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Hyperreality, young people and “nature”
Mark Leather, Kass Gibson
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In this presentation we explore young people’s engagement with nature by drawing on Jean Baudrillard’s theorising of consumption and hyperreality; the postmodern condition of amalgamating physical and virtual realities. The analysis presented examines i) technology, ii) social media, and iii) parents as signifiers for affordances of young people’s engagement with (hyperreal) nature. We argue, contrary to public discourse, that young people’s opportunities for engagement with nature are unprecedented. Technology enables more people to be in more spaces and places for longer (e.g., affordable, quality wetsuits for surfing). Social media provides opportunities for learning about nature (e.g., Instagram and twitter feeds). Additionally, engagement with nature is mediated by 21st century ‘helicopter parenting’ and the ability of young people to take risks in nature of their own determination, whilst paradoxically enjoying more contact with nature than previous generations. However, following Baudrillard, we identify how these affordances are fundamentally shaped by phenomena of multinational corporations, urbanisation, and circulation of images to create nature as simulated stimuli for consumption and circulation. Such phenomena mediate experiences of nature so that meanings of nature become symbols and signs of a simulation of reality. Some implications of this for outdoor educational practice are highlighted.

#2
Experiencing, Re-Experiencing, and Experiencing-Back: A Rationale for Wilderness Educational Expeditions in Canada.
Morten Asfeldt,
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Wilderness educational expeditions (WEE) have been criticized for being elitist, overlooking the local, and being too consumptive in an era of climate change. These concerns are well grounded. At the same time, research has demonstrated that WEEs have many positive outcomes for participants including enhanced understanding of cultural diversity and appreciation of nature and place. This presents a tension which calls for a sound rationale for justifying WEEs. This paper presents such a rationale for WEEs in Canada based on current land education literature and specifically by adopting Sherrill Grace’s (2001) notion of writing, re-writing, and writing-back from her book Canada and the Idea of North. Grace presents this idea as a means of over-coming Canada’s history of colonization which has silenced indigenous voices and shaped our perspective of Canadian place and identity. Here I propose WEEs as a means of experiencing, re-experiencing, and experiencing-back people and place as a means of seeing beyond colonial ideologies of people, place, and nationhood. Based on this rationale, I will demonstrate that WEEs have the potential for being a form of reconciliation with Canada’s indigenous people; merging local, national, and global sense-of-place; and therefore, serving an important role in an era of climate change.

#3
Outdoor Education in Canada: Guiding Philosophies, Distinguishing Characteristics, and Central Goals
Morten Asfeldt, Rebecca Purc-Stephenson
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Given the number of outdoor education (OE) opportunities available in Canada, and that some of these programs have been operating for decades, we might expect that we know a great deal about the underlying philosophies,
defining characteristics, and central goals of OE in Canada. However, we know little about these aspects of Canadian OE. Therefore, the goal of this research is to identify the philosophies, characteristics, and goals of OE in Canada using a three-phase mixed-methods approach. The sample will include programs from the K-12, summer camp, and post-secondary sectors. Specifically, we seek to determine if there are common philosophies, characteristics, and goals that unite OE in Canada. Phase one of the research will be conducted in spring 2018 which will include 18 semi-structured interviews and site visits in order to collect qualitative data. During the site visit, we will collect data on the historical and geographical context, and all program information (e.g., brochures, websites). Results from phase one will be used to develop an online survey that will be disturbed to a large sample of Canadian outdoor educators in phase two. This presentation will report the findings of phase one.

#4

Camping as Curriculum: Does the understanding of the notion of curriculum by teachers at school camp affect the scope of their work?

*Malcolm Nicolson,*

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Curriculum is one of the most commonly used words when discussing education. A study reviewing the Australian Curriculum in 2014 found greatly differing understandings of curriculum in Australia and beyond and advised that some commonality of understanding was needed. Although this study has found some research exploring the notion of curriculum by academic authors in the domain of outdoor education, with occasional references to school camping, the voice of school camp teachers on the topic was not evident. Schwab’s (1973) “commonplaces” are used as a structure within which to develop a *practical* conception of curriculum. Schwab’s commonplaces were chosen as a framework for understanding curriculum in this study as he is considered a “giant” in the field (Pinar, Reynolds, Slattery & Taubman, 2000; Reid, W., 2001; Craig, 2008; Dillon, 2009; Reid, M., 2010; Null, 2010; Biesta, 2013; Connelly, 2013; Deng, 2013; Kunzli, 2013; Dunmoyer, 2014).

An ethnographic methodology was employed, exploring the understandings of the notion of curriculum of teachers at a senior primary camp and at a primary school. Data collected from interviews, participant observation and artefacts were used to search for tensions between what these culture sharing groups say, do and make. In exploring the perceptions of curriculum of teachers at school camp and at school to determine whether there is commonality of understanding, interesting similarities and differences have emerged between and within the groups. These were found to impact on the scope of the teachers work in a variety of ways. Schwab’s application of the commonplaces was for curriculum making. Additions to the commonplaces are suggested relevant to the focus of this study which is enacted curriculum. It then considers whether school camping and the outdoor education programmes it embodies are curriculum, are part of curriculum or are extra-curricular, a question of importance as outdoor educators have battled to have outdoor education and school camping included in the Australian Curriculum.

