities with her classmates. Elisapee shared the contrast she felt the next year:

> It was kind of a different story, and a lot of people didn't really want to participate because of [the teacher]… I think our skills started to be not as developed because we didn't have that confidence anymore because our educator didn't think it was important to support us in that way. I think that is an educator's responsibility to help build the confidence of young people, especially when they are doing activities that make them

> somewhat uncomfortable. It is important to always reassure them that they are doing the best that they can.

In order to support the development of confidence to participate in physical activity, the group discussed the importance of acknowledging Indigenous youth as 'experts of their own experience'. As Clara explained:

> I think that it's important that we recognize all youth from y'know, 0 to 25, whatever your definition of youth is. To respect them as experts of their own experiences, that's the crux of it. An 8-year-old's gonna know how to play better than I do now so y'know sitting and having conversations with these kids about what it is they wanna do and what is it they struggle with. And making sure that if I was running any sort of program that was dependent upon their participation then I made sure that it was something they wanted to do and that they were interested in doing…that relationship building [with youth] is so important.

Like Clara, Elisapee discussed the importance of collaborating with the youth to find and plan activities that are meaningful to them. That is, activities are those in which the youth want to participate. Elisapee takes a youth-centered approach when working with youth because: "...in my opinion I work for them, so I just do whatever is in my power to make sure there are no barriers to whatever they want to do." As an example of taking a youth-centered approach, Athena shared:

> Yesterday I had really good conversation with a phys ed teacher and he was talking about the challenges he feels in teaching a combined class… last year they had separate classes, male, female, and he really enjoyed teaching both classes, but he said it was so different. [He] said 'I had to scrap my plans when I was dealing with my female fitness or female phys ed because it wasn't about sports and skill development. With the females it was about fitness and empowerment and what makes them feel good and getting them going for that 20 minutes so they feel the power of the endorphins. Where the boys were more like competition and let's get this done, let's win. And the girls were like let's be active, let's tone and tighten' kinda thing so it was really cool to see that.

In this example, the educator noticed that the youth he worked with had different interests and recognized that it was his responsibility to adapt each class to the specific interests of his students in order to provide them with a meaningful physical education experience.

Overall, there was agreement that youth should be able to choose the activities in which they feel comfortable participating. Clara explained:

> A lot of my success was just based on their willingness to give me a try really, to work with me and I think that should be the first thing that anyone working with Indigenous youth do. Make sure you build those relationships with them first and you recognize them as you know adults. I don't wanna say adults, but their own independent people that have critical thought and they know what they wanna do and they understand why it's important to be healthy. They're not clueless. Every single youth I spoke to understood that being active was important, whether they enjoyed it or not. Some of them, y'know, hated physical activity and they still do and there's no way I'll ever make them be able to do it, but they're very open and willing to talk with me about it at least, which I think is important. So yeah just building a relationship with them is the most important thing.

As Melody and Elisapee mentioned, when Indigenous youth feel comfortable and safe in a physical activity environment, they are more likely to be open to participating, which may lead to youth gaining the motivation, confidence, and physical competence to continue to participate in physical activities for life.

Jessica shared that although her current role does not explicitly include teaching physical education to students, if she were to work in that capacity again she believes that it is really important to motivate students by finding something that interests them. In her opinion, the physical education curriculum is only as good as the how the educator facilitates it. For instance, if a teacher does not feel comfortable or strongly connected to teaching the dance unit, that will be apparent in their teaching, which will then lead to the disengagement of the students. Thus, an important consideration, as stated by Clara, is that "[Indigenous youth] feel safe, that they're having fun, that they're feeling motivated and encouraged to participate."

Active for Life

All collaborators described how a key component for facilitating physical literacy should be to focus on promoting, or facilitating, opportunities to be active for life. Through stories, the collaborators shared how their own participation in physical activity has changed throughout the

course of their life. They shared the differences in activity that they had participated in through childhood, adulthood, pregnancy, injury, and lack of motivation. They discussed how exposing Indigenous youth to a variety of different activities, may positively impact their likelihood to continue to be active throughout life.

As stated by Athena, physical literacy is not just organized sport. She explained, "when I think about [physical literacy] I think about being active for life… and all the ways to be active throughout your whole life whether it be walking, sports, recreation…" She further explained:

> I think it's important that [Indigenous youth] have access to physical literacy. So, some sort of means beyond sport because [my colleagues and I] had this discussion yesterday where recreation and activity doesn't mean just sport y'know. It could mean a lot to these young girls, especially to talk about fitness and keeping yourself. Y'know it's part of self-empowerment and self-esteem. So, I think that's really important piece of the physical literacy.

Elisapee suggested that the term "physical activities" in the IPLA (2015) definition of physical literacy might lead people to relate such activities to organized sport. To Elisapee the use of the term "active for life" instead may be more inviting to people outside of academia and leave the definition more open for interpretation. In reaction to initially reading the IPLA (2015) definition, Elisapee laughed and said:

> I read [the definition of physical literacy] and I'm like uh…I'm not going to join a baseball team anytime soon, I'm not tall enough… if it were understood as active for life, I think that would relieve a lot of pressure for everyone.

Similarly, Darby argued that leaving the definition to be associated with only organized sport might "be overwhelming and act as a barrier" for Indigenous youth. Brent pointed out all things physical are typically associated with physical education, and how this often means that physical activities are associated with sport. In his mind, physical activities are so much more than just games, like dodgeball or volleyball. As Jana shared, "anyone can be active….you can go for a walk in the river valley, you can go climb stairs, it's not about always being on an organized

team sport. It's about playing out at the park." Jessica described that when facilitating physical literacy, Indigenous and non-Indigenous youth should be given as many opportunities as possible as means to encourage the development of physically motivated, confident, and competent youth. Jessica shared:

> I have to try to keep in mind that, as I'm teaching Physical Education, I'm also teaching the responsibility for engagement in physical activities for life. And that in the same aspect I am giving students the confidence, the motivation, and the physical competence to be able to, once they graduate, carry out physical activity for life. 'Cause I think without [points to the IPLA (2015) definition], you can't actually have physical activity for life.

