

An Exploratory Study of Post-Secondary Outdoor Leadership Training in Canada

by

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Abstract

The purpose of this study was to explore the distribution and scope of post-secondary outdoor leadership (OL) training in Canada. Methods included a passive environmental scan to locate programs across Canada, and a multiple case analysis of programs within Ontario. There were 54 programs located in Canada, including university programs ($n = 28$; 52%) and college programs ($n = 26$; 48%). Based on analysis of available information, the scope of post-secondary OL training in Canada can be summarized in five themes: Primary and Secondary Education ($n = 5$; 9.3%), High Adventure Guiding ($n = 10$; 18.5%), Tourism Management ($n = 11$; 20.4%), Health and Wellness Promotion ($n = 15$; 27.8%), and Interdisciplinary ($n = 13$; 24.1%). The 10 programs in Ontario were presented as multiple case studies. An inductive analysis of learning outcomes from nine of 10 programs led to the development of 14 themes, representing common competencies taught across programs.

Keywords

Outdoor Leadership, Adventure Leadership, Outdoor Education, Post-Secondary Education, Higher Education, Environmental Scan, Case Study, Learning Outcomes, Competencies.

Paper 1 Co-Authorship Statement

Chapter 2 (Paper 1) and Chapter 3 (Paper 2) were prepared as articles for submission for publication respectively.

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Beau Williams-Orser led the conceptualization, data collection, and data analysis of this study, and wrote the first draft.

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Mr. Morten Asfeldt, Mr. Sébastien Nault, and Mr. James Little reviewed Paper 1 and provided feedback.

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Mr. Adrien Marcotte assisted by creating the algorithm used for data collection.

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List of Abbreviations

AEC: Attestation d'études collégiales

AEQ: Aventure Écotourism Québec

CEGEP: Collège d'enseignement général et professionnel

DEC: Diplôme d'études collégiales

ES: Environmental scanning

ISO: International Organization for Standardization

LOA: Led outdoor activity

LOs: Learning outcomes

OL: Outdoor leadership

URL: uniform resource locator

Chapter 1

1 Introduction

The term *led outdoor activity* (LOA) has recently been gaining currency internationally, (Canadian Outdoor Summit, 2021a; Outdoor Council of Australia, 2021). Thus, the LOA sector is used to represent the broad spectrum of outdoor activity experiences, often in remote and/or challenging terrain, led by a person or persons in a clear role of responsibility. For the purposes of this thesis, outdoor leadership (OL) is used as a term to represent the role(s) of a leader during outdoor activities, and this applies to multi-disciplinary fields such as education, tourism, recreation and health. The OL role often requires a diverse range of skills and competencies to manage program outcomes and safety during outdoor experiences. The importance of this role has been well-documented (Holland, Powell, Thomsen, & Monz, 2018), despite a lack of congruence across OL competency research, and OL training standards. In Canada, OL training is offered through both private and public training providers, including post-secondary programs offered at universities and colleges (Potter, Socha, & O'Connell, 2012). While post-secondary programs are one of the main avenues for OL training, the extent of post-secondary OL training programs across the country is unknown. Furthermore, without any national or provincial standards for OL training, nor any requirements for employment in the LOA sector, the diversity of approaches to preparing OL training is also unknown.

Thus, this thesis research had two purposes: (1) to systematically identify the distribution and scope of post-secondary OL training in Canada, and (2) to explore the diverse approaches to post-secondary OL training within the province of Ontario. Given the provincial jurisdiction of post-secondary education in Canada, and given the limited scope of this thesis, the second

purpose was limited to only one province. To address these two purposes, two empirical studies were conducted sequentially. These two studies were prepared for submission to peer-reviewed journals, and are embedded into this integrated-article thesis in Chapter 2 and Chapter 3. Chapter 2 explores the first purpose, and was guided by the first research question: (1) What is the distribution and scope of post-secondary OL training in Canada? Chapter 3 explores the second purpose, and was guided by the second research question: (2) What are the common and unique characteristics of post-secondary OL training programs in Ontario? The following section will present important background information and relevant literature that informed the rationale for the two studies, followed by a brief overview of Chapters 2 through 4.

1.1 OL Training and Competencies

Given the multidisciplinary nature of the LOA sector, the role of a leader is equally diverse, and can be dependent on the wide range of activities, terrain, participants, and levels of responsibilities. The training required for OL is also complex, including but not limited to training in first aid, emergency response, risk management, navigation, leadership, facilitation, and activity-specific technical skills (Priest & Gass, 2017). Research related to LOAs has clearly underscored the importance of well-trained leaders (Goldenberg & Soule, 2015; Houge Mackenzie & Kerr, 2017; Phipps & Claxton, 1997; Powell, Kellert, & Ham, 2009; Vagias & Powell, 2010). Further, authors of a recent systematic review concluded that a leader's effectiveness has an influence on the success of program outcomes (Holland et al., 2018).

While the importance of training for OL is clear, research on OL competencies has lacked congruence. Globally, OL competencies was a particular focus of research in the 1970s and 1980s, where a plethora of empirical studies were completed (Buell, 1981; Cousineau, 1977; Green, 1981; Johnson, 1989; Priest, 1984, Priest, 1986; Raiola, 1986; Swiderski, 1981). The

focus of these studies was primarily to identify and rank OL characteristics, traits, skills, knowledge, attributes, or competencies, and not to expand on training curriculum. While OL competencies has been studied extensively during this early period, reviewing these studies revealed that only two listed a definition for the term “competence” or “competency” (Cousineau, 1977; Raiola, 1986), and only a few of them provided definitions for related terms such as skills, knowledge, and attributes. During this early emergence of OL competency research, the Council of Outdoor Educators of Ontario commissioned a work by Rogers (1979), which proposed a more holistic model for OL training preparation, suggesting that the development of OL is an ongoing process of life-long learning.

After this boom of OL competency-related research, there were two prominent efforts to synthesize the prior research into a list of competencies and a framework for training, which resulted in the publication of two popular OL training textbooks authored by academics. In 2005, Priest and Gass (2017) authored the first edition of *Effective Leadership in Adventure Programming*, now in its third edition. In 2006, Martin, Breunig, Wagstaff and Goldenberg (2017) authored the first edition of *Outdoor Leadership: Theory and Practice*, now on its second edition. A lack of alignment between early research and synthesis efforts have been noted, and competency-based approaches to OL training have been critiqued (Shooter, Sibthorp, & Paisley, 2009; Warren, 2007). Additionally, OL training has been criticized for lacking empirical methods to integrate competencies into curriculum (Berman & Davis-Berman, 2009; Pelchat & Karp, 2012). Despite considerable research and publications regarding OL, training and competency-based approaches remain very complex and lack coherence within the LOA sector. For instance, Priest and Gass (2017) suggest that there are 12 OL competencies, and Martin et al.

(2017) suggest that there are eight OL competencies. This is a vast difference across two of the most prominent texts authored by OL experts.

In addition to the empirical texts on OL training, there have also been a number of OL curriculum developments published by reputable organizations (Cockrell, 1991; Gookin & Leach, 2009; Raynolds et al., 2007). The International Standards Organization (ISO) has recently released four proprietary documents outlining standards for the adventure tourism industry, including *Good Practices for Sustainability* (ISO, 2018), *Information for Participants* (ISO, 2014a), *Safety Management Systems Requirements* (ISO, 2014b), and *Leaders - Personal Competence* (ISO, 2020). In the ISO standard for Leaders - Personal Competence, *competence* is defined as the “ability to apply knowledge and skills to achieve expected results” (ISO, 2020, p. 1). Further, the competencies detailed by this ISO standard are outlined in three sections: knowledge, skills, and attitudes or attributes. The methods used by ISO to create standards is very rigorous, and involves international collaboration, however no reference to any of these ISO standards have been found in OL training research or manuals, thus it is unknown to what extent these standards are used or accepted within the LOA sector in Canada.

1.2 LOA Sector in Canada

Canada has a long-standing tradition of LOAs, with a particular tradition of wilderness travel and use of routes with long-standing historical or Indigenous significance (Potter & Henderson, 2004). Canada's vast geographical breadth and linguistic diversity has often meant that LOA experiences are occurring within regional networks, and training providers and operators are not always aware of what is occurring in other fragmented networks across the country (Potter & Henderson, 2004). Ritchie, Patrick, Corbould, Harper, and Odson (2016) noted similar barriers when describing the fragmentation of Adventure Therapy training programs in Canada, a sub-

field within the LOA sector. Recently, the “Canadian way” of outdoor education was investigated in a systematic review by Purc-Stephenson, Rawleigh, Kemp, & Asfeldt (2019). Their findings suggested that Canadian outdoor education experiences aim to recreate and retrace historic routes of the early explorers and settlers. Beyond this, Asfeldt, Purc-Stephenson, Rawleigh, and Thackeray (2020) investigated the common threads across outdoor education programs in Canada. Their findings suggested that, despite the many differences and distinctive programs, outdoor education programs in Canada had some common philosophical underpinnings (such as hands-on experiences and journeying through the land), common goals (such as personal growth and community building), and common activities (such as hiking, canoeing, kayaking, skiing, and snowshoeing).

A few notable tragedies have significantly influenced the history and practice of LOAs in Canada, including the C.W. Jefferys Collegiate Institute drowning in Algonquin Park in 2017, the Strathcona-Tweedsmuir School avalanche disaster in the Columbia Mountains in 2003, and the St. John’s School tragedy at Lake Timiskaming in 1978. Despite these high-profile tragedies, Canada has not adopted any formal standards for OL training, or for employment in the LOA sector. Currently there are no training, competency, or occupancy standards that apply broadly to the LOA sector in Canada, although there have been recent and ongoing standardization related initiatives. The Canadian Outdoor Summit¹ has tasked a group to propose a framework for competency training for the LOA sector (2021b). Additionally, Tourism HR Canada, a government funded organization, has recently begun developing a competency framework for

¹The Canadian Outdoor Summit, originally set for September 2020 but delayed by the COVID-19 pandemic, is scheduled for September 2021, in Gatineau, Québec. It is the first national gathering of the LOA community, and was initiated by the Outdoor Council of Canada.

the tourism industry, which includes competencies for adventure guides (Tourism HR Canada, 2020).

There have also been two recent provincial legislative efforts within the LOA sector. In Québec, a provincial standard for safety in nature and adventure tourism was established in wake of a snowmobile tragedy in 2020, offered by Aventure Écotourisme Québec (AEQ), a government supported organization (AEQ, 2021). Though this accreditation is not mandatory, operators that are not accredited are ineligible for Ministry of Tourism funding (AEQ, 2021). In Ontario, two recent labour disputes led to the Ontario Ministry of Labour becoming the first province/territory to set a minimum wage for *wilderness guides* (Government of Ontario, 2020). This legislation defined a wilderness guide as:

“a [person] who is employed to guide, teach or assist a person or people while they are engaged [in] activities in a wilderness environment, including the following activities: back-country skiing and snowshoeing; canoeing, kayaking, and rafting; dogsledding; hiking; horseback riding; rock climbing; operating all-terrain vehicles or snowmobiles; wildlife viewing; survival training.”

Additionally, there has been the recent formation of several advocacy groups, who represent outdoor leaders across the LOA sector, in support of fair wages, access to insurance, and safe working conditions, such as the Canadian Outdoor Professionals Association, the Association des guides professionnels en tourisme d'aventure, and the Sea Kayak Guides Alliance of British Columbia.

In Canada, there have been many paths for OL training including activity specific training and certification programs, and other private and public training programs. Many provincially and nationally-based not-for-profit organizations have developed curriculum and assessments to offer

individual certifications, predominantly in activity specific disciplines (e.g. canoeing, kayaking, and climbing). Two specific examples of this are the advanced training and certifications offered through the Association of Canadian Mountain Guides and Paddle Canada. Further, the Outdoor Council of Canada has developed the *Field Leader* program, which is primarily focused on training leaders of outdoor activities in positions of custodial care, such as K-12 education. Additionally, many reputable private organizations have also developed OL training programs, and there are many private operators that offer in-house training to develop outdoor leaders. An example of this are summer camps, which have a rich history in Canada of offering a plethora of LOA experiences for youth. These summer camp programs typically hire seasonal staff and offer training before the programs commence. Post-secondary programs are also one of the main avenues for OL training in Canada, including university and college programs (Potter et al., 2012), and the presence of many post-secondary OL training programs across the country has been noted (Asfeldt et al., 2020; Potter & Henderson, 2004). However, the full extent of these programs is unknown, and no formal attempt has been made to identify and catalogue all the OL training programs currently in operation at Canadian post-secondary institutions.

1.3 Post-Secondary Education in Canada

In Canada, post-secondary education is categorized into two main streams: universities and colleges/institutes. Typically, University programs award bachelor's, master's and doctoral degrees, and colleges/institutes, including the Collège d'enseignement général et professionnel (CEGEP) institutions unique to the province of Québec, award diplomas and certificates. More recently, some college institutions have begun to offer bachelor's and master's degrees. In Canada, post-secondary education is primarily offered the two official languages: English and

French. Post-secondary education is a provincial mandate and is overseen by the respective government ministry or department in each of the 13 provinces/territories in Canada.

Quality assurance of institutions and programs is regulated by the respective ministries in cyclical review processes. Identification or development of program level learning outcomes (LOs) have become an important initiative in quality assurance of post-secondary programs in Canada (Deller, Brumwell, & MacFarlane, 2015). In general, program level learning outcomes are statements that represent the competencies that a student should possess after the completion of a program (Harden, 2002). For programs, LOs are a tool to promote purposeful degree mapping and accountability, and for students they promote deeper learning and as a basis to understand expectations, evaluations and assessments (Brumwell, Deller, & MacFarlane, 2017; Deller, Brumwell, & MacFarlane, 2015). A study by the Higher Education Quality Council of Ontario surveyed programs across Canada for the presence of LOs (MacFarlane & Brumwell, 2016). This study identified that 53% of Canadian college programs had LOs, and 43% of Canadian university programs had LOs. Further, this study found that program accreditation and commitment to improvement to be the two most important factors driving LO identification and development. While there is a lack of congruence across OL competency research, examining LOs of post-secondary OL training programs could offer rich insight in order to contrast and compare training focuses and competency development across different programs.

1.4 Rationale

Effective outdoor leaders are crucial for achieving program outcomes in the LOA sector (Holland et al., 2018). While there has been a plethora of research related to OL competencies in the past, OL training approaches remain complex and diverse across the multi-disciplinary LOA sector. In Canada, there are no OL training or competency standards that apply broadly to the

LOA sector, however two recent initiatives are exploring this need (Canadian Outdoor Summit, 2021; Tourism HR Canada, 2020). Additionally, there have been two recent additions of provincial legislation providing some structure for the LOA sector (AEQ, 2021; Government of Ontario, 2020). Nevertheless, given the lack of national standards, OL training in Canada is offered in private and public programs, including in post-secondary programs (Potter et al. 2012). However, no study has attempted to explore the extent of OL training programs across Canada. Furthermore, no study has attempted to explore common and unique approaches to preparing OL training at post-secondary programs in Canada, or within their provincial jurisdictions.

Thus, this thesis research had two purposes: (1) to systematically identify the distribution and scope of post-secondary OL training in Canada, and (2) to explore the diverse approaches to post-secondary OL training in Ontario. To address these two purposes, two empirical studies were conducted sequentially, in that the results of the first study informed the methods for the second study. Both studies were written as independent articles in preparation for submission to peer-reviewed journals. The two articles were embedded into this integrated-article thesis as Chapter 2 and Chapter 3. The following section provides an overview of the remaining chapters of this thesis.

1.4.1 Overview of Chapters 2, 3 and 4

Chapter 2 (Paper 1) was guided by addressing the first research question through an empirical study: What is the distribution and scope of post-secondary OL training in Canada? In this study, a passive environmental scanning (ES) approach (Choo, 2001; Graham, Evitts, & Thomas-MacLean, 2008) and a rigorous search protocol were used to systematically identify all post-secondary OL programs in Canada via their institutional web pages. An ES approach was chosen

given its strengths as a tool to systemize knowledge and systematically identify programs within a determined geography. Once programs were identified, descriptive information such as location, degree/diploma/certificate types, specializations, host faculties/departments, and program descriptions were compiled into a database. The database was analyzed to identify descriptive statistics about programs and institutions. Further, the database was analyzed using principles of thematic analysis (Braun & Clarke, 2013) to reveal the main scope of training found across all programs. Results, limitations and recommendations for future research related to this study are discussed.

Chapter 3 (Paper 2) was guided by the second research question: What are the common and unique characteristics of post-secondary OL training programs in Ontario? The logic for investigating programs within a provincial context was that post-secondary education is a provincial government mandate, and thus programs within a province are administered by one ministry. Given the limited scope of this thesis, the second study was limited to investigating the programs in only one province (Ontario), though a similar approach could be applied to other provinces in future research. In this study, a multiple case study design (Hodges & Sharp, 2016; Stake, 2005; Yin, 2009) was used to investigate programs, and their approach to OL training. This approach was selected for its flexibility to collect data from multiple sources in order to generate a rich understanding of each case. Data was collected in semi-structured interviews with key informants, and supporting information was collected from each program's institutional web pages. Information was organized into case studies to provide a comprehensive overview of each program. Additionally, LOs were collected from each program and then analyzed using principles of thematic analysis (Braun & Clarke, 2013) to identify common categories of

competencies (skills, knowledge, and attributes) found across programs. Results, limitations and recommendations for future research related to this study are discussed.

Chapter 4 integrates the findings from the studies in Chapter 2 and Chapter 3, and expands on discussion in areas that were deserving of further consideration. This includes discussion on the use of ES techniques, the development of LOs at post-secondary OL training programs, the disconnect between OL competency research and training, and the fragmentation of the LOA sector in Canada.

1.5 References

- Asfeldt, M., Purc-Stephenson, R., Rawleigh, M., & Thackeray, S. (2020). Outdoor education in Canada: a qualitative investigation. *Journal of Adventure Education and Outdoor Learning*.
- Aventure Écotourisme Québec (2021). Quality-Safety Accreditation: Become a Member. Retrieved from <https://aeq.aventure-ecotourisme.qc.ca/qualite-securite/pourquoi-devenir-membre/devenir-membre-accredite>
- Berman, D., & Davis-Berman, J. (2009). Dimensions Underlying an Outdoor Leadership Curriculum. *Journal of Outdoor Recreation, 1*(1), 3-14.
- Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*. London, EN: SAGE Publications.
- Brumwell, S., Deller, F., & MacFarlane, A. (2017). Why Measurement Matters: The Learning Outcomes Approach – A Case Study from Canada. *Journal of Higher Education in Africa, 15*(1), 5-22.
- Buell, L. (1981). *The Identification of Outdoor Adventure Leadership Competencies for Entry-Level and Experienced-Level Personnel* (Doctoral dissertation). Retrieved from

<https://search.proquest.com/dissertations/docview/303165287/62EBDFAB75E248BDPQ/>

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Canadian Outdoor Summit (2021a). About. Canadian Outdoor Summit. Retrieved from

<https://canadianoutdoorsummit.com/>

Canadian Outdoor Summit (2021b). Workgroups. Canadian Outdoor Summit. Retrieved from

<https://canadianoutdoorsummit.com/workgroups/>

Choo, C. W. (2001). Environmental scanning as information seeking and organizational learning.

Information Research, 7. Retrieved from <http://InformationR.net/ir/7-1/paper112.html>

Cockrell, D. (1991). *The Wilderness Educator: The Wilderness Association Curriculum Guide*.

Merrillville, IN: ICS Books.

Cousineau, C. (1977). *A Delphi Consensus on a Set of Principles for the Development of a*

Certification System for Educators in Outdoor Adventure Programs (Doctoral

dissertation). Retrieved from

<https://search.proquest.com/dissertations/docview/302871132/741D6F6BF3184179PQ/1>

Deller, F., Brumwell, S., & MacFarlane, A. (2015). *The Language of Learning Outcomes:*

Definitions and Assessments. Toronto, ON: Higher Education Quality Council of Ontario.

Goldenberg, M., & Soule, S. E. (2015). A four-year follow-up of means-end outcomes from

outdoor adventure programs. *Journal of Adventure Education and Outdoor Learning*,

15(4), 284-295.

Gookin, J., & Leach, S. (2009). *NOLS Leadership Educator Notebook*. Lander, WY: National

Outdoor Leadership School.

- Government of Ontario (2020). Your Guide to the Employment Standards Act: Minimum Wage. Retrieved from <https://www.ontario.ca/document/your-guide-employment-standards-act-0/minimum-wage>
- Graham, P., Evitts, T., & Thomas-MacLean, R. (2008). Environmental scans: How useful are they for primary care research. *Canadian Family Physician, 54*(7), 1022-1023.
- Green, P. J. (1981). *The Content of a College-Level Outdoor Leadership Course for Land-Based Outdoor Pursuits in the Pacific Northwest: A Delphi Consensus* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303187505/abstract/62EBDFAB75E248BDPQ/77>
- Harden, R. M. (2002). Learning outcomes and instructional objectives: is there a difference?. *Medical Teacher, 24*(2), 151-155.
- Hodges, K., & Sharp, L. A. (). Case Studies. In B. Smith, & A. C. Sparkes (Eds), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 62-74). New York, NY: Routledge.
- Holland, W. H., Powell, R. B., Thomsen, J. M., & Monz, C. A. (2018). A Systematic Review of the Psychological, Social, and Educational Outcomes Associated With Participation in Wildland Recreational Activities. *Journal of Outdoor Recreation, Education, and Leadership, 10*(3), 197-225.
- Houge Mackenzie, S., & Kerr, J. H. (2017). Positive motivational experience over a three-day outdoor adventure trek in Peru. *Journal of Adventure Education and Outdoor Learning, 17*(1), 4-17.

- International Organization for Standardization (2014a). *ISO 21103: Adventure tourism — Information for Participants*. Vernier, Switzerland: International Organization for Standardization.
- International Organization for Standardization (2014b). *ISO 21101: Adventure tourism — Safety management systems requirements*. Vernier, Switzerland: International Organization for Standardization.
- International Organization for Standardization (2018). *ISO 20611: Adventure tourism — Good practices for sustainability — Requirements and recommendations*. Vernier, Switzerland: International Organization for Standardization.
- International Organization for Standardization (2020). *ISO 21102: Adventure tourism — Leaders — Personal competence*. Vernier, Switzerland: International Organization for Standardization.
- Johnson, W. C. (1989). *The identification of desirable knowledge and skills in outdoor leaders of outdoor pursuits, resident camping, and outdoor education and environmental interpretation programs in the United States* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303784323/abstract/62EBDFAB75E248BDPQ/8>
- MacFarlane, A., & Brumwell, S. (2016). *The Landscape of Learning Outcomes Assessment in Canada*. Toronto, ON: Higher Education Quality Council of Ontario.
- Martin B., Breunig, M., Wagstaff, M., & Goldenberg, M. (2017). *Outdoor Leadership: Theory and Practice* (2nd ed.). Champaign, IL: Human Kinetics.
- Outdoor Council of Australia (2021). About. Outdoor Council of Australia. Retrieved from <http://www.outdoorcouncil.asn.au/about/>

- Pelchat C., & Karp, G. G. (2012). A Historical Review of Outdoor Leadership Curricular Development and the Future With Action Research. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 27(2), 1-13.
- Phipps, M. J., & Claxton, D. B. (1997). An investigation into instructor effectiveness. *Journal of Experiential Education*, 20(1), 40-46.
- Potter, T. G., & Henderson, B. (2004). Canadian outdoor adventure education: Hear the challenge — Learn the lessons. *Journal of Adventure Education & Outdoor Learning*, 4(1), 69-87.
- Potter, T. G., Socha, T. L., & O'Connell, T. S. (2012). Outdoor adventure education (OAE) in higher education: characteristics of successful university degree programmes. *Journal of Adventure Education & Outdoor Learning*, 12(2), 99-119.
- Powell, R. B., Kellert, S. R., & Ham, S. H. (2009) Interactional Theory and the Sustainable Nature-Based Tourism Experience. *Society and Natural Resources*, 22(8), 761-776.
- Priest, S. (1984). Effective Outdoor Leadership: A Survey. *Journal of Experiential Education*, 7(3), 34-36.
- Priest, S. (1986). *Outdoor Leadership Preparation in Five Nations* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303428505/abstract/62EBDFAB75E248BDPQ/20>
- Priest, S., & Gass, M. (2017). *Effective Leadership in Adventure Programming* (3rd ed.). Champaign, IL: Human Kinetics.