#5

**Evaluation of an MOE-OBS Programme in Singapore**

*Susanna Ho, Yap Bao Ping*

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The Ministry of Education (MOE) - Outward Bound Singapore (OBS) Challenge is a capstone programme of the National Outdoor Adventure Education Masterplan, funded and supported by the Singapore government. A comprehensive literature review was conducted to establish the Programme objectives and outcomes aimed at building confidence, adaptability and resilience amongst Singaporean youths through a shared experience. The evaluation of the Programme are framed by key research questions that are guided by a Programme Logic Model (PLM) that outlined the inputs, strategic activities, assumptions and outputs of the programme. The early phases of the evaluation primarily focus on processes that could inform programme design and implementation, allowing for tweaks aimed at enhancing participants' experience and learning.
This paper presents the key findings from the first phase of the Programme which started in 2017, with 6000 youth participants. The study adopted a mixed methods approach where both quantitative and qualitative data were produced and analysed for reporting. The qualitative data was gathered from a series of focused group discussions with a purposive sampling of teachers, participants and instructors. A survey with a 5-point Likert scale that was designed and mapped to the four broad programme outcomes (i.e., resilience, confidence, concerned citizens and social cohesion) was administered to all participants. Both qualitative and quantitative data was analysed and interpreted to inform policy decisions, justify funding support and strengthen parents’ support for the Programme.

#6
Finding my professional voice: Autobiography as an effective research method?
Mark Leather,
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I consider how autobiography provides a useful method to help make sense of my professional outdoor education practice; particularly my connection to the sea and place based outdoor education (Wattchow & Brown, 2011). In presenting my autobiographical reflections, I share my story with the possibility that the audience may gain insight, or that some potential common life experiences resonate and provide a foundation for mutual themes of understanding about connections to the sea. Moss (2001) considers how autobiography is a process, not only of recording, in the sense of documenting, orienting and analysing, but also of becoming; in the sense of lives, subjectivities and identities. This critical self-reflection is not all-inclusive, or the only way of knowing, however “it can be a helpful and workable approach in gaining insight into one’s life as well as into the contexts within which one exists” (Moss, 2001, p.20). These interpretive themes can be considered as “meaning-metaphor-milieu” (Buttimer, 2001, 34); where meaning refers to my professional activity, metaphor to cognitive style, and milieu to the environmental features of my childhood and formative years, where, in all of these themes, there is scope for mutual understanding. Autobiography is not only a data source or research approach, “it can also assist in critique and theory building” (Moss, 2001, p.8).

#7
The Effects of a Quick Anxiety-Reducing Technique During a Likely Stressful Outdoor Activity
Roger T. Couture,
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Adventure-based teaching (i.e., kayaking, rock climbing, skiing) has been used to foster inclusion while fueling students’ social and personal growth. However, such experiences can provoke unpleasant bouts of anxiety for some individuals in a group (Ward, 2004). This study examined the physiological and psychological effects of a quick distracting technique during a perceived stressful activity. Forty-eight male volunteers (M=20.2 years) were randomly assigned to one of four groups; Stressor no intervention, Stressor and intervention, No stressor no intervention and control. The stressor involved participants walk blindfolded to the end of a 3-meter diving tower (9.8 feet) and jump into a pool. Self-report questionnaires, digital counters, heart rate and peripheral temperature measures were used. A two-way ANOVA showed no significant difference for trait and state anxiety/sensation seeking. A post hoc Scheffe test showed significant differences in heart rate between the experimental and control groups. In summary, this quick distraction technique caused no significant changes in state anxiety/sensation seeking even though raw scores did rise (5% and 18% respectively) and heart rate was clearly affected. Future studies related to inclusion pedagogy should consider examining other quick anxiety-reducing strategies to better equip those students who need mental tools while participating in group adventure activities (Roberts, 2018).
#8

“Did You Have Fun Playing with Your Students Today” and Other Conundrums of Being an Outdoor Educator in Post-Secondary Education

TA Loeffler,
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This presentation reports on preliminary findings of exploratory research, grounded in (Savickas, 2005) career construction theory, querying the unique experiences of being an outdoor educator within post-secondary education. Building on the work of many (for example, Dyment & Potter, 2015; Humberstone, 2000; Jones, 2012; Loeffler, 1995 & 1996; Marchand, 2010; Wright & Gray, 2013), this research seeks to understand the distinctive demands and rewards of being both an academic and an outdoor educator. Using the methodology of narrative inquiry, this research examines the life stories of outdoor educators practicing within the context of higher education utilizing photo-elicitation based interviews (Hamilton, Smith, & Worthington, 2008; Loeffler, 2018). The development of interest in outdoor education, educational experiences, the development of outdoor leadership skills, career paths, and academic workload are highlighted and explored. Many of the veteran outdoor educators mentioned the physical wear and tear on their bodies that comes from the physically demanding nature of an outdoor education career. Additionally, many participants noted that over the course of their careers, the large quantity of time spent in outdoor instruction (time in the field) became an increasing toll because of separation from partners, children, friends and supportive community, difficulties in balancing work and home demands, disrespect from other colleagues in the academy, and the increasing challenge of maintaining research momentum and publishing intensity amid the reality of field instruction. Further research is needed to further understand the career adaptability of outdoor educators in the academy.