To Jessica, it is the responsibility of educators to ensure that youth are ready to take responsibility for their own physical activity in life and understand the importance of it and continue to once they leave high school. In reflecting on her own experience, Jessica shared that she grew up playing sports and leading an active lifestyle. However, once she finished high school, physical activity was not nearly as accessible to her as there was no longer mandatory physical education class everyday or after school sports programs. Even though she felt she had the knowledge and physical competence to participate in physical activities, she did not make being active a priority directly after high school. It was not until her late 20's that she began to value and take initiative in being active again. To clarify her point, Jessica shared:

> You finish high school, and you don't have phys ed anymore and if you want to go to the gym it's like $60 or $70 a month. I don't know if the value is being instilled enough about how that is probably the best $60 or $70 you spent that month.

To bridge this gap, Jessica suggested that before Indigenous youth finish high school there needs to be more of an emphasis on the importance of taking responsibility and what that might look like throughout life. This may, of course, be through processes already shared such as wisdom sharing and role modelling as well as providing youth with opportunities to engage in meaningful physical activity experiences.

The collaborators described how participation in physical activities changes throughout the course of their lives, or at least that has been their experience so far. Athena spoke about transitioning through activities in her life, including being a competitive swimmer, swimming at a college level, to coaching, and having children, and now doing activities as a family. The consensus was that it is possible to promote and facilitate being active for life, but such activities might change because of age, different life experiences, level of motivation, or confidence.

Culture and Spirituality as Part of Being Active for Life

The collaborators discussed how they would articulate the concept of physical literacy to the youth with whom they work. In discussing this, the collaborators emphasized the importance of acknowledging that the term physical literacy is open to interpretation. They suggested that it may be considered as a reflection statement to begin conversations about being active for life, rather than a static definition. Through such conversations, the collaborators acknowledge the role of culture and spirituality in their *own* experiences of being active, and how this has been important in their lives but may not necessarily be reflected in others.

When discussing teaching the concept of physical literacy to Indigenous youth, Darby said:

> It's not a definition I would teach the kids… it's overwhelming. You look at it and it's taken us how long to just break it down ? In how many steps? So, for a kid to look at this and have a complete understanding… like, I wouldn't even start and try because there is so much there. So, I guess it depends who the definition is aimed for…like, professionals or kids?"

Jana agreed, and added:

> I think the terminology, for kids, is confusing because the term physical literacy is confusing. It is not a term that they're gonna immediately associate…or like people relate too. And maybe that's the thing you just consider when you're trying to educate, is that. I don't know. I'm not crazy about the use of those terms [with kids] 'cause it's not something that is identifiable right away.

Athena agreed that when working with the concept of physical literacy, it is important to identify who the audience is, as that will affect how the concept is communicated. Athena discussed how

she understands the definition as a reflection statement, rather than a definitive answer to what physical literacy means. She shared:

> I think I could probably utilize this, and this is kind of a starting point for a lot of conversation when I'm going into schools and introducing our programming…I think it elicits conversation, elicits provoking thought….it's a reflection statement you almost think 'well, okay. How or what I'm doing in my own life and my own wellness, am I adhering to some of these values that are in this definition' and I think when people look at that and they look at their approach to either education, programming, or policy in their school I think this is a really good framework and a good start to that discussion and that conversation about what does physical literacy look like in your school? What do you think it is? …it provokes thought, for sure. … I think this kind of definition would definitely help frame that conversation. I'm gonna borrow this.

Collaborators discussed how the definition should be open to interpretation and that educators, coaches, and mentors should be open to listening to youth as their understandings are likely different from individual to individual. To expand on this, Elisapee laughed and added, "for instance, what I consider physical literacy is probably not the same for my 10-year-old brother." Melody described how her understanding of physical literacy involves community. She acknowledges the role that others have had in shaping her own physical literacy journey. She explained:

> For me, I think like it's how it fits in to your life and your community. Like…a huge part of [physical literacy] is the community that you build from it or like… how it is connected to your family, or your people.

In addition, Athena contemplated how spirituality may be a piece missing from the definition as she reflected on some of her experiences being active in life:

> I find that especially with my walking outside when it's bright out it's a connection for me too. It's a spiritual connection because I'm paying homage to the surroundings and, oftentimes, I lay down tobacco because I feel blessed to be in this area. Especially when it's beautiful. Like yesterday I went for a little walk and the hoar frost was off on the trees and I'm like 'oh my gosh!' and I ran and grabbed my tobacco and I laid it down and I said a prayer because I just felt so blessed and so thankful to be where I was at, at that time.

As another example, Athena shared:

> As a volleyball team we would pray before our super big matches as a group, as a team. We'd always pray together and that was part of bridging that spirituality with our physical knowledge and our prowess…. So, having that spiritual support I think it really, really helped us. I think it really rounded out us, y'know, just who we were and then what we were there to do.

Although being outside and being active or praying with her team are ways for Athena to connect to her spirituality, she felt as though it did not necessarily have to be added to the definition as spirituality is connected to her in her everyday life. Thus, spirituality would be part of her understanding of physical literacy regardless of it being incorporated into a formal definition.