- Purc-Stephenson, R. J., Rawleigh, M., Kemp, H., & Asfeldt, M. (2019). We Are Wilderness Explorers: A Review of Outdoor Education in Canada. *Journal of Experiential Education*, 42(4), 364-381.
- Raiola, E. O. (1986). *Outdoor Wilderness Education - a Leadership Curriculum* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303516954/abstract/62EBDFAB75E248BDPQ/43>
- Raynolds, J., Lodato, A., Gordon, R., Blair-Smith, C., Welsh, J., & Gerzon, M. (2007). *Leadership the Outward Bound Way*. Seattle, WA: The Mountaineers Books.
- Ritchie, S. D., Patrick, K., Corbould, G. M., Harper, N. J., & Odson, B. E. (2016). An Environmental Scan of Adventure Therapy in Canada. *Journal of Experiential Education*, 39(3), 1-18.
- Rogers, R. J. (1979). *Leading to Share, Sharing to Lead*. Sudbury, ON: Council of Outdoor Educators of Ontario.
- Shooter, W., Sibthorp, J., & Paisley, K. (2009). Outdoor Leadership Skills: A Program Perspective. *Journal of Experiential Education*, 32(1), 1-13.
- Stake, R. E. (2005). *Multiple Case Study Analysis*. New York, NY: Guilford Press.
- Swiderski, M. J. (1984). *Outdoor Leadership Competencies: A Research Study Surveying Outdoor Leaders* (Unpublished doctoral dissertation). University of Oregon, Eugene, OR.
- Tourism HR Canada (2020). *Calling Adventure Guides and Travel Services Experts to Build A Stronger Tourism Sector*. Retrieved from <http://tourismhr.ca/calling-adventure-guides-and-travel-services-experts-to-build-a-stronger-tourism-sector/>

Vagias, W. M., & Powell, R. B. (2010). Backcountry visitors' Leave No Trace attitudes. *International Journal of Wilderness, 16*, 21-27.

Warren, K. (2007). Book Review: Outdoor Leadership: Theory and Practice. *Journal of Experiential Education, 29*(3), 433–436.

Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Chapter 2

2 An Environmental Scan of Post-Secondary Outdoor Leadership Training Programs in Canada

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2.1 Introduction

The term *led outdoor activity* (LOA) has recently gained currency in Canada (Canadian Outdoor Summit, 2021a). This term has origins from Australia (Outdoor Council of Australia, n.d.), and represents a wide spectrum of outdoor activity experiences, often in remote and/or challenging terrain, led by a person(s) in a clear role of responsibility. Many diverse approaches to training for LOAs exist across the world, and a plethora of research on outdoor leadership (OL) competencies was completed in the 1970s to 1980s, and was later synthesized by Priest in 1986. However, there seems to be a lack of consistent methods for integrating OL competencies into curriculum (Berman & Davis-Berman, 2009; Pelchat & Karp, 2012). In Canada, there is currently no national standard for OL training, competencies, or occupation that apply broadly to the LOA sector, and OL training occurs in both private and public program, including at post-secondary institutions (Potter, Socha, & O'Connell, 2012). However, little is known about the extent of post-secondary OL training programs in Canada. The purpose of this study was to systematically identify the distribution and scope of post-secondary OL training in Canada.

2.2 Background on OL Training

2.2.1 OL Competencies and Curriculum

The importance of a well-trained leader in LOAs has been well documented (Goldenberg & Soule, 2015; Holland, Powell, Thomsen, & Monz, 2018; Houge Mackenzie & Kerr, 2017; Phipps & Claxton, 1997; Powell, Kellert, & Ham, 2009; Vagias & Powell, 2010). Beyond the expected planning and management duties in OL, a recent systematic review synthesized research that examined the influence of leaders and guides on the delivery of program outcomes, and reported that “results suggest the importance of well-trained leaders who can provide effective interpretation and group facilitation to maximize the outcomes of participants” (Holland et al., 2018, p. 213).

Globally, research on the competencies, skills, and traits of leaders of outdoor activities was largely conducted in the late 1970s and 1980s (Buell, 1981; Cousineau, 1977; Green, 1981; Johnson, 1989; Priest, 1984; Raiola, 1986; Swiderski, 1984), and later synthesized by Priest (1986). Another popular text later produced a list of eight competencies, synthesized from the aforementioned research (Martin, Breunig, Wagstaff, & Goldenberg, 2006). OL competencies research has been widely disseminated in popular textbooks (Martin et al., 2017; Priest & Gass, 2017). Additionally, many proprietary training manuals have outlined OL competencies, such as those published by Outward Bound (Raynolds et al., 2007), The National Outdoor Leadership School (Gookin & Leach, 2009), and Wilderness Education Association (Cockrell, 1991).

Despite many efforts to identify and organize competencies for OL, there has been no consistency across definitions or frameworks used in OL competency texts, nor any universally accepted list of competencies across the LOA sector.

Outdoor leadership training internationally has been criticized for “lack[ing] empirically-based methods for organizing curriculum” (Berman & Davis-Berman, 2009, p. 4), including having “little research conducted on integrating competencies into curricular, instructional, assessment design and application”, and having “been slow to determine how to adequately design and evaluate outdoor professional preparation programs” (Pelchat & Karp, 2012, p. 9). An earlier American study found no clear consensus on OL training in post-secondary programs, and assumed that a wide variety of approaches exist due to different institutional philosophies, differences amongst hosting departments, and other geographical factors (Sugerman, 1999). Sugerman suggested that future studies should identify the locations of programs and how they deliver their curriculum. Pelchat and Karp (2012) called for curricular research within OL training programs to support the credibility of programs in the LOA sector.

2.2.2 OL Credentialing and Employment

Credentialing has been a long-standing debate in the LOA sector. In 1999, Blankenship explored the history of credentialing in OL, and stated that “credentialing was an integral part of the development process which served to maintain professionalism and control the profession” (p. 117). Blankenship (1999) found two main factors leading organizations to become involved in OL credentialing: (1) internal factors, such as concerns for safety, quality programs, quality leaders, and the need for quality control process; and (2) external factors, such as customer referrals, insurances fees, and legislation. Based on Blankenship’s research, The American Camping Association, Outward Bound, the National Outdoor Leadership School, the Wilderness Education Association, and the Association for Experiential Education are the most active in promoting the credentialing movement (Blankenship, 1999). Recently, the International Organization for Standardization, commonly known as ISO, has published four standards for

Adventure Tourism: *Leaders - Personnel Competence* (ISO, 2020), *Good Practices for Sustainability* (ISO, 2018), *Information for Participants* (ISO, 2014a), and *Safety Management Systems* (ISO, 2014b). However, no references to these ISO standards have been found across OL training literature, textbooks or manuals.

Globally, credentialing and preparation for employment in OL occurs through four main paths: individual certification, program accreditation, preparation programs, and post-secondary degrees (Priest & Gass, 2017). No one path has been recognized as the standard for employment in OL either nationally or beyond. It has been noted that personal experience is also an important component for successful OL employment (Plaut, 2001). The perceived merit of post-secondary OL training and related programs has been met with scepticism, given low perceptions of scholarly success (Potter, Socha, & O'Connell, 2012) and lack of necessity for employment in the LOA sector (Haist, 2012; Medina, 2001; Plaut, 2001). In the interest of defending the value of post-secondary OL programs, Plaut (2001) argued that some important aspects of training for OL are more effectively learned in the academic setting, including theoretical understandings, interdisciplinary relationships, social and environmental engagement, and mentorship. Furthermore, Plaut (2001) stated, “the depth of knowledge that one may acquire in a degree-based program has the potential to play a powerful role in fostering a new level of professionalism and ambassadorship within our field” (p. 140). Plaut (2001) stated that, “the time is right, if not for standardization, at least for dialogue, within and between, undergraduate degree granting programs” (p. 137). Though these statements are from 20 years ago, no substantial evidence is present that they have been addressed and therefore remain relevant today.

It is unknown if there is an overall increase or decrease in post-secondary OL training and related programs internationally, however distress is felt by some academics and students bearing witness to program declines and closures (Dyment & Potter, 2020). Dyment and Potter (2020) interviewed academics from international post-secondary OL-related programs seeking to understand reasons why once vibrant programs had declined or closed. From the interviews, they deduced that the main reasons for the closure of OL programs was related to the rise of neoliberalism in post-secondary education, changes in administration, and a lack of strategy and advocacy (Dyment & Potter, 2020). Potter, Socha, and O'Connell (2012) gathered information deemed important to the vitality of post-secondary OL and related programs internationally. They identified pedagogy, leadership, management, resources, and advocacy as critical components to the survival of post-secondary outdoor adventure education programs, and stated, "academics need to [...] work together to develop a coherent message as to the value and benefit of their programmes, research and curriculum. To not do so would be denial of the reality of university politics and an endangerment of outdoor adventure education in academia" (Potter et al., 2012, p. 116).

2.3 LOA Sector in Canada

In order to better understand LOAs in Canada, it is important to understand the geographical, political, and educational realities of Canada. Canada is bordered by oceans on three sides, with 234,000 kilometers of coast line (Statistics Canada, 2011), and its southern border is shared with the United States. Canada contains 10 mountain ranges, an abundance of diverse forest, tundra, and prairie ecosystems, and 12% of its surface area is covered by lakes and rivers (Statistics Canada, 2016a). Most of Canada's population is concentrated along its southern border, and there are vast uninhabited spaces (Statistics Canada, 2020a). The lands that Canada occupies

were first inhabited by Indigenous people. European colonists expanded commerce and trade but had a harmful impact on the Indigenous population; many fell ill with European diseases, many perished, and most were assimilated or were removed from their traditional territory (Royal Commission on Aboriginal Peoples, 1996). A 2016 census reported that 4.9% of Canada's population identified as Indigenous (Statistics Canada, 2016b). In the 17th century, Canadian waterways were the highways for explorations and commerce, wherein the fishing and fur-trade industries were established, dominated by the notable Hudson's Bay Company (Citizenship and Immigration Canada, 2012). Symbols such as the canoe, fur-bearing animals such as the beaver, and windswept white pines have become national symbols; and many of these once wild frontiers have become cherished lands where people can relive the journeys of those before (Potter & Henderson, 2004).

Canada has rich traditions of LOAs across many sub-sectors: youth summer camps offer outdoor experiences and extended remote wilderness trips; primary and secondary schools have integrated outdoor and adventure education curriculum; community programs and commercial operators offer a wide variety of LOAs and ways to experience Canada's wilderness areas (Potter & Henderson, 2004); universities and colleges offer adventure-based outdoor orientation programs (McGarry, 2021) and are one of the main avenues for OL training (Potter et al. 2012). Recently, the "Canadian ways" of doing outdoor education were explored in a systematic review by Purc-Stephenson, Rawleigh, Kemp, & Asfeldt (2019). They coined the label *We Are Wilderness Explorers* and portrayed Canadian outdoor education as, "attempts to recreate early explorer or settler experiences, whereby learners encounter and must overcome physical and mental challenges without modern-day conveniences, develop travel and camping skills, and understand their environment so that they can live in harmony with nature" (p. 13). Furthermore,

Asfeldt, Purc-Stephenson, Rawleigh, and Thackery (2020), explored the common and distinct threads across outdoor education programs at summer camps, primary and secondary schools, and post-secondary institutions across Canada. Their findings revealed that outdoor education programs shared philosophical influences and goals, and highlighted that canoeing, camping skills and games were the most common activities (Asfeldt et al., 2020).

Today, 7 in 10 Canadians participate in outdoor or wilderness activities, with the most popular being hiking, wildlife viewing or photography, tent camping, fishing, and canoeing or kayaking (Statistics Canada, 2016c). With such high participation rates, the importance of the LOA sector in Canada cannot be defined. This is confirmed by the recent initiatives to coordinate the inaugural Canadian Outdoor Summit in 2021², focused on supporting Canadian programs and operators within the LOA sector. Canada has many national organizations that offer domain specific training and credentialing in OL, such as the Outdoor Council of Canada, the Association of Canadian Mountain Guides, Interpretive Guides Association, Paddle Canada, the Canadian Avalanche Association, and the Canadian Association of Nordic Ski Instructors (Outdoor Council of Canada, n.d.). There are also a large number of provincial organizations that offer domain specific training and credentialing in OL³.

² The Canadian Outdoor Summit, originally set for September 2020 but delayed by the COVID-19 pandemic, is scheduled for September 2021, in Gatineau, Québec. It is the first national gathering of the LOA community, and was initiated by the Outdoor Council of Canada.

³ Provincially based OL training organizations: Recreational Canoeing Association of British Columbia, Canoe Kayak Saskatchewan, Paddle Manitoba, Hike Ontario, Ontario Recreational Canoeing and Kayaking Association, Fédération québécoise de la marche, Fédération québécoise de la montagne et de l'escalade, Fédération québécoise du canot et du kayak, Société québécoise de spéléologie, École national d'escalade du Québec, Canoe Kayak New Brunswick, Hike Nova Scotia, Canoe Kayak Nova Scotia, and Paddle Newfoundland and Labrador (Outdoor Council of Canada, n.d.).

Recently, OL has received legislative attention from two provincial ministries. In 2020, in the wake of a fatal snowmobile tragedy, the Québec Ministry of Tourism has recognized a Quality of Safety Accreditation offered by Aventure Écotourisme Québec (AEQ) as a provincial standard for safety in nature and adventure tourism (AEQ, 2021a). Though this accreditation is not mandatory, operators that are not accredited are ineligible for Ministry of Tourism funding (AEQ, 2021a). In 2019, after two labour disputes in the LOA sector, the Ontario Ministry of Labour developed a minimum wage structure for *wilderness guides*, becoming the first province to have a minimum wage for OL (Government of Ontario, 2020).

While there is no national standard for OL training or competencies that apply broadly to the LOA sector, there have been two recent standardization related initiatives in Canada. The Canadian Outdoor Summit has tasked a working group to propose a framework for competency training in the LOA sector (2021). Additionally, Tourism HR Canada, a government funded organization, has recently begun developing a competency framework for the tourism industry, which includes competencies specifically for adventure guides (Tourism HR Canada, 2020).

2.4 Post-Secondary Education in Canada

In Canada, post-secondary education is grouped into two main streams: universities and colleges/institutes. University programs lead to the award of undergraduate degrees (bachelor's) and graduate degrees (master's and doctoral). Some undergraduate degree programs are designated with other terms such as minors, majors, specializations, or concentrations. Colleges/institutes, including the Collège d'enseignement général et professionnel (CEGEP) institutions unique to the province of Québec, lead to the award of diplomas and certificates. Further, the CEGEP system offers two types of diplomas: Diplôme d'études collégiales (DEC) and Attestation d'études collégiales (AEC). More recently, there are some colleges that are

beginning to offer bachelor's and master's degrees. Post-secondary education is primarily offered in Canada's two official languages: English and French. The federal government delegates responsibility for post-secondary education to provincial and territorial governments. Thus, there are 13 ministries or departments governing post-secondary education in the 10 provinces and three territories. Institutions that are recognized by the ministries and departments can grant recognized degrees, diplomas, certificates, qualifications, and offer training for regulated professions (Government of Canada, 2017).

2.5 OL at Post-Secondary Institutions in Canada

In Canada, post-secondary programs are one of the many pathways to obtain OL training (Potter et al., 2012), however little is known about the extent of these programs. There are no national or provincial standard curricula, and there is no central regulatory or accreditation process for post-secondary OL training programs. Furthermore, in Canada there are no minimum requirements or credentialing for employment in LOAs, despite the country having stood witness to several high-profile tragedies⁴. This may be due to the diverse and complex nature of the LOA sector across different populations, contexts, regions of the country. A few recent works have prepared lists of OL related post-secondary programs, and this provided some early insight to the breath of post-secondary OL in Canada. This includes proceedings from a colloquium session at the 2017 Association for Experiential Education Conference in Montreal, Québec (Mayer, 2017), source data from a study on adventure therapy in Canada (Ritchie, Patrick, Corbould, Harper, & Odson,

⁴ Three noteworthy tragedies in Canadian LOAs have been the following: (1) the C.W. Jefferys Collegiate Institute in Algonquin Park, in 2017, (2) the Strathcona-Tweedsmuir School in the Columbia Mountains in 2003, and (3) the St. John's School at Lake Timiskaming in 1978.

2016), and source data from a recent qualitative investigation of outdoor education in Canada (Asfeldt et al., 2020). However, these lists were not exhaustive nor focused specifically on OL training programs. Currently, there is no definitive list of post-secondary OL training programs in Canada.

Given the absence of standards and vast diversity across the country, Canadian post-secondary OL training programs may reflect similar incongruencies and criticisms that have been noted in the literature. However, leading examples of pedagogical collaboration do occur in the provinces of British Columbia and Québec. In British Columbia, a committee comprised of post-secondary OL faculty meet annually to share and discuss curricular matters (British Columbia Council on Admissions & Transfers, 2020). In Québec, the government supported AEQ has developed a membership for post-secondary programs involved in OL training (AEQ, 2021b). No other province or territory is known to gather formally for discussion on post-secondary OL related curriculum and training.

2.6 Study Rationale

Despite the importance of well-trained leaders in LOAs (Holland et al., 2018), the field has been slow to identify accepted competencies and develop empirically based curriculum (Berman & Davis-Berman, 2009; Pelchat & Karp, 2012). As one of the main training avenues for OL, the merit of post-secondary training programs has been met with scepticism, given the lack of necessity for employment opportunities in the LOA sector (Medina, 2001; Plaut, 2001). To support the vitality of post-secondary OL-related programs, academics have called for dialogue and collaboration within and between programs (Plaut, 2001; Potter et al., 2012).

Diverse geographical, political and educational realities have influenced the LOA sector in Canada, and recent incidents have prompted labour laws in Ontario (Government of Ontario, 2020) and safety-accreditation in Québec (AEQ, 2021a). With the absence of national standards, diverse approaches to training for OL likely exist at post-secondary institutions in various forms across the country. The provinces of British Columbia and Québec have associations that unite post-secondary OL-related programs (British Columbia Council on Admissions & Transfers, 2020; AEQ, 2021b), but little is known about the scope of post-secondary OL training nationally. Thus, this study aims to address the following research question: What is the distribution and scope of post-secondary OL training in Canada?

2.7 Method

In this study, a passive environmental scanning (ES) approach was employed (Choo, 2001; Graham, Evitts, & Thomas-MacLean, 2008) to systematically identify all post-secondary OL training programs in Canada. While initially designed as a business analysis tool, it has recently been utilized by researchers in adventure therapy (Ritchie et al., 2016), challenge courses (Benoit, 2021), and outdoor orientation programs (McGarry, 2021) to systematically identify related programs within a set geography, but this level of rigor has not yet been employed to identify and explore post-secondary OL training programs in Canada. Google Power Searching techniques (Google, n.d.) were used to search publicly accessible web pages to identify post-secondary OL training programs, their locations, and their degree types. This research only involved publicly available data, and thus did not require approval from a research ethics board.

2.7.1 Data Collection

Data collection utilized a rigorous search strategy that involved pairing keywords with the names of Canadian post-secondary institutions using Boolean search operators. An algorithm was developed and used to pair and systematically enter searches into a customized Google search engine that automatically recorded the top 10 uniform resource locator (URL) results for each individual search. The search was performed in July of 2018. The assumption was that if a post-secondary OL training program was in operation for the 2018/2019 academic year, it would have an internet presence and would be identified in the top 10 results of the Google search. Results from the following websites were excluded from the top 10 URL results for each Google search to increase the likelihood of identifying institutional web pages: “youtube.com”, “facebook.com”, “wikipedia.com”, “Wikipedia.org”, “tripadvisor.com”, and “twitter.com”.

Lists of keywords were developed in English and French (see Table 1). The keywords were based on the names of known post-secondary OL training programs, and confirmed by a second investigator from the research team. To compile a list of all known post-secondary institutions in Canada, five sources were used, including source data from two studies (Asfeldt et al., 2020; McGarry, 2021), and three government-related web pages (College & Institutes Canada, n.d.; The Greenest Workforce, n.d.; Universities Canada, n.d.). This compilation revealed 396 prospective post-secondary institutions, including universities (main and satellite campuses), and colleges (including CEGEPs). The website of every institution was examined to identify the main language(s) (English and/or French). Using the algorithm, the names of every institution were paired with the keywords in the main language of their website, and bilingual institutions were paired twice, once with English terms, and once with French terms. Thus, 322 institutions were paired with keywords in English, 74 institutions were paired with keywords in French, and

60 institutions were paired once with English and once with French. Thus, a total of 516 Google searches were entered into the customized Google search engine, recording 5160 search results.

Table 1: Keywords for Google Search Protocol

English Keywords:
“[INSERT INSTITUTION NAME]” AND (“Outdoor” OR “Natur*” OR “Wilderness” OR “Park*”) AND (“Recreation” OR “Pursuits” OR “Adventure” OR “Tourism” OR “Ecotourism” OR “Expedition” OR “Leader*” OR “Instruct*” OR “Guid*” OR “Outdoor Educat*”)
French Keywords:
“[INSERT INSTITUTION NAME]” AND (“Dehors” OR “Plein air” OR “Natur*” OR “Région sauvage” OR “Parc*”) AND (“Récréation” OR “Activités” OR “Expédition” OR “Aventure” OR “Tourisme” OR “Écotourisme” OR “Leader*” OR “Interven*” OR “Instruct*” OR “Guid*”)

2.7.2 Data Analysis

The data analysis of the Google search results ($n = 5160$) involved four steps: (1) review of all recorded URLs to identify programs with potential to be included; (2) application of inclusion criteria to “potential programs” from Step 1 to identify programs available for analysis through detailed review of websites; (3) comparison of results from step 2 with the programs listed in the proceedings from the 2017 colloquium (Maher, 2017) and the source data of two related studies (Asfeldt et al., 2020; Ritchie et al., 2016), and (4) confirmation of the list of included and excluded programs by reviewing lists of programs from Step 2 and 3 with a second investigator from the research team. After completing the four steps outlined above, included programs were available for further analysis via their institutional web page.

For the purposes of this study, post-secondary OL training programs were identified by applying the following inclusion criteria: (1) located at a post-secondary institution (university or college)

in Canada; (2) focused primarily on providing training in OL, and (3) resulted in the award of a diploma, certificate, and either an undergraduate (including minors, majors, specializations, and concentrations) or graduate degree. Programs were assessed by accessing information available on their institutional web page, including program descriptions and titles of compulsory courses. Programs were excluded if: (1) there was OL content in one or more courses, but OL was not the primary focus of the diploma, certificate, or degree; (2) there was no information about the program beyond the title, and (3) the focus was primarily on OL research (i.e., particular thesis-based graduate programs) rather than training in OL.

The web pages and affiliated web pages (i.e., associated department or faculty) of the included programs were reviewed in detail. Descriptive information such as location, degree/diploma/certificate types, specializations, host faculties/departments, and program descriptions were compiled into a database and then used to further explore similarities and differences across the programs. Principles of thematic analysis (Braun & Clarke, 2013) were used to develop provisional themes representing the main occupational scope of OL training across all included programs. Provisional themes were reviewed and revised with a second member of the research team until consensus was achieved.

2.8 Results

There were 5160 unique URLs reviewed in Step 1 which yielded 109 prospective programs of interest that appeared to meet most of the inclusion criteria upon preliminary review. In Step 2, there were 49 programs that met all inclusion criteria. In Step 3, four additional programs were identified from the list of programs identified by Asfeldt et al. (2020), and one additional program identified through its affiliation to another program web page from Step 2. In Step 4, it was confirmed that there were a total of 54 post-secondary OL training programs in Canada, as

of the date of the search (July 2019). Figure 1 illustrates the methods and results of the four steps described above. A complete table outlining the 54 programs is found in Appendix A. The following two results sections present descriptive statistics, and the scope of OL training across the 54 programs.