#9

Thinking outdoor environmental education differently: material relations on a Snowy River journey

Scott Jukes,
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In this presentation I discuss the material relations of a ten-day Snowy River journey with year ten outdoor environmental education (OEE) students. Contemporary research in OEE has explored human-nature relationships and place responsive pedagogies in a mounting shift away from traditional human centered practices. Critical analysis from post-human researchers suggest that human centered research approaches in OEE still largely remain. As such, I present my research that aims to shift away from anthropocentric research practices, in order to understand new perspectives of journeys, place(s) and learning. A relational materialist methodological approach is engaged to explore the assemblage and events of a Snowy River journey. The application of a relational materialist approach rethinks ontological and epistemological dimensions, investigating the entwined existence and agency of the more-than-human world. Data from the journey includes researcher journal, student journals and interviews. I will describe my efforts to reduce the human centered aspects of these data sources through post qualitative analytical methods including rhizoanalysis, diffraction and minor-voice. Lastly, in this presentation I will discuss the findings of my research, which include a multiplicity of perspectives on material place relations which diffract from dominant, transcendent or dualistic notions of journey experiences, and what this may offer OEE practice.
#10

On the chopping block: The international demise of outdoor education in higher education

Tom Potter, Janet Dyment
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Amidst a growing global neoliberal agenda in higher education, characterised by larger class sizes, higher fees, and increased scrutiny and accountability for measurable evidence-based outcomes, many universities have recently begun restructuring initiatives that have compromised programmes and departments that have traditionally offered outdoor education. In the most severe cases, long-standing programs, some with excellent records, have been eliminated.

This research investigates the experiences and challenges academics working for universities offering outdoor education have faced with the loss or curtailment of their outdoor education programme. Academics from a variety of geographic locations who are or were teaching in these programmes were interviewed to gain an understanding of how and why they found themselves and their programme in this position as well as what their lived experience of the process and outcome entailed.

Analysis revealed a diversity of reasons that programmes have been dramatically reduced or eliminated, including: a lack of funding, a lack of supportive administrative leaders, declining enrolment, an undervaluing of outdoor education, a misalignment with traditional neoliberal approaches to teaching and learning in higher education, and a lack of linkage with mainstream public schooling curricular/policy priorities. Interviewees reported a variety of personal and professional responses to the changes that were happening in their workplace, including: a deep sense of grief and sadness given a programme they cared for was ‘chopped’; a loss of professional identity around being an outdoor educator; a sense of despair around the general state of affairs in higher education; and, a commitment to delivering similar educational ideologies in their new non-OE academic roles.

#11

Moving beyond ‘methodising’ theory in preparing for the profession

Kathleen Mahon, Heidi Smith
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When preparing for the outdoor education profession, as with any educational profession, theory plays an important role in terms of informing professional practice and understandings of teaching-learning dynamics. Despite this, surprisingly little is understood about how pre-service outdoor educators (POEs) view and engage with theory in their teacher preparation courses. Drawing on findings of a qualitative case study which examined the theory-practice nexus in a particular outdoor education teacher education course, this presentation explores how POEs engage with formal theory in and about practice. While it was found that some preservice outdoor educators embraced and engaged deeply and critically with formal theory during the course, it was also obvious that others adopted a more technical or instrumental orientation towards theory, with a tendency to ‘methodise’ theory, that is, to treat formal theories as formula for action. This, and other ways in which POEs engaged with and viewed theory are shared using Shirley Grundy’s (1987) ‘forms of educational practice’ as an analytical lens. The presentation will highlight the challenges and implications for outdoor education teacher education, particularly in terms of enabling aspiring outdoor educators in tertiary courses to move beyond ‘methodising’ theory as they enter the outdoor profession.
#12
**Impact of transculturality on student experience in higher education**
*Heidi Smith, Teresa Segbers*
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Higher education outdoor studies programs retain a critical interest in student experiences as they seek to prepare citizens in a globalised, yet simultaneously neo-nationalist, world. This presentation shares the findings from research that explored the impact of transculturality on the student experience in outdoor studies in the Transcultural European Outdoor Studies Masters, a course hosted by three universities in three countries. A longitudinal study of the student experience, using a conceptual framework of self, place, transculturality, and outdoor learning theory underpinned the research. Semi-structured online interviews and one face-to-face retrospective interview were conducted with 4 participants throughout the course (Semesters 1, 2, 3), plus an additional 5 participants prior to the end of Semester 3. The findings elucidate students’ transcultural self-growth and transcultural capabilities including resilience, intelligence and fatigue. While challenges exist for course design— including transcultural competencies in a globalised world— consideratons of transcultural pedagogy and curricula, reflective practices, support for students and teaching staff, cultural learning experiences (including language acquisition), and a willingness to move beyond traditional models of curricula at the University level are recommended and shared.

#14
**Moving beyond fear: Mental training and outdoor education**
*Alexandra Albert, Heidi Smith*
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This presentation brings together outdoor education pedagogy and practice in terms of risk and challenging outdoor adventurous activities with mental training techniques from sports science, psychology and neuroscience to provide techniques as an educational outcome to assist individuals and groups to respond to their fear response. The outdoor education literature discusses ‘dealing with’ and ‘overcoming’ fear through creating an environment for this to occur, but omits specific tools and techniques to achieve this. Mental training is well-established in the field of sports psychology and refers to the emotional, mental and physical systems which all have a reciprocal impact on each other. For every thought there is a feeling and for every feeling the body provides a physical response (e.g., high muscle tension). Thoughts and feelings continuously work in symbiosis and are mirrored by the physical body. Mental training allows for ‘mind-over-body-control’ and has been found to be highly effective for athletes in challenging situations. In this session we focus on fear as an emotion and demonstrate how mental training techniques can support your work as an outdoor educator. The session provides a theoretical framework of how outdoor education and mental training come together with practical examples to ‘walk through’ fear.

