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Ropes/Challenge Courses in Canada

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If one asks most Canadians, the terms “outdoor recreation” and “outdoor education” refer to nature-based activities that do not depend on extensive built facilities. Ancillary services such as parking, washrooms, trails, and even campsites are not considered core to the activity. This categorization exists in stark contrast to activities such as golf, tennis, downhill skiing, and swimming which, although they take place outdoors, require specially constructed resources. Where then, do the use of ropes or challenge course experiences fit into outdoor learning in Canada?

A ropes/challenge course is a series of purpose-built elements erected using trees, poles, wood, rope, cable and other materials that require participants to apply physical effort and skill to climb up, over, or across them. The early term “ropes course” derives from the historic use of ropes as the primary building material, while the later term “challenge course” focuses on the opportunity these structures provide for participants to test themselves (Speelman et al., 2021). More recently, the term “aerial adventure en-

vironment” (AAE) is being used to describe low and high ropes courses, zip line canopy tours, and aerial (trekking) parks along with the myriad of operating systems and delivery approaches that exist in this diverse and rapidly expanding field. All these terms will be used in this chapter to convey the nuances that connect and classify these related opportunities.

Ropes/challenge course experiences are popular throughout the world and routinely included in adventurous outdoor learning, especially in the United States. However, Canada does not appear to follow this American pattern of popularity. This chapter will explore the history and development of AAEs in Canada by comparing and contrasting them to outdoor learning activities considered more stereotypically Canadian. These similarities and differences are reflected in the historic timeline appended through the combined efforts of numerous contributors, whose personal communications, resulting from author interviews, are cited throughout this chapter.

Same Intent with Similar Outcomes

In Canada, ropes course experiences (including group initiatives, low and high ropes) are often a small component of a sequenced and group-focused program that concludes with a wilderness-based travel experience (Henderson & Potter, 2001). Outward Bound, an international initiator of adventurous outdoor learning, played an important role in the history and development of ropes courses in the United States (Speelman et al., 2021), but does not seem to have played a similar strong role in Canada.

Bob Pieh founded the Minnesota Outward Bound School in 1964 (the low ropes course there was considered “spectacular”), taught at the Faculty of Education at Queen’s University in Kingston, Ontario, and founded the Canadian Outward Bound Wilderness School in 1974. However, Canadian Outward Bound instructors were not spreading ropes course experiences throughout the country, as they were in the USA. Perhaps Canada is too big or the population distribution (83% of Canadians live within 300 km of its southern border with the USA) made it convenient for Canadian organisations to reach out to US-based AAE companies, professionals, and conferences. Maybe the home-grown opportunities for canoeing and mountaineering were simply abundant and impressive. Regarding ropes course experiences in Canada, Jude Hirsch (1999) wrote:

I have often referred to the Project Adventure model as “canned or simulated adventure.” In 1988 I had the opportunity to get involved with the organization when, at Acadia University in Nova Scotia, I was given the opportunity to host an Adventure-Based Counseling catalogue workshop and applied to become a PA trainer. I learned that my assumption that it was necessary to use a wilderness model for achieving developmental objectives was narrowly conceived. Both avenues offer valuable and different opportunities and are equally powerful mechanisms for use in our field (p. 19).

Most research on adventure education has focused on identifying outcomes rather than highlighting the processes by which the outcomes were achieved (Baldwin et al., 2004). The term “active ingredients” described those characteristics of an experience that were responsible for its results (Sibthorp et al., 2020). When former campers were asked to describe the active ingredients that facilitated learning at summer camp, they identified activities that were novel, active, and provided opportunities to work with peers. McKenzie’s (2000) study of how Outward Bound Western Canada course outcomes were achieved described active ingredients such as achieving success, having fun, learning new skills, succeeding at challenges, and being responsible for oneself. Baldwin and colleagues (2004) discussed the importance of a novel or unfamiliar setting, physical challenge, emotional challenge, co-operative behaviour, and decision-making.

Lindemeier and colleagues (2004) pointed out that most studies considered “the ropes course” as the treatment and then evaluated the experience in its entirety rather than attempting to isolate the effect of specific aspects of the experience. They found that low ropes and high ropes experiences yielded different benefits. Goldenberg and colleagues (2000) used means-end analysis to examine the benefits associated with ropes course participation by university students. These outcomes included teamwork, trust communication, awareness of self and others, and leadership. The meta-analysis by Gillis and Speelman (2008) shed some light on the active ingredients that made a ropes course experience effective. Specifically, experiences that combined high and low ropes course activities had a larger impact than experiences that included only low ropes activities. As with most experiences, the time on task influenced the outcome. Ropes course experiences lasting 21 to 30 hours were more effective than experiences that lasted six to ten hours or 11 to 20 hours. They also reported that ropes course experiences had a positive influence on group dynamics and self-efficacy.

Haras and colleagues (2005) attempted to link specific design features in ropes course experi-

ences with participant-reported outcomes. All participants identified active ingredients such as “working together,” “challenge,” “novel experience,” “high ropes,” and “specific high elements” and linked achieving challenging goals with feeling good about themselves. Participants who experienced high ropes at the end of their program were more likely to report that they felt both excited and anxious. Participants who experienced high ropes earlier in their program and had more choices in the elements they could climb were more likely to report that they had fun. Only participants who experienced low ropes activities after climbing on the high ropes course reported that low ropes activities were fun and they attributed having fun to their groups’ success in these tasks.