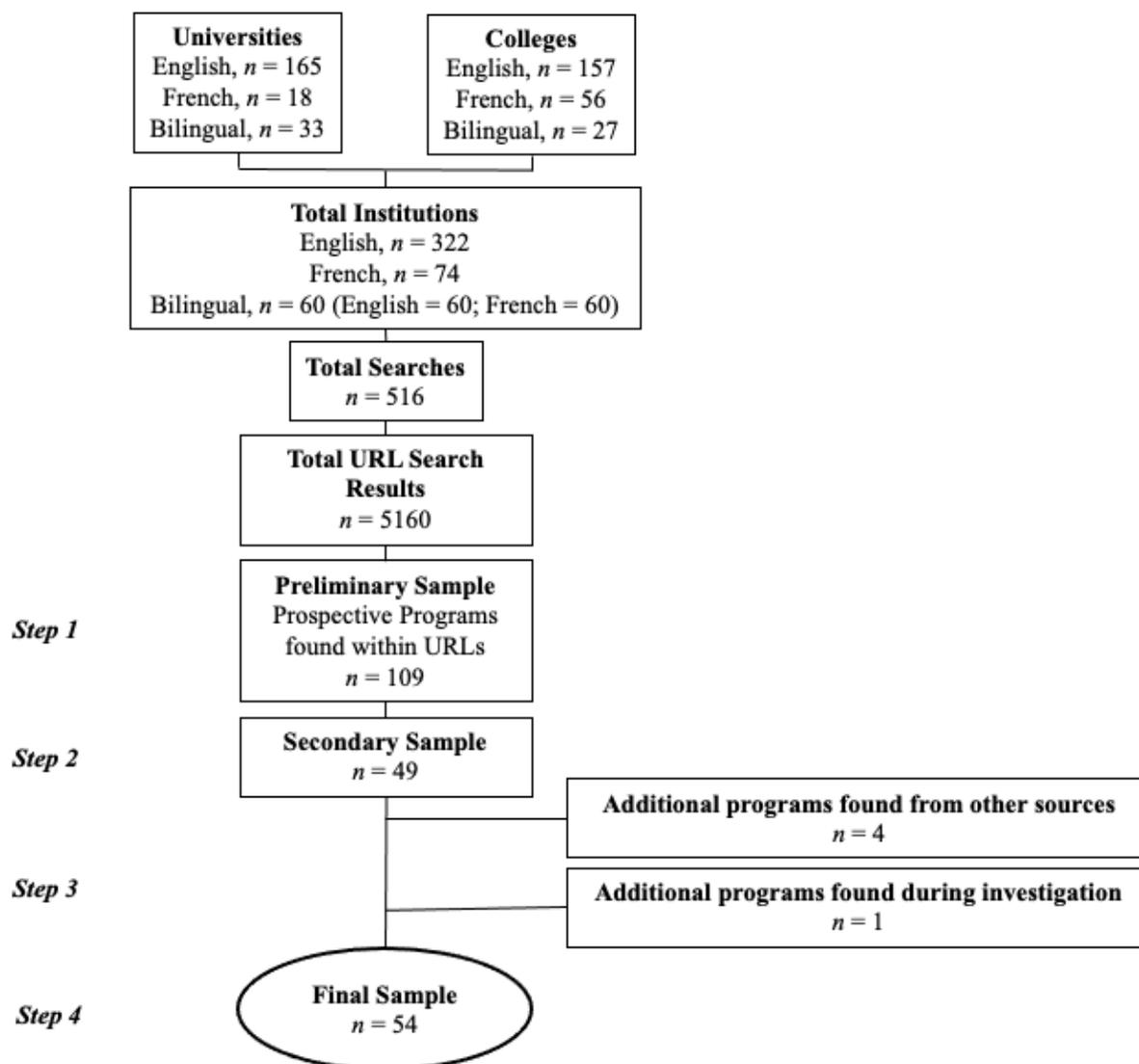


Figure 1: Environmental Scan Process Map

2.8.1 Descriptive Statistics

At the date of data collection and analysis, the 54 post-secondary OL training programs in Canada were found at 33 institutions in five provinces. There were no OL programs found in the three territories. Of the 33 institutions, one hosted five programs; one hosted four programs; three hosted three programs; seven hosted two programs; and the remaining 21 each hosted one program. Of 33 institutions, 10 were in British Columbia (30.3%); nine were in Ontario (27.3%); seven were in Québec (21.2%); four were in Alberta (12.1%); and three were in Nova Scotia (9.1%). Of 54 OL programs, 18 were in British Columbia (33.3%); 12 were in Ontario (22.2%); 11 were in Alberta (20.4%); eight were in Québec (14.8%); and five were in Nova Scotia (9.3%). Figure 2 and Figure 3 illustrate the locations of the 33 institutions and 54 programs across two maps, one for each of eastern and western Canada respectively, with college level programs appearing in black, and university level programs appearing in red. Given the most current population estimates per province (Statistics Canada, 2019a), Nova Scotia had the most programs per capita, followed by British Columbia, Alberta, Québec, and Ontario.

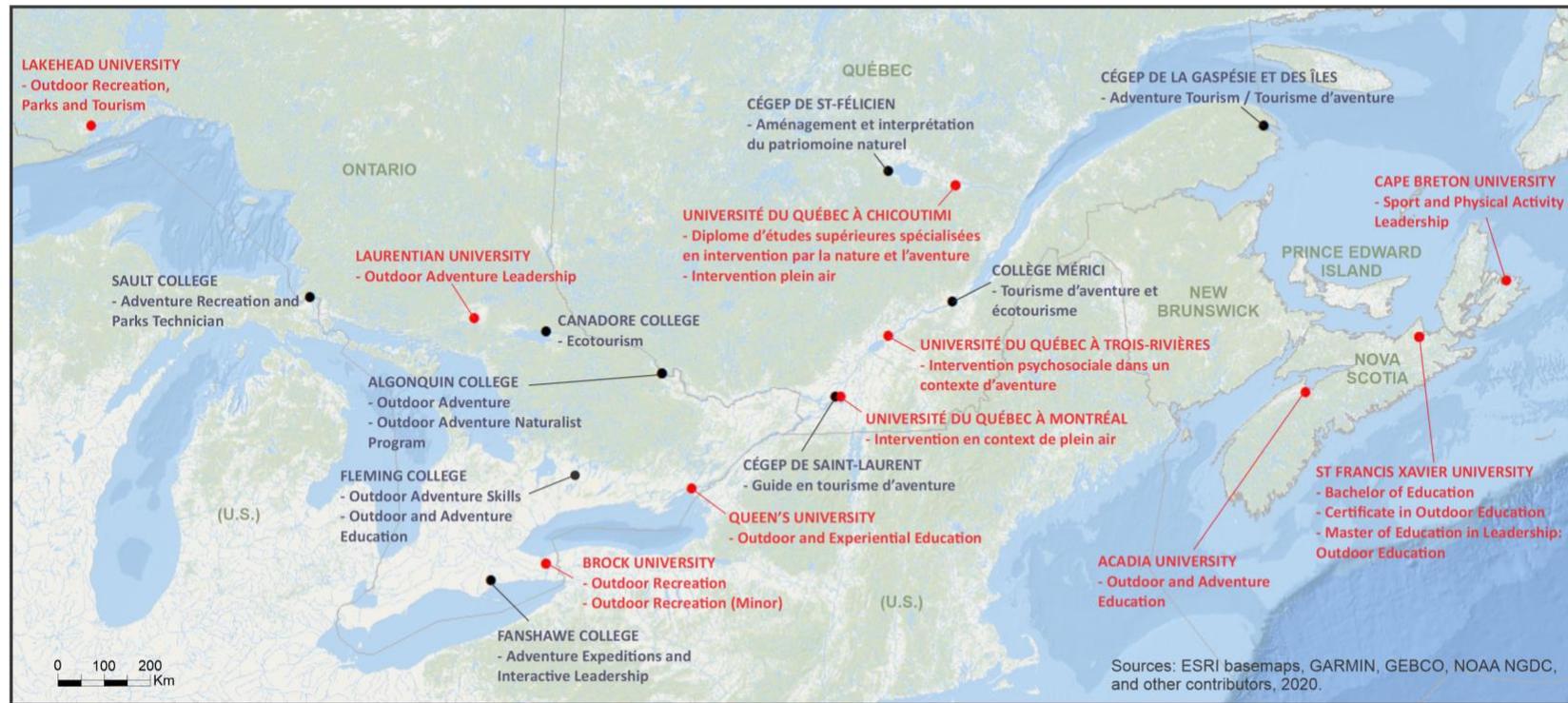


Figure 2: Locations of Post-Secondary OL Training Programs in Eastern Canada⁵

⁵ Map courtesy of L.L. Larivière – Laurentian University, February 2021.

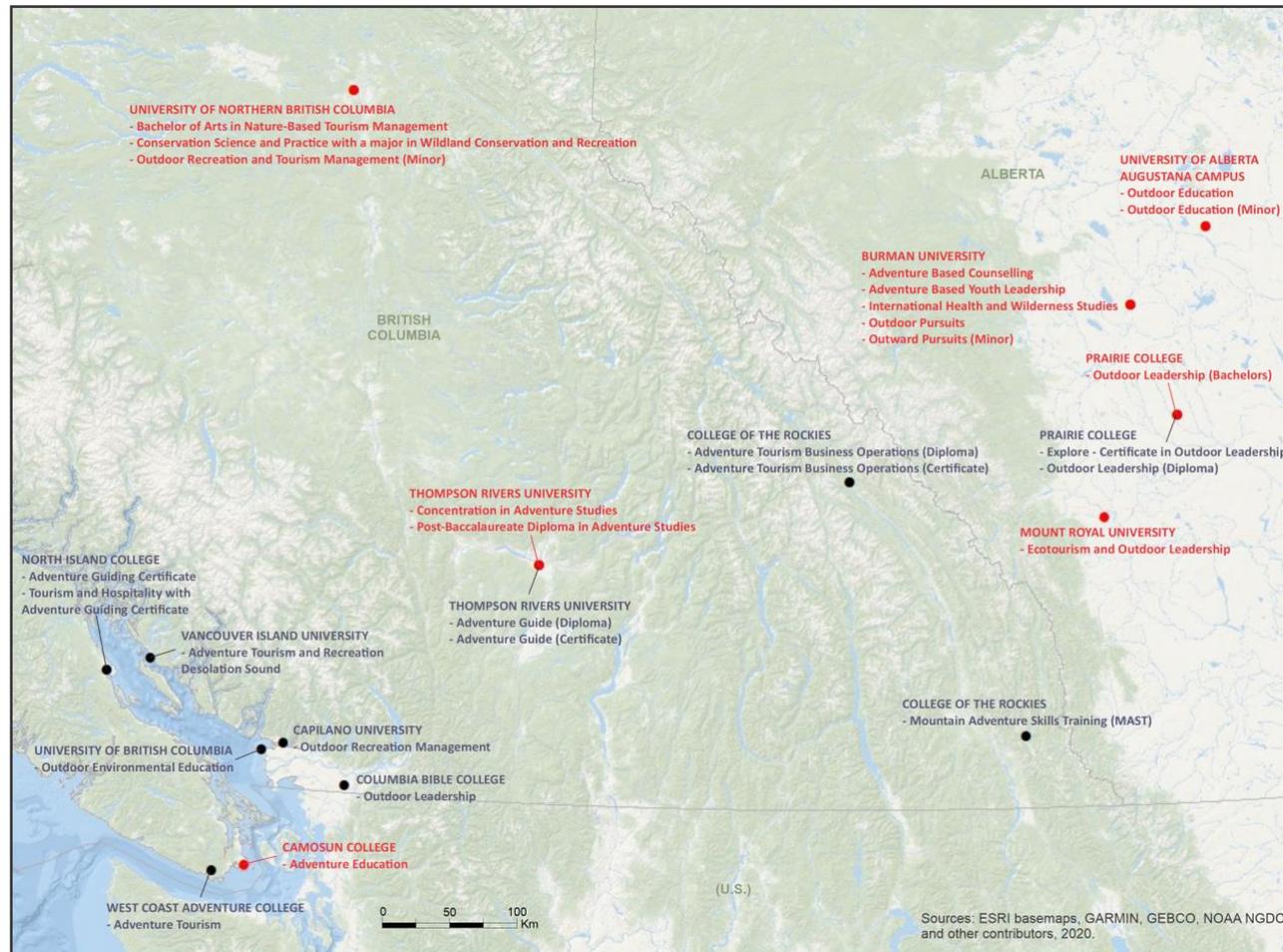


Figure 3: Locations of Post-Secondary OL Training Programs in Western Canada⁶

⁶ Map courtesy of L.L. Larivière – Laurentian University, February 2021.

Of 54 OL programs, 20 awarded college diplomas (37.0%); 18 awarded bachelor's degrees (33.3%); nine awarded college certificates (16.7%); four awarded minor degrees (7.4%); and three awarded master's degrees (5.6%). Of the 20 programs that awarded colleges diplomas, 13 were college diplomas (24.1%); three were post-degree diplomas (5.6%); two were CEGEP DEC's (3.7%); and two were CEGEP AEC's (3.7%).

Six institutions had unique departments devoted to their OL programs, including the Department of Outdoor Pursuits at Burman University, the School of Outdoor Recreation Management at Capilano University, the Department of Outdoor Recreation, Park and Tourism at Lakehead University, the School of Natural Environment and Outdoor Studies at Sault College, and the Department of Adventure Studies at Thompson Rivers University. Other OL training programs were hosted in departments and faculties related to the fields of health, education, environmental studies, recreation, and tourism.

2.8.2 Scope of OL Training Programs

Analysis of descriptive information related to the 54 programs led to the identification of the following five themes representing the most prominent occupation training scopes across the programs: Primary and Secondary Education ($n = 5$), High Adventure Guiding ($n = 10$), Tourism Management ($n = 11$), Health and Wellness Promotion ($n = 15$), and Interdisciplinary ($n = 13$). While many programs had unique or narrow scopes that led to the development of the first four themes, there were 13 programs that had a much more interdisciplinary scope, focusing more on breadth across several diverse areas of OL training. The following sections describe the themes and similarities found between programs with common scopes.

2.8.2.1 Primary and Secondary Education

Five programs (9.3%) had a unique focus on training OL for licenced primary and secondary teachers to acquire advanced outdoor education credentials and training. This included programs that fulfilled qualifications for teaching licenses, teaching license upgrades, and programs offered in partnership with school boards.

2.8.2.2 High Adventure Guiding

Ten programs (18.5%) had a unique focus on training OL for guiding high adventure experiences, where high levels of activity specific training are required. This included focused guide training for extended expeditions, remote travel, and technical pursuits such as mountain, white-water and ocean sports. Furthermore, this type of training focused on learning instructional skills for those who move on to become guides, instructors, and trainers of more technical pursuits in outdoor adventure.

2.8.2.3 Tourism Management

Eleven programs (20.4%) had a unique focus on training OL for management in tourism, including nature-based tourism, ecotourism, and adventure tourism. While these programs involved some training in parks and land management and/or managerial skills, they also focused on OL training for field roles in tourism, including outdoor adventure activity programming, naturalist interpretation, and guiding.

2.8.2.4 Health and Wellness Promotion

Fifteen programs (27.8%) had a unique focus on training OL for the promotion of physical, mental, social and spiritual health. This included focused training for leadership in outdoor

adventure-based counselling, psychosocial intervention, discipleship, recreation, and physical activity. Most of these programs were housed within departments or faculties related to health.

2.8.2.5 Interdisciplinary

Thirteen programs (24.1%) were interdisciplinary in nature, and had a wider approach to OL training than those that contributed to the other themes. These programs focused on breadth of OL training rather than focusing on training for a specific career path or subdiscipline of OL. These programs were housed by a variety of faculties and departments within fields related to health, education, social science, tourism, recreation, and conservation.

2.9 Discussion

The volume of post-secondary OL training programs in Canada may reflect a certain cultural value Canadians place on outdoor activity. However, given that there are high participation rates in outdoor and wilderness activities (Statistics Canada, 2016b), it is unknown whether 54 programs is an adequate reflection of the high participation rates. For instance, it could be that the high participation rates are more reflective of self-directed outdoor activities rather than professionally organized LOAs. The presence of 54 OL training programs and six OL academic departments suggests that OL does have academic value in certain (but not all) regions of Canada, especially in the province of British Columbia. However, as noted by Dymont and Potter (2020), it remains unclear whether OL training programs are increasing or decreasing in Canada. The results of this scan may now serve as a baseline to which future investigations can be compared. Re-evaluation at later intervals may reveal new insights and trends as existing programs close and new programs open.

The 54 OL training programs were only found in five provinces: British Columbia, Ontario, Alberta, Québec, and Nova Scotia. It is surprising that no programs were found in the rest of Canada (Newfoundland and Labrador, Prince Edward Island, New Brunswick, Manitoba, Yukon, Northwest Territories, and Nunavut), since there are likely a plethora of LOAs and related excursions and experiences in these provinces and territories. However, in the case of Yukon and Northwest Territories, the lack of programs may be a result of their low number of post-secondary institutions. Any OL training processes and providers in these provinces and territories must be from outside the post-secondary academy. Thus, future research might explore the extent of OL training in other contexts beyond post-secondary institutions, especially in jurisdictions where there is no training provided at post-secondary institutions. There also may be an opportunity for institutions in the provinces and territories without OL training programs to explore whether developing a program may address societal needs or priorities in the region. Nonetheless, it is no surprise that British Columbia, Ontario, Alberta, and Québec have the highest density of post-secondary OL training programs, since they are the four most populated provinces in Canada (Statistics Canada, 2020b).

It is surprising that Ontario is not the province with the highest density of programs, and that it is fifth in terms of programs per capita, given that it is the province of highest population, and responsible for nearly a third of the country's tourism revenue (Statistics Canada, 2020c).

However, it could be argued that tourism revenue may not be reflective of tourism related to the LOA sector specifically, nor the LOA sector in general. For instance, there may be a different blend of hotel tourism and adventure tourism in Yukon and Northwest Territories rather than in Ontario, Alberta and Québec. Further, there are many LOA experiences that are unrelated to tourism, such as outdoor education and adventure therapy.

Given the distribution of programs, overall and per capita, it is presumed that there are more LOA opportunities in British Columbia, perhaps due to the abundance and variety of terrain suitable for outdoor activities in this province. In this, it is no surprise that British Columbia was the first province with efforts to organize and unite programs for collaboration in curricular matters, given such a high concentration of programs. Figure 2 and Figure 3 offered insight related to the distribution of institutions and programs across the country. From the maps, it is apparent that there were a few trends. The most significant trend being that a large majority of programs are located close to Canada's southern border, which is not surprising given that is where the vast majority of Canadian people live (Statistics Canada, 2020b). However, it is interesting to note that there are a few programs that are relatively far from the southern border, such as University of Northern British Columbia, Burman University, and University of Alberta. Another apparent trend is that there is a cluster of seven institutions with eight programs in close proximity to one another in southwestern British Columbia, perhaps suggesting that there are a plethora of LOA sector opportunities in that area.

With little to no government regulations in Canada for OL training or employment, it is no surprise to find such diversity in types of programs, scope or occupation-related focus, and the relatively uneven distribution of programs across the country. The highest award representation were bachelor's degrees and college diplomas, together representing 38 (70.4%) of the programs. In all four cases of programs that awarded minors related to OL training, they were offered by institutions that also had OL programs that result in bachelor's degrees. It is also notable that there were ten programs that require prerequisite bachelor's degrees: three master's degree programs, three post-degree diploma programs, two bachelor of education programs, one college diploma program, and one college certificate program. This suggests that OL may be considered

adjunctive to other fields or disciplines at some institutions. For example, at St. Francis Xavier University, the Certificate in Outdoor Education program is designed for qualified in-service teachers, and leads to a license upgrade. Thus, OL training in this context may be considered adjunctive, or supplementary, to other more general training in teacher education.

The presence of OL training scopes spanning primary and secondary education, high adventure guiding, tourism management, health and wellness promotion, and interdisciplinary training confirms that LOAs occur across many disciplines, occupations, and career paths. The role of the leader in outdoor activities may be much different from one sector to another, or one job to another. For example, a licensed teacher in outdoor education, a high adventure guide, a wildlife interpreter, and an adventure therapist may share common core competencies, but their roles, responsibilities, and areas of expertise vary greatly. While this analysis led to the development of five themes, smaller subthemes further depicted the vast diversity and lack of congruency in OL training across the country. The vast scope of positions or roles related to LOAs in Canada likely contributes to the lack of congruency and consensus related to competencies within the OL field, and thus the diversity in approaches to training across the country.

Employment and career orientation and opportunities were often listed alongside program descriptions on institutional web pages. There were only 36 (66.7%) programs that listed OL employment and careers in commercial guiding, outdoor education, summer camps, outdoor centres, or parks and recreation management. Though listed potential career orientations do not at all reflect the aptitude or competence of graduates, the careers listed are likely purposely chosen by program staff and faculty, and play an important role in student recruitment. This research made an attempt to investigate course descriptions of courses offered by OL programs, but it must be recognized that academic freedom and instructor expertise enables drastic

variation between and within each course, limiting the ability to make assumptions beyond the themes present in courses titles and descriptions.

During review of the preliminary results from Step 1 ($n = 109$), many programs ($n = 60$) were excluded or did not fully meet the inclusion related to providing training in OL. Yet, they were noteworthy exclusions in terms of their relationship to OL training in Canada. Amongst the noteworthy programs were nine graduate research programs with a research focus, rather than a training focus, in OL; one minor in Adventure Programming with no clear evidence of leadership focus; and one minor in Outdoor Occupational Health and Safety with no evidence of relevant OL focus. Further, there were 40 programs excluded in Step 2 primarily because they made no mention of a focus related to OL in their program description, and/or only offered non-compulsory OL related courses, and therefore did not reflect a substantial focus in OL training. Two of the excluded programs were located in northern territories and were associated more with northern and indigenous culture related to land-based teachings, and focused more on integrating conservation, holistic health, and outdoor activity rather than training outdoor leaders⁷.

More recently, labour disputes in Ontario and a tragic accident in Québec have impacted the LOA sector in these provinces, and in both cases, litigation was involved. The development of labour laws for *wilderness guides* in Ontario, and the development of safety accreditation for adventure tourism in Québec are two examples of legislative changes that are occurring at the provincial level. Understanding the diversity, volume and scope of post-secondary OL training programs is an important step in fortifying the vitality and future of post-secondary OL training

⁷Referring to Yukon College's Northern Outdoor and Environmental Studies program, and Dechinta Centre for Research and Learning's semester program.

programs in Canada. Further collaboration between faculty teaching and coordinating these programs can lead to the development of evidence-based OL curriculum and improved training approaches and standards. Improved OL training may enhance safe and meaningful LOA experiences across the country. It is hoped that this study can serve as a helpful step towards achieving those outcomes.

2.10 Limitations

The main limitation of this study is that information was only gathered from program web pages, and with the assumption that information was current and accurate. Some programs may have made changes or were in the process of making changes that were not reflected on websites.

There may be programs that have opened since this study was conducted, and there were at least two programs that have closed since the results of this study were compiled. Another limitation of this study is that it performed individual searches for university satellite campuses, but individual searches were not performed for individual college satellite campuses due to time constraints in the scope of this project. However, the Google Search results did yield findings of programs at both university satellite campuses and college satellite campuses, so it is unlikely that many (or any) were missed. Finally, it is known that there are many OL training programs, organizations, and associations that are independent and unrelated to post-secondary institutions in Canada. These other entities should be explored in future studies related to OL training, but this was beyond the scope of this study.

2.11 Future Considerations

The LOA sector may benefit from dialogue and collaboration within and between post-secondary OL training programs to fortify the vitality of important training providers, and to consult in the

identification of common OL competencies and dialogue on the nature, necessity and scope of standards and credentials related to LOAs. Dialogue and collaboration between programs could occur both provincially and nationally. Further, research could expand upon this study by investigating the similarities and differences across OL training programs provincially, especially since most post-secondary programs and institutions are approved and funded by government ministries within each province. Additionally, program level learning outcomes are gaining attention and importance within post-secondary education in Canada (MacFarlane & Brumwell, 2016), and could serve as valuable data for understanding and comparing the competencies taught in OL training programs. The results of this study may also serve as a useful database for any other research related to programs, instructors, students and graduates of post-secondary OL training programs in Canada. The scene is set for national dialogue and collaboration around post-secondary OL training, and the upcoming Canadian Outdoor Summit presents a timely opportunity for assembly.