Elisapee shared a similar sentiment to Athena, but in regard to culture. Elisapee explained how her culture is intertwined into her understanding of physical literacy now. She explained: "To me physical literacy is how to take care of yourself…For me, I think physical literacy and cultural competency, kind of go hand-in-hand because it is so active." She shared stories of walking through the forest and appreciating her surroundings, while thinking to herself "what would my Elders say?, or 'okay, what's the land trying to teach me right now?'" To Elisapee, this time was important for building her cultural competencies, which she described as:

> [Cultural competencies] to me are learning about culture and how to like put it into your everyday, and feeling confident enough in expressing your culture, and having the skills to talk about it and also the skills to talk about it with people who are more challenging.

Again, Elisapee felt like culture or cultural competencies could be added to the formal definition but that it may not be necessary if the definition was indeed open to interpretation. Similarly, Clara shared her perspective that:

> [Culture and Spirituality] play a certain role, but again I don't know if it would be a significant role… I think through my research one of the biggest things that I talked about with kids is how, I mean definitely cultural programming, on-the-land programming are very important to them, but it's not the end-all, be-all of what we need to be prescribing to our kids. I don't think that everything has to be rooted in culture or spirituality as much as the literature says it does.

The group did discuss how it may be important to incorporate more cultural teachings into physical education programs. As Elisapee suggested, there is a lot of missed opportunity to work with Elders to improve the curriculum for not only Indigenous youth, but non-Indigenous youth as well. She shared the example of square dancing and questioned why Pow Wow dancing was not part of the physical education curriculum. Clara shared her perspective on this, in saying that it is important to consider the diverse communities of Indigenous youth. She said,

> Always go into communities with an open mind, with y'know the idea of taking a holistic perspective first and foremost. So, understanding that all communities are at different places and all communities have you know different spaces, different facilities, different histories, all sorts of different things and that there really isn't sort of one, singular approach you can take that's going to be effective in every community.

Relational Support

Although the collaborators acknowledged the various roles they have in facilitating physical literacy, they suggested that there are many other people in the lives of Indigenous youth that could offer support and opportunities for being active. To demonstrate this point, the collaborators shared stories of how they, as Indigenous peoples, came to be physically active. Generally, all individuals attributed their value of physical activity, or motivation to be physically active to a type of support they received in their life. Supports were described as parents, friends, and community champions.

As Charlie suggested, "support is one of the biggest things in facilitating [physical literacy]". To further emphasize this point, Clara said, "If my friends weren't active, if my parents weren't active, if my teachers weren't active, I probably wouldn't have been active." Further reflecting on her experience growing up, Clara shared:

> Physical activity was my only escape and my only way I felt like I was a part of something. I had friends and I had a community and so that's what I really rooted myself in. Without the support, I definitely would not have been active. That was the only reason I was active.

Through our discussions, a number of other supports were identified, including family and friends and community champions.

Collaborators acknowledged the support of their parents in their reasoning behind being active. Melody shared how her dad always coached the teams she and her siblings played on, and how her mom would always be there to watch and support them. Referring to her dad, Melody said "… he learned basketball so he could coach us basketball and he learned hockey so he could coach my brother… he went out and did that [for us]." To expand on the role of parents in providing youth opportunities for physical literacy, Melody shared:

> If it is something the parents' value it is more likely to work out for them, if it is something their parents don't value like… you can't call your mom and say 'I am staying for practice today' and your mom says 'no, you need to come home' then you need to come home like you don't get to make that decision as a 13 year old.

As an example, Athena shared that she initially became involved in physical activity because her dad was a physical education teacher that always advocated for his children to be active. She suggested that she was raised through a framework were the priorities in life were "family, sport, work, then friends and all the other stuff."

Although family support was mentioned as an important factor in facilitating physical literacy, there was a common understanding that not all parents can show their support for their children by going and watching them participate in sport and physical activities. As Charlie explained:

> If you have a kid that is living in the city than they can just take the bus. Like, y'know… they can just find a way to get to where they need to be… then they don't really rely on that family support and some kids just don't have that support, so I think that's really big thing.

Jana agreed and added that often families will live in the west-end of the city, parents will work downtown, and their children will have games on the south or east-end of city, making it difficult for parents to attend every game.

In addition to family support, Athena shared how the connections she made with her teammates helped to bolster the value and passion she now has for being active:

> My best friends growing up were my team mates and they still are, y'know?…We played a lot of high level volleyball and it was something that we had been together since, I think over 10 years we played together as a team so we really grew together as women, as moms, and as young adults and so on.

Similarly, Darby shared:

> For me it was going to the gym. I didn't want to. So, I avoided it all the time and then finally a girlfriend got me in, and we went… I got back the confidence, competence, and the understanding and … I valued it a whole lot more because I was able to go on that journey whereas when I didn't want to go to the gym, I would drive past and be like 'oh, the parking lots too full [laughs].'

For Jessica, no one necessarily explicitly communicated the importance of physical activity to her, however her parents did enroll her in a school with well-established sports programs, and she explained:

> I didn't come from a very physically fit family, and I think parents get busy and stuff like that. I think in elementary my parents really put me in sports to keep me out of trouble, something to do.... I've always kind of been interested in sports because I did sports performance-based high school. I went to an Academy school so it was kind of like even though I wasn't so interested in it, I was kind of just put in that pool and I just kinda ran with it.

As Jessica suggested, being in that environment, where friends, teachers, and the greater school community placed value on the sports, made such activities more accessible to her.

Aside from family and friends, key members of the community were identified by collaborators as people that could facilitate opportunities for Indigenous youth to develop their physical literacy. Athena and Clara named these key knowledge holders as community champions. Athena and Clara's perspective may have been solidified with the roles that they had in their own communities, as experts in physical literacy or general health and wellness. From her experience in the field, Clara suggested:

> I think the most important thing, realistically, is to try and look at having at least one person within the community willing to share their knowledge and share their experiences, if they have any sort of formal training…I actually found that physical literacy work was most successful when you have one person, whether it's in the community or in the facility or you know whatever it is, as kind of the expert I guess and then really relying on the knowledge and the strengths of the older youth who really wanna step up and they, y'know be able to make it beneficial for everyone.