In a related study, Haras and the same colleagues (2006) found that participants who were presented with a multi-level challenge environment that included at least two different types of access to the high ropes course; at least two different high elements with the option to determine their order; and the possibility of deciding how much of an high element to do and how to do it (blindfolded, one-handed, letting go to clap hands, catching a ball, etc.) reported higher levels of meaningful involvement with more choice. Numerous different possibilities for climbing and traversing made it easier for participants to choose an activity at which they thought they would be successful and minimized ‘performance anxiety’ since it was more difficult for group members to compare each other’s accomplishments. Participants in high ropes experiences, overtly including an explanation of the “Challenge-by-Choice philosophy” (Rohnke, 1989), reported lower levels of meaningful involvement and less choice than those participants who experienced the multi-level challenge environment but without the explanation.

This research provided evidence for both of Hirsch’s viewpoints: ropes courses experiences have the capacity to generate similar outcomes to wilderness-based experiences, but only when they are executed well. All the research studies presented above examined participation in fa-

cilitated ropes course experiences. Without research on the benefits of guided zip line canopy tours or self-guided (yet monitored) aerial parks, these types of AAEs cannot prematurely claim they increase participants’ understanding of the natural and cultural environment (Wagstaff, 2015), contribute to teambuilding, or develop participants’ self-efficacy. Clearly, more widespread research is warranted.

Purpose-built Venue

Ropes/challenge courses differ from other outdoor learning activities, because they employ deliberately constructed facilities that are not found in nature. Unlike a ski hill with trees cut to allow steep downhill runs or a riverbed altered with rocky structures to create whitewater, the ropes/challenge course does not normally attempt to sculpt the terrain to improve the experience. Unlike a climbing wall or surf (wave) pool, the ropes/challenge course does not strive to replicate the features found in natural environments. Instead, the AAEs create new situations with the purpose of providing participants with different challenging experiences.

Almost all writings about the origin of challenge courses mention Hebertisme. This educational movement is based on the work of Georges Hebert, who was a French naval officer at the beginning of the 20th century responsible for the physical conditioning of sailors. Instead of relying on traditional calisthenics and military drills, Hebert developed *Methode Naturelle*. The word “natural” refers to movements that are natural to the human body: walking, running, climbing, jumping, balancing, throwing, lifting and carrying (Cousineau, 1976). Hebert was inspired by the fundamental movement skills he observed in the sailors who worked high on the rigging of ships (Shepard, 2013; Phillipe-Meden, 2018). This feature of Hebertisme elements may explain why so many ropes course elements (cargo nets, Bosun’s Steps, Postman’s Walk) attempt to recreate those in-air challenges faced by sailors.

Hebertisme was not limited to naval personnel. In 1908, the method was pilot tested on 800

students, aged 14 to 17 years, at the École des Mousses in Brest and in 1913 about 20 female physical education instructors and 50 girls took part in this method at the Collège d'Athlètes in Reims (Phillipe-Meden, 2018). Hebert founded *Palestra* in the seaside town of Deauville in 1918 and dedicated himself to training female physical education teachers at this private sports school for girls. In 1929, Hebert and his wife Yvonne Moreau – a former physical education instructor at the College in Reims – established the first women's sailing school aboard the three-masted ship *Alcyon* (History, n.d.). The French Boy Scouts adopted Hebert's *Methode Naturelle* in 1926 (Phillipe-Meden, 2018).

When Father Raoul Cloutier and Georges Gauvreau, Canadian army officers stationed in France during World War II, brought “la methode naturelle d’Hebert” back to Quebec with them and installed the first Hebertisme trail facility in North America at Camp-Ecole Trois-Saumons in 1949 (Cousineau, 1976), Hebertisme was already a widely used practice in youth development. Given that Gauvreau stayed in France for six months after the war to research Hebert's methods (Cousineau, 1976), he would have likely been aware of its many uses.

As the popularity of Hebertisme declined in France in the 1960s, it was growing in Canada. The Department of Education in Quebec recommended that when land for a school was obtained, it should include an area for Hebertisme (Mingie, 1972). By the mid-1970s, over 75 such sites existed in Quebec alone (Cousineau, 1976). Today, searching for “Hebertisme” brings up websites for AAEs located in Quebec employing terms such as “piste hebertisme aerien”, “Parcours d’hébertisme aérien”, or “Parcours d’hébertisme” to describe the experience they offer to the public.

Many of the benefits of a purpose-built setting for outdoor learning were highlighted in the story of how Acadia University in Wolfville, Nova Scotia, got its ropes course. Throughout the 1980s, first-year students in the recreation program at would attend “Spring Camp” at Sherbrooke Lake Camp, a residential facility owned

and operated by the United Church of Canada and located in Lunenburg County. The experience included teambuilding initiatives and low ropes course challenges. Eventually this credit course was discontinued despite achieving its intended academic outcomes. Since the logistics of requiring students to upend their lives to travel to and attend a mandatory multi-day experience in a remote setting were too difficult, the “Spring Camp” was replaced by a ropes course installed between poles on campus (Society of Acadia University Recreation Graduates, 2020). This change enabled adventurous outdoor learning experiences to occur in a location lacking natural opportunities and facilitated student access by reducing the need for transportation. In turn, this increased opportunities for repeat engagements and arguably lessened the environmental impacts on a natural setting by concentrating them in a single already developed area. Funding for the challenge course at Acadia University was partially provided through a donation made by John Bassett (a Toronto-area politician, media proprietor, and professional sports team owner) whose daughter Avery was a student in the outdoor specialization stream (Society of Acadia University Recreation Graduates, 2020).