2.12 Conclusion

This study was designed to investigate the distribution and scope of post-secondary OL in Canada. A passive ES approach was used to systematically identify 54 programs at 33 universities and colleges in Canada with a primary focus on OL training. Surprisingly, the programs were only found at institutions in five provinces. Degrees granted by these programs included master's degrees, bachelor's degrees, minors, college diplomas and college certificates. Post-secondary OL training in Canada focuses on primary and secondary education, high adventure guiding, tourism management, and health and wellness promotion. The results of this study present an opportunity for post-secondary OL training programs in Canada and/or within each province to collaborate with one another to solve key challenges faced by the LOA sector.

Dialogue and collaboration within and between post-secondary OL training programs may help fortify the vitality of programs, and support training and employment competencies nationally. With stronger OL training programs, graduates will be better prepared to facilitate safe and meaningful LOAs across the country.

2.13 References

- Asfeldt, M., Purc-Stephenson, R., Rawleigh, M., & Thackeray, S. (2020). Outdoor education in Canada: a qualitative investigation. *Journal of Adventure Education and Outdoor Learning*.
- Aventure Écotourisme Québec. (2021a). Quality-Safety Accreditation: Become a Member. Retrieved from <https://aeq.aventure-ecotourisme.qc.ca/qualite-securite/pourquoi-devenir-membre/devenir-membre-accredite>
- Aventure Écotourisme Québec (2021b). Associate Members. Retrieved from <https://aeq.aventure-ecotourisme.qc.ca/repertoires-des-membres/membres-associes>
- Benoit, J. (2021). A Passive Environmental Scan of Challenge Courses at Universities and in Canada (Unpublished master's major paper). Laurentian University, Sudbury, ON.
- Berman, D., & Davis-Berman, J. (2009). Dimensions Underlying an Outdoor Leadership Curriculum. *Journal of Outdoor Recreation*, 1(1), 3-14.
- Blankenship, D. C. (1999). *Certification and accreditation programs in national adventure recreation organizations: A grounded theory, professional attribute, and historical analysis* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/304527162/abstract/62EBDFAB75E248BDPQ/54>

- Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*. London, EN: SAGE Publications.
- British Columbia Council on Admissions & Transfers (2020). Adventure Tourism. Retrieved from <https://www.bccat.ca/articulation/committees/adventure>
- Brumwell, S., Deller, F., & MacFarlane, A. (2017). Why Measurement Matters: The Learning Outcomes Approach – A Case Study from Canada. *Journal of Higher Education in Africa*, 15(1), 5-22.
- Buell, L. (1981). *The Identification of Outdoor Adventure Leadership Competencies for Entry-Level and Experienced-Level Personnel* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303165287/62EBDFAB75E248BDPQ/>
15
- Canadian Outdoor Summit (2021a). About. Canadian Outdoor Summit. Retrieved from <https://canadianoutdoorsummit.com/>
- Canadian Outdoor Summit (2021b). Workgroups. Canadian Outdoor Summit. Retrieved from <https://canadianoutdoorsummit.com/workgroups/>
- Choo, C. W. (2001). Environmental scanning as information seeking and organizational learning. *Information Research*, 7. Retrieved from <http://InformationR.net/ir/7-1/paper112.html>
- Citizenship and Immigration Canada (2012). *Discover Canada*. Retrieved from <https://www.canada.ca/content/dam/ircc/migration/ircc/english/pdf/pub/discover.pdf>
- Cockrell, D. (1991). *The Wilderness Educator: The Wilderness Association Curriculum Guide*. Merrillville, IN: ICS Books.
- College & Institutes Canada (n.d.). Our Members [Directory]. Retrieved from <https://www.collegesinstitutes.ca/our-members/member-directory/>

- Cousineau, C. (1977). *A Delphi Consensus on a Set of Principles for the Development of a Certification System for Educators in Outdoor Adventure Programs* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/302871132/741D6F6BF3184179PQ/1>
- Dyment, J.E., & Potter, T.G. (2020). Overboard! The turbulent waters of outdoor education in neoliberal post-secondary contexts. *Journal of Outdoor and Environmental Education*. Retrieved from <https://doi.org/10.1007/s42322-020-00071-6>
- Goldenberg, M., & Soule, S. E. (2015). A four-year follow-up of means-end outcomes from outdoor adventure programs. *Journal of Adventure Education and Outdoor Learning*, 15(4), 284-295.
- Google. (n.d.). Power searching with Google: Inside search. Retrieved from <http://www.powersearchingwithgoogle.com/>
- Gookin, J., & Leach, S. (2009). *NOLS Leadership Educator Notebook*. Lander, WY: National Outdoor Leadership School.
- Government of Canada (2017). Education in Canada [Post-secondary education]. Retrieved from <https://www.canada.ca/en/immigration-refugees-citizenship/services/new-immigrants/new-life-canada/enrol-school/post-secondary.html>
- Government of Ontario (2020). Your Guide to the Employment Standards Act: Minimum Wage. Retrieved from <https://www.ontario.ca/document/your-guide-employment-standards-act-0/minimum-wage>
- Graham, P., Evitts, T., & Thomas-MacLean, R. (2008). Environmental scans: How useful are they for primary care research. *Canadian Family Physician*, 54(7), 1022-1023.

- Green, P. J. (1981). *The Content of a College-Level Outdoor Leadership Course for Land-Based Outdoor Pursuits in the Pacific Northwest: A Delphi Consensus* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303187505/abstract/62EBDFAB75E248BDPQ/77>
- Haist, J. M. (2012). *Adventure Education Curriculum for Long-Term Success* (Master's thesis.). Retrieved from <https://search.proquest.com/dissertations/docview/1271754987/abstract/62EBDFAB75E248BDPQ/10>
- Holland, W. H., Powell, R. B., Thomsen, J. M., & Monz, C. A. (2018). A Systematic Review of the Psychological, Social, and Educational Outcomes Associated With Participation in Wildland Recreational Activities. *Journal of Outdoor Recreation, Education, and Leadership*, 10(3), 197-225.
- Houge Mackenzie, S., & Kerr, J. H. (2017). Positive motivational experience over a three-day outdoor adventure trek in Peru. *Journal of Adventure Education and Outdoor Learning*, 17(1), 4-17.
- International Organization for Standardization (2014a). *ISO 21103: Adventure tourism — Information for Participants*. Vernier, Switzerland: International Organization for Standardization.
- International Organization for Standardization (2014b). *ISO 21101: Adventure tourism — Safety management systems requirements*. Vernier, Switzerland: International Organization for Standardization.

- International Organization for Standardization (2018). *ISO 20611: Adventure tourism — Good practices for sustainability — Requirements and recommendations*. Vernier, Switzerland: International Organization for Standardization.
- International Organization for Standardization (2020). *ISO 21102: Adventure tourism — Leaders — Personal competence*. Vernier, Switzerland: International Organization for Standardization.
- Johnson, W. C. (1989). *The identification of desirable knowledge and skills in outdoor leaders of outdoor pursuits, resident camping, and outdoor education and environmental interpretation programs in the United States* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303784323/abstract/62EBDFAB75E248BDPQ/8>
- MacFarlane, A., & Brumwell, S. (2016). *The Landscape of Learning Outcomes Assessment in Canada*. Toronto, ON: Higher Education Quality Council of Ontario.
- Martin B., Breunig, M., Wagstaff, M., & Goldenberg, M. (2017). *Outdoor Leadership: Theory and Practice* (2nd ed.). Champaign, IL: Human Kinetics.
- Mayer, P. T. (2017). *Proceeding of the 3rd Annual Colloquium on Outdoor, Adventure and Experiential Education at Canadian Universities and Colleges*. Montreal, QC.
- McGarry, J. (2021). *An Environmental Scan of Outdoor Orientation Programs at Universities in Canada* (Unpublished master's thesis). Laurentian University, Sudbury, ON.
- Medina, J. J. (2004). *An Exploration of Master Outdoor Leaders' Professional Development Experiences Outside of Institutional Training* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/305135606/abstract/62EBDFAB75E248BDPQ/76>

- Outdoor Council of Australia (2021). About. Outdoor Council of Australia. Retrieved from <http://www.outdoorcouncil.asn.au/about/>
- Outdoor Council of Canada (n.d.). Outdoor Training Organizations. Retrieved from <https://www.outdoorcouncil.ca/Outdoor-Training>
- Pelchat C., & Karp, G. G. (2012). A Historical Review of Outdoor Leadership Curricular Development and the Future With Action Research. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 27(2), 1-13.
- Phipps, M. J., & Claxton, D. B. (1997). An investigation into instructor effectiveness. *Journal of Experiential Education*, 20(1), 40-46.
- Plaut, L. (2001). Degree-Granting Programs in Adventure Education: Added Value? *Journal of Experiential Education*, 24(3), 136–140.
- Potter, T. G., & Henderson, B. (2004). Canadian outdoor adventure education: Hear the challenge — Learn the lessons. *Journal of Adventure Education & Outdoor Learning*, 4(1), 69-87.
- Potter, T. G., Socha, T. L., & O’Connell, T. S. (2012). Outdoor adventure education (OAE) in higher education: characteristics of successful university degree programmes. *Journal of Adventure Education & Outdoor Learning*, 12(2), 99-119.
- Powell, R. B., Kellert, S. R., & Ham, S. H. (2009) Interactional Theory and the Sustainable Nature-Based Tourism Experience. *Society and Natural Resources*, 22(8), 761-776.
- Priest, S. (1984). Effective Outdoor Leadership: A Survey. *Journal of Experiential Education*, 7(3), 34–36.
- Priest, S. (1986). *Outdoor Leadership Preparation in Five Nations* (Doctoral dissertation). Retrieved from

<https://search.proquest.com/dissertations/docview/303428505/abstract/62EBDFAB75E248BDPQ/20>

Priest, S., & Gass, M. (2017). *Effective Leadership in Adventure Programming* (3rd ed.). Champaign, IL: Human Kinetics.

Purc-Stephenson, R. J., Rawleigh, M., Kemp, H., & Asfeldt, M. (2019). We Are Wilderness Explorers: A Review of Outdoor Education in Canada. *Journal of Experiential Education*, 42(4), 364-381.

Raiola, E. O. (1986). *Outdoor Wilderness Education - a Leadership Curriculum* (Doctoral dissertation). The Union for Experimenting Colleges and Universities, Cincinnati, OH. Retrieved from <https://search.proquest.com/dissertations/docview/303516954/abstract/62EBDFAB75E248BDPQ/43>

Raynolds, J., Lodato, A., Gordon, R., Blair-Smith, C., Welsh, J., & Gerzon, M. (2007). *Leadership the Outward Bound Way*. Seattle, WA: The Mountaineers Books.

Ritchie, S. D., Patrick, K., Corbould, G. M., Harper, N. J., & Odson, B. E. (2016). An Environmental Scan of Adventure Therapy in Canada. *Journal of Experiential Education*, 39(3), 1-18.

Royal Commission on Aboriginal Peoples (1996). Report of the Royal Commission on Aboriginal Peoples [Volume 1 - Looking Forward and Looking Back]. Retrieved from <https://www.bac-lac.gc.ca/eng/discover/aboriginal-heritage/royal-commission-aboriginal-peoples/Pages/final-report.aspx>

Statistics Canada (2011). Canada Year Book: Geography. Retrieved from <https://www150.statcan.gc.ca/n1/pub/11-402-x/2012000/chap/geo/geo-eng.htm>

Statistics Canada (2016a). Human Activity and the Environment [Section 2: Canada's water supply - stock and flows]. Retrieved from <https://www150.statcan.gc.ca/n1/pub/16-201-x/2010000/part-partie2-eng.htm>

Statistics Canada (2016b). Aboriginal peoples in Canada: Key result from the 2016 Census. Retrieved from <https://www150.statcan.gc.ca/n1/daily-quotidien/171025/dq171025a-eng.htm>

Statistics Canada (2016c). General Social Survey: Canadians at Work and Home [Canadians and the outdoors]. Retrieved from <https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2018005-eng.htm>

Statistics Canada (2020a). Annual Demographic Estimates [Map 1.1]. Retrieved from <https://www150.statcan.gc.ca/n1/pub/91-214-x/2021001/section01-eng.htm>

Statistics Canada (2020b). Population Estimates Quarterly. Retrieved from <https://www150.statcan.gc.ca/t1/tb11/en/tv.action?pid=1710000901&cubeTimeFrame.startMonth=10&cubeTimeFrame.startYear=2020&cubeTimeFrame.endMonth=10&cubeTimeFrame.endYear=2020&referencePeriods=20201001%2C20201001>

Statistics Canada (2020c). The Daily [Travel arrangement and reservations services industry group sees 4.4% increase to operating revenue in 2019]. Retrieved from <https://www150.statcan.gc.ca/n1/daily-quotidien/201209/dq201209d-eng.htm?indid=685-3&indgeo=0>

Sugerman, D. (1999). *Outdoor Leadership Education: The Past, Present and Future. Proceedings from the International Conference on Outdoor Recreation and Education.* Fort Walton Beach, FL: ICORE.

Swiderski, M. J. (1984). *Outdoor Leadership Competencies: A Research Study Surveying Outdoor Leaders* (Unpublished doctoral dissertation). University of Oregon, Eugene, OR.

The Greenest Workforce (n.d.). A Complete List of Canadian Universities and Colleges [Directory]. Retrieved from <https://thegreenestworkforce.ca/index.php/en/schools/>

Tourism HR Canada (2020). Calling Adventure Guides and Travel Services Experts to Build A Stronger Tourism Sector. Retrieved from <http://tourismhr.ca/calling-adventure-guides-and-travel-services-experts-to-build-a-stronger-tourism-sector/>

Universities Canada (n.d.). Member Universities [Directory]. Retrieved from <https://www.univcan.ca/universities/member-universities/>

Vagias, W. M., & Powell, R. B. (2010). Backcountry visitors' Leave No Trace attitudes. *International Journal of Wilderness, 16*, 21-27.

Chapter 3

3 A Multiple Case Study of Post-Secondary Outdoor Leadership Training Programs in Ontario, Canada

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Note: The target journal for submission of this article is yet to be determined.

3.1 Introduction

Outdoor leadership (OL) is a diverse multidisciplinary concept that applies to contexts such as education, tourism, recreation, and health. The role of a leader in OL is also diverse, wherein one must have a wide range of skills and competencies to facilitate desired outcomes, while upholding safety in urban, rural, remote, and rugged wilderness environments. A recent systematic review documented the importance of well-trained leaders to maximize outcomes in OL experiences (Holland, Powell, Thomsen, & Monz, 2018). However, there is little congruence amongst OL competencies research, nor any widely accepted frameworks, for preparing OL training. Furthermore, OL has been criticized for lacking empirical methods to organize and develop curriculum (Berman & Davis-Berman, 2009). In Canada, OL training is offered by private and public programs, including post-secondary education programs (Potter, Socha, & O'Connell, 2012). A recent environmental scan of post-secondary OL training identified the extent of programs present across Canada, and noted that there were 12 programs within Ontario (Williams-Orser, Ritchie, Asfeldt, Nault, & Little, 2021). No other studies have identified or investigated the approaches to preparing OL training across post-secondary OL training

programs in Canada or in any of the provinces or territories. Thus, the purpose of this research was to take a first step at exploring OL training approaches at post-secondary institutions in Ontario.

3.2 OL Competencies and Training

Globally, research on OL competencies started in the late 1970s and 1980s (Buell, 1981; Cousineau, 1977; Green, 1981; Johnson, 1989; Priest, 1984, Priest, 1986; Raiola, 1986; Swiderski, 1981). This research focused primarily on identifying and ranking competencies, and not on curricular content for training leaders. In 1986, Priest synthesized prior competency research, and produced a list of 14 core competencies. Based on this synthesis, Priest and Gass (2017) developed an OL competency framework, first published in a popular textbook in 2005, currently in its third edition. Similarly, Martin, Breunig, Wagstaff, and Goldenberg (2017) also developed an OL competency framework based on early OL research, first published in a popular textbook in 2006, currently in its second edition. Table 2 summarizes the competencies listed in these two popular OL textbooks. Despite research and synthesis efforts in OL competencies, there remains a variety of approaches to OL competencies and training. The OL field has been criticized as having little integration of competencies into curriculum (Pelchat & Karp, 2012), and lacking empirically-based methods for organizing curriculum (Berman & Davis-Berman, 2009). In a historical review of OL curricular development, Pelchat and Karp (2012) called for research in curriculum, instructional, and assessment design to strengthen the credibility of the OL field.

Table 2: Competencies from Popular OL Textbooks

Priest and Gass (2017)	Martin et al. (2017)
Technical skills	Foundational knowledge
Safety skills	Self-awareness and professional conduct
Environmental skills	Decision making and judgement
Organizational skills	Teaching and facilitation
Instructional skills	Environmental stewardship
Facilitation skills	Program management
Flexible leadership style	Safety and risk management
Experience-base judgement	Technical ability
Problem-solving skills	
Decision-making skills	
Effective communication	
Professional ethics	

Beyond empirical research, there have been several notable OL curriculum developments published by reputable organizations such as Outward Bound, the National Outdoor Leadership School, and the Wilderness Education Association. More recently, the International Organization for Standardization, commonly represented as ISO, developed *ISO 21102*, titled “Leaders - Personal Competence” (2020). This ISO standard outlines a competency framework for leaders in *adventure tourism activities*, defined as, “adventure activity for tourism purposes that involve a degree of instruction or leadership and a deliberate accepted element of risk” (p.1). This framework is detailed in three sections: “expected results”, “competencies”, and “qualifications, maintenance and improvement of competencies” (2020). The ISO standard defines competence

as an “ability to apply knowledge and skills to achieve expected results” (2020). Further, the competencies detailed by this ISO standard are outlined in three sections, each containing an extended list of requisite items: “knowledge”, “skills”, and “attitudes or attributes” (2020). However, it is unknown to what extent this standard is accepted and used in practice.

3.3 OL Competencies, Standards and Training in Canada

The term *led outdoor activity* (LOA) has recently gained currency in Canada (Canadian Outdoor Summit, 2021a), with origins from Australia (Outdoor Council of Australia, 2021). This term is used to represent the broad spectrum of outdoor activity experiences, often in remote and/or challenging terrain, led by a person(s) in a clear role of responsibility. Currently, there are no national standards for OL training or competencies that apply broadly to the LOA sector, however there are some activity specific standards that are accepted, such as for heli-skiing, mountain guiding, and wilderness first aid. Recently, Tourism HR Canada, a government funded organization, began developing a competency framework for the tourism sector in Canada, which includes a list of competencies for adventure guides (2020). A similar initiative has also been undertaken by the Canadian Outdoor Summit⁸, who have tasked a working group to explore the development of guidelines for OL competency training in Canada (Canadian Outdoor Summit, 2021b).

OL training in Canada is very diverse, and offered by a variety of public and private organizations. This likely reflects the lack of standards, regulation, and organization across the

⁸ The Canadian Outdoor Summit, originally set for September 2020 but delayed by the COVID-19 pandemic, is scheduled for September 2021, in Gatineau, Québec. It is the first national gathering of the LOA sector, and was initiated by the Outdoor Council of Canada.

nation. Some private for-profit and not-for-profit organizations in the LOA sector provide OL training in-house as a form of staff training, which in some cases is offered in combination with recognized certifications. Summer camps are a good example of this; staff are hired seasonally, and training is prepared before the seasonal operations begin. However, OL training is also provided within different sub-sectors or activity specific sectors such as canoeing, sailing, rafting, hiking, and mountain climbing, and many of these sub-sectors offer certifications as an indication of competence. For example, OL training is provided by Paddle Canada and the Association of Canadian Mountain Guides through their various certification programs. The Outdoor Council of Canada, an organization representing the national LOA sector, offers OL training in their *Field Leader* program, which is designed primarily for entry level leaders in roles of custodial care. Additionally, there are several private outdoor organizations that offer OL training, such as the *Canadian Outdoor Leadership Training* program offered through the Strathcona Park Lodge, the *Whitewater Intensive Leadership Development* program offered through Esprit Whitewater Adventure and Training, and the *Mountain Skills Semester* program offered through Yamnuska Mountain Adventures. Nonetheless, post-secondary education is also one of the main avenues for training in OL (Potter et al., 2012).

A recent environmental scan systematically identified 54 post-secondary OL training programs in Canada across 33 institutions (Williams-Orser et al., 2021). They included programs that grant certificates, diplomas, minors, bachelor degrees, and master degrees. Results from this environmental scan summarized themes representing the scope of OL training contexts or sectors. These themes related to occupational training focuses included: primary and secondary education, high adventure guiding, tourism management, and health and wellness promotion.

While this scan did identify the post-secondary OL training programs in Canada, future research

was recommended to investigate the similarities and differences across programs in each province, including across programs level learning outcomes.

From this environmental scan (Williams-Orser et al., 2021), 12 post-secondary OL training programs were identified in Ontario across 9 institutions (see Table 3). Of those programs, there were five that grant college diplomas, four that grant bachelor's degrees, two that grant college certificates, and one grants a minor (at a university). Only British Columbia was found to have more post-secondary OL training programs than Ontario. Unlike British Columbia and Québec, Ontario has no committee, association, or regulatory body that unites post-secondary OL programs. Furthermore, there is no provincial conference or symposium that unites academics from Ontario's post-secondary OL training programs, nor are there any organized communications or meetings between them. Without any formal dialogue between programs, there is no collaboration on curricular matters, and little is known about the approaches to post-secondary OL training in the province. This is particularly surprising and relevant given that post-secondary education is a provincial jurisdiction, and governed through the Ministry of Colleges and Universities in Ontario.

Table 3: Post-Secondary OL Training Programs in Ontario⁹

Institution	Program Name
Algonquin College	Outdoor Adventure
Algonquin College	Outdoor Adventure Naturalist
Brock University	Outdoor Recreation
Brock University	Outdoor Recreation (Minor)
Canadore College	Ecotourism
Fanshawe College	Adventure Expeditions and Interpretive Leadership
Fleming College	Outdoor Adventure Education
Fleming College	Outdoor Adventure Skills
Lakehead University	Outdoor Recreation, Parks and Tourism
Laurentian University	Outdoor Adventure Leadership
Queen's University	Outdoor Experiential Education
Sault College	Adventure Recreation and Parks Technician

3.4 OL Competencies, Standards and Training in Ontario

Similar to the nation-wide context in Canada, there are no standards for competency and training requirements for employment within the LOA sector in the province of Ontario. Despite the presence of 12 post-secondary training programs in Ontario, there is no interconnection,

⁹ Data from Williams-Orser et al. (2021).

alignment, or agreement on competencies or standards for the LOA sector. The Council of Outdoor Educators of Ontario, a not-profit organization, acts as a professional body for outdoor educators in the province, however their primary focus is more towards supporting outdoor education in public and private schools than on the LOA sector or OL training. Additionally, some nationally-based associations and certifying bodies are present within the province, and there are also provincially based organizations, such as Hike Ontario, and The Ontario Recreational Canoeing and Kayaking Association (Outdoor Council of Canada, n.d.). However, there is no association or organization that connects the LOA sector and supports OL training providers in the province.

The LOA sector in Ontario has also been gravely impacted by two high profile tragedies, and recent labour disputes. In 1978, tragic events on a canoe trip led to the death of 12 boys and one leader from the St. John's School of Ontario (Raffan, 2010). Although there have been other tragedies since 1978 in Ontario, they did not dramatically impact the LOA sector. More recently though, in 2017, a boy from the C.W. Jefferys Collegiate Institute drowned during a canoe trip (McLaughlin, 2019), and this resulted in a criminal charge against the teacher who was leading the trip. Thus, since this tragedy, outdoor education programs involving canoe excursions in Ontario were curtailed or discontinued at many schools and school boards across the province. In 2019, after recent LOA sector labour disputes, the Ministry of Labour in Ontario became the first provincial ministry to establish minimum wage laws for *wilderness guides* (Government of Ontario, 2020). This legislation defined a wilderness guide as:

“a [person] who is employed to guide, teach or assist a person or people while they are engaged [in] activities in a wilderness environment, including the following activities: back-country skiing and snowshoeing; canoeing, kayaking, and rafting; dogsledding; hiking; horseback riding; rock climbing; operating all-terrain vehicles or snowmobiles; wildlife viewing; survival training.”