With a similar stance on the idea of having a community champion to share their knowledge with a community, or group of Indigenous youth, Athena shared:

> I think that physical literacy is a responsibility for people that are knowledgeable to give back to the community. I really believe that's a continuation of who we are as people, and Elders talk about having your spirit live on and so on. And I think a whole lot of that comes from your contribution back to the people that you're a part of, and where you come from. So coaching is my connection to my community, to my family, to so many other things.

Clara and Athena both agreed that a community champion did not necessarily have to be an outsider, this community champion could be an educator or parent. Clara shared that in her experience, it could even be older youth working with a community lead.

Not only is it positive for Indigenous youth to have a community member sharing their knowledge of physical literacy but, as Athena pointed out, giving back has benefits too and often these benefits go beyond the financial gain of an individual. For example, Athena finds value in her contribution to her community through how it makes her feel spiritually and emotionally. To expand on this point, Athena shared how great it feels for her when a practice goes really well. She stated:

> ...even when the practice wasn't good… or it didn't feel like it was as good as I thought it could've been, or challenging ,or whatever…it still felt good to be active and be around those kids. I think youth give me so much energy and they keep me young…. It just feels so good to give back to them.

As an example of what a community champion might look like, Athena shared:

> I used to own a minivan. Every weekend it was packed because we didn't have parents that were engaged in their children's lives. We didn't have parents that could provide shoes so my girls' team, my girls' basketball team that I used to coach, half of my girls

> wore Vans and you know their skate shoes because they wanted to play. But they didn't have a way to get there, so I'd be like picking people up early morning. And I'd have two ball bags and I'd usually have a hockey bag and bag of basketballs and then my team, like six players in the back ready to go. But it was the thing that I understood how important it is for them to have that. And I have some of my girls that are still playing ball and they're playing at a high school level and some of them that are playing a club level and it's so cool to see that. But I also understand that without champions in their life to help them with that to bridge those gaps and kind of do away with those barriers or solve those solutions, they wouldn't have it and I've seen all too often kids with such great potential fall into wayside, fall into the typical statistical trends for our First Nations kids.

Although Athena did not share this story to gain recognition as a community champion in her community, her sharing this story did demonstrate the dedication she had for supporting the youth that she worked with. Perhaps too, this story demonstrates the ability that one key individual has in providing opportunities for Indigenous youth to excel in sport and perhaps beyond.

Overall, the importance of facilitating opportunities for Indigenous youth to excel was summarized by Clara when she said:

> I want [the Indigenous youth that I work with] to grow up feeling like they have support and love. Like they have opportunities to excel in whatever it is they want to excel at. And I think that physical literacy, physical activity in sport is just one of the ways that we can do that for youth.... Even now, to me I'm not intimidated by the thought of participating in an activity I haven't done before. If anything, I'm regretful that I didn't participate in the activity growing up because I'm not going to walk out there and be an all-star. So, I think I was lucky enough to grow up with the concept of physical literacy really embedded in my day-to-day life whereas the individuals that didn't have that growing up really struggle now. So, I can see it and that's why I believe in the concept in general, what we're trying to get at with physical literacy and what we're trying to do for our communities with physical literacy. I can get behind that because I myself experienced the benefits of it and I want to be able to give that experience to other Indigenous youth so that they can also overcome the barriers they face, and I think that's the crux of it.

CHAPTER 4: DISCUSSION

Findings from this research address a critical gap in the physical literacy literature as, to my knowledge, this is the first study that has explicitly explored and highlighted Indigenous peoples' understandings of physical literacy. In addition to sharing their in-depth understandings of physical literacy, collaborators described practical suggestions for facilitating physical literacy amongst Indigenous youth. This research, which is grounded in the voices of Indigenous peoples, has the potential to make an important contribution to sport and physical activity programming and policies. Specifically, findings from this research can serve as an important foundation to ensure that programs and policies are aligned with the perspectives of Indigenous peoples.

Before unpacking the key discussion points from the research findings, it is important to first note, as the collaborators suggested, "Indigenous youth are inherently active." Often within the physical activity and health-related literature, there is a strong focus on the activity levels of Indigenous peoples (e.g., Foulds, Bredin & Warburton, 2012; Foulds, Warburton & Bredin, 2013; Hsu & Warburton, 2018). Inactivity has been used to support the rationale behind intervention studies that aim to increase the wellness of Indigenous peoples (Norman, Petherick, Garcia, Giesbrecht & Duhamel, 2018). However, similar to the Indigenous youth who were involved in Hudson, Spence, and McHugh's (2019) research in the Northwest Territories, the collaborators in the current study emphasized that Indigenous youth are indeed active. Nevertheless, as described within this study, and consistent with the findings of Hudson et al. (2019), there are many ways that Indigenous youth could be supported to further facilitate positive physical activity experiences. This important point of clarification might be a valuable consideration for those that seek to facilitate physical literacy amongst Indigenous youth.