High Barriers

The costs of installing, operating, and maintaining an AAE are significant. Historically textile ropes were strung between trees, poles, towers, and even buildings, but since the 1990s most facilities have been installed using wire rope (galvanized aircraft cable) that is stronger, lasts longer, and deters vandalism (Rohnke, 1990). Two notable Canadian exceptions are the former aerial course at Camp Kilcoo (Minden, ON) which used textile ropes for life safety lines until 2016 (Chisnall, 2016) and Educo Adventure School (100-Mile House, BC) which continues to use two lengths of ½-inch low-stretch kernmantle rope for its zip line as of 2023.

Tom Puk (personal communication, 7 August, 2023) recounted that, on one occasion in the 1970s, the low ropes course he built in Cootes Paradise disappeared overnight from vandalism.

After that occurrence, he made sure to always disassemble the rope-based courses that he had built for programs at McMaster University. Located minutes up the road in Ancaster, Canterbury Hills Camp had the rope handlines on a high (be-layed) element cut. This vandalism led to these lines being replaced with wire rope (Brian Lisson, personal communication, 11 August, 2023).

Using wire rope to construct AAEs requires specialty tools. The size of trees involved and the required safety factors for lifelines and suspended elements mean suitable materials are rarely available at local hardware stores. Most of all, it takes time and practice for individuals to develop the unique skills and in-air proficiency needed to install, maintain, and repair permanent or semi-permanent elements. Canada is a big country and travel is expensive, hence construction costs can be high.

Observing individuals in the midst of a ropes/challenge course experience provides little information about why they are participating. Horwood and Raffan (1988) suggested that recreation, education, and even training for terrorism are possibilities. They identified funding as one reason to distinguish amongst these options and that debriefing differentiates recreational and educational ropes course experiences in the same way it differentiates these purposes in canoe trips. Fun, and the notion that education isn't meant to be fun, has always been a confounding factor. They concluded that ropes courses were value neutral and only by knowing something about the context and intent of the experience can observers determine whether the program purpose is recreational or educational.

Explaining the intent of an educational challenge course experience to non-participants has a long history of difficulty. Hebert's motto "Être fort pour être utile" (be strong to be useful) is rarely explored in literature about ropes courses. "Be strong" calls for developing physical fitness and motor skills while "to be useful" describes the purpose: exercising courage and altruism in challenging times (Shepard, 2013). Hebert was dismayed in 1925, when, without consulting

him, the French Military adopted Hebertisme in a watered-down form (movement without the philosophy). In 1938, he published a statement refusing to be part of any organized Hebertisme group and would have nothing to do with the Vichy government, even though it officially adopted *Methode Naturelle* (Phillipe-Meden, 2018).

Debriefing alone is insufficient for drawing learning from an experience, when the ropes course itself is unsuitable for the design of the program. Project Adventure (PA) started at Hamilton-Wenham Regional High School (Massachusetts, USA) in 1971. PA has been broadly acknowledged for bringing challenge course experiences into the mainstream education system in America. However, what is less commonly recognised is that PA developed a new style of course construction. Fitting a challenge course experience into a 50-minute class period required changing the circuit-style courses that were common at the time. Otherwise, students could find themselves only halfway through a series of interconnected elements and still in the air when the bell rang (Rohnke, 1990). Rather than creating a single structure, PA-style courses consisted of numerous stand-alone elements built among the trees and spread throughout a wooded area.

Offering fundamentally the same experience to different participant groups can also be non-effective. The elements and the design of the experience needs to reflect the age, maturity, skill levels and needs of its intended participants. Conventional ropes courses include elements designed to be tough and challenging. Facilitators may remind complaining participants that the course is not called an "easy" course nor a "success" course. An epic Vertical Playpen element that takes a pair of campers several attempts to conquer would be inappropriate for an outdoor education centre, where students get a single two-hour climbing block (Speelman et al., 2021). Designers of recreational AAEs typically incorporate traditional elements such as zip lines, swinging bridges, and balance beams into a variety of circuits with different levels of difficulty, so that individuals with a wider range of physical abilities may participate (Wagstaff, 2015).

Overt Recognition of the Critical

Chisnall (2004) raised the issue of real (actual) risk versus the public perception of risk in relation to rock climbing, climbing walls, and challenge courses. He presented statistics from various outdoor education safety studies and contrasted these findings with how climbing activities are (often unrealistically) portrayed in movies, magazines, and newspapers. He argued, as have countless outdoor adventure articles, that the general public does not understand the actual risks involved.

The public's perception of the risk involved with AAEs isn't necessarily wrong. They recognise that falling from height and impacting the ground with force is an obvious danger and that humans have no way to counter the force of gravity once a fall begins. Unlike water-based activities, where a participant who falls into the water and remains conscious may be able to float or swim for some period of time, no aerial equivalent to swimming or drown-proofing yet exists. Static (fixed length ropes) and dynamic (changing length ropes) belays connecting harnesses to well-anchored safety lines have been an option.