3.5 Post-Secondary Education in Ontario

In Ontario, the governance and administration of post-secondary institutions is managed through the Ministry of College and Universities, including that of professional programs such as medicine, law, education, and engineering. Post-secondary institutions in Canada include both universities and community colleges. At the college level, quality assurance of programs is through a cyclical review process mandated by the Ministry, where all programs must report “vocational learning outcomes”, defined as, “the culminating demonstration of learning and achievement that the student must reliably demonstrate before graduation” (Ontario Ministry of Colleges and Universities, 2017, para. 1). At the university level, quality assurance of programs is through a cyclical review process coordinated by the Ontario University Council on Quality Assurance, established by the Ministry. The Council requires that all programs report “learning outcomes”, defined as, “what a student should know, and be able to do after successful completion of an assignment, activity, class or program” (Council of Ontario Universities, 2011, p.7). In general, program level learning outcomes (LOs) are statements that represent the competencies that a student should possess after the completion of a program (Harden, 2002). In Canada, LOs are part of a recent initiative across ministries, and have been gaining popularity as an assessment tool for educators, academics, and policy makers (Brumwell, Deller, & MacFarlane, 2017; Deller, Brumwell, & MacFarlane, 2015). Additionally, LOs benefit students because they aid in articulating expectations, evaluations and assessments. Further, if a student clearly understands the competencies they have acquired, they will be able to better market themselves to employers (Deller, Brumwell, & MacFarlane, 2015). While there is a lack of congruence across OL competency research, examining a university or college training

program's LOs could offer rich insight in order to contrast and compare training focuses across different programs.

3.6 Study Rationale

The importance and impact of well-trained leaders on the outcomes of LOA experiences has been well-documented (Holland et al., 2018). Despite research and synthesis efforts over the years, there remains a wide diversity in competencies and approaches to OL training. Moreover, there are no national or provincial standards for OL training or competencies that apply broadly to the LOA sector in Canada. Thus, OL training in Canada is very diverse, and involves training across many interdisciplinary sectors including education, recreation, tourism, high adventure, health, and wellness (Potter et al., 2012; Williams-Orser et al., 2021). A recent environmental scan identified 54 post-secondary OL training programs in Canada. Second in number only to British Columbia, 12 post-secondary OL training programs were identified in Ontario, including college programs ($n = 7$) and university programs ($n = 6$) (Williams-Orser et al., 2021). However, there is no association, formal gathering or professional body that unites post-secondary OL training programs for dialogue or collaboration on curricular matter, and little is known about how post-secondary OL training is organized within the province. Thus, the purpose of this research was to explore the diverse approaches to post-secondary OL training in Ontario. The research question that guided this study was the following: What are the common and unique characteristics of post-secondary OL training programs in Ontario?

3.7 Methods

This qualitative study involved a multiple case study design (Hodges & Sharp, 2016; Stake, 2005; Yin, 2009) to explore the unique characteristics and learning outcomes of the 12 post-

secondary OL training programs in Ontario. Thus, each program was considered a potential case. The multi-case study approach was selected as the best method because it allowed for holistic investigation of the complexity and uniqueness of each individual case within a bounded group of cases (Hodges & Sharp, 2016; Stake, 2005; Yin, 2009). Developing each case involved collecting data through semi-structured interviews with key informants (i.e., program coordinators). Program web pages on institutional websites were utilized to support the data collected in the interviews. This study was approved by the Laurentian Research Ethics Board (REB #6017180; see Appendix B).

3.7.1 Data Collection

Invitations to participate in semi-structured interviews were sent to the coordinators for the 12 programs in Ontario. The interview questions were exploratory in nature, aiming to gather descriptive characteristics about each program, relating to the following five areas of interest: (1) credential (i.e., degree or diploma) details and uniqueness, (2) program origins and current focus, (3) core learning experiences, (4) industry collaborations and certifications, and (5) graduate career orientation, and (6) program LOs. The questions in each of these areas of interest were designed to provide a comprehensive overview of each program, with the intent that the data would lead to a thick description of each case (Ponterotto, 2006). Appendix C includes the interview guide of questions. Interviews were performed by video-call, were recorded, and information related to the six descriptive characteristics for each program was transcribed into a spreadsheet by question and category, forming the draft structure for each case. In addition to the interviews, supporting information was acquired from each programs' institutional web page within the time frame of the interviews. After a provisional draft of each case study was written, cases were sent to the key informants for review, revisions and validation.

3.7.2 Data Analysis

Data analysis occurred in two phases. In phase one, interview data, supporting web page information, and learning outcomes for each program were organized and re-constructed into a case study for each program. Each individual case was contextualized by the characteristics of adjacent cases, such that both common and unique characteristics would be highlighted across the cases. In phase two, LOs from all programs were analyzed using principles of thematic analysis (Braun & Clarke, 2013) by searching LOs for key terms, and categorizing key terms to develop themes. Themes were only considered if they were developed from three or more LOs, and if they were developed from LOs of two or more programs. Analysis of LOs were then reviewed and revised with a second member of the research team until consensus was achieved.

3.8 Results

During data collection, it was learned that one program from the sample (the Minor in Outdoor Recreation at Brock University) is a series of courses within their undergraduate degree program, and thus it was excluded as a case worthy of further investigation. Invitations to participate were sent to the coordinators of 11 programs. Interviews were conducted with nine respondents (82%) between May 2019 and April 2020. Supporting information from programs' institutional web pages was compiled for all 11 programs, and LOs were available for 10 programs (91%).

During the data analysis stage, Canadore College closed their Ecotourism program, and they were subsequently excluded from this study. Additionally, one of the nine respondents was the acting coordinator for two programs, and was able to provide information for both (Case #1 and Case #2). Of the 10 remaining programs, nine (90%) had LOs available for analysis. The results are presented according to the two phases of data analysis: (1) case studies of 10 programs; and

(2) results from analysis of LOs from nine programs. Of the 10 programs included in case studies, four were university programs that granted bachelor's degrees, and six were college programs, one that granted a certificate, and four that granted diplomas. Two case studies (Case #5 and Case #6) were based only on data collected from institutional web pages, as interviews with coordinators of these programs were not completed.

3.8.1 Phase One: Case Studies

The following 10 case studies summarize the findings from 10 post-secondary OL training programs in Ontario, and they are written in the present tense to better respect and represent programs that continue to exist and operate.

3.8.1.1 Case #1: Outdoor Adventure Skills, Fleming College

Outdoor Adventure Skills at Fleming College is a one-year program that results in a College Certificate in Outdoor Adventure Skills, from the School of Environmental and Natural Resource Sciences. This program is located in Lindsay Ontario, at Fleming College's Frost Campus, which is surrounded by rivers, lakes and green space.

The program was founded in 2010/2011, after the Ecotourism program and the Park and Forest Recreation program combined and refocused towards outdoor adventure skills training.

Approximately 10 students are admitted to this program each year, and this program focuses on introducing students to a broad range of field-based skills and certifications.

Students of this program have the opportunity to collaborate with a Tim Horton® Foundation Camp, municipalities, conservation authorities, and public schools. Additionally, all students participate in a one-week placement with a Tim Horton® Foundations Camp. During their

studies, students have the opportunity to achieve a number of industry certifications including in hiking, lifeguarding, wilderness first aid, and Leave-No-Trace. Graduates of this program are prepared for entry level positions in the LOA sector. Additionally, after completion of this program, students can apply to enter into the Outdoor and Adventure Education Program at Fleming College (see Case #2), where they are admitted directly into the second year of the program.

The nine LOs for this program are:

1. Develop and upgrade a variety of administrative skills specific to outdoor adventure leadership including creating and/or reviewing trip plans, health documents, and insurance waivers.
2. Protect the outdoor natural environment by using appropriate outdoor strategies and skills.
3. Develop communication, leadership and facilitation skills by engaging with peers and instructors in various outdoor adventure trips and activities.
4. Apply effective risk management strategies for outdoor pursuits.
5. Plan and implement effective non-commercial adventure experiences in appropriate settings.
6. Participate successfully in various adventure activities such as canoeing, tripping, snowshoeing, backpacking, rockwall climbing and camping and keep personal records using a log of field experiences.
7. Select, maintain, use and manage appropriate equipment and clothing for a variety of adventure pursuits.

8. Complete industry-related certifications in various chosen outdoor adventure skills and related certification courses offered during the program.
9. Maintain the proper level of fitness and health for selected adventure skills and for the outdoor climate.

3.8.1.2 Case #2: Outdoor and Adventure Education, Fleming College

Outdoor Adventure Education at Fleming College is a two-year program, resulting in an Ontario College Diploma in Outdoor Adventure Education, from the School of Environmental and Natural Resource Sciences. This program is located at the same campus as the certificate program (see Case #1).

This program was founded in 2014, as an extension of the one-year certificate program, although students can enroll independently, and it results in a separate diploma. Approximately 40 students are admitted each year. Students are trained in a broad range of skills, including an emphasis on developing skills in facilitation. This program is anchored in experiential learning.

Students of this program have the opportunity to collaborate with industry, organizations, municipalities, conservation authorities, and public schools during a 80-hour placement. In addition to the industry certifications achieved in first year, students can advance their canoeing and kayaking certifications, and can choose one advanced level certification in either canoeing, lifeguarding, ropes course instructing, or wilderness first responder. Graduates are prepared for careers as facilitators and guides, and for positions with outdoor education centres, parks, camps, heritage sites, resorts, wilderness schools, and outfitters.

Given that this program is an extension of the certificate program (see Case #1), it shared the same LOs, and has an additional four LOs. The four additional LOs for this program are:

1. Identify and interpret a wide variety of natural phenomenon using outdoor skills and natural history knowledge.
2. Deliver meaningful interpretive programs to a variety of audiences, meeting their differing learning styles and personal expectations.
3. Respond to group behavior by identifying, selecting, and successfully implementing effective communication and team-building skills.
4. Develop and present a professional development and personal growth plan which addresses the need to continue to develop skills and knowledge in adventure education.

3.8.1.3 Case #3: Outdoor Adventure, Algonquin College

Outdoor Adventure at Algonquin University is a two-year program, resulting in an Ontario College Diploma in Adventure Guiding. This program is located in Pembroke, Ontario, hosting a water-front campus on the Ottawa River, a very historical river, and one of Canada's premier whitewater paddling destinations. This program is focused on applied OL training, with options for students to acquire instructor-level certifications in a variety of outdoor adventure disciplines.

The program was founded in 2000 after a need was identified from industry. The results of a survey sent to industry operators were analyzed to produce 10 LOs that guided the design of the program and its courses. Since its inauguration, it has evolved to meet the needs of industry, which has increased focus on communication, literacy, media, and managerial skills.

Approximately 65 students are admitted to this program each year. The program aims to train students through a progression from supervised training, to unsupervised training, to preparing students to become professional guides after graduation. Two of the capstone experiences of the

program include developing and presenting a business proposal, and completing a year-long planning process culminating in an advanced student-led, unaccompanied expedition.

Students of this program have the opportunity to collaborate with a local outdoor adventure tourism company, Wilderness Tours, as well as outdoor education centres, rafting operators in Québec, and ski resorts. During their studies, students earn a minimum of 10 industry certifications, from a selection of 21 offered within courses. The selection of certifications includes a large variety of outdoor pursuits and training areas from proficiency levels up to instructor levels, and they include kayaking, rafting, canoeing, mountain biking, cycle-touring, alpine skiing, snowboarding, cross-country skiing, river rescue, wilderness first responder, Leave-No-Trace, Sustainable Trails, and Safe Food Handler. Graduates of this program are prepared for careers primarily in high adventure guiding and instructing, expedition guiding, terrain park management, outdoor education, equipment retail and supply, and entrepreneurship.

The ten LOs for this program are:

1. Assess risk and exposure, manage liability, and create systems consistent with leading risk management practices.
2. Lead others leveraging interpersonal ability, group management tools, and sound decision making and judgement.
3. Consistently demonstrate professional communication strategies, including written, spoken, and digital applications.
4. Instruct outdoor technical skills.
5. Initiate an effective and methodical response to emergency and rescue scenarios.
6. Build technical skills and acquire industry recognized certifications.

7. Incorporate environmental awareness and sustainability into outdoor and business practices.
8. Identify and develop business and management strategies to capitalize on opportunities in the adventure industry.
9. Plan and manage adventure based trips, events and programs.
10. Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.

3.8.1.4 Case #4: Outdoor Adventure Naturalist, Algonquin College

Outdoor Adventure Naturalist at Algonquin College is a one-and-a-half-year condensed program, resulting in an Ontario College Diploma in Outdoor Adventure Naturalist. The program is distinct from Case #3, but located at the same institution and campus (see Case #3). This program is focused on training for nature and heritage interpretation, and ecotourism guiding.

The program was founded in 2002 as a branch from the Outdoor Adventure program that began two years prior, to create a program with a focus on nature and heritage interpretation, and to meet the needs of the rapidly developing ecotourism industry. The program began as a two-year program, but was revised in 2006 to become a one-and-a-half-year, condensed three semester program, with a summer break between semester two and three. Approximately 30 students are admitted to this program each year. The program aims to train students to become professional guides for nature and heritage interpretation, and nature and ecotourism industries. The core experiences of the program include working with an organization to design and deliver an interpretive program, and the design, proposal, fundraising and execution of a student-led, unaccompanied 5-11-day field trip.

Students of this program have the opportunity to collaborate with a number of companies and industry organizations, including the Canadian Wildlife Federation, Shaw Woods Outdoor Centre, Bear Creek Outdoor Centre, Wilderness Tours, and Mount Pakenham. During their studies, students have the opportunity to achieve a number of industry certifications in canoeing, kayaking, cycle touring, wilderness first responder, and Canadian Wildlife Federation Wild Facilitator Educator. Graduates of this program are prepared for careers in the summer camp industry, nature and heritage interpretation, ecotourism guiding, entrepreneurship, and education.

The seven LOs for this program are:

1. Create risk management systems, consistent with best practices, that assess risk and exposure, manage liability and provide a safe and sustainable environment for clients, staff and resources.
2. Provide leadership through the professional application of risk, group and time management skills.
3. Develop the conceptual framework necessary to consistently identify and interpret ecological concepts, plants, trees, wildlife, constellations and other naturally occurring phenomenon.
4. Plan, market, deliver and evaluate sustainable nature based interpretive programming for a variety of domestic and international clients.
5. Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship.
6. Display the technical skills required for employment through the acquisition of industry recognized certifications.

7. Identify and develop business, marketing, management and financial strategies to capitalize on opportunities in the nature, interpretive and eco/sustainable tourism segment of the outdoor adventure industry.

3.8.1.5 Case #5: Adventure Recreation and Park Technician, Sault College

Adventure Recreation and Parks Technician at Sault College is a two-year program, resulting in an Ontario College Diploma in Adventure Recreation and Parks Technician, from the Natural Environment department. This program is located in Sault Ste. Marie, Ontario, situated in the middle of the three largest Great Lakes, and near the United States border.

This program highlights field trips and hands-on experience as essential parts of learning.

Additionally, this program focuses on three main training areas: park operations, interpretation and protection; adventure recreation and recreation planning; and ecotourism and adventure expeditions. Students of this program gain industry experience during a required co-op work placement. The program offers industry certifications in kayaking and canoeing, nordic skiing, alpine skiing, rock climbing, ice climbing, scuba diving, chainsaw operator safety, heritage interpretation, and wilderness survival. This program prepares graduates for careers in guiding, wilderness outfitting, ecotourism, and various roles within outdoor centres, the retail industry, parks and conservation authorities, forestry and other natural resource fields.

The 11 LOs for this program are:

1. Demonstrate clear, concise and industry appropriate written, spoken and visual communication skills.
2. Identify, discuss, organize and assess common flora and fauna species found throughout Ontario, including biological and physiological characteristics.

3. Describe how the six park systems in Ontario are managed and operated.
4. Identify and evaluate the requirements for leading and participating in expeditions or field exercises using a variety of adventure recreation activities.
5. Start and manage a career in the Adventure Recreation and Parks field.
6. Demonstrate a sound understanding of the significance of the Adventure Recreation and Parks industry including relevant legislation, trends and issues.
7. Describe the scientific method and how it shapes our understanding of the ecology of the natural world.
8. Demonstrate an understanding of sustainable development and apply the foundations in the natural environment.
9. Safely operate and maintain equipment used in Adventure Recreation and Park operations.
10. Evaluate and apply current technologies and mathematical concepts used to collect, manage and analyze data.
11. Analyze, evaluate and apply subjective and objective safety considerations for Adventure Recreation and Parks activities.

3.8.1.6 Case #6: Adventure Expeditions and Interpretative Leadership, Fanshaw College

Adventure Expeditions and Interpretive Leadership at Fanshawe College is a one-and-a-half-year condensed program, resulting in an Ontario College Diploma in Adventure Expeditions and Interpretive Leadership. This program is located in Simcoe, Ontario, at Fanshawe College's Simcoe/Norfolk Regional Campus, making it the southernmost program in Ontario. This area, the Carolinian zone, is one of the most biologically diverse areas in Canada.

This program is delivered in an accelerated format, as four consecutive semesters, beginning in September and ending 16 months later. The third semester is a summer co-op work term during the summer. The program is anchored on three pillars: *Adventure Expedition*, *Interpretive Naturalist*, and *Business Entrepreneurship*. During their studies, students have opportunity to receive 16 industry certifications, including in canoeing, kayaking, ice climbing, ice water rescue, teambuilding, snowshoeing, navigation, wildlife tracking and animal behavior, Leave-No-Trace, astronomy and astrophotography, wild edibles and medicinal plants, plant and tree identification, and wilderness survival. This program prepares graduates primarily for careers in the ecotourism industry.

The seven LOs for this program are:

1. Perform interpretive naturalist activities using ecological, environmental and geographical concepts related to flora, fauna, and wildlife.
2. Instruct and safely guide others in eco-tourism activities and adventure expeditions such as canoeing, snowshoeing, backpacking, and camping.
3. Design, deliver, and evaluate meaningful interpretive programs for a variety of audiences.
4. Develop and present a marketing plan for eco-tourism and adventure expeditions.
5. Develop a business plan capitalizing on opportunities in the adventure expedition and eco-tourism industries.
6. Provide safe environments for interpretive and outdoor activity by using current and relevant risk management concepts and strategies.
7. Complete all work in compliance with the appropriate ethical, legislative and regulatory requirements of the eco-tourism and adventure-tourism industries.

3.8.1.7 Case #7: Outdoor Recreation, Brock University

Outdoor Recreation at Brock University is a four-year program resulting in an Honors Bachelor's of Recreation and Leisure Studies, with a concentration in Outdoor Recreation, from the Department of Recreation and Leisure Studies. The Department of Recreation and Leisure Studies also offers a three-year option to study Outdoor Recreation, resulting in a Bachelor's Degree in Recreation and Leisure Studies. Additionally, a Minor in Outdoor Recreation is offered, which is a selection of courses from the Outdoor Recreation curriculum, open to students from outside the program as a secondary area of focus while achieving another degree at the university. These programs are located in St. Catharines, Ontario, near two of the province's Great Lakes. This program focuses on research, theory and practice, and approaches OL training through the broader lens of recreation and leisure studies.

The program was founded in the 1980s by a faculty member with a focus on research in OL. In 2006, a new faculty member was hired as the current program coordinator, and the program was revised to better reflect workplace needs and student interest. Approximately 25 students are admitted to this program each year. The program is anchored in experiential learning, and it includes instructional skills workshops that are considered highlights of the program. The capstone experiences of the program include a fourth-year theory course (Issues in Outdoor Recreation), and a fourth-year practical course (Advanced Wilderness Program Planning) where students plan, develop, and execute a 10-day expedition to practice their leadership, programming, teaching, and technical skills.

Students of this program have the opportunity to participate with Outward Bound, the National Outdoor Leadership School, Ontario school boards, and other agencies during industry placement opportunities. Although this program does not offer additional industry certifications

during courses, students have the opportunity to obtain credit for certifications through directed studies or the program's *challenge for credit* process. Graduates of this program are prepared for careers in provincial and national parks, adventure guiding, summer camps, events planning, the ropes course industry, wilderness therapy, and education. Students are also prepared to continue studies at the graduate level.

The seven LOs for this program are:

1. Depth and Breadth of Knowledge:
 - a. Define, consider, and assess key leisure concepts (social-psychological and sociological).
 - b. Identify and describe theoretical and practical knowledge and current research across contexts and populations.
 - c. Describe and explain histories of leisure studies.
 - d. Define, consider, and assess detailed knowledge for a specific recreation-related community of practice.
2. Knowledge of Methodologies:
 - a. Design, conduct and disseminate research effectively.
 - b. Recognize diverse methodological approaches.
 - c. Evaluate scholarship critically.
3. Application of Knowledge:
 - a. Employ appropriate and responsive leadership and facilitation skills with individuals, groups, and communities.
 - b. Integrate key leisure theories and research in professional practice.

- c. Design, deliver and evaluate a recreation or leisure program that is suitable for the targeted demographic.
 - d. Implement appropriate informed decision-making and problem solving processes.
 - e. Apply skills and competencies relevant to a specific recreation-related community of practice.
4. Communication Skills:
- a. Communicate with a variety of audiences in written form for a variety of purposes.
 - b. Communicate with a variety of audiences in oral form for a variety of purposes.
5. Awareness of limits of knowledge:
- a. Recognize positionality — limits of knowledge based on own position, dominant paradigms, or learning context.
 - b. Demonstrate humility about depth and breadth of knowledge and practice.
 - c. Assess veracity and relevancy of content (professional issues, theories, activities) and provide critiques both personal and theoretically-supported.
6. Autonomy and Professional Capacity:
- a. Demonstrate behaviour consistent with a servant leadership approach with individuals, groups, communities.
 - b. Demonstrate respect for the values of inclusivity, compassion, diversity and social responsibility.
7. Reflective Practice:
- a. Recognize and appreciate reflection as a methodology to drive advancements in theory and practice.

- b. Demonstrate capacity to engage in a reflective learning process.

3.8.1.8 Case #8: Outdoor Adventure Leadership, Laurentian University

Outdoor Adventure Leadership at Laurentian University is a four-year program, resulting in a Bachelor's in Physical and Health Education, with a specialization in Outdoor Adventure Leadership, from the School of Kinesiology and Health Sciences. The program can also be taken concurrently with a Bachelor's of Education. This program is located in Sudbury, Ontario, a city that has seen successful greening projects, and where students have access to on-campus trail networks, and a plethora of neighbouring lakes, an adjoining conservation area, and close proximity to several provincial parks. This program focuses on outdoor adventure leadership training in the context of other education related to health and physical education.

This program was founded in 1985 by two Laurentian University faculty who saw demand and the opportunity to start a program at the university. Since its inauguration, the program has expanded student intake from 15 to approximately 25 each year. The program has maintained its primary focus on outdoor adventure leadership training, and its philosophical underpinning of using the outdoors as a medium for learning and developing leadership. The capstone experiences of the program include a 250-hour internship placement and a second field experience that involves a block of six applied skill development courses. The final applied course requires a year-long collaborative planning process that culminates in a student-led two-week expedition accompanied by professors.

Students of this program have the opportunity to collaborate with a variety of industry operators, community programs, primary and secondary outdoor education programs, and an outdoor organization during their internship. The program offers optional industry certifications within

courses, including in lake and river canoeing, wilderness first responder, swiftwater rescue technician, and field leaders (hiking and paddling) through the Outdoor Council of Canada. Graduates of this program are prepared for careers primarily in outdoor education, adventure guiding, outdoor photography and film-making, entrepreneurship, adventure therapy, and outdoor research. Students are also prepared to continue studies in graduate research or advanced degrees in other health professions such as medicine or physiotherapy.

The nine LOs for this program are:

1. Integrate sound judgement effectively in a variety of outdoor activity contexts (Judgment/Consequence Awareness).
2. Recognize and manage led outdoor activities by applying current and relevant risk and safety management techniques and strategies (Rescue Management).
3. Plan, prepare, execute, and evaluate outdoor experiences for a variety of client/participant groups (Trip Planning, Logistics and Risk Management).
4. Perform the skills and facilitate the processes required to sustain (group and individual) living and travel in backcountry environments (Outdoor Living/Technical Ability).
5. Apply personal, contextual, and situational leadership strategies to make effective decisions for the benefit of self and others (Group and Peer Leadership).
6. Recognize, promote, and practice positive social and cultural responsibility, and environmental stewardship in a variety of outdoor situations and locations (Environmental and Cultural Literacy).
7. Integrate concepts of health and well-being for humans and the environment in a holistic manner during everyday professional practice (Ecohealth Integration).