The physical literacy literature has typically been focused on the ability to perform the fundamental movement skills, as demonstrated in Canada through extensive research regarding

the measurement and evaluation of physical literacy amongst children and youth (Edwards et al., 2018; Tremblay & Lloyd, 2010). However, neither physical competence nor measurement and evaluation were emphasized by the collaborators in the current study. Instead, the collaborators discussed how they viewed physical literacy as a holistic concept whereby all components are necessary for being active throughout life. Holistic understandings of physical literacy have been described by other researchers (e.g., Cairney et al., 2019), but have not necessarily been well attended to in physical literacy policy and practice (Edwards et al., 2017). For instance, many of the physical literacy initiatives that are supported in Canada have been primarily focused on developing physical competence through experiencing movement and FMS (e.g., RBC Right to Play, Boks by Reboks). However, as noted by the collaborators in this study, physical competence is just one component of their holistic understandings of physical literacy. As such, findings from this research suggest the need for more physical literacy initiatives that reflect the holistic nature of this concept, or more specifically the affective and cognitive domains.

Collaborators in this research argued that it is not as important to focus on *how* movement skills are completed, but instead it is important to focus on *why* it is important to be active for life. This aligns with Whitehead's (2013) description of the concept as she argues physical competence is an individual's ability to respond to movement situations with poise, economy, and confidence. In other words, she does not outline what each movement response should look like, nor does she describe how each movement is completed. Instead, she emphasizes that each person embodies physical literacy in their own unique way, and that their reasoning behind being active is based on their motivation, confidence, physical competence, knowledge, and understanding (Whitehead, 2013). Further, the affective and cognitive aspects of Whitehead's (2013) conceptualization of physical literacy seemingly establish the reasons to be

physical, or physically active throughout life. As such, the knowledge and understanding to be active outweighs the importance of how to be active in both the collaborators and Whitehead's (2013) conceptualization of the concept of physical literacy.

To support the development of the cognitive aspect of physical literacy, or rather the knowledge and understanding to be active for life, the collaborators suggested processes of wisdom sharing. Wisdom sharing, for example, can support Indigenous youth in better understanding *why* being active for life is important. Understanding *why* it is important to be active for life is valuable in joy-oriented physical education, as such approaches to physical education are rooted in meaning (Kretchmar, 2008). Meaning, as described by Kretchmar (2008), may be established through processes of wisdom sharing that have been described by the collaborators. For instance, Kretchmar (2008) argued that effective joy-oriented physical education is grounded in history and culture. Therefore, approaches of wisdom sharing, or rather embedding history and stories into lessons, may act as a tool for facilitating joy amongst students in physical education classes. Further, the joyful experiences produced during this process may lead activities to become personally meaningful to youth in a way that encourages them to incorporate activities learned in class into their everyday lives.

In many ways, the wisdom sharing described by collaborators relates to Dewey's philosophy in education. As within Dewey's philosophy in education, telling stories and sharing experiences are valuable components of instruction. In essence, the process of wisdom sharing, as explained by the collaborators, may relate to Dewey's (1923) suggestion that students should be provided with opportunities to reflect on their experiences to strengthen their understandings of concepts being presented. Dewey (1938/1963) described how interactions between a person and their environment shapes experience and ultimately learning. Furthermore, the knowledge

gained from one situation becomes a resource for future situations through the principle of continuity. According to Dewey (1938/1963), experiences can be educative and mis-educative, and meaning is constructed once the value is given to each new experience based on the previous. Therefore, educators should use the context (e.g., historical, social, economic, institutional) that they are teaching within as a resource for continuing to facilitate meaningful experiences for youth to learn from. By providing context for movement through the sharing of stories and rooting explanations of movement in history, perhaps Indigenous youth will better develop the knowledge and understanding to continue to be active for life.

In addition to wisdom sharing, the collaborators discussed the importance of being mindful in teachings when working with Indigenous youth. Similar to Halas, McRae, and Carpenter (2013), the collaborators discussed how it is important to acknowledge the differences in experiences among youth. Not only is it important to acknowledge the unique experiences of Indigenous youth, but humour and humility could be used in programming and practice to support Indigenous youth. In a similar fashion, Leddy (2018) described the significance of humour in Indigenous communities. Leddy (2018) suggested that humour is how Indigenous people cope with hardship, stay humble, and communicate. Not only is humour important in Indigenous communities, it is also important amongst youth in physical education classes (Halas, McRae & Petherick, 2012). For instance, when asked what qualities made a person a good educator, the Indigenous youth that participated in Halas et al. (2012), study replied “humour.” When an educator uses humour and humility in their practice laughter may ensue, which Gordon (2010) suggests will reduce anxiety, create a positive learning environment, and increase student motivation and enjoyment on a topic. Such positive environments created through the use humour and humility, were also described by the collaborators. As such, being mindful of the

experiences of Indigenous youth and using humour and humility in practice may support the creation of positive environments for Indigenous youth to develop their physical literacy.

Youth, student, pupil, and athlete centered approaches have all been discussed as promising instructional frameworks in physical education, sport, and activity settings (Becker, 2009; Gray, Treacy & Hall, 2019; Kerr & Stirling, 2008; McGladrey, Murray & Hannon, 2010). For example, Kerr and Stirling (2008) suggested that athlete centered approaches in youth sport may support personal and athletic development of youth. Other researchers, such as Gray et al. (2019), described how pupil-centered approaches in physical education better suit the diverse needs of each student and act to re-engage disengaged youth by increasing the authority of students in their learning environments. Such approaches increase motivation for, and engagement in, learning (Gray et al., 2019). Similar to the youth centered approach described by collaborators in the current study, Halas et al. (2013) alluded to aspects of such an approach in describing best practices for quality and culturally relevant physical education for Indigenous youth. For example, Halas et al. (2013) discussed the importance of educators understanding the interests of the Indigenous youth with whom they work. To bolster this suggestion, Halas et al. (2013) shared findings from a previous research study that was conducted in 2002. The Indigenous youth in the 2002 study discussed the differences in how they viewed physical education in elementary and high school (see Champagne & Halas, 2002). Youth suggested that their "love" of physical education was lost once they became high school students, as the activities became irrelevant and were perceived to be forced upon them. Similar sentiments were shared by the collaborators in the current study when describing the need for youth centered approaches to physical literacy. As such, youth centred approaches to physical literacy programming should acknowledge and incorporate the interests of Indigenous youth.