Early Canadian challenge courses did not use ropes or harnesses – even at considerable heights. Bark Lake Ontario Camp Leadership Centre had a Hebertisme course in the mid-to-late 1960s (Andrew Hubert, personal communication, 4 August, 2023). Archie Hubert served as counselor, section-head, and director in the 1960s and 1970s. Andrew, his son, remembers climbing on it at age five or six, much to his mother's dismay. The ropes course at Queen's University included walking across a beam in the roof of the Open Country Barn and swinging on a rope to an in-air platform. If one fell off, it was a fall of over a story (12-feet) to land on old bales of hay or straw (Orest Haras, personal communication, 1 August, 2023; Tom Puk, personal communication, 7 August, 2023). Participants in a Canadian Outward Bound Mountain School movie, made in 1975, also weren't connected to lifelines (overhead belay cables). Surprisingly, similar lifelines weren't installed on the challenge course at

Strathcona Park Lodge until 1988 (David Boulding, personal communication, 3 August, 2023).

Today, the term operating system describes the "life" or "safety" interface between participants and the structure that protects them if they lose balance (Speelman et al., 2021). Since the 1970s, various operating systems have been used in Canada to manage the risk of an uncontrolled fall from height during a challenge ropes course experience. Some operating systems, such as spotting and belaying, are operated by other people (staff or group members). Other operating systems, such as lanyards and rappelling, are controlled by the participants themselves. A few auto-belay devices require no continuous human intervention, but even these automated operating systems require participants to receive human instruction on donning a harness and using specialized equipment.

Operating systems have not totally eliminated the inherent risk of impacting the ground with force. Davidson (2004) found that ropes courses and climbing walls were separately in the top three outdoor activities in New Zealand for incidents with the capacity to produce serious injuries. In other words, the occurrence of serious injury was low, but the analysis of near misses showed that nearly all of the reported events had a potential to cause serious injury. Hurrell (2000) found the same pattern in Australia, where caving and high ropes had the lowest number of injuries in a dataset focused on outdoor education programs. Injuries during free time were nearly eight times more numerous than those during rock climbing. This situation changed when considering activities that led to serious injuries in a different dataset that focused on high school sports. Rock climbing was the second most likely activity (only boxing was higher) to lead to fractures, dislocations and loss of consciousness (Hurrell, 2000).

Serious injury arising from any school-sanctioned activity is unacceptable. Student fatality is intolerable and must be avoided (Cloutier, 2003; Jackson et al., 2023). Since ropes course experiences involve exposing groups to the risks

inherent in being at height in a purpose-built environment, this avoidance mindset and the necessary procedures to prevent injuries are well-established (Haras, 2010). The Association for Challenge Course Technology (ACCT) uses the term “critical” to describe “...any component or system where the consequence of failure is likely to lead to serious injury or death to any person” (2019, p. 8). The word “critical” then appears throughout their standards document 33 more times for heavy objects suspended above head level, ground anchors for belayers, zip line braking systems, and the lifelines (belay cables), belay beams, and anchorages that suspend participants. Preventing untrained and unsupervised persons from accessing elements that involve climbing or activity at height is well addressed in multiple ways including signs, fencing, access prevention panels, pulling elements up and out of reach, installing semi-removable components, and locking up equipment.

AAEs require that participants master technical skills before they perform these skills independently. As a result, all challenge ropes course experiences involve interaction with trained staff who instruct, monitor, and intervene when necessary. The Ontario Physical and Health Education Association (OPHEA) publishes revisions to the Ontario Physical Activity Safety Standards in Education (OPASSE) annually. These standards describe the supervision required for various climbing activities in terms of “active ropes” or the number of belay ropes, auto-belay lines, or lanyards (lobster claws) with an active climber on the end of them. A trained instructor must complete a pre-climb check of any student who leaves the ground and a teacher who takes on the role of a trained instructor during a ropes course experience must be accompanied by another teacher (OPHEA, 2022). This second teacher has no responsibilities for tying knots, checking harnesses, or in-air transfers of students from one operating system to another, but must manage non-climbers awaiting their turn. The myriad of participatory and team belay methods (JRD post, Australian belay, M-Style Team Belay) invented for challenge courses are all intended to increase the involvement of participants on the ground

and significantly reduce the time it takes for an individual to develop the proficiency required to belay a climber using single person with belay device approach (Speelman et al., 2021).

The overt recognition that some aspects of AAEs are critical means the typical (even expected) learn-by-doing model does not manifest in the same way it does for most outdoor activities. New teachers can’t learn what’s required by simply “coming along on the trip” and gradually taking on more responsibilities. Offering this experience once per year is inadequate for maintaining the required skills.

Significant Oversight and Enforcement

An AAE is visually obvious and attracts attention regardless of whether or not it offers a facilitated experience, a guided zip line canopy tour, or a self-guided and monitored aerial trek. The inherent risks are clear to even casual observers. Since the 2010s, canopy/zip line tours and aerial adventure parks have become more available to the public as pay-for-play experiences and have caught the attention of government regulators. The Ontario Technical Standards and Safety Authority (TSSA) began regulating zip lines at camps and outdoor education centres in 2009 by initially requiring an annual inspection of the zip line by an ACCT accredited Professional Vendor Member (PVM). The TSSA now requires full compliance including employing or contracting with a licensed zip line mechanic. British Columbia has regulated large commercial zip lines for many years and is expected to have regulations for the gravity brake zip lines (comparatively short lines with little design tension) typically found at summer camps and outdoor centres by spring of 2024 (Peter Sorensen, Personal Communication, 27 February, 2023).