8. Apply strategies to effectively educate and facilitate a variety of populations in a range of outdoor settings (Education/Facilitation).
9. Understand and consolidate professional skills, attitudes, and practices in a variety of outdoor industries and contexts (Professionalism).

3.8.1.9 Case #9: Outdoor Recreation, Parks and Tourism, Lakehead University

Outdoor Recreation, Parks and Tourism at Lakehead University is a four-year program, resulting in an Honors Bachelor's of Outdoor Recreation, from the School of Outdoor Recreation, Parks and Tourism. The program can be taken concurrently with a Bachelor's of Education, or with a concentration in Nature-Based Therapeutic Recreation. Further, students can pursue a double degree in Natural Sciences, Women's Studies, History, or Geography. This program is located in Thunder Bay, Ontario, the most northern of all programs in the province, located beside the largest lake in the world, and surrounded by vast tracts of wilderness. This program advertises that they are the longest standing, largest, and broadest program of its kind in Canada.

This program was founded in 1978 after a demand and need was identified within the Physical Education Department, and the School of Outdoor Recreation, Parks, and Tourism was created. Initially, the program was focused on recreation, but has expanded to become more broad including focuses on park management and tourism. Approximately 50 students are admitted to this program each year. This program is focused on human powered pursuits, and it is anchored in nature-based and environmental philosophies. The capstone experiences of the program involve planning and executing a two-week expedition, which includes a field research project. The expedition is planned in third year, and carried out in the following summer or fall. Students can also select an honors undergraduate thesis as a capstone project.

Students of this program have the opportunity to engage with community programs during third and fourth year through volunteer service learning. Though the program does not offer additional industry certifications within courses, students can pursue certifications during a directed study course. Students also have the opportunity to take an exchange program with institutions in Australia, Sweden, and Norway. Graduates of this program are prepared for careers primarily in education, the summer camp industry, adventure therapy, tourism, entrepreneurship, parks and land management, environmentalism, adventure guiding, heritage interpretation, and social work.

The 13 LOs for this program are:

1. Recognize the vibrant role that outdoor recreation, parks and tourism plays in nurturing socially and environmentally responsible communities.
2. Effectively apply strategies to facilitate recreation experiences with a variety of populations and in a range of settings.
3. Evaluate and apply relevant theoretical foundations of practice in outdoor recreation, parks and tourism fields.
4. Identify and articulate the complexity of issues pertaining to place, sustainability, and ethics in outdoor recreation, parks and tourism.
5. Identify planning processes and policies in order to implement effective management and decision making.
6. Apply the principles of safety and risk management in outdoor recreation, parks and tourism.
7. Gather, review, evaluate, and interpret various forms of data and information to inform practice and decision making.

8. Undertake research using theory, concepts, methods and approaches to analysis from across outdoor recreation, parks and tourism fields.
9. Demonstrate high level competencies in writing, analysis, and assessment of constructive perspectives in theory and practice.
10. Practice professional workplace competencies and apply them to a placement.
11. Perform high level competencies in effective leadership for nature-based learning and advancing social, environmental, economic, and ethical responsibilities.
12. Identify and employ the principles of social justice, equity and inclusion.
13. Recognize Indigenous world views and practices in the context of outdoor recreation, parks and tourism.

3.8.1.10 Case #10: Outdoor Experiential Education, Queen's University

Outdoor Experiential Education at Queen's University is a one-and-a-half-year program, resulting in a Bachelor's of Education, with a Specialization in Outdoor Experiential Education, from the Faculty of Education. This program can be taken after completion of an undergraduate degree, or concurrently with another bachelor's degree at Queen's University. This program is located in Kingston, Ontario, on the eastern end of Lake Ontario, at the beginning of the St. Lawrence River. This program is the only post-secondary OL program in Ontario that qualifies students to be certified K-12 teachers with the Ontario College of Teachers.

The Associate Dean of Undergraduate Studies saw the need to start an innovative program, with inspiration from an outdoor program at a local high school. Since its inauguration, the program has undergone substantial change. The program is now focused heavily on teacher education, and includes specific courses in outdoor experiential education. Approximately 25 students are admitted to this program each year. The program is anchored in experiential learning, and aims

to have as many classes outside as possible, with a focus on teaching safety related aspects to overcome the barriers that many educators face when taking students outside. The core experiences of the program includes a field-based teaching course, and a student-directed course, where students organize their own experiential learning to explore teaching, research, and current topics.

Students of this program have the opportunity to collaborate with organizations during placements that can be fulfilled locally or abroad, including with outdoor education centres, national parks, provincial parks, municipal parks, conservation areas, Project Wild, and K-12 schools. This program does not offer additional industry certifications during courses. This is the only post-secondary OL program in Ontario that requires a prerequisite undergraduate degree, and the only teacher-preparation degree specifically focused in OL. Graduates of this program are prepared for careers primarily in education, the summer camp industry, adventure guiding, ecotourism, entrepreneurship, and environmental advocacy.

No LOs were available for this program at the time of data collection or case writing.

3.8.2 Phase Two: Themes of LOs

Nine of 10 programs (90%) had LOs available for analysis. Two programs had 13 LOs (22.2%), one had 11 LOs (11.1%), one had 10 LOs (11.1%), two had nine LOs (22.2%), and three had seven LOs (33.3%). Thus, there was an average of 9.6 LOs per program. All the LOs were statements that began with verbs, and described competencies (skills, knowledge or attributes) that a student could perform or possess upon graduation, and this was consistent with formats suggested by the provincial Ministry (Ontario Ministry of Colleges and Universities, 2017; Council of Ontario Universities, 2011).

Thematic analysis of the LOs of nine programs led to the development of 14 common themes. There were some cases where individual LOs had multiple key terms that contributed to the same theme, and other LOs had multiple key terms that contributed to multiple themes. The themes represent categories of competencies (skills, knowledge and attributes) that programs chose to highlight in their LOs. Figure 4 lists the 14 themes ranked by frequency. Beyond the 14 themes, there were five additional categories of key terms that did not meet the criteria for themes (i.e., were not found in a minimum of three LOs, and were not found in LOs from more than one program). Although they did not contribute to themes, the following five additional categories represent unique and diverse competencies (skills, knowledge and attributes) that seem to differentiate these programs within the LO training field: (1) Equipment Management, (2) Fitness, Health and Wellbeing, (3) Reflection, (4) Indigenous Worldviews and Practices, and (5) Parks Management.

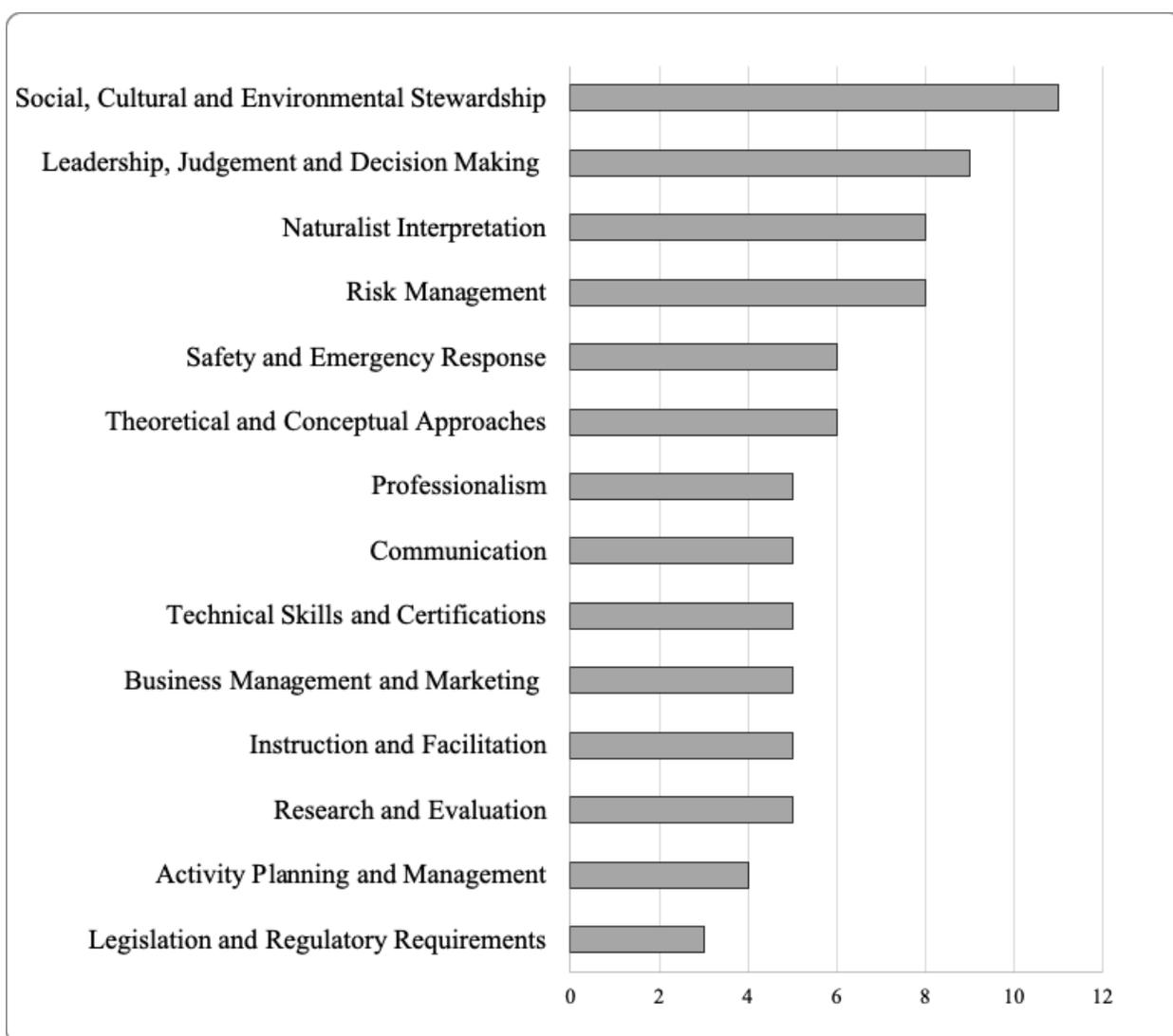


Figure 4: Frequency of LOs Contributing to the 14 Themes

3.9 Discussion

The study was exploratory in nature, seeking common and unique characteristics of post-secondary OL programs in Ontario. It is evident that there is vast diversity and uniqueness across programs, however there are also some common characteristics shared amongst programs. The following sections describe the findings of this study in two sections: (1) discussion of the case studies, and (2) discussion of program LOs.

3.9.1 Discussion of the Case Studies

Not surprisingly, all the programs highlighted that they are situated at institutions/campuses that have nearby access to wilderness areas, which appears to be an essential component for OL training, however it could be that this is also simply a feature of program promotion techniques. There were three programs that noted having philosophical underpinnings in experiential education. This finding was not surprising given the plethora of academic literature in this field, which describes experiential learning as a teaching philosophy (Warren, Mitten & Loeffler, 2008) and a learning cycle (Grady, 2003; Kolb, 1984). Experiential learning has been defined simply as “learning by doing with reflection” (Priest & Gass, 2017, p. 29) with origins that date back to the 1930s (Dewey, 1938). However, there have been notable critiques to this theory, suggesting that experiential learning is not a cycle, and that actions and reflections are concurrent processes (Seaman, 2008). Similarly, there was another program that noted philosophical underpinning of nature-based learning, which is a teaching philosophy that is rooted in immersive experiences in nature and environmental education (Ballantyne & Packer, 2010). Other than for these four programs, program coordinators lacked references associated to the philosophical underpinning of their programs. This might have been partially due to the flexibility in academic freedom that instructors have over their courses, from year to year. However, it may also indicate that OL is more applied than theoretical.

Five programs noted capstone experiences that involved planning and executing extended student-led expeditions/field trips, and six programs that noted placement opportunities. Moreover, two of the programs with student-led expeditions/field trips (both at Algonquin College) were experiences that were unaccompanied by professors. This emphasis on experiential education, nature based-learning, and student-led expeditions suggest that applied

learning experiences appear to be common and valued features of OL training in post-secondary programs in Ontario. Another common characteristic appeared to be the breadth and interdisciplinary nature of training, wherein programs noted various types of learning experiences and outdoor pursuits, and training for various career vocations; and this is reflective of the findings from the environmental scan of post-secondary programs across Canada (Williams-Orser et al., 2021), where interdisciplinary training was a prominent theme.

While most programs noted interdisciplinary training, there were a few programs that had more unique and specialized focuses. The Outdoor Experiential Education program at Queen's University is unique in that it is the only program that is for professional teacher training, and has a clear focus on training for outdoor education. Two other programs (Outdoor Adventure Leadership at Laurentian University and Outdoor Recreation, Parks and Tourism at Lakehead University) have options for students to pair their studies with a concurrent education program, although these concurrent education programs were not related to OL training and were offered through other departments. Another characteristic unique to two programs (The Outdoor and Adventure Education program at Fleming College, and the Outdoor Adventure program at Algonquin College) was that their students have a menu of choice from several more specified, narrow scopes or activity sectors. Within these narrower scopes, students can pursue advanced and instructor level certifications, supporting OL training for specific expertise rather than a more broad approach.

There were two institutions (Fleming College, and Algonquin College) that supported two OL training programs. At Algonquin College, both programs were at the diploma level, thus offering a suite of programs with different focuses, LOs, and career orientation. Further, the Outdoor Adventure program is two-years following a typical academic format, and the Outdoor

Adventure Naturalist program is a one-and-a-half-year program, with a condensed format. At Fleming College, a one-year certificate level program was offered concurrently with a two-year diploma level program. Given that the diploma program shares the same first year with the certificate program, Fleming has a unique offering of a one-plus-one format, where students can pursue either program, or both if admitted to the degree program after completion of the certificate program. While the two programs at Fleming were regarded as separate because they offer two distinct awards (certificate and diploma), it should be noted that there are other programs that offer a variety of options for students within the same degree type, but were only listed as one program for case studies, such as the variety of options at Lakehead University and Brock University.

A very interesting finding was the variety of host departments/schools. Programs were held within departments/schools of Education; Recreation and Leisure; Kinesiology and Health Sciences; Environmental and Natural Resource Sciences; Natural Environment; and Outdoor Recreation, Parks and Tourism. Such variety in host departments/schools may be a large contributing factor to the diversity in OL training across programs. Additionally, the differences across programs and approaches were also likely present because of the lack of provincial or national standards, and/or regulation within the LOA sector in Ontario and across Canada. Without such standards, programs are boundless in their approaches to offering OL training. Moreover, without any widely recognized OL competencies in Ontario, or Canada, there is no common framework available to influence the preparation of OL training curricula, leaving much room for academic freedom. Finally, without any provincial gathering, conference, association or formal communication between the post-secondary OL training programs, there is little known collaboration between programs, contributing to the varied approaches to OL

training across programs. Overall, it appears that approaches to OL training across post-secondary programs in Ontario are diverse, including options that vary from one to four years in length, and the credentials included a college certificate ($n = 1$), college diplomas ($n = 5$), and university bachelor's degrees ($n = 4$).

3.9.2 Discussion of Program LOs

When compared with the list of competencies by Martin et al. (2017), all eight of the competencies are clearly represented within the themes. When compared with the list of competencies by Priest and Gass (2017), all 12 of the competencies are also clearly represented within the themes. The representation of these themes within the competencies by both Priest and Gass (2017) and Martin et al. (2017) suggest that the competencies outlined by both textbooks continue to be relevant to OL training in Ontario. This is not surprising, since it is likely that either one or both of these publications may be used as required texts or recommended reading in courses, or simply reference material for curriculum design and revision of programs.

There were some themes that were not clearly identified within either of the lists of competencies in the Priest and Gass (2017) and Martin et al. (2017) texts. The Naturalist Interpretation theme was not explicitly listed within either list of competencies, although it could be that it fits well within the “Environmental skills” competency listed by Priest and Gass (2017). Similarly, the Theoretical and Conceptual Approaches theme was not explicitly listed within either list of competencies, although it could be argued that it belongs within the “Foundational knowledge” competency listed by Martin et. al (2017). There were three themes that were distinctly unique, and did not appear in either list of competencies: Business Management and Marketing; Research and Evaluation; and Legislation and Regulatory Requirements. These unique themes may be OL training areas that have gained importance in

years since the completion of early competency research, or they could be areas that are more specific to the provincial or national LOA context in Canada. Interestingly, two of these unique themes (Business Management and Marketing and Legislation and Regulatory Requirements) were only found in LOs from college programs, suggesting that they appear to be more of a priority at college programs than at university programs. While one may expect that the Research and Evaluation theme would be more applicable to university programs, it was found in LOs at both university programs ($n = 2$) and college programs ($n = 1$).

Many of the themes were present within the international standard developed by ISO, including Leadership, Judgement and Decision Making; Naturalist Interpretation; Risk Management; Safety and Emergency Response; Professionalism; Communication; Technical Skills and Certification; Instruction and Facilitation; Activity Planning and Management; and Legislation and Regulatory Requirements. The lack of dissemination of this standard within the LOA sector in Ontario, and across Canada, may be why it has yet to be influential for OL training programs. In the future, if this standard gains acceptance across the LOA sector in Ontario and Canada, it could become a useful tool for OL training programs as they prepare students for employment.

Beyond the prominent themes, it was surprising that there were not more LOs related specifically to Indigenous worldviews and practices, which was only mentioned by one program. This is surprising given the Truth and Reconciliation Commission of Canada's Call to Action #62, which called for post-secondary programs to integrate Indigenous knowledge and teaching methods into classrooms (2015). This is also surprising given the historic roots of LOAs and outdoor education in Canada, and its link to Indigenous lands and historical trade routes (Purc-Stephenson, Rawleigh, Kemp, & Asfeldt, 2019). Lowan-Trudeau (2019) identified barriers that have prevented academics from integrating Indigenous studies into their teaching, such as

“limited time, a lack of subject background and confidence, and limited curricular support” (p. 66). These barriers may be factors contributing to the absence of Indigenous related content in the program LOs. Nonetheless, Indigenous studies are clearly important to general education in post-secondary, and in LOA experiences, thus this absence is notable. It could be that Indigenous studies is present in course work, or offered in electives, but was not prominent enough for programs to highlight it in their LOs.

In Canada, LOAs could be a helpful tool for truth and reconciliation. LOA experiences in Canada often pay respects to important symbols, lands, and stories associated with Indigenous cultures (Asfeldt, Urberg, & Henderson, 2009; Mikaelis & Asfeldt, 2017; Potter & Henderson, 2004; Purc-Stephenson et al., 2019). However, for LOA experiences to contribute to truth and reconciliation, the sector needs become more accessible to Indigenous people, as the LOA sector has been noted to have been historically dominated by more affluent populations (Beams, Mackie, & Atencio, 2019; Martin & Wagstaff, 2012; Warren, Roberts, Breunig, & Alvarez, 2014). Other innovative approaches to promote truth and reconciliation should consider community-based participatory collaborations, similar to those used by Ritchie et al. (2010) to provide OL training for youth and young adults in one Indigenous community in Northeastern Ontario.

3.10 Limitations

There were several limitations to this study. The data collected only represents the programs at a point in time, and only on OL training programs in one province. According to Williams-Orser et al. (2021), there are an additional 42 OL training programs at colleges and universities in other provinces across Canada. This study was also limited to the information that key informants were able to access and share. Additionally, programs, courses, and LOs undergo cyclical review

processes, and they may have changed since the time of this study, and they will likely change in the future. Another limitation is that information from programs' institutional web pages may not have been current at the time of data collection. Furthermore, it is possible that the LOs that each program shared were not necessarily reflected in the delivery of the programs and their courses. Although each program and their LOs are reviewed in the ministry mandated cyclical review process, it is unknown to what degree the LOs were adequately achieved, or if courses deviated, due to the principle of academic freedom, where professors and instructors have a degree of freedom to create and deliver curriculum within a particular course.

3.11 Implications and Future Research

There were several implications and recommendations from this study. One obvious implication of this study was that it may help initiate dialogue between post-secondary OL programs in Ontario, to support collaboration on curricular matters, share best practices, and stimulate innovations in teaching and OL training. Furthermore, this study could serve as a model for similar investigations of post-secondary OL training programs in other provinces and/or across Canada, for a national perspective. The analysis of program LOs across other provinces and across the country could also serve to further our understanding of OL competencies within the context of post-secondary training. This type of research could support institutions with ways to improve student experiences, retention, and achievement of LOs; and it could also be useful for any national or provincial initiatives for creating and revising standards. Post-secondary programs are only one of many avenues for OL training, thus this study could also serve as a reference or model for future studies investigating and comparing OL training approaches present in Ontario, other provinces, and across Canada.

3.12 Conclusion

This study involved the investigation of varied approaches to OL training at 10 post-secondary programs in Ontario, including both colleges ($n = 6$) and universities ($n = 4$). A multiple case study design (Hodges & Sharp, 2016; Stake, 2005; Yin, 2009) was used to explore characteristics of programs, including programs level LOs across programs. LOs were available for nine of 10 programs. The available LOs were analysed using principles of thematic analysis (Braun & Clarke, 2013), and categorized into 14 themes representing common competencies across programs. The findings of this study highlight the diverse approaches to preparing OL training across post-secondary programs in Ontario. Furthermore, with an understanding of the extent of post-secondary OL training in Ontario, as revealed in this study, there is an opportunity for dialogue and collaboration across programs to improve the viability, credibility, and longevity of the LOA sector in Ontario. Thus, it is hopeful that this study will contribute to the literature by highlighting details about diverse OL training approaches that will help develop better leaders, increase safety, and provide more meaningful experiences within the LOA sector.

3.13 References

- Asfeldt, M., Urberg, I., Henderson, B. (2009). Wolves, Ptarmigan, and Lake Trout: Critical Elements of a Northern Canadian Place-Conscious Pedagogy. *Canadian Journal of Environmental Education*, 14, 33-41.
- Ballantyne, R., & Packer, J. (2002) Nature-based Excursions: School Students' Perceptions of Learning in Natural Environments. *International Research in Geographical and Environmental Education*, 11(3), 218-236.
- Beams, S., Mackie, C., & Atencio, M. (2019). *Adventure and Society*. Cham, Switzerland: Palgrave Macmillan.

- Berman, D., & Davis-Berman, J. (2009). Dimensions Underlying an Outdoor Leadership Curriculum. *Journal of Outdoor Recreation, 1*(1), 3-14.
- Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*. London, EN: SAGE Publications.
- Brumwell, S., Deller, F., & MacFarlane, A. (2017). Why Measurement Matters: The Learning Outcomes Approach – A Case Study from Canada. *Journal of Higher Education in Africa, 15*(1), 5-22.
- Buell, L. (1981). *The Identification of Outdoor Adventure Leadership Competencies for Entry-Level and Experienced-Level Personnel* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303165287/62EBDFAB75E248BDPQ/15>
- Canadian Outdoor Summit (2021a). About. Canadian Outdoor Summit. Retrieved from <https://canadianoutdoorsummit.com/>
- Canadian Outdoor Summit (2021b). Workgroups. Canadian Outdoor Summit. Retrieved from <https://canadianoutdoorsummit.com/workgroups/>
- Council of Ontario Universities (2011). *Ensuring the Value of University Degrees in Ontario*. (Report No. 857). Retrieved from <https://cou.ca/wp-content/uploads/2015/05/COU-Ensuring-the-Value-of-University-Degrees-in-Ontario-November-2011.pdf>
- Cousineau, C. (1977). *A Delphi Consensus on a Set of Principles for the Development of a Certification System for Educators in Outdoor Adventure Programs* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/302871132/741D6F6BF3184179PQ/1>
- Dewey, J. (1938/1997). *Experience and education*. New York, NY: Simon & Schuster.

- Government of Ontario (2020). Your Guide to the Employment Standards Act: Minimum Wage. Retrieved from <https://www.ontario.ca/document/your-guide-employment-standards-act-0/minimum-wage>
- Grady, R. T. (2003). An interpretation of Dewey's experiential learning theory. *Eric*. Retrieved from <https://eric.ed.gov/?id=ED481922>
- Green, P. J. (1981). *The Content of a College-Level Outdoor Leadership Course for Land-Based Outdoor Pursuits in the Pacific Northwest: A Delphi Consensus* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303187505/abstract/62EBDFAB75E248BDPQ/77>
- Deller, F., Brumwell, S., & MacFarlane, A. (2015). *The Language of Learning Outcomes: Definitions and Assessments*. Toronto, ON: Higher Education Quality Council of Ontario.
- Harden, R. M. (2002). Learning outcomes and instructional objectives: is there a difference?. *Medical Teacher*, 24(2), 151-155.
- Hodges, K., & Sharp, L. A. (). Case Studies. In B. Smith, & A. C. Sparkes (Eds), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 62-74). New York, NY: Routledge.
- Holland, W. H., Powell, R. B., Thomsen, J. M., & Monz, C. A. (2018). A Systematic Review of the Psychological, Social, and Educational Outcomes Associated With Participation in Wildland Recreational Activities. *Journal of Outdoor Recreation, Education, and Leadership*, 10(3), 197-225.