Culture and spirituality were described by collaborators as essential for being active for life. While several researchers (e.g., Halas, 2011; McHugh, 2011; Robinson, Barrett & Randall, 2016) suggest there is a need for physical education and physical activity settings to be culturally relevant to Indigenous youth, collaborators in this research offered an important point for consideration for those seeking to facilitate physical literacy amongst Indigenous youth. The collaborators described how culture and spirituality are components of themselves that are embedded in all aspects of their lives. As such, their culture and spirituality are intertwined with their understandings and experiences of physical literacy, and physical activity in general. By merging the findings, or more specifically the various themes presented in this research, it is possible to consider how being mindful in teachings and taking youth-centered approaches in physical literacy programming could create a space that honours the cultures of Indigenous youth. The critical need to create such space has been acknowledged by Dr. Joannie Halas throughout her years exploring physical education experiences with Indigenous youth (e.g., Douglas & Halas, 2013; Halas, 2011; Van Ingen & Halas, 2006).

Findings from this physical literacy-focused research are consistent to those of Beni, Fletcher, and Ní Chróinín (2017) who examined meaningful physical education and sport experiences among youth. Beni et al. (2017) argued that meaningful experiences occur among youth when they have positive social interactions, are having fun, engage in a level of challenge that is appropriate for their ability, have motor competence, and when learning is personally relevant to them. Researchers have suggested that meaningful physical education experiences can increase the likelihood that students are active for life (Dudley, 2018). The collaborators in this research discussed elements of meaningful physical education experiences, and their role in facilitating such experiences among Indigenous youth. Specifically, in terms of positive social

interactions, collaborators described the relational support provided by parents, friends, and community champions in facilitating physical literacy among Indigenous youth. The importance of relationships were also highlighted by Halas et al. (2012), who discussed how relationship building may be key to facilitating spaces in which Indigenous youth feel comfortable participating in physical activity. Halas et al. (2012) described how Indigenous youth identified successful physical education teachers as the ones that "made an effort" to get to know them personally. Findings from the current study, combined with those of Halas et al. (2012), highlight the critical role of relationships in facilitating meaningful physical education and sport experiences.

Researchers (e.g., Halas, 2011; Mason, McHugh, Strachan & Boule, 2019) have described the various barriers that hinder Indigenous youth's likelihood to be involved in physical activities, including sport and physical education. For example, barriers related to socio-economic status and racial discrimination are consistently noted in the physical activity literature (Mason et al., 2019). Within physical education classes, Indigenous youth have also expressed feelings of social exclusion (Champagne & Halas, 2003). Collaborators in the current study described such barriers in relation to Indigenous youths' opportunities to access the *community* of sport, physical activity, and physical literacy. In this sense, collaborators described physical literacy as something that had to be accessed. They described how the disproportionate barriers that they, and the youth with whom they work, face in participating in physical activity may hinder Indigenous youths' ability to develop physical literacy and remain active throughout their lives. While not their only concern, collaborators did highlight their unease with Indigenous youth being cut from school sports teams as a result of their various after-school responsibilities that prevent them from being able to fully commit to a team. Being cut from school sport teams

was described by collaborators as being denied access to physical literacy. Although Gleddie, Sulz, Humbert, and Zajdel (2019) acknowledge that it is inevitable that youth are cut from school sports teams, their recommendations for best practices for cutting include being upfront, direct, and providing actionable feedback to youth during individualized face-to-face discussions. In addition to these recommendations, Gleddie et al. (2019) suggest three alternative options to cutting from school sports teams such as creating multiple teams within a school, having a tiered team system, or having one team in which everyone gets to play (Gleddie et al., 2019). In all three scenarios, youth are provided opportunities to participate on a school sport team that may also better match their commitment and developmental level. Perhaps, this is valuable insight to consider when approaching cutting Indigenous youth from school sport teams. Overall, it is critical to acknowledge and address the various barriers that may be preventing Indigenous youth from participating on a school sports team and in physical activity in general.

Physical literacy has been described as a journey whereby individuals follow a unique path of physical activity participation throughout their life (Whitehead, 2013). Within the current study, collaborators emphasized the *dynamic* process of how they understood physical literacy to unfold in their own lives and in the lives of Indigenous youth. They highlighted a reciprocal process that is not as well attended to in the physical literacy literature. Collaborators shared how their physical activity experiences were positively shaped by various individuals and how they now, as knowledge holders, engage in a reciprocal process of giving back to youth by teaching, supporting, or facilitating more opportunities for youth to physically active. As has been described in the literature, the more opportunities that youth have to participate meaningfully in physical activities the more likely they are to be active for life (Beni et al., 2017; Tremblay & Lloyd, 2010). Therefore, coaching, educating, or supporting youth in a way that leads them to

want to do the same in the future, may be an important aspect of physical literacy that is not yet described in the literature. This finding is important for facilitators of physical literacy to consider when working with youth, as it may relate to the overarching goal of the concept to be active for life.

Collaborators in this research described physical literacy and being active for life synonymously. As well, the term physical activity was often used interchangeably with physical literacy when collaborators shared their experiences in this research. This finding is not particularly surprising when considered alongside the findings of Robinson et al. (2018), whom also described how there is confusion among educators when it comes to explaining the concept of physical literacy. Edwards et al. (2017) echoed this point and suggested that much of the confusion regarding terminology was formed from tensions between individuals' conceptual understandings of physical literacy and the resources available to them. As is demonstrated by these various studies, educators and coaches understand the importance of being active for life. However, how the concept of physical literacy should be articulated and implemented seems to cause confusion (Edwards et al., 2017). Perhaps, the focus should remain on the goal of physical literacy (i.e., being active for life) and creating spaces that support meaningful physical education and physical activity experiences, rather than finding a way to articulate physical literacy so that it is understandable to everyone.