#15
**Reflective insights to help advance the outdoor profession towards gender inclusive leadership**
*Tonia Gray, Denise Mitten, Tom Potter, Jay Kennedy*
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The outdoor profession’s advancement towards gender inclusive leadership is moving far too slowly. While gender issues are being discussed and some people believe there may be progress towards gender equality, the rate of change seems glacial (Mitten & Gray, 2018). The experiences of women, men, gender fluid, and agender people in the profession attest to the need for a transformational shift within the industry. The intent of our theoretical/philosophical approach is to illuminate current efforts underway in outdoor programmes to redress
gender inequities and promote institutional and cultural adjustments. Attempts to raise awareness, gather and identify resources, and promote effective entry points into the conversation will be detailed. Feminist scholars will describe the contemporary gendered landscape and pinpoint areas of future focus. Male viewpoints and stories on the state of inclusive outdoor gender leadership will be shared as further refinement and radical progress is needed. Together as a unified voice, we explore our diverse perspectives as reflexive practitioners.

Some themes to be examined include:
- Gender impacts of capitalism in OE (industry structure, practices, client expectations, clothing, advertising and/or media);
- OE as a distinct community and/or subculture in education: influences on, and from, wider culture;
- Hiring practices and organisational culture’s relationships to industry structure and gender norms;
- Class, race, age, and ableism intersections with gender regarding objectives, facilitators, and participants; and
- Gendered perception of professional values, such as: sustainability, sense of place, caring practices.

The workshop panel will conclude by envisioning tangible and inclusive pathways to help move this critical agenda forward into 2020 (and beyond).

#16
Diverse Perspectives: An Exploration of Gender and Leadership in Outdoor Recreation
Rachel Davies, Tom G. Potter
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Gender roles shape the styles of leadership people assume in outdoor recreation. This research investigates how society’s high value of masculine leadership styles influence instructor and participant understandings of and experiences in the outdoors. Six practiced outdoor leaders, three females and three males, were interviewed about their experiences with gender in the industry. Analyses revealed themes observed by most interviewees, which included: breaking gender roles is positive, leaders encourage gender incongruency, and organizations focus on gender balanced hiring. Findings that were not apparent to all participants included: female leaders feel the need to prove themselves, which went unnoticed by male interviewees, and the need to better address gender fluidity in the industry. The investigation also revealed sexist views that are still rampant in the industry, which included the beliefs that: women are less physically able, sexual harassment is normal, and female instructors can be more challenging to work with. The study raises questions about the buried dynamics of gender expectations and their undercurrents shaping both participants’ and leaders’ experiences in the outdoors. Conclusions are drawn for methods of moving understandings of and practices toward gender forward.

#17
A Pedagogy of the Outlandish: Culture Shock as Experiential Learning
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Middletone (2003, p. 6) argues that the ethnocentric view that one’s own way of life is “best, the most natural and right” lurks hidden in our subconscious minds. This viewpoint, he contends, can be challenged “only by the contradictions we observe in another culture.” Taking Middletone’s contention as a starting point, this presentation reports on an Australian Government-funded research project that explored secondary students’ self-reported effects of culture shock while travelling in a foreign country markedly different from their own.

The study was founded on the hypothesis that students’ immersion in a foreign culture (and its expectant culture shock) could lead to powerful experiential learning opportunities for students; opportunities that are more closely seen in traditional outdoor education environments. These opportunities – of the student as outlander - may prove particularly useful for building students’ cross-cultural understanding. As a humanities teacher working in a culturally homogenous secondary school, I have seen how difficult it is to build students’ cross-cultural empathy.
Cross-cultural empathy is considered a foundational disposition or skill in the humanities (ACARA, 2015, p. 4) and yet inevitably students encounter other cultures vicariously at best, from the comforts of their homogenous classrooms.

This qualitative research study draws on students’ personal reflective journals, completed in situ, as the key data collection method to explore their own conceptions of culture shock. The research suggests further investigation into the benefits of a pedagogy of the outlandish, where international travel and culture shock prove powerful catalysts for students’ reflexive thinking about values, beliefs and attitudes of cultures other than their own.

#18
School-based Outdoor Education: Lessons in enabling good practice for children 3-11 years
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Outdoor Education provides memorable, authentic and contextualised opportunities to extend classroom-based learning. This research draws on empirical data from replicate surveys in state primary schools in England in 1995 and 2017 (n=61 and n=40 respectively). Descriptive analysis of the quantitative data reported measures of order and variation; Content analysis identified codes and themes in qualitative responses. The data illustrate that schools are continuing to use their playgrounds and day visits as locations for practice, and residential visits increased in 2017. The expertise in schools has decreased by 2017 but the major challenges and barriers to implementation of time and expense remain similar in both years. Teachers no longer see Outdoor ‘Education’ as a subject but as part of the physical education curriculum (‘outdoor and adventurous activities’) although in Early Years, practitioners report an enabling curriculum for Outdoor Education. The research identifies a breadth of practice, the strength of teachers’ values and beliefs, the importance of suitable locations, a culture of risk benefit and positive initiatives that support its development. These outcomes, together with similar research in Europe and Australasia, should extend the evidence base and support practitioners and policy makers in promoting more opportunities for learning outdoors within formal curricula.