International Organization for Standardization (2020). *ISO 21102: Adventure tourism — Leaders — Personal competence*. Vernier, Switzerland: International Organization for Standardization.

Johnson, W. C. (1989). *The identification of desirable knowledge and skills in outdoor leaders of outdoor pursuits, resident camping, and outdoor education and environmental interpretation programs in the United States* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303784323/abstract/62EBDFAB75E248BDPQ/8>

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, N.J: Prentice-Hall.

Lowan-Trudeau, G. (2019). From reticence to resistance: understanding educators' engagement with indigenous environmental issues in Canada. *Environmental Education Research*, 25(1), 62-74.

Martin B., Breunig, M., Wagstaff, M., & Goldenberg, M. (2017). *Outdoor Leadership: Theory and Practice* (2nd ed.). Champaign, IL: Human Kinetics.

Martin, B., & Wagstaff, M. (2012). *Controversial Issues in Adventure Programming*. Champaign, IL: Human Kinetics. Champaign, IL.

McLaughlin, A. (20019, December). Toronto teacher to stand trial in drowning of student on Algonquin Park trip. *CBC News*. Retrieved from

[https://www.cbc.ca/news/canada/toronto/teacher-trial-in-drowning-of-student-](https://www.cbc.ca/news/canada/toronto/teacher-trial-in-drowning-of-student-1.5385452)

1.5385452 Ontario Ministry of Colleges and Universities (2017). Published College Program Standards. Retrieved from

<http://www.tcu.gov.on.ca/pepg/audiences/colleges/progstan/>

- Mikaels, J. Asfeldt, M. (2017). Becoming-crocus, becoming river, becoming bear: A relational exploration of place(s). *Journal of Outdoor and Environmental Education*, 20(2), 2-13.
- Outdoor Council of Australia (2021). About. Outdoor Council of Australia. Retrieved from <http://www.outdoorcouncil.asn.au/about/>
- Outdoor Council of Canada (n.d.). Outdoor Training Organizations. Retrieved from <https://www.outdoorcouncil.ca/Outdoor-Training>
- Pelchat C., & Karp, G. G. (2012). A Historical Review of Outdoor Leadership Curricular Development and the Future With Action Research. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 27(2), 1-13.
- Ponterotto (2006). Brief Note of the Origins, Evolution, and Meaning of the Qualitative Research Concept “Thick Description”. *The Qualitative Report*, 11(3), 538-549.
- Potter, T. G., & Henderson, B. (2004). Canadian outdoor adventure education: Hear the challenge – Learn the lessons. *Journal of Adventure Education and Outdoor Learning*, 4(1), 69-87.
- Potter, T. G., Socha, T. L., & O’Connell, T. S. (2012). Outdoor adventure education (OAE) in higher education: characteristics of successful university degree programmes. *Journal of Adventure Education & Outdoor Learning*, 12(2), 99-119.
- Priest, S. (1984). Effective Outdoor Leadership: A Survey. *Journal of Experiential Education*, 7(3), 34–36.
- Priest, S. (1986). *Outdoor Leadership Preparation in Five Nations* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303428505/abstract/62EBDFAB75E248BDPQ/20>

- Priest, S., & Gass, M. (2017). *Effective Leadership in Adventure Programming* (3rd ed.). Champaign, IL: Human Kinetics.
- Purc-Stephenson, R. J., Rawleigh, M., Kemp, H., & Asfeldt, M. (2019). We Are Wilderness Explorers: A Review of Outdoor Education in Canada. *Journal of Experiential Education*, 42(4), 364-381.
- Raffan, J. (2010). *Deep Waters: Courage, Character and the Lake Timiskaming Tragedy*. Toronto, ON: HarperCollins.
- Raiola, E. O. (1986). *Outdoor Wilderness Education - a Leadership Curriculum* (Doctoral dissertation). Retrieved from <https://search.proquest.com/dissertations/docview/303516954/abstract/62EBDFAB75E248BDPQ/43>
- Ritchie, S. D., Wabano, M. J., Young, N., Schinke, R., Peltier, D., Battochio, R., & Russel, K. (2010). Developing Culturally a Relevant Outdoor Leadership Training Program for Aboriginal Youth. *Journal of Experiential Education*, 32(3), 300-304.
- Seaman, J. (2008). Experience, reflect, critique: The end of the "learning cycles" era. *Journal of Experiential Education*, 31(1), 3-18.
- Swiderski, M. J. (1984). *Outdoor Leadership Competencies: A Research Study Surveying Outdoor Leaders* (Unpublished doctoral dissertation). University of Oregon, Eugene, OR.
- Tourism HR Canada (2020). Calling Adventure Guides and Travel Services Experts to Build A Stronger Tourism Sector. Retrieved from <http://tourismhr.ca/calling-adventure-guides-and-travel-services-experts-to-build-a-stronger-tourism-sector/>

Truth and Reconciliation Commission of Canada (2015). *Calls to Action* (Report). Winnipeg, MB: Truth and Reconciliation Commission of Canada

Warren, K., Mitten, D., & Loeffler, T. A. (Eds.). (2008). *Theory & Practice of Experiential Education*. Boulder, CO: Association for Experiential Education.

Warren, K., Roberts, N. S., Breunig, M., & Alvarez, A. G. (2014). Social Justice in Outdoor Experiential Education: A State of Knowledge Review. *Journal of Experiential Education*, 37(1), 89-103.

Williams-Orser, B. M., Ritchie, S. D., Asfeldt, M., Nault, S., Little, J. R. (2021). *An Environmental Scan of Post-Secondary Outdoor Leadership in Canada*. Manuscript in preparation for publication.

Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Chapter 4

4 Discussion

There were two purposes for this research: (1) to systematically identify the distribution and scope of post-secondary outdoor leadership (OL) training in Canada, and (2) to explore the diverse approaches to post-secondary OL training within Ontario. Thus, this thesis adhered to an integrated-article format, and involved two empirical studies that were conducted sequentially. These studies were presented in two articles written in preparation for submission to peer-reviewed journals and were embedded into this thesis as Chapter 2 and Chapter 3.

Chapter 2 was the first article, and it focused on the extent of post-secondary OL training programs across Canada. Using an environmental scanning (ES) approach and a rigorous search method, 54 programs across 33 institutions were identified, and this included in both university programs ($n = 28$, 51.9%) and college programs ($n = 26$, 48.1%). Programs were found in five provinces: British Columbia ($n = 18$; 33.3%), Ontario ($n = 12$; 22.2%), Alberta ($n = 11$; 20.4%), Québec ($n = 8$; 14.8%), and Nova Scotia ($n = 5$; 9.3). Graduation award types included college diplomas ($n = 20$), bachelor's degrees ($n = 18$), college certificates ($n = 9$), minor degrees ($n = 4$), and master's degrees ($n = 3$). Inductive analysis of program information led to the development of five themes that represent the scope of OL training focuses found across programs: Primary and Secondary Education ($n = 5$; 9.3%), High Adventure Guiding ($n = 10$; 18.5%), Tourism Management ($n = 11$; 20.4%), Health and Wellness Promotion ($n = 15$; 27.8%), and Interdisciplinary ($n = 13$; 24.1%).

Chapter 3 was the second article, and focused on identifying common and unique approaches to preparing OL training at post-secondary programs in one province, Ontario. The reason OL

programs in only one province were examined is that post-secondary education is delegated to provincial ministries and departments in each of Canada's provinces and territories. Given the scope of this thesis, this study was limited to investigating only one province, Ontario. The first study (Chapter 2) identified programs within Ontario; however, during the course of this study, it was learned that the program at Canadore College closed, and that the Outdoor Recreation Minor at Brock University is made up of a series of courses offered through their Outdoor Recreation undergraduate degree program. Thus, the characteristics of 10 programs were explored through case studies, and the learning outcomes (LOs) from nine programs were analyzed thematically to identify common and unique competencies. The findings primarily highlighted that there were diverse and boundless approaches to the preparation of OL training across programs in the province. Additionally, the inductive analysis of LOs led to the development of 14 themes that represent common categories of competencies (skills, knowledge, and attributes) shared across programs. Themes were only considered if they were found in three or more LOs, across two or more programs. The 14 themes were: (1) Social, Cultural and Environmental Stewardship; (2) Leadership, Judgement and Decision Making; (3) Naturalist Interpretation; (4) Risk Management; (5) Safety and Emergency Response; (6) Theoretical and Conceptual Approaches; (7) Professionalism; (8) Communication; (9) Technical Skills and Certifications; (10) Business Management and Marketing; (11) Instruction and Facilitation; (12) Research and Evaluation; (13) Activity Planning and Management; and (14) Legislation and Regulatory Requirements.

There were several interesting findings from the two studies that were worthy of further discussion. First, it was clear from the first study that the ES approach used has several benefits and drawbacks. Second, while the second study found many common themes across LOs of programs in Ontario, it is unknown whether the LOs listed by programs were all anchored in a

robust theoretical framework or not, given the gaps in OL competencies research, and lack of standards in OL training. Third, it was clear in the review of OL competency research that there remains a wide diversity of approaches and frameworks related to OL competencies, despite two synthesis efforts and a recent international standard. Finally, both studies were important first steps in understanding the extent of post-secondary OL training in Canada. The findings highlighted diverse and multidisciplinary approaches to OL training, and this supports the narrative that the led outdoor activity (LOA) sector in Canada is often localized and fragmented. Each of these findings is described in more detail in the following sections.

4.1 Environmental Scan Method

A passive ES approach was selected as the method for the first study given its strength as a tool to synthesize knowledge and systematically identify related programs within a determined geography (Graham, Evitts, & Thomas-MacLean, 2008). Further, it has proven effective in exploratory studies related to other outdoor contexts at post-secondary institutions in Canada, such as adventure therapy programs (Ritchie, Patrick, Corbould Harper, & Odson, 2016), outdoor orientation programs (McGarry, 2021), and challenge courses (Benoit, 2021). Ritchie et al. (2016) noted that a limitation to their study was that some relevant programs may have been missed if they did not have web pages documenting their courses and curriculum. This limitation is consistent with the results of this study. In fact, there were at least two cases where OL training programs were identified by personal referrals, and they may have met the inclusion criteria, but their web pages did not have sufficient information for the program to be included given the inclusion criteria and data collection limitation of the passive ES approach. Thus, relying solely on institutional web pages to be updated and current is a limitation to using this type of passive ES approach to identifying programs.

A possible way to address this limitation could be to adopt an active ES approach involving data collection directly from key informants. For instance, the preliminary results could be distributed to key informants for review to identify if any programs were missed, in order to initiate a snowball recruitment technique to identify information about programs that were not found within the scan. Despite this limitation, it is likely that the vast majority of programs were likely identified given that web pages are the primary way to promote programs and recruit students. Additionally, the successful use of this passive ES approach in four studies related to outdoor contexts at post-secondary institutions in Canada demonstrates that this approach can be a powerful and efficient first step for scouring the web to identify programs within a set context (Benoit, 2021; McGarry, 2021; Ritchie et al., 2016; Williams-Orser, Ritchie, Asfeldt, Nault, & Little, 2021).

The number and selection of keywords have also been noted as a limitation to passive ES approaches (Gyorkos, 2020). After publishing an environmental scan of global health research expertise, Nagi, Rogers Van Katwyk, and Hoffman (2020) were critiqued for having restricted their search protocol to one keyword, in one research database (Gyorkos, 2020). This raises the importance of determining appropriate keywords that will effectively capture the intended data, while also filtering out unwanted data. For this study, the keywords were developed based on names of known OL training programs in Canada, and synonyms that are commonly used within the Canadian LOA sector; and these were then paired using Boolean search operators and Google Power Searching Techniques (Google, n.d.). Additionally, the keywords were translated into French, and the search was performed bilingually. The keywords were also reviewed by the research team, which included two bilingual members, and revised until a consensus was

reached. Although, it is still possible that the keywords missed some terms and may not have captured unique or contemporary programs.

Similarly, this study was limited by the sources of post-secondary institution directories that were used (College & Institutes Canada, n.d.; The Greenest Workforce, n.d.; Universities Canada, n.d.), which may have missed some new and/or private institutions. Despite these limitations, it is likely that this study captured the majority of programs across Canada, given that it systematically used a detailed set of keywords, in both official languages, and three directories of Canadian post-secondary institutions from government-affiliated sources.

Choo (2001) noted that an ES has the potential to be tested empirically, which would benefit predictions and protocols for future studies. Thus, there is a possibility that the raw data from this study could be analyzed to better understand how to prepare search protocols. For instance, the algorithm used in this study captured the top 10 results for each search entry, but a preliminary look at the raw data suggested that, in most search entries that resulted in the identification of a program, programs were found within the first few of the 10 recorded search results. If an analysis of the raw data supported this hypothesis, future studies using similar protocols could reduce the number of recorded results, thus increasing efficiency by reducing the number of web pages that required searching while still achieving similar outcomes. Given the availability of information and the accuracy of search protocols, passive ES techniques, such as the custom Google searching used in this study, may be an efficient way to rapidly collect data for further analysis in other studies using an ES approach.

4.2 Development of LOs at Post-Secondary OL Training Programs

With the rising popularity of LOs as a learning assessment and quality assurance tool in post-secondary education, particularly in Ontario (Deller, Brumwell & MacFarlane, 2015; MacFarlane, Brumwell, 2016), it was not surprising that nine of the 10 OL training programs in Ontario had LOs available for analysis. However, the processes used by these programs to develop LOs was unknown, and thus it was not possible to determine if they were anchored in robust OL training frameworks, given the lack of coherence in the original OL competency research and synthesis efforts.

However, there were a few compelling findings from the analysis of LOs that warrant further discussion. First, there were three themes that were distinctly unique, and were not reflected in the competencies listed by Priest and Gass (2017) or by Martin, Breunig, Wagstaff and Goldenberg (2017). While these three unique themes (Business Management and Evaluation; Research and Evaluation; and Legislation and Regulatory Requirements) may suggest areas of OL training that have gained importance in recent years, they might also be related to attempts to appeal to government funding, which can reflect a neoliberal perspective on the role of programs and training (Dyment & Potter, 2020). In other words, institutions and programs may be shifting away from focusing on OL preparation specifically for the sake of acquiring knowledge and skills, and moving towards promoting education to prepare students with specific competencies and skills in order to secure and attract funding (Dyment & Potter, 2020).

There was one program in particular that stood out in that their origin story was tied to the development of LOs. The design of Algonquin College's Outdoor Adventure program, and its courses, was developed based on 10 LOs that were identified directly from a survey of industry

operators. This is a unique example of a program and program LOs that were developed with a clear focus on the employability of their graduates. However, it is unknown if the other OL training programs in Ontario developed LOs in similar ways, or if their courses accurately reflect the delivery of curriculum that leads to the LOs. Nonetheless, the quality assurance process for university programs in Ontario does require that all programs provide a curriculum map of LOs to ensure that LOs in specific courses align with subsequent courses, and then the overall LOs from the program (Council of Ontario Universities, 2011).

Another interesting observation was that in both cases of institutions that had two programs that met the criteria, there was an original program, and then a second program developed a few years later. At Fleming College, the second program was developed as an extension of the first program. At Algonquin College, the second program was developed with a different focus within OL training. In both cases, a need must have been justified to host two programs at one institution; however, this may also point to institutional strategies used to attract and recruit more students by having a variety of options within a field of study, such as programs with different durations, and/or slightly different specializations. Similarly, findings from the first study indicated that many other institutions across the country hosted several programs, although their origin stories were not investigated like those of the programs in Ontario, thus this would require further study in order to identify the reasons and rationale for their development. In discussing the trend of neoliberalism in post-secondary education, Berg and Roche (1997) noted that institutions and programs view students as “consumers”. Similarly, in discussing the internationalization of post-secondary education, Cabrera and Renard (2015) noted that universities have to compete for student enrolment across a global marketplace. These

competitive educational realities may further help explain the presence of several institutions that offer a suite of OL training programs.

In general, it appears that there is much to be learned about programs and competencies by comparing and contrasting their LOs. Taking this approach to study programs in other provinces, or across the country, could provide further insight into OL competencies and training focuses.

4.3 OL Competencies, Training and Standards

After an in-depth review of the original research on OL competencies, a number of gaps became apparent. For instance, few of the studies provided definitions for integral terms like “competency”, “skill”, and “attribute”. This can lead to confusion around applying rigorous methods for synthesizing competency research and developing frameworks since it could result in synthesizing different conceptual terms, or similar terms that may have been applied differently because they lacked coherent definitions. Modern competency frameworks offer more refined frameworks and definitions that provide a basis to understand the development of competencies. For example, Delamare Le Deist and Winterton (2005) reviewed competency frameworks from successful competency developments in various occupations, and presented a holistic model of competence, structured around meta-competence as a dynamic combination of cognitive, social and functional competence. A robust framework such as this may allow for deeper understanding of the complex and dynamic nature of some occupations, like that of the role of a leader in outdoor activities. Nonetheless, many different OL texts and manuals have been published over the years, and two textbooks in particular have become popular for curriculum development in post-secondary OL training programs in North America (Priest and Gass, 2017; Martin et al., 2017). The Priest and Gass (2017) text presented an OL framework with 12 competencies and the Martin et al. (2017) text presented eight competencies. It is

recommended that future OL competency-related studies provide a clear and coherent definition of the term competency, so the studies can be compared, contrasted, and synthesized. More recently, an international standard for OL competence has been developed by the International Organization for Standardization, commonly referred to as ISO (ISO, 2020), although it remains unknown to what extent this standard is known, accepted, and used within the LOA sector. However, it is curious that these two textbooks and the ISO standard were not referenced by any of the key informants ($n = 9$) from the second study, despite being asked specifically if their program was using any competency-based framework to inform their curriculum development. It is also likely that many other OL training organizations, beyond post-secondary programs and in both the for-profit and not-for-profit sectors, have developed their own proprietary curriculum, training, and certification structures. It is unknown what sources may have been used in their development or to the extent that they are even aware of this new ISO standard or these two popular academic textbooks (Martin et al., 2017; Priest and Gass, 2017). Thus, there is an opportunity for future studies to explore the similarities and differences related to OL training in both the public and private sectors.

Similar to the development of the international standard by ISO, Tourism HR Canada is in the final stages of developing a competency framework for adventure guides that would result in a national occupational standard, specific to LOAs within tourism (2020). Although, this would only apply to a sub-sector of OL training, given that LOAs in Canada take place in many fields beyond tourism, such as adventure therapy, outdoor education, and community-based outdoor programming.

Although not directly related to OL training, within the context of outdoor education, there have been two efforts related to identifying competencies. Building upon the threshold concept

framework suggested by Polley and Thomas (2017), Thomas et al. (2019) identified seven competencies that graduates of post-secondary outdoor education programs in Australia should possess. Similarly, Dymont, Chick, Walker, and Macqueen (2018) used a pedagogical content knowledge framework to identify the knowledge and fundamental curriculum that a competent outdoor educator should be aware of. These frameworks could be valuable examples for similar efforts to synthesize OL competencies for post-secondary programs in Canada.

There has been debate and contention around the definition of “outdoor education”. In two recent papers (Dymont & Potter, 2015; Potter and Dymont, 2016), the authors explored the debate of whether outdoor education is a “subject” or a “methodology”. They explored whether outdoor education has unique content, or if it is a process or pedagogy used to teach other subjects. While this debate is unsettled, understanding the field of outdoor education is relevant for outdoor leaders who are tasked with delivering meaningful experiences and outcomes in educational contexts.

Despite many efforts towards standardization and competency-based approaches, the diverse nature of the LOA sector may be a reason that there has not yet been a widely accepted standard or competencies for OL training in Canada. While the roles of outdoor leaders across different contexts may share some core competencies, it could be that different occupations vary too greatly from one another to benefit from common core competencies. For example, the roles of an outdoor leader for adventure therapy and adventure tourism may share some competencies but have different approaches to how they interact with individuals and groups under their care. Therefore, applying a competency-based approach or training standard that would apply broadly to these diverse contexts may fail to neglect the specific needs or expertise within each context.

In reviewing and reflecting on the results from both studies, there was no evidence of communication and collaboration across OL training programs across Canada or within the province of Ontario. In fact, it seems that the five diverse scopes (i.e., training focuses) in Paper 1, and the broad array of LO themes from Paper 2, provide further evidence that the LOA sector is more varied than unified. Further, the 54 OL training programs across Canada had many diverse graduating awards, including college diplomas ($n = 20$), bachelor's degrees ($n = 18$), college certificates ($n = 9$), minor ($n = 4$), and master's degrees ($n = 3$); and were housed by a variety of departments/faculties from diverse fields of study. This suggests that the LOA sector is multidisciplinary.

The multidisciplinary nature of the LOA sector may then help further explain the lack of standards and collaboration. For example, there are distinct differences between the Adventure Guide program at Thompson Rivers University and the Outdoor Experiential Education program at Queen's University. Although they both have clear focuses on OL, one is clearly focused on technical skills for more advanced technical pursuits, and one is clearly focused on professional teacher qualifications in outdoor education. While programs may share an overall focus related to OL training, their diversity in different applications of OL may be contributing to the lack of known collaboration between programs. Additionally, it is very likely that competition between post-secondary institutions, vying for recruitment and increased enrolment numbers, could also be a barrier to collaboration between programs. Nonetheless, the presence of many multidisciplinary and/or competing training providers may have also contributed to advancements in training methods and best practices, and future studies could explore this in more detail.

Similar to the likely competition between post-secondary training programs, it is also likely that there is competition in OL training outside of the post-secondary academy. The proprietary nature of OL training in Canada has resulted in organizations with competing interests, given a shared focus on training for the same specific outdoor activities, such as that between Paddle Canada and the Ontario Recreational Canoeing and Kayaking Association. This competition within the province of Ontario has created an overlap in mandate and services; and this may have been a barrier to standardization efforts since there would likely be competition between the organizations and this likely leads to differentiated approaches to curriculum development rather than standardized approaches.

There is likely competition related to OL training in the private sector. For instance, private OL training programs (such as the *Canadian Outdoor Leadership Training* program offered through the Strathcona Park Lodge, the *Whitewater Intensive Leadership Development* program offered through Esprit Whitewater Adventure and Training, and the *Mountain Skills Semester* program offered through Yamnuska Mountain Adventures) all market and deliver OL training programs, and due to competition for market share, each of these organizations has likely focused on differentiating their curriculum in order to attract paying customers (students). Thus, with the lack of training standards and the market forces of competition, it is likely that approaches to OL training in both the private and public sector will likely be fractured and diverse.

In general, it appears that the wide variety of training providers in Canada, and the lack of OL competencies and training standards that apply broadly to the LOA sector, have contributed to the diversity in approaches to preparing OL training.

4.4 LOA Sector in Canada

Overall, the findings of this thesis highlight diversity. Post-secondary OL training programs across Canada resulted in a variety of different credentials, were offered by departments/schools from a variety of fields, and had multidisciplinary training focuses. Additionally, post-secondary OL training programs within Ontario had diverse approaches to OL training, including a variety of focuses on unique career paths in the LOA sector. This vast diversity has been part of the history of LOAs in Canada. However, this diversity has also been noted for being a barrier to the unification of the LOA community across the country (Potter & Henderson, 2004; Ritchie et al., 2016). Potter & Henderson (2004) suggested that “Canada's geographical breadth and linguistic differences means that outdoor educators may not know much about each other, but they do share certain common theories and practices, and unifying myths and symbols” (p. 74). Ritchie et al. (2016) suggested that substantial political, jurisdictional, and geographical factors have been barriers to organizing the adventure therapy community on a national level. Thus, the findings of this thesis are aligned with the claims from previous OL-related research in Canada. In light of the fragmentation of the LOA sector in Canada, a recent study by Asfeldt, Purc-Stephenson, Rawleigh and Thackery (2020) investigated whether outdoor education programs from across Canada shared common traits. They found that programs shared common philosophical underpinnings, learning goals, and activities, and suggested that their findings could provide a basis for a national identity for outdoor education.