Oversight of ropes course experiences in Canada includes more than enforcement of government regulations. Provincial summer camp associations could deny accreditation to member camps that fail to meet their standards. Camping associations in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick,

Nova Scotia and Prince Edward Island all have standards for challenge courses (low and high), zip lines, and climbing walls posted on the public (non-member) webpages of their websites. Accreditation allows camps to promote their compliance with standards and be included in provincial marketing efforts including “find a camp” search tools aimed at parents and teachers looking for outdoor education trip options. The biggest reason a camp may follow its provincial accreditation standards, however, is access to insurance coverage. Provincially accredited camps are eligible to participate in the National Insurance Policy coordinated by the Canadian Camping Association (CCA). Other insurance companies providing coverage to camps and outdoor education centres also require compliance with various standards, especially those associated with AAE standards.

All of this oversight and enforcement is expensive. The cost of regulatory compliance, increasing insurance premiums, along with a decreasing number of companies willing to write insurance policies for venues offering AAEs will lead to higher prices for participants (T. Benson, personal communication, 3 August, 2023). Defraying these costs is one reason AAEs tend to be more expensive than other types of outdoor learning opportunities.

One Misconception

The Canadian approach to outdoor learning tends to be a blend of both environmental and adventurous means, often delivered using a wilderness trip-based model. “Travel heritage, pioneer lifestyle, and indigenous peoples’ material culture and spiritual view are all part of storytelling, craft, and skill understanding (Henderson & Potter, 2001, p. 230). The ropes/challenge course experience does not fit well into this integrated approach. In their qualitative study, Asfeldt and colleagues (2020) found that ropes/challenge courses were rarely used by the Canadian outdoor education programs in their sample.

One low ropes course element is informed by the history and geography of place, although that place is definitely not the wilderness. The Mohawk Walk is a classic low ropes initiative element found at many camps and outdoor centres.

It challenges group members to travel from point A to B without stepping off the series of foot cables. Lengths of ropes meant to assist with balance may hang from support trees or an overhead cable. Its name has led many organizations to re-name this element under the assumption that it is yet another example of Indigenous cultural misappropriation at summer camps. The origin story is quite different and re-naming this element dishonours the element’s originators and erases the Indigenous history that informed it.

In 1981, two physical education teachers from Kahnawake Survival School (KSS) attended a five-day “Adventure Programming” workshop taught by Jim Grout and Karl Rohnke who were working at PA (Rohnke, Tait, & Wall, 1997; Grout, n.d.). The agenda on the final day of the workshop was for attendees to create and then build a new element. The teachers came up with the idea of stringing a series of cables 18-inches above the ground and having the group traverse them. When it came time to name the activity, the teachers recounted the long history of Indigenous ironworkers, from the Haudenosaunee communities near Montreal, who built bridges and skyscrapers across Turtle Island, while balancing at precarious heights. The activity was named Mohawk Walk to honour the creativity and expertise of its originators AND the Mohawk ironworkers who inspired their idea (Grout, n.d.). Invented by Mohawk Canadians, variations of the “Mohawk Walk” element are now common throughout the world.

In 1992, some participants in a PA training workshop questioned the appropriateness of this name. They thought it was frivolous and demeaning to use the term “Mohawk” in connection with a low ropes initiative task. Their mistaken assumption was corrected by the same physical education teachers from KSS who just happened to be with them in their workshop. These teachers had returned for a refresher training (Rohnke, 2009). When Rohnke recounted this event in the 25th *Anniversary edition of Silver Bullets*, he hoped it would resolve the issue once and for all. It didn’t. Staff at High 5 Adventure Learning

Center (founded by Grout and Rohnke after they left PA) raised concerns about the name, given the difficulties of spreading its true origin story mostly through word-of-mouth while also retaining the importance of the name.

Jim Grout, now executive director at High 5, reached out to a Mohawk Council in Quebec. He shared the story, asked for guidance, and was connected with the Council's researcher, who recommended a slight name change to Mohawk Ironworkers Walk to continue to honour the individuals who created the element and more clearly convey the rich history of the Mohawk people. Grout then described these efforts and the naming decision in a blog entry that was reviewed and approved by the Mohawk Council.

Ensuring that all people (participants, facilitators, and ropes course trainers or installers) encountering a Mohawk Ironworkers Walk are fully aware of how the element originated is critically important, because the word "survival" in the name of the school refers not to wilderness survival, but to the survival of the community's Indigenous language, beliefs, and traditions (Kahnawake Survival School, 2023). To spread the origin story of the Mohawk Ironworkers Walk, High 5 Adventure Learning Center includes a QR Code that links to Grout's blog entry on signs that get posted, when it now installs new elements.

A Well-established Professional Network

Extensive communication within the challenge course community includes individuals from Europe, the USA, Canada, Australia, New Zealand and Asia (Wagstaff, 2015). Through relationships nurtured through industry associations, professionals are borrowing from, collaborating with, and learning from one another. Canada's bilingualism continues to be an asset to incorporating and disseminating this key information.