#19
Visiting scholar experiences of transcultural outdoor studies in higher education
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The Transcultural European Outdoor Studies (TEOS) Masters program was a graduate degree program hosted by three universities in three countries. In addition to having a unique international cohort of students it welcomed visiting scholars from a variety of non-European nations and universities. The visiting scholars added cultural diversity through their teaching, leading, participating, tutoring and supervising within the country-specific courses, the joint courses, and by promoting and disseminating experiences of the program to their university and country of origin upon return. In this study, the visiting scholar experiences were explored through the conceptual framework of self, place, transculturality and outdoor learning theory that underpinned the overall TEOS course design and structure, and hence this research. The overarching aim was to capture stories, big and small, that reflected the individual experiences as visiting scholars. A semi-structured retrospective online/phone interview was conducted with 9 of a possible 18 visiting scholars. Respondents came from Canada, Australia, and New Zealand. Awareness (transcultural, irritation, academic) and cultural inspiration emerged from the stories of experience, along with personal growth and academic growth in terms of professional learning, practice and scholarship. The implications for universities, and the benefits these short visits to international contexts provide, were significant.
The impact of outdoor education on body image and self-efficacy of adolescent girls
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We live in a visual culture that inundates us with images of an idealised body based on dominant Western societal and media influences. The body has become an object, a site of production and commerce. For many, having negative thoughts about our bodies has become normal. Poor body image can contribute to low self-esteem, low self-confidence and never feeling that one’s body is adequate.

My research explores the possibility of an outdoor education program as an effective tool to curb the normalcy of poor body image. To do so, the impacts of outdoor education programs on the self-efficacy and body image of adolescent girls will be addressed. Through a feminist theoretical lens and mixed methods inquiry, quantitative and qualitative data will be collected in the form of pre, post, and six month follow up outdoor education program questionnaires based on the Outdoor Recreation Self Efficacy Scale and the General Self-Efficacy Scale and the Objectified Body Consciousness Youth Scale and focus group interviews. The presentation will showcase the research background and findings in the research.

Research is limited in the Australian context on the relationship between outdoor education, adolescent girls and body image. The anticipated research outcomes include:
• Gaining a better understanding of the role of outdoor education in affecting body image and self-efficacy of adolescent girls,
• Providing robust evidence-based research in Australian outdoor education.

How experiences transform through time; Reflective study of place-based educational program up to 35 years
Takano Takako,
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This study is to explore how the participants perceive the change of their learning over the time from the educational programs held in a Micronesian island. Since 1992 almost every summer a group of young people, mainly from Japan, has stayed in a traditional village of the island for about 12 days, living simply using natural resources taught by local people. The study asked the past participants to reflect the experiences, which for some people means 35 years ago.

The data was collected in 2012 using posts and again 2017 by emails and social network service. The list had 303 participants, but estimated 151 were directly reached by the researcher as many email addresses were no longer in use, 129 data were gathered including 6 cases which responded in both collection years. At least one participant from every program year responded, and their ages were from 9 to 28 years old at the time of participation between 1992 and 2017.

About 94% of respondents said the experiences are linked to current lifestyle, ways of thinking and jobs. Most affirmed the influence is continuing in various forms, and transforming as an extension of the influence. Some, including the participants from 1996 and 2005, said they are still digesting the experiences. The analysis also reveals what are important elements for the educational programs aiming for sustainable society. The study demonstrated that the impact of educational programs can continue over many years with progressing meanings to respective participant.
The nature and scope of outdoor education in the city-state of Singapore: outdoor practitioners’ perceptions of outdoor education

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Although outdoor education is adopted and present in many societies worldwide, its practice must be culturally and contextually specific and congruent in order to be meaningful and relevant. Consequently, the beliefs and cultural values that promote its practices in North America, United Kingdom or Australia may not be applicable or may not meet with similar acceptance in Singapore or other parts of Asia, and vice versa, due in part to cultural and environmental differences. This reinforces Brookes’ (2004) view, that no aspects of outdoor education should be considered universal without first considering the geographical, historical, social and cultural context. Heeding this reminder, the purpose of this study is to investigate how outdoor practitioners in Singapore, an urbanised city-state, view outdoor education. This study is significant because it seeks to locate outdoor education as how it is conceived, understood and appreciated locally in the city-state of Singapore. The study sought to achieve this by analysing outdoor practitioners’ qualitative responses to an online open ended questionnaire. Despite the high internet penetration rate of 82% in Singapore (Hootsuite, 2017), the study sample returned 13 responses by outdoor practitioners from companies which provide outdoor education experiences. The findings revealed that outdoor practitioners associate outdoor education experiences with a variety of foci such as being a method of learning, a process for self-discovery, character development, values development, as well as complimenting classroom learning for participants. The study also sought to investigate the sources that influenced their beliefs about the value of outdoor education. The findings will be discussed and implications presented in the light of recent developments on outdoor education in the city-state of Singapore.
Building Social Capital through the delivery of Outdoor Education

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What aspects of social capital, delivered through outdoor education, improve the communities that we live in?