Only two provinces across Canada had organizations that united post-secondary OL training programs provincially, British Columbia and Québec (AEQ, 2021; British Columbia Council on Admissions & Transfers, 2020), and there has yet to be any conference or gathering that has connected post-secondary OL training programs and academics nationally. The fragmentation of

the LOA sector in Canada was the overarching theme that led to the co-creation of the first national gathering of the LOA sector, the Canadian Outdoor Summit. This gathering is an effort to support the vitality of programs and organizations and drive collaboration within the LOA sector across the country (Canadian Outdoor Summit, 2021). Given that both of the studies within this thesis were exploratory in nature, and that the results have established a baseline of knowledge around post-secondary OL training in Canada, it is hoped that the findings will serve as a contribution to these efforts towards initiating communication and collaboration between programs.

In Canada, LOAs could be helpful tool for truth and reconciliation. Community-based LOA experiences have been shown to promote resilience in first-nation youth (Ritchie et al., 2010), and often pay respects to important lands, symbols, and stories associated with Indigenous cultures (Asfeldt, Urberg, & Henderson, 2009; Mikaelis & Asfeldt, 2017; Potter & Henderson, 2004; Purc-Stephenson et al., 2019). However, for LOA experiences to have a wide reach and impact for truth and reconciliation, the sector needs become more accessible to first nations people, as it has been noted to have been historically dominated by more affluent populations (Beams, Mackie, & Atencio, 2019; Martin & Wagstaff, 2012; Warren, Roberts, Breunig, & Alvarez, 2014).

4.5 Implications

The findings from the studies in this thesis have a number of implications. For students entering post-secondary education, the compilation of post-secondary OL training programs in Canada ($n = 54$), and more specific details related to the 10 programs in the province of Ontario, can serve as a menu of options without the need for detailed research to find the program best suited to student's interest or particular desired training focus. For staff and faculty involved with post-

secondary OL training programs, the findings can support the initiation of dialogue and collaboration between programs. Dialogue and collaboration may foster advancement in curriculum and best-practices, and it may also support the vitality of programs that may be facing hardship. Moreover, once programs are connected through collaboration, it is possible that associations or councils could be formed, as in the provinces of British Columbia and Québec.

If a provincial or national association or council were formed, it is possible that a united voice may emerge that could influence policy and collaborative opportunities such as the organization of conferences, development of research programs, and the advancement of standards and training. This could be particularly valuable for programs within Ontario, Alberta, and Nova Scotia, as they do not have an existing organization that unites them. In fact, the preliminary results of this study have already aided the recruitment efforts for a focus group of staff and faculty of post-secondary OL training programs meeting quarterly to collaborate on strategies to adapt and offer field courses during the COVID-19 pandemic, organized by the Canadian Outdoor Summit (2020).

Based on this project, there are possibilities for future research, especially since the results of this study have established a baseline for the distribution and scope of post-secondary OL training programs across Canada. Re-evaluation in the future could provide insight into overall trends related to the rise or decline of programs, and the focus or career orientation within the LOA sector. Additionally, the logical next step for this research would be to use a similar method (multiple case study) to investigate programs in other provinces in the way that it was done in Ontario. Similarly, investigation of program LOs could be carried out in each province, and/or across all programs in Canada to gain a national perspective. Finally, the findings of this study could be beneficial to future research concerned with sub-populations from post-secondary OL

training programs, such as students, staff or faculty. For example, researchers interested in surveying entry-level OL professionals could recruit participants (students and recent graduates) by contacting the programs identified in this study.

For operators in the LOA sector, the findings from this study could be a resource for recruiting qualified graduates from post-secondary OL training programs for their workforce. For policymakers, it is hoped that this study might contribute to the literature and research on OL competencies, which could in turn support the development of training standards, increase safety, and create more meaningful experiences in the LOA sector. Finally, for the national Canadian LOA community, the results of this study are a small step towards connecting the fragmented networks across the country.

4.6 Conclusion

This integrated-article thesis involved two empirical studies: (1) an environmental scan of post-secondary OL programs in Canada, and (2) a multiple case study of post-secondary OL training programs in Ontario. The findings of the first study include the identification of 54 post-secondary OL training programs across 33 colleges and universities across Canada. The scope of OL training across these programs include the following themes on occupation-related focuses: Primary and Secondary Education, High Adventure Guiding, Tourism Management, Health and Wellness Promotion, and Interdisciplinary. The second study explored the common and unique characteristics of 10 post-secondary OL training programs in Ontario, and highlighted that approaches to preparing OL training were diverse and boundless. Further, an inductive analysis of program LOs led to the identification of 14 common OL training focuses across programs, which reflect OL competencies that are important within the provincial context. However, there was also broad diversity across the unique LOs in the nine programs when compared directly

with each other. Further, there were five LOs that were not common, but unique to the various programs.

With a better understanding of post-secondary OL training across Canada, and within the jurisdiction of one provincial ministry, there is now a baseline for future research and a database resource to foster communication and collaboration. Moreover, with a better understanding of the scope of post-secondary OL training programs across Canada, there is an opportunity for the identification of best practices to inform curriculum development, and the initiation of associations or networks to support the ongoing vitality of programs. Thus, it is hoped that these two studies will contribute to the literature on OL competency training in Canada and beyond, in order to foster better leaders, increase safety, and provide more meaningful experiences in the LOA sector.

4.7 References

- Asfeldt, M., Purc-Stephenson, R., Rawleigh, M., & Thackeray, S. (2020). Outdoor education in Canada: a qualitative investigation. *Journal of Adventure Education and Outdoor Learning*.
- Aventure Écotourisme Québec (2021). Quality-Safety Accreditation: Become a Member. Retrieved from <https://aeq.aventure-ecotourisme.qc.ca/qualite-securite/pourquoi-devenir-membre/devenir-membre-accredite>
- Benoit, J. (2021). A Passive Environmental Scan of Challenge Courses at Universities and in Canada (Unpublished master's major paper). Laurentian University, Sudbury, ON.
- Berg, L. D., & M. Roche, M. M. (1997). Market metaphors, neo-liberalism and the construction of academic landscapes in Aotearoa/New Zealand. *Journal of Geography in Higher Education*, 21(2), 147-161.

- British Columbia Council on Admissions & Transfers (2020). Adventure Tourism. Retrieved from <https://www.bccat.ca/articulation/committees/adventure>
- Cabrera Á., & Le Renard, C. (2015) Internationalization, Higher Education, and Competitiveness. In: Ullberg, E. (Eds). *New Perspectives on Internationalization and Competitiveness*. (pp. 11-16). Switzerland: Springer, Cham.
- Canadian Outdoor Summit (2020, June 2). First Advanced Camp: Post-Secondary Education in a COVID-19 era. [Electronic mailing list]. Retrieved from <https://canadianoutdoorsummit.com/basecamp-conversations/>
- Canadian Outdoor Summit (2021). About. Canadian Outdoor Summit. Retrieved from <https://canadianoutdoorsummit.com/>
- Choo, C. W. (2001). Environmental scanning as information seeking and organizational learning. *Information Research*, 7. Retrieved from <http://InformationR.net/ir/7-1/paper112.html>
- College & Institutes Canada (n.d.). Our Members [Directory]. Retrieved from <https://www.collegesinstitutes.ca/our-members/member-directory/>
- Council of Ontario Universities (2011). *Ensuring the Value of University Degrees in Ontario*. (Report No. 857). Retrieved from <https://cou.ca/wp-content/uploads/2015/05/COU-Ensuring-the-Value-of-University-Degrees-in-Ontario-November-2011.pdf>
- Delamare Le Deist, F., & Winterton, J. (2005) What Is Competence?, *Human Resource Development International*, 8(1), 27-46.
- Deller, F., Brumwell, S., & MacFarlane, A. (2015). *The Language of Learning Outcomes: Definitions and Assessments*. Toronto, ON: Higher Education Quality Council of Ontario.

- Dyment, J. E., Chick, H. L., Walker, C. T., & Macqueen, T. P. N. (2018). Pedagogical content knowledge and the teaching of outdoor education. *Journal of Adventure Education and Outdoor Learning, 18*(4), 303-322.
- Dyment, J. E., & Potter, T. G. (2015). Is outdoor education and discipline? Provocations and possibilities. *Journal of Adventure Education and Outdoor Learning, 15*(3), 193-208.
- Dyment, J. E., & Potter, T. G. (2020). Overboard! Turbulent waters of outdoor education in neoliberal post-secondary contexts. *Journal of Outdoor and Environmental Education*. Retrieved from <https://link.springer.com/article/10.1007%2Fs42322-020-00071-6>
- Google. (n.d.). Power searching with Google: Inside search. Retrieved from <http://www.powersearchingwithgoogle.com/>
- Graham, P., Evitts, T., & Thomas-MacLean, R. (2008). Environmental scans: How useful are they for primary care research. *Canadian Family Physician, 54*(7), 1022-1023.
- Gyorkos, T. W. (2020). Attempt to assess Canada's expertise in global health research falls short. *Health Research Policy Systems*. Retrieved from <https://link.springer.com/article/10.1186/s12961-020-00634-5#citeas>
- International Organization for Standardization (2020). *ISO 21102: Adventure tourism — Leaders — Personal competence*. Vernier, Switzerland: International Organization for Standardization.
- MacFarlane, A., & Brumwell, S. (2016). *The Landscape of Learning Outcomes Assessment in Canada*. Toronto, ON: Higher Education Quality Council of Ontario.
- Martin B., Breunig, M., Wagstaff, M., & Goldenberg, M. (2017). *Outdoor Leadership: Theory and Practice* (2nd ed.). Champaign, IL: Human Kinetics.

- McGarry, J. (2021). An Environmental Scan of Outdoor Orientation Programs at Universities in Canada (Unpublished master's thesis). Laurentian University, Sudbury, ON.
- Nagi, R., Rogers Van Katwyk, S., & Hoffman, S.J. Using a rapid environmental scan methodology to map country-level global health research expertise in Canada. *Health Research Policy Systems*. Retrieved from <https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-020-0543-x#citeas>
- Polley, S., & Thomas, G. J. (2017). What are the capabilities of graduates who study outdoor education in Australia universities? The case for threshold concepts framework. *Journal of Outdoor and Environmental Education*, 20, 55-63.
- Potter, T. G., & Dymont, J. E. (2016). Is outdoor education a discipline? Insights, gaps and future directions. *Journal of Adventure Education and Outdoor Learning*, 16(2), 146-159.
- Potter, T. G., & Henderson, B. (2004). Canadian outdoor adventure education: Hear the challenge — Learn the lessons. *Journal of Adventure Education & Outdoor Learning*, 4(1), 69-87.
- Priest, S., & Gass, M. (2017). *Effective Leadership in Adventure Programming* (3rd ed.). Champaign, IL: Human Kinetics.
- Ritchie, S. D., Patrick, K., Corbould, G. M., Harper, N. J., & Odson, B. E. (2016). An Environmental Scan of Adventure Therapy in Canada. *Journal of Experiential Education*, 39(3), 1-18.
- The Greenest Workforce (n.d.). A Complete List of Canadian Universities and Colleges [Directory]. Retrieved from <https://thegreenestworkforce.ca/index.php/en/schools/>

Thomas, G., Grenon, H., Morse, M., Allen-Craig, S., Mangelsdorf, A., & Polly, S. (2019).

Threshold concepts for Australian university outdoor education programs: findings from a Delphi research study. *Journal of Outdoor and Environmental Education*, 22, 169-186.

Tourism HR Canada (2020). Calling Adventure Guides and Travel Services Experts to Build A Stronger Tourism Sector. Retrieved from <http://tourismhr.ca/calling-adventure-guides-and-travel-services-experts-to-build-a-stronger-tourism-sector/>

Universities Canada (n.d.). Member Universities [Directory]. Retrieved from <https://www.univcan.ca/universities/member-universities/>

Williams-Orser, B. M., Ritchie, S. D., Asfeldt, M., Nault, S., & Little, J. R. (2021). *An Environmental Scan of Post-Secondary Outdoor Leadership in Canada*. Manuscript in preparation for publication.

Appendices

Appendix A: 54 Post-Secondary OL Training Programs in Canada

Institution	Program	Faculty	Department or School	Award	Location
Acadia University	Outdoor and Adventure Education	Faculty of Professional Studies	Department of Community Development	Bachelor of Community Development	Wolfville, NS
Algonquin College	Outdoor Adventure	N/A	N/A	Ontario College Diploma	Pembroke, ON
Algonquin College	Outdoor Adventure Naturalist	N/A	N/A	Ontario College Diploma	Pembroke, ON
Brock University	Outdoor Recreation	Faculty of Applied Health Sciences	Recreation & Leisure Studies	Bachelor of Recreation and Leisure Studies	St. Catharines, ON
Brock University	Outdoor Recreation (Minor)	Faculty of Applied Health Sciences	Recreation & Leisure Studies	Minor in Outdoor Recreation	St. Catharines, ON
Burman University	Adventure Based Counselling	Division of Science	Department of Outward Pursuits	Bachelor of Arts	Lacombe, AB
Burman University	Adventure Based Youth Leadership	Division of Arts	Department of Religious Studies	Bachelor of Arts	Lacombe, AB
Burman University	International Health and Wilderness Studies	Division of Science	Department of Outward Pursuits	Bachelor of Arts	Lacombe, AB
Burman University	Outdoor Pursuits	Division of Science	Department of Outward Pursuits	Bachelor of Arts	Lacombe, AB
Burman University	Outward Pursuits (Minor)	Division of Science	Department of Outward Pursuits	Outdoor Pursuits Minor	Lacombe, AB
Camosun College	Adventure Education	Centre for Sport and Exercise Education	N/A	Post-Degree Diploma	Victoria, BC
Canadore College	Ecotourism	N/A	School of Sports and Recreation	Ontario College Certificate	North Bay, ON

Institution	Program	Faculty	Department or School	Award	Location
Cape Breton University	Sport and Physical Activity Leadership	N/A	School of Arts and Social Sciences	Bachelor of Arts Community Studies	Sydney, NS
Capilano University	Outdoor Recreation Management	Faculty of Global & Community Studies	School of Outdoor Recreation Management	Diploma	North Vancouver, BC
Cégep de la Gaspésie et des Îles	Adventure Tourism / Tourisme d'aventure	N/A	Campus de Gaspé	Diplôme d'études collégiales	Gaspé, QC
Cégep de Saint-Laurent	Guide en tourisme d'aventure	Formation Continue	Loisir	Attestations d'études collégiales	Saint-Laurent, QC
Cégep de Saint-Félicien	Aménagement et interprétation du patrimoine naturel	Programmes Techniques	N/A	Diplôme d'études collégiales / Diplôme d'études professionnelles	Saint-Félicien, QC
Collège Mérici	Tourisme d'aventure et écotourisme	Formation Continue	Tourisme, Hotellerie et Restauration	Attestations d'études collégiales	Québec, QC
College of the Rockies	Adventure Tourism Business Operations (Diploma)	N/A	N/A	Diploma	Golden, BC
College of the Rockies	Adventure Tourism Business Operations (Certificate)	N/A	N/A	Certificate	Golden, BC
College of the Rockies	Mountains Adventure Skills Training (MAST)	N/A	N/A	Certificate	Fernie, BC
Columbia Bible College	Outdoor Leadership	N/A	N/A	Diploma	Abbotsford, BC
Fanshaw College	Adventure Expeditions and	N/A	Simco/Norfolk Campus	Ontario College Diploma	Simcoe, ON

Institution	Program	Faculty	Department or School	Award	Location
	Interpretive leadership				
Fleming College	Outdoor adventure skills	N/A	School of Environmental & Natural Resource Sciences	Ontario College Certificate	Lindsay, ON
Fleming College	Outdoor and Adventure Education	N/A	School of Environmental & Natural Resource Sciences	Ontario College Diploma	Lindsay, ON
Lakehead University	Outdoor Recreation, Parks & Tourism	Social Sciences and Humanities	Outdoor Recreation, Parks & Tourism	Honors Bachelors of Outdoor Recreation	Thunder Bay, ON
Laurentian University	Outdoor Adventure Leadership	Faculty of Health	School of Kinesiology and Health Sciences	Bachelors of Physical Health Education	Sudbury, ON
Mount Royal University	Ecotourism & Outdoor Leadership	Health, Community & Education	Health and Physical Education	Bachelors of Health and Physical Education - Ecotourism and Outdoor Leadership	Calgary, ON
North Island College	Adventure Guiding Certificate	N/A	N/A	Certificate	Comox Valley, BC
North Island College	Tourism and Hospitality with Adventure Guiding Certificate	N/A	N/A	Diploma	Comox Valley, BC
Prairie College	Explore - Certificate in Outdoor Leadership	N/A	Business Management	Certificate	Three Hills, AB
Prairie College	Outdoor Leadership (Bachelors)	N/A	Business Management	Bachelor of Arts in Ministry - Outdoor Leadership	Three Hills, AB

Institution	Program	Faculty	Department or School	Award	Location
Prairie College	Outdoor Leadership (Diploma)	N/A	Business Management	Diploma	Three Hills, AB
Queens University	Outdoor & Experiential Education	Faculty of Education	N/A	Bachelor of Education	Kingston, ON
Sault College	Adventure Recreation and Parks Technician	N/A	Natural Environment	Ontario College Diploma	Sault Saint-Marie, ON
St Francis Xavier	Bachelor of Education	Faculty of Education	N/A	Bachelor of Education	Antigonish, NS
St Francis Xavier	Certificate in Outdoor Education	Faculty of Education	Continuing and Distance Education	Certificate	Antigonish, NS
St Francis Xavier	Master of Education in Leadership: outdoor education	Faculty of Education	Continuing and Distance Education	Master of Education	Antigonish, NS
Thompson Rivers University	Adventure Guide (certificate)	Faculty of Adventure, Culinary Arts and Tourism	Adventure Studies	Certificate	Kamloops, BC
Thompson Rivers University	Adventure Guide (Diploma)	Faculty of Adventure, Culinary Arts and Tourism	Adventure Studies	Diploma	Kamloops, BC
Thompson Rivers University	Concentration in Adventure Studies	Faculty of Adventure, Culinary Arts and Tourism	Adventure Studies	Bachelor of Interdisciplinary Studies / Bachelor of Tourism Management	Kamloops, BC
Thompson Rivers University	Post-Baccalaureate Diploma in Adventure Studies	Faculty of Adventure, Culinary Arts and Tourism	Adventure Studies	Post-Baccalaureate Diploma	Kamloops, BC
Université du Québec	Diplôme d'études	N/A	Département des sciences	Graduate diploma	Saguenay, QC

Institution	Program	Faculty	Department or School	Award	Location
à Chicoutimi	supérieures spécialisées en intervention par la nature et l'aventure		humaines et sociales		
Université du Québec à Chicoutimi	Intervention plein air	N/A	Département des sciences humaines et sociales	Baccalauréat en intervention plein air	Saguenay, QC
Université du Québec à Montréal	Intervention en context de plein air	Faculté des science	Domaine d'études: Intervention en activité physique, kinésiologie et ergonomie	Programme court de deuxième cycle	Montreal, QC
Université du Québec à Trois-Rivière	Intervention psychosociale dans un contexte d'aventure	N/A	Psychoéducation	Programmes court de deuxième cycle	Trois-Rivières, QC
University of Alberta Augustana Campus	Outdoor Education	N/A	Social Sciences	Bachelor of Arts Bachelor of Science	Camrose, AB
University of Alberta Augustana Campus	Outdoor Education (Minor)	N/A	Social Sciences	Minor in Outdoor Education	Camrose, AB
University of British Columbia	Outdoor Environmental Education	N/A	Curriculum and Pedagogy	Diploma	Vancouver, BC
University of Northern British Columbia	Bachelor of Arts in Nature-Based Tourism Management	College of Science and Management	Ecosystem Science and Management	Bachelor of Arts in Nature-Based Tourism Management	Prince George, BC
University of Northern British Columbia	Conservation Science and Practice with a major in Wildland Conservation and Recreation	College of Science and Management	Ecosystem Science and Management	BSc Conservation Science and Practice with a major in Wildland Conservation and Recreation	Prince George, BC

Institution	Program	Faculty	Department or School	Award	Location
University of Northern British Columbia	Outdoor Recreation and Tourism Management (Minor)	College of Science and Management	Ecosystem Science and Management	Minor in Outdoor Recreation and Tourism Management	Prince George, BC
Vancouver Island University	Adventure Tourism and Recreation Desolation Sound	N/A	Tourism, Recreation and Hospitality	Certificate	Powell River, BC
West Coast Adventure College	Adventure Tourism	N/A	N/A	Level II Certificate	Sooke, BC

Appendix B: Laurentian University Research Ethics Board Approval Certificate



APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New X /	Modifications to project /	Time extension
Name of Principal Investigator and school/department	Beau Williams-Orser, Sebastian Nault, Jim Little, Human Kinetics, co-investigators, supervisor, Stephen Ritchie	
Title of Project	Preparing Competent Outdoor Leaders Through Post-Secondary Training Programs in Ontario	
REB file number	6017180	
Date of original approval of project	March 26, 2019	
Date of approval of project modifications or extension (if applicable)		
Final/Interim report due on: <i>(You may request an extension)</i>	March 26, 2020	
Conditions placed on project		

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, *Laurentian University Research Ethics Board*

Appendix C: Interview Guide

Preamble:

- Thank you for your willingness to participate! I really appreciate your time, and the perspective that you will bring.
- This research project was inspired by an interest in post-secondary training of OL. I will use the term Outdoor Leadership (OL) to represent other similar terms such as adventure leadership, adventure guide, and/or outfitter.
- The purpose is to better understand the similarities, differences, frameworks, philosophies, and approaches related to outdoor leadership development at post-secondary programs in Ontario
- This data will remain identifiable to you, and to your program/institution.
- You can withdraw at any time.
- I'll now begin recording.
- This is interview # X.

Questions and Probes:

1. How did your program come to exist?
 - a. When was the program first offered or introduced?
 - b. What were the reasons or rationale that led to its development?
 - c. Has the program &/or rationale for the program changed since it started?
2. How many students usually apply to your program? What is the intake? And how many students usually graduate?
 - a. Has this changed over the past five years? And if "yes" How and why?

Questions and Probes:

- b. What do you anticipate the changes will be in the future? And why?
3. What are the primary types of careers, jobs, or positions your graduates move on to (or seem to aspire to)? [i.e., In other words, what are you educating and training your graduates to be able to do for their career employment?]
- a. How is your program curriculum designed to prepare graduates for these positions?
4. Tell me about the general layout or structure of your program from beginning to completion?
- a. Why was the program and/or course requirements structured and sequenced this way?
 - b. What credentials are received by graduates (degrees, diplomas, etc.)?
 - c. Are there any other options offered, such as majors, minors, or specialties?
 - d. Does your program provide or include any other industry relevant certifications, and if so, which ones?
 - e. Does your program collaborate with any other post-secondary outdoor programs? (articulation agreements, collaborations)
 - f. Does your program collaborate with any companies, industry partners, organizations or bodies? (in courses, internships, practicums, placements)
5. Does your program have a specific course in Leadership in Outdoor/Adventure contexts in the title?
- a. Are they classroom-based? Or field courses?
 - b. Are there any field courses or practicums in outdoor / adventure leadership?

Questions and Probes:

- c. Are you willing to share the syllabus for this course?
6. Does your program have any important model(s), framework(s), or philosophy that it utilizes for student preparation throughout the program? Or are the courses prepared by faculty with academic freedom?
- a. Does your program favor or frequently use any particular texts or reference papers on outdoor leadership competencies?
- b. Does your program have any capstone project or most-valued experience?
- c. Does your program have a list of learning outcomes/learning outcomes or competencies?
- i. Can you share those with me?
- d. Provincial cyclical review or audit, degree curriculum maps, program manuals, field handbook?
7. Do you have any other comments related to your program that may have arisen during this interview?
- a. Do you have any last comments or thoughts you want to share?

Notes:

- Support documents for any questions/responses were requested.
- Not all questions resulted in data that was represented in the case studies.
- The order of information was reorganized after data analysis to develop coherent and rich descriptions of each program.