Intriguing evidence of all three challenge ropes course movements (Hebertisme, Outward Bound, and Project Adventure) blending in Canada started in the early 1970s. Cousineau (1976) referenced Bob Pieh's *Ropes Course Guide* and

gave its publication source as the Duncan McArthur College of Education: the 1965 predecessor to the 1971 Faculty of Education at Queen's University (Queen's Encyclopedia, n.d.). Cousineau also referenced Project Adventure's 1974 publication *Adventure Curriculum: Physical Education*. Orest Haras (personal communication, 1 August, 2023) graduated from the Queen's University Bachelor of Education program in May of 1971 and remembered the twice weekly class taught by Bob Pieh included a circuit of challenges (tunnel crawl, 3-rope bridge, catwalk beam) installed in the Open Country Barn. Discussions ensued about creating similar experiences for students. A clear distinction was made between the Hebertisme approach of using objects found in nature, which could shift or move and ultimately fail, versus installing less natural, but sturdier purpose-built elements. Tom Puk (personal communication, 7 August, 2023), a Queen's student in 1980, recalls a class trip to PA and speaking with Karl Rohnke about building ropes courses. Readers should be aware that PA was a result of Bob's son, Jerry Pieh, and Gary Baker writing a successful grant application to the US Department of Education (Speelman et al., 2021).

Professional challenge course builders first met formally at the North Carolina Outward Bound School in 1988. The first North American standards for ropes course construction, arising from discussion in this meeting, were only three pages long as compiled and edited by Canadians (Priest & Dixon, 1990). The brevity of these standards and the need for further detail, eventually led to the first professional association, the Association for Challenge Course Technology (ACCT), being established in 1993. ACCT published the first edition of its construction standards in 1994. Canadians and Canadian companies were present and involved from the beginning and continue to be involved with the ACCT today. Five Canadians have been honoured with the ACCT's Critical Link Award for their significant contributions.

Conclusion

Canada has a long rich history of AAEs that, in many ways, pre-dates and is distinct from the tra-

jectory of AAEs in the United States. Hebertisme, as an activity in summer camps, started much earlier. Recreational AAE opportunities in Canada were directly informed by tourism offerings available in Europe and Central America. The lack of long-term funding by provincial governments meant ropes/challenge course experiences did not become a core part of the school curriculum but were embraced by youth development organizations such as summer camps and treatment services. A wide-range of facilities developed across the country in a de-centralised manner that reflected the trends of time and place.

The use of ropes/challenge courses in Canadian learning opportunities reveals both similarities and differences to outdoor experiences considered more typical of this country. The outcomes achieved by participants in facilitated experiences are virtually identical. The movements required are natural and the force of gravity metes out the consequences of failure. Success depends on the coordinated efforts and support of a group – whether by managing operating systems, providing encouragement, or solving problems. The purpose-built environment enables challenges to be tailored for specific types of groups and employs an integrated array of systems to address critical safety issues. Professionals and practitioners regularly interact with their Canadian peers and colleagues from around the globe. Aerial adventure experiences are a unique part of outdoor learning in Canada.

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Timeline of AAE Development in Canada

This timeline is an initial attempt to document the historical evolution of ropes, challenge and AAE courses in Canada. Please share your knowledge, additions, and corrections with the author, so future publications can be updated. Accurate recording of Canadian history is vitally imperative to prevent loss.

1949 – **Camp-Ecole Trois-Saumons** (Quebec City, QC) was founded by Father Raoul Cloutier and Georges Gauvreau. It included the first “Piste Hebertiste” in North America (Methode naturelle, n.d.). Claude Cousineau and his wife were staff members there (Cousineau, 1969).

1966 – **Bark Lake Ontario Camp Leadership Centre** (Irondale, ON) installed a Hebertisme course.

1968 – **Faculty of Education at Queen’s University** (Kingston, ON). Bob Pieh was hired to provide outdoor experiential education (OEE) offerings and built a ropes course in the Open Country Barn (Raffan, 1997). The original barn burned down in 1989 and was replaced by a smaller metal barn that included a ropes course and two small climbing walls built by Rob Chisnall. This second barn was phased out of the Queen’s OEE program in the 1990s.

1969 – **Canadian Outward Bound Mountain School** (Keremeos, BC) offered its first program. Art Rogers and Mike Perry (both ex-instructors at Outward Bound Eskdale) played a founding role. To save money on the ropes course, board members living in Vancouver sourced ropes from various docks at the city harbour (Wallis, Minichiello & Harper, 2020). As late as 1981, no life safety systems (belay cables) were being used on the high course.

1970 – **Educo Adventure School** (100 Mile House, BC). The high ropes course elements were made either from second-hand cargo ropes from Vancouver wharves (Nyman, 2019) and/or new 12 mm nylon rope (3-strand, not kernmantle). This was the first instance of a ropes course in Canada employing a life safety system. In 1980, Educo rebuilt the course in a new location using fiber ropes from Hoyle Ropes for the horizontal lifelines and zip line. Wire rope horizontal lifelines began to appear in 1984 and the transition was completed by 1990. The zip line never converted to wire rope and continued to use fiber rope as of 2023.