It is acknowledged that social capital has many different meanings (Tzanakis, 2011), for this presentation, social capital refers to the social structures and the actions that people take to make their communities more livable.

In order to gain a better understanding of the nexus between outdoor education outcomes and social capital, this presentation will explore to date my PhD research on this topic. The presentation will look at 12 months of data from 2017, both quantitative and qualitative. The data comes from more than 1000 Life Effectiveness Questionnaires (Hattie et al. 1997) and 21 hours of semi-formal interviews from 44 students. The data was collected from year 9 students from 11 rural Government secondary schools in Victoria, Australia. The data to date, will show the effect size of an outdoor education program in the personal and social capabilities of communication, trust and encouragement, respect for others, conflict resolution, cooperative teamwork, community engagement, community action, followship and leadership.

Go Out and Learn: collaborative international professional development into outdoor learning

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‘Go Out and Learn’ is a collaborative three-year Erasmus+ project, funded by the European Union. It includes a university and school partnership in the four nations of Belgium, England, Italy and Norway. The project’s overall aims are to develop a common understanding of outdoor learning between project partners, and to build on that common understanding to devise cross-cultural curriculum materials for project schools and wider international use.

Teachers’ lack of confidence in teaching outdoors is a significant barrier to outdoor learning (e.g. Waite et al, 2016), and a key aim of this project is to support teachers in developing a creative, inclusive approach to curricular outdoor learning. Ongoing research through the academic year 2017/8 will evaluate the impact of the project on participating teachers’ confidence and, in the context of difficulties with teacher retention (e.g. Worth & Lazzari, 2017), assess the extent to which teaching outdoors helps to increase their job satisfaction. Methods include evaluation of professional development at transnational meetings, evaluation of the project collaborative website, and interviews with participating teachers in the four schools. Preliminary results suggest that support from the headteacher is a significant factor in facilitating outdoor learning, and that international collaboration brings new and welcome perspectives and ideas to national curricular outdoor learning.

Gear Banks do make a difference! Supporting and developing friluftsliv by means of the nationwide concept of Gear Banks in Denmark

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Drawing on a socio-ecological framework (Sallis et al 2006) Gear Banks are studied as a concept supporting schools and clubs with easy and cheap access to outdoor gear, and thus working to promote friluftsliv. The presentation
reports on results from the study aiming at documenting the significance of Gear Banks to friluftsliv in Denmark. A number of methods were used in the study: Qualitative focusgroup interviews involving 26 keypersons from Gear Banks, statistics from documented rentals in the period 1999-2016, survey with 383 frequent users of Gear Banks (response rate 42%), and a final international document study. Results show that Gear Banks in different ways have played a significant role in the development of friluftsliv in Denmark. The significance is evident in statistics on actual rentals, as well as expressed by users. The significance also involves Gear Banks being a vehicle in the pedagogical and safety-related debate on friluftsliv. The concept of Gear Banks is unique to Denmark and points to new ways of promoting friluftsliv. Based on the results the study presents suggestions to future development of Gear Banks. The concept is however threatened by budgets cuts in the Danish Outdoor Council.

#27

NatureMoves - Places for childrens outdoor recreation in Denmark
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A growing body of evidence points to the positive effects of being active in natural environments, and a number of studies show that children and adolescents visit natural environments less frequent compared to earlier generations. In their leisure time they often go to urban cultural places or play in their gardens, and lack of time, electronic devices, schoolwork and sport are common barriers to their nature engagement. The presentation presents results from a qualitative multi case study on four selected outdoor places and methods used are observation and qualitative interviews with children and adolescents. Results show that Danish children and adolescents visit outdoor places mainly to meet with their friends and experiencing nature does not seem to be a big issue. They also go there to experience play, challenge and mastery as well as to have a refuge of their own. Results show interesting differences in the patterns between boys and girls. Scientific and detailed knowledge on the use and value of different outdoor places for children and adolescents will inform the process of planning for outdoor recreation. Developing and promoting outdoor places may inspire them to be more active in the outdoors and thus have an important health perspective.

#28

Outdoor Education that ‘ticks the box’ for 21st century learning: Examining the benefits and dilemmas of school-based extended outdoor experiences in remote locations
Margie Campbell-Price,
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Increasingly, schools are encouraged to provide young people with curriculum experiences that enable them to gain the knowledge, skills and dispositions to live full and satisfying lives in a changing and uncertain world. The contribution that outdoor education can make to foster confident, connected, actively involved and future focused young people has been well documented. The New Zealand curriculum (Ministry of Education, 2007) paves the way for schools to innovatively design curriculum experiences that puts students at the centre of teaching and learning, engages and challenges them, and is forward-looking.

Framed by the curriculum’s vision, principles and values, this presentation reveals the long term impact of an innovative outdoor education programme at a state (government funded) secondary school in New Zealand. Through focus group interviews, young people reflected on their five-week outdoor experience located on a remote ‘off the grid’ island, which they had participated in three years earlier. The findings corroborated other studies (e.g., Hattie, Marsh, Neill & Richards, 1999; Scarf, Moradi, McGaw Hewitt, Hayhurst, Boyes, Ruffman & Hunter, 2016), whose authors argued for the effectiveness of longer duration programmes on young peoples’ personal growth and resilience. Furthermore, the participants in this study had also deepened their empathy for and understanding of living sustainably.