Limitations and Future Directions

Despite the various strengths of this research, it also has limitations. For instance, the findings of this research may have been limited by the processes of data generation. The use of arts-based methods was originally discussed as an ideal process for generating data. As suggested by Bagnoli (2009) and Blodgett et al. (2013), arts-based methods can enrich data

generation by going beyond the confines of verbal expression to support multiple ways of knowing and understanding. The use of arts-based forms of expression has demonstrated promise in other physical activity-related research that has involved Indigenous youth (e.g., McHugh et al., 2013). An arts-based method activity was designed for youth participants in the initial conceptualization of the current study. However, the focus of the study changed to adults as I found it extremely challenging to recruit youth within my social network. When the focus of the study shifted to adults, the process of data generation also changed. However, given the potential strength of arts-based approaches, in the future it may be beneficial to explore physical literacy experiences with Indigenous peoples, including adults, using such approaches.

Another limitation of the study was related to recruitment. In addition to educators, coaches, and youth mentors, the original intent of this research was also to include the experiences of Indigenous youth and Elders. Although a known sponsor approach was used to identify potential collaborators, I was unable to identify youth or Elders with whom to collaborate. Indeed, being relatively new to the city in which I was recruiting participants meant that my own personal social network was relatively limited. As well, during the short time of my graduate degree it has been challenging to develop relationships with youth and Elders, and I understand that such relationships are foundational to the trust required to participate in research. Some researchers (e.g., Alfred & Corntassel, 2005) have highlighted the importance of connectedness between generations in many Indigenous cultures. Furthermore, Reading and Wien (2009), suggest that "cultural continuity involves intergenerational cultural connectedness that is maintained through families and Elders who pass on traditions to younger generations" (p. 21). Thus, it is likely that the engagement of Indigenous youth and Elders would have broadened the insights into physical literacy on this project.

In addition to the important role that Elders could serve in helping to deepen understandings of physical literacy, future research should focus on youth perspectives on physical literacy. As noted by the collaborators and other researchers, including Messner and Musto (2014), youth are the experts of their own experiences. Traditionally, sport research has been *about* youth, rather than *inclusive of* youth knowledge (Messner & Musto, 2014). The inclusion of Indigenous youth voice in sport research is even less common (McHugh et al., 2018). Therefore, future researchers should use a youth centered approach to explore the concept of physical literacy. Not only will this ensure that the voices of Indigenous youth are heard in the research literature, but it may also facilitate the relevance of findings that may contribute to future sport and physical activity programming decisions.

Finally, and as suggested by the collaborators in this research, there is a need for more research that seeks to work with diverse Indigenous communities to explore their meanings and understandings of physical literacy. While I am confident that many of the findings from this research could be applied to other Indigenous communities, it is also likely that diverse communities have unique understandings of how physical literacy should be facilitated. Further, it is important to avoid taking a pan-Indigenous lens when approaching programming and policy decisions (Mashford-Pringle, 2016). Therefore, it is necessary to work with various Indigenous communities to explore their perspectives of physical literacy. Working with communities may support the creation of strengths-based physical literacy programming, as community members are experts in their knowledge of resources available.

Conclusion

Findings from this research highlight Indigenous peoples' perspectives of physical literacy. The collaborators in this research shared important insights into their perspectives of

physical literacy and offered practical suggestions for facilitating the development of physical literacy amongst Indigenous youth. This research addresses a significant gap in the physical literacy literature by providing important insight into Indigenous peoples' conceptual understandings of the concept. As well, the practical suggestions made by collaborators for facilitating physical literacy amongst Indigenous youth may support those who work with youth in sport, physical education, and physical activity settings. Overall, the findings from this research may help to inform the decisions of sport and physical education programmers and policy makers, as they seek to ensure physical literacy programming is meaningful to, and inclusive of, Indigenous youth.

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APPENDIX A
Ethics Approval

UNIVERSITY OF ALBERTA

RESEARCH ETHICS OFFICE

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Notification of Approval

Date:	June 5, 2018
Study ID:	Pro00082356
Principal Investigator:	Tara-Leigh McHugh
Study Title:	An Exploration of the Cultural Relevance of Physical Literacy
Approval Expiry Date:	Tuesday, June 4, 2019

Approved Consent Form:

Approval Date	Approved Document
6/5/2018	Killam.Consent form (participants other than Elders).docx
6/5/2018	Killam.Consent form (Elders).docx

Sponsor/Funding Agency: Killam Cornerstone Grant, University of Alberta

RSO-Managed Funding:

Project ID	Project Title	Speed Code	Other Information
RES0040984	An exploration of the cultural relevance of physical literacy		

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

Trish Reay, PhD
Associate Chair, Research Ethics Board 1

APPENDIX B

Consent Form

UNIVERSITY OF ALBERTA

Informed Consent Form

You are invited to participate in the study: "An Exploration of the Cultural Relevance of Physical Literacy". Your participation is voluntary and is not required by any physical activity or sport program in which you may be involved.

Researchers: The study is under the supervision of Dr. Tara-Leigh McHugh (780-492-3907, tara-leigh.mchugh@ualberta.ca), who is an Associate Professor at the University of Alberta in the Faculty of Kinesiology, Sport, and Recreation. Autumn Nesdoly

(autumn.nesdoly@ gmail.com) and Jenna Davie (jdavie@ualberta.ca) are two graduate students in the Faculty of Kinesiology, Sport, and Recreation and they will be involved in all aspects of this research, including the facilitation of talking circles and one-on-one follow-up interviews.