1972 – **Project DARE** (District of Parry Sound, ON). Obstacle courses, low ropes courses, and aerial courses (without a life safety system) were installed at Portage Lake (Britt, ON) and Wendigo Lake (South River, ON) by Tom Puk. The Wendigo Lake site was re-located to Loxton Lake (South River, ON) in 1974 and the Portage Lake site was closed in 1976. Wire rope horizontal lifelines were added to the aerial course at Loxton Lake by 1978. The original course in trees was replaced by a utility pole course in the 1990s.

1973 – **Strathcona Park Lodge and Outdoor Education Centre** (Campbell River BC). New Zealander Alan Strid (who had worked for Outward Bound in Keremeos) and David Boulding installed a “confidence course” (without life safety system) of several elements up to 16-feet off the ground. Founders Jim Boulding and his wife Myrna Baikie were high school teachers who visited Plas y Brenin in Wales during 1969. John Jackson, director of Plas y Brenin, visited the lodge in 1975 and after. David remembered using 2-inch hemp rope and cargo nets donated by someone from

the navy. Outdoor adventure and environmental education courses for teachers were funded by the BC Department of Education in 1975 (Campbell River Mirror, 1975).

1974-79 – **School of Physical Education at McMaster University** (Hamilton, ON). Summer camps included low ropes course experiences on temporary elements built by Tom Puk using natural fiber ropes. In 1979 Tom taught a 4th year course called Curriculum Design and Programme Planning in Outdoor Education. The course examined the theory of ropes course design and implementation and then students experienced a natural fibre low ropes course.

1975 – **Alberta Teachers Conference Outdoor Camp** (University of Lethbridge, AB). A temporary low ropes course was built using natural fiber rope and installed by Tom Puk.

1975 – **YMCA Camp Wanakita** (Haliburton, ON). Director Wayne Perkins had a vision to extend the summer camp operation and expand program options. The Outdoor Centre installed a 14-element Hebertisme course in the spring. Steve Heming was one of the installers. Hebertisme immediately became the most requested land programs by schools and community groups. The course was maintained, altered, and improved by camp staff for about the next 15 years.

1976 – **Canadian Outward Bound Wilderness School** (Black Sturgeon Lake, Thunder Bay, ON) was established under the direction of Bob Pieh, but had no ropes course during its first year of operation. A belayed course was built among the trees by 1986. By 1990, the high course in trees had been replaced by a high course installed on utility poles.

1978 – **Enviros Wilderness School** (Cochrane, AB). The program installed a low and high ropes course built by Olivier LaRocque in trees that used wire rope for lifelines. It started with a rope ladder, included a unique yardarm element that swung the climber from one platform to another, and ended with a zip line to descend.

1979 – **University of Ottawa Camp** (Gracefield, QC). Participation in Hebertisme was included in the outline for PEP 2091 Outdoor Education I – Summer. The University of Ottawa sold the camp in the early 1990s and the class was held in other locations or as a mobile field trip afterward. The description in the 1991-92 calendar mentions Hebertisme (Wigglesworth, 2012). The course was bilingual – offered simultaneously in English and French.

1979 – **Camp Onondaga** (Minden, ON). The aerial course was installed by Tom Puk and used wire rope for the lifelines and 1-inch manila rope for the elements. Participants were attached to the lifeline with a lanyard-based system that used either nylon webbing or rope.

1981 – **Camp Ponacka** (Highland Grove, ON). Tom Puk set up low courses in 1981 and 1982. In 1983, he set up an aerial course he called “Sky-walker” that used wire rope for the life safety system and 1-inch manila rope for the elements. Participants were attached to the lifeline with a lanyard-based system that used either nylon webbing or rope. Tom was involved in the operation of this course until 1994

1982 – **YMCA Camp Chief Hector** (Exshaw, AB). Wayne Perkins had Steve Heming (both from 1975 YMCA Camp Wanakita) and Dave Lyons install a Hebertisme course during Steve’s 6-week outdoor education placement from the OEE program at Queen’s University.

1983 – **Bark Lake Ontario Camp Leadership Centre** (Irondale, ON) provided a belayed high ropes course experience to the young people nominated by their summer camp to attend the multi-week training sessions. The course was installed in the white pines between the Rec Hall and Bark Lodge in 1982, but staff training for it did not occur until 1983. Karl Rohnke of Project Adventure was the trainer for a three-day Advanced Skills and Standards seminar offered as a 1988 Council of Outdoor Educators of Ontario (COEO) pre-conference session.

1983 – **Canterbury Hills Camp** (Ancaster ON) decided to focus its camping program on land-based activities. The money from selling canoes was used to construct a ropes course by camp director Peter MacIntyre, senior staff member David Orde, and junior staff member Brian Lisson. The elements on this Project Adventure-style high course included a Burma Bridge, Monster Ladder, Climbing Ropes, Fidget Ladder, and Swinging Log. In spring of 1988, the Adventure Learning Centre (ALC) began offering outdoor education field trips to schools and community groups that included a ropes course experience. In spring 1990, the ALC offered training courses for staff from other camps who operated ropes course facilities.

1984 – **Department of Recreation and Leisure Studies at Brock University** (St. Catharines, ON) installed a high and low ropes course for the Challenge-Discovery Adventure Training Centre (Malcomson & Laurence, 1986). The centre was repurposed for research by the Corporate Adventure Training Institute with Simon Priest as the founding executive director in 1989. The original high course built in trees along the edge of the Niagara Escarpment was moved to a pole course in 1990. Brian Lisson (from Canterbury Hills) and Simon Priest were the builders. The unique two-layer hexagonal design enabled simultaneous use of the overlapping elements by several individuals and connected groups with the use of interchangeable static (lanyard-based) and dynamic belays.