Despite participants’ continued benefits from this extended programme, the cost and time incurred meant that participation is optional and voluntary. This highlights the quandary schools face – on one hand offering
experiences that enable deep learning while adhering to expectations for socially just and inclusive curriculum experiences. Finally, this presentation intends to provoke discussion about the role outdoor education can play in contributing to the dilemma of inequitable access through exclusive offerings, and whether there are ways in which to resolve this.

#29
Go Out and Learn
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'Go Out and Learn' is a collaborative three-year Erasmus+ project, funded by the European Union. It includes a university and school partnership in the four nations of Belgium, England, Italy and Norway. The project aims are to develop a common understanding of outdoor learning between project partners, and to build on that understanding to devise cross-cultural curriculum materials for project schools and wider international use. Each national combination of university and school is developing, testing and evaluating creative approaches to curricular outdoor learning.

This paper focuses on a project undertaken in the English school as part of this international collaboration. The research questions were:
- Do children retain more lesson content from lessons indoors or outdoors?
- Is there a difference in a sample of children's levels of involvement between learning indoors and outdoors?

Using Laevers' Involvement Scales, six pupils aged 6-7 in from two parallel classes were observed for eight lessons. The content was the same for both classes, but four were taught inside and four outside; classes alternated between the two settings. Data were analysed from the observations; from the results of pre- and post-tests from each of the observed lessons; and from interviews with pupils, teachers and parents/carers. The whole provides detailed comparative evidence on curricular learning outcomes from lessons undertaken inside and outside the classroom.

#30
Threshold Concepts for Australian Outdoor Education University Graduates
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For the past decade concerns have been raised by stakeholders in the Australian outdoor education (OE) profession regarding the need to identify and develop a set of capabilities reflective of students' proficiencies when graduating from Australian university outdoor education programmes. There is currently no formal or informal agreement amongst university programmes of the knowledge, skills, and experience that an outdoor education graduate should be expected to acquire and demonstrate. In 2017, the Australian Outdoor Education Tertiary Network (ATOEN) agreed to support an initiative from Australian outdoor education academics to develop a draft list of threshold concepts for OE graduates. Threshold concepts articulate critical knowledge areas that graduates entering the profession must master and have been successfully developed in many higher education disciplines. The process to be used in this study will enable the identification, documentation, and assessment of the threshold concepts that graduates of Australian university outdoor education programmes require to work in the profession. The Delphi research model will be used to enable a collaborative, consultative process to establish threshold learning concepts. Initially, the
expert panel used to develop the threshold concepts will be experienced outdoor education academics but wider consultation will also occur. In time, a similar Delphi process will be used to develop assessment tools to measure students’ attainment of the threshold concepts. This presentation will report on the emergent findings of this ongoing research.

#31
The effects of ‘attachment to nature’ during camp on ‘attitudes toward nature’ of elementary and junior high school students
Masahiro Okada, Akihiro Sakamoto, Taiki Kawata, Masahiro Horimatsu
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Past studies suggested that attachment/relatedness/connectedness to nature would be an important predictor of attitude toward nature and environmental behavior. The purpose of this study was to determine the effects of ‘attachment to nature’ during camp on ‘attitudes toward nature’ of elementary and junior high school students. The subjects were 73 students (grade 4-9) who participated in organized camp including one-night expedition hiking. Scale of Attitudes toward Nature (Okada et al., 2013) was administered three times (before camp, just after camp, and 1-month later). To measure ‘attachment to nature’ during camp, simplified Wilderness Experience Scale (Borrie, 1995) was administered during main program of every day in camp. MANOVA showed that high score group of ‘attachment to nature’ increased and sustained in total score of ‘attitudes toward nature’. The other hand, there was no change in low score group of ‘attachment to nature’. Comparing the groups, high score group of ‘attachment to nature’ was higher at just after camp than low score group in total score of ‘attitudes toward nature’. Only “pro-environment” factor of ‘attitudes toward nature’ showed similar results. These results suggest that feeling attachment to nature during camp would contribute to increase attitude toward nature and pro-environmental value orientation of adolescents.

#33
A meta-analysis of nature and psychophysiological stress reduction
Lærke Mygind, Eva Kjeldsted, Rikke Hartmeyer, Erik Mygind, Matt P. Stevenson, Peter Bentsen
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Recent research suggests that urban life comprises a number of adverse psychosocial influences that facilitate chronic stress. Meanwhile, accumulating research indicates that living close to natural landscapes has beneficial effects on mental health. However, the bulk of this research is cross-sectional or longitudinal thereby not allowing causal inferences.

In our presentation, we will outline the results from a systematic review and meta-analysis of experimental studies that explored the psychophysiological stress reducing potentials of natural environments. Our presentation will thereby provide a contemporary, comprehensive overview of the evidence and a systematic, critical appraisal of the methods used.