Purpose and Procedures: The purpose of this research is to explore the cultural relevance of physical literacy among Indigenous peoples. The study will require you to participate in a one-on-one interview with one of the researchers and a talking circle with approximately 4 other Indigenous participants. The talking circle and one-on-one interview will each last approximately 1 hour.

The total time required of you for the study will be a maximum of 2 hours. Specifically:

Talking circle (maximum of 1 hour) + one-on-one follow-up interview (1 hour) = 2 hours maximum.

Your time commitment to this research will be acknowledged by giving you a $30 cash honorarium. $15 will be provided after participating in the talking circle and $15 will be provided after participating in the one-on-one interview.

Potential Risks: You will not be subjected to any physical risk, but it is possible that you may feel uncomfortable discussing your experiences regarding sport, physical activity, and culture. In the event that you would like the support of a health professional you may contact the 24 hour Mental Health Help Line (1-877-303-2642), and they will be able to direct you to the appropriate health professional.

Potential Benefits: By sharing your knowledge, you may benefit by knowing that you have contributed to a better understanding of how physical literacy is understood by Indigenous peoples. Such an understanding could lead to practical benefits, such as the identification of programs that enhance sport opportunities for Indigenous youth.

Confidentiality and Storage of Data: The following steps will be taken to protect your identity and the privacy of the experiences you share in the sharing circle. Names or other identifying markers will not be discussed outside of your talking circle or one-on-one interviews. Pseudonyms (made up names) will be used instead of real names in all study reports, presentations, and/or newsletters. Transcripts and consent forms will be kept and stored in a locked filing cabinet in my office for 5 years following the publication of the final reports, and then they will be shredded. Audio files and digital copies of transcripts will be stored on a password protected computer in my office, and permanently deleted after 5 years.

There are, however, limits on the level of confidentiality that researchers can ensure. Because you will take part in a group interview (i.e., talking circle) with other participants, you will be identifiable to other people in the group on the basis of what you have said. The researcher will be sure to safeguard the confidentiality of the group discussion, 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 discussions outside the group, and be aware that others may not respect your confidentiality.

Right to Withdraw: You have the right to refuse to answer any question in the talking circle or one-on-one interview, at which time the discussion will be redirected. As well, participation in this study is voluntary and you may withdraw from the study for any reason, without penalty of any sort, including current or future participation in this or any other program. You will have 30 days from the date of the sharing circle to have any information you shared removed from the study.

Questions: If you have any questions concerning the study, please feel free to ask at any point. The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615. As well, any questions you may have about this study may be directed to Tara-Leigh McHugh at telephone number (780) 492-3907.

Consent to Participate: I have read and understood the description provided above; I have been provided with an opportunity to ask questions and my questions have been answered. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

_____	_____	_____
Participant's Name	Participant's Signature	Date
_____	_____	_____
Researcher's Name	Researcher's Signature	Date

APPENDIX C

Interview Guide

Semi-Structured Interview Guide

Introductions: Introduce yourself and tell me about the types of physical activities (e.g., sport, recreation) in which you participate or have participated in, in the past?

1. What are the reasons you participate in such physical activities?
    a. Prompt: what are some facilitators and barriers to participating?

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2. Tell me what you know about the term "physical literacy"?
    a. Prompt: If have heard of term, ask specifics about what this term means
        i. how has this term been defined to you?
    b. Prompt: If have not heard of the term, ask if they could speculate what the term might mean.
3. Given this discussion, how would you define physical literacy to someone who had never heard of the term before?
4. What role does physical literacy play in the lives of Indigenous youth?
5. The International Physical Literacy Association defined physical literacy as the "motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life."
    a. Tell me what you think about this definition.
        i. What aspects of this definition of physical literacy do you think are most important to you? What aspects are least important?
        ii. How is this term relevant (or not relevant) to yourself, and perhaps the Indigenous youth you work with?
    b. Why do you think the Association highlighted the importance of "valuing" and "taking responsibility" for engaging in physical activity?
    c. What do you think is meant by the *motivation* to engage in physical activities for life?
        i. Why is this important (or not)?
        ii. How might such motivation be facilitated among Indigenous youth?
    d. What do you think is meant by the *confidence* to engage in physical activities for life?
        i. Why is this important (or not)?
        ii. How might such confidence be facilitated among Indigenous youth?
    e. What do you think is meant by the *physical competence* to engage in physical activities for life?
        i. Why is this important (or not)?

        ii. How might such physical competence be facilitated among Indigenous youth?
    f. What do you think is meant by the knowledge and understanding to engage in physical activities for life?
        i. Why is this important (or not)?
        ii. How might such knowledge and understanding be facilitated among Indigenous youth?
6. What, if anything, do you think is missing from the definition of physical literacy?
    a. Prompt: How would you modify (what would you add, subtract, delete) physical literacy to better represent your meaning of physical literacy?
7. The importance of promoting physical literacy has been outlined in a number of provincial and federal sport programs and policies.
    a. Prompt: What are your thoughts on this?
        i. What are your thoughts on the Association's definition being the one used?
8. What does your own physical literacy journey, or experience, look like?
    a. Prompt: how would you describe your reasons for being, or not being, active throughout your life so far
9. What is your experience teaching physical literacy to youth?
    a. Prompt: perhaps this isn't in the traditional classroom sense, maybe this is something you do to engage your own children or nieces/nephews in an active lifestyle
    b. Prompt: what do you think the strengths and weaknesses are of promoting physical literacy among Indigenous youth?
10. How has your understandings of physical literacy changed (if at all) since discussing it today in this room?