1986 – **Camp Kilcoo** (Minden, ON). An aerial course was installed by Rob Chisnall. The course used no wire rope. A climbing tower was added in 1987 and an expansion in 1988 doubled the size of the aerial course. At its peak the aerial course consisted of four ladders, two zip lines, and twenty-four elements. The aerial course was replaced by an adventure park with wire rope lifelines in 2017 (Chisnall, 2016).

1987 – **Camp Towhee** (Haliburton ON). The course was built by Andrew Hubert, while he was a staff member. Expansions, additions, and changes started in 1990 and continued through

2021, while the challenge course continued to be a big part of their program.

1988 – **Canadian Ropes Course Company (CRCC)** was founded by Peter Bailey and Loisann Hauer who were graduates of Brock University and Norman Hauer. Peter Bailey had done a building internship at Project Adventure in 1987. Early CRCC installations included Camp Wahanowin, Green Acres Day Camp, Glen Bernard Camp, and Camp Tamarack in Ontario. Peter Bailey continued to operate CRCC through 2023.

1988 – **Challenges Unlimited Inc. (CUI)** was founded by Andrew Hubert and fellow Camp Towhee staff member Sarah Oosterhuis during the same year that they got married. Andrew attended the 1991 Ropes Course Symposium at the Warren Center in Ashland Massachusetts, along with 58 other participants. CUI became a founding member of the Association of Challenge Course Technology (ACCT) in 1993. After 32 years, ownership of CUI expanded to include Bryan and Kristy Oosterhuis.

1991 – **Project Adventure Canada** was incorporated. Courses built in Ontario included: Cave Springs Camp, Bolton Centre, Camp Smitty (Ottawa Boys & Girls Club), Boyne River, and Bark Lake (the pole courses replaced earlier low and high ropes courses installed in trees). The course built by Project Adventure at Acadia University in 1990 preceded the establishment of a Canadian entity. The Canadian business dissolved in January of 1993 although installations and other services were offered by the US entity for some time.

1993 – **Adventureworks Associates Inc. (AA)** was founded by Brian Lisson, when he purchased the ALC from Canterbury Hills Camp. The sale included cable cutters and a comealong. AA became an ACCT Professional Vendor Member in 2007.

1993 – **YMCA Camp Big Cove** (Thornburn, NS). The YMCA of Greater Halifax and Dartmouth built a four pole high course with a zip line descent from one corner. The builder was not identified.

1994 – **Banff Centre** (Banff, AB) installed a ropes course for use by corporate groups. Previously, the Pacific Center for Leadership (Canmore, AB) was providing primarily outdoor team and leadership development opportunities without a ropes course. This site may be the first instance of team/participatory belay systems being used in Alberta.

1996 – **Nakoda Lodge** (Canmore, AB). A ropes course was installed by Mike Shaw (one of the owners of the Pacific Centre for Leadership). The intent was to draw more corporate groups to the meeting facilities operated by Stoney Nakoda First Nations. Later, the Nakoda Lodge Ropes Course was retrofitted and added a zip line to offer pay-to-play opportunities to the general public.

1996 – **Camp Bow Isle** (Bowen Island, BC). A circuit-style course in trees was constructed by Project Adventure, Inc. of Portland, OR. The camp directors' faithful Toyota 4Runner was used to pull the large logs up into the trees! The first elements were the Incline Log, Burma Bridge, Hourglass, Catwalk, Platform Jump, and Zip line. The Pamper Pole was adjacent to the Hourglass, but not part of the circuit. By 2004, the course had evolved into separate elements, several of which shared trees between them. The original cedar Catwalk log was replaced in 2023. Sadly, unable to raise the new log with a vehicle, the 35-foot log was hauled up by hand using two 5:1 pulley systems with one on each end of the log.

1997 – **Evangeline Middle School** (New Minas, NS). An indoor course was built by Donne Frisson from Sydney under the auspices of Project Adventure from the US.

2002 – The first **Arbraska Park** opened (Rawdon, QC) in June. The founders were Jean-Marie Béveillard, originally from Grenoble, France and Stéphane Vachon from Quebec. Additional parks in Quebec were added over time, with seven parks operating by 2021. An Ontario division of Arbraska, called Treetop Trekking, was founded in 2006 and currently operate six aerial parks.

2002 – The first zipline tour in North America opened in Whistler, BC. The site was operated by **Ziptrek Ecotours** founded by Charles Steele and David Udow. Ziptrek also operated a site in Mont Tremblant, QC.

2006 – The first **WildPlay Element Parks** opened in Nanaimo, BC. The founders were former Canadian mountain guides Tom Benson and Gord Ross who wanted to provide engaging adventure experiences that were accessible to as many people as possible and were offered in a facility-based setting. They currently operate four sites in Canada and two sites in the United States.

2021 – **Columbia Outdoor School/Blue Lake Camp** (Cranbrook, BC) installed a high ropes course and added to existing low elements. From start to finish, the work was completed by Kathy Haras and Jodie Fluit: an all-woman installation crew. This was a first for Adventureworks and (after checking with many ACCT colleagues) likely a first for the challenge course industry.

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