Papers were included in the review if they 1) comprised at least one psychophysiological measure, 2) provided statistical inter-group comparison of effects, and 3) evaluated comparable activities in a natural environment (defined as green public space) compared with a built environment (indoor, urban etc.). We identified 28 individual studies that were mainly conducted in Asian countries. Interventions varied in length, ranging from short exposures of 15 min walks in natural environments to longer and repeated exposure over several weeks. The studies primarily utilized cross-over designs, based on small samples of male university students and of moderate quality. Across a range of psychophysiological measures, predominantly indicators such as cortisol and heart rate variability, results generally favored the natural environments over the comparison environments.
#34

**Nature-based health promotion for children and adolescents: a systematic review of interventions, designs and outcomes**

*Lærke Mygind, Eva Kjeldsted, Rikke Hartmeyer, Mads Bølling, Matt Stevenson, Erik Mygind, Peter Bentsen*

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In this presentation, we outline and discuss the results from a systematic review of research that explored nature-based interventions aimed at promoting children's health. A growing body of research has shown that living close to natural landscapes has beneficial effects on physical and mental health. However, children today are spending less time in nature compared to previous generations and do not have equal access to natural environments. Existing narrative reviews focusing on children indicate a wealth of potential health benefits of exposure to natural environments, but the state of the evidence is unclear. By applying the PRISMA-guidelines, we aimed to comprehensively collate and assess the existing research literature. The systematic review included peer-reviewed, empirical papers published between 2004 and May 2017. The papers were included if they 1) were based on original studies, 2) evaluated nature-based interventions quantitatively, and 3) included at least one health promotion outcome. Only child populations (i.e., up to 18 years of age) were included. We identified almost 90 individual publications. In our presentation, we outline and discuss the descriptive and analytical results and offer methodological critiques across the studies, identify gaps in the research, and provide views for prospective research.

#35

**Developing a Systems Approach to Risk Assessment in the Led Outdoor Activity Context**

*Clare Dallat, Paul Salmon, Natassia Goode*

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Inadequate risk assessment has often been implicated as a contributing factor in led outdoor activity incidents. Safety science now largely considers accidents in complex safety critical domains (e.g. led outdoor programs, healthcare, aviation) to be created by a complex web of interacting factors from across the work system. Prior to this program of research, it was unclear as to whether this perspective had been translated into risk assessment practice in led outdoor programs, or indeed risk assessment in other safety critical domains such as aviation, rail, and process control. An overview of the research program will be provided – including the findings that current risk assessment methods and practice are not consistent with systems thinking, existing risk assessment methods are limited in their ability to identify system wide risks, and the newly designed risk assessment method is capable of identifying systemic risks as well as emergent risks. Further, formal reliability and validity testing demonstrated risk assessment may be enhanced by involving multiple analysts from across the system in the process. A demonstration of the new method, the NETworked Hazard Analysis and Risk Management System (NET-HARMS), will be provided.
#36

**Outdoor decision making as planned behaviour**

*Mike Boyes, Potter, T., Andkjaer, S., Lindner, M.*

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Traditionally, decision making has been considered as a leadership behaviour that occurs at a place and time when circumstances align to demand it. But this moment in time is only the tip of the cognitive iceberg. Much thinking occurs well before the event and there is a need to account for the cognitive processes that precede a decision. Prior planning processes have a major impact on the rubric of what happens in the field.

Drawing on eight interviews with an international cohort of highly experienced leaders, we present a case study of a specific decision made by one of the leaders and the planning processes that precede it. Using cross-case analysis across all of the decisions, we scrutinise the impact of planning on situational awareness and option selection. To link theory to practice, we focus on a theoretical framework of flexible execution (flexecution) of leaders’ goals and strategies. As people journey, the dynamic challenges of the social and natural environments present windows of opportunity where plans are executed with local modifications. On occasion, leaders are confronted with situations when goals are challenged or become redundant and plans need to be recreated on-the-fly. Across the decisions, plans are seen as malleable roadmaps that underpin adaptive practice.

#37

**How an understanding of the motivations and orientations of athletes doing nature-based activities can inform outdoor education program design, and delivery, that deepens participants eco-relationships**

*Greig Gjerdalen,*

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Outdoor environments provide powerful contexts for teaching and learning. The experience of being in nature is integral to students feeling a connection to nature. This research explores the attainment of the Flow State in natural settings, and how the subsequent Optimal Experience can increase a person’s sense of well-being. The conceptual framework is provided by Louv’s (2011) and Csikszentmihalyi’s (1990) work. Louv (2011) asserts that connection to the natural world is fundamental to one’s health, spirit and well-being. The Flow of Conscious described by Csikszentmihalyi (1990) discusses how attaining an Optimal Experience through the Flow State can allow for a stronger sense of self, increased self-esteem and involvement in the world. This research provides a phenomenological analysis of first-hand accounts obtained through interviews of athletes doing their activities in nature that lead to enhanced health and well-being. The personal narratives of mountain bikers, trail runners and stand-up paddle boarders provide descriptions of the attainment of the Flow State in nature. These descriptions enable teachers to guide students engaged in outdoor recreation activities towards a deeper connection to nature, and the subsequent health benefits. This presentation will share early findings from a research project that explores the benefits of attaining the Flow State in nature to student’s sense of well-being.
The TEACHOUT study: impacts of education outside the classroom - *udeskole* - on pupils’ physical activity, well-being and learning

Erik Mygind, Mads Bølling, Camilla R. Otte, Mikkel Bo Schneller, Glen Nielsen, Peter Bentsen

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There is a growing need for developing, implementing and evaluating complex real-life school-based health promotion strategies that have a holistic approach and objectives. The aim of the TEACHOUT *udeskole* study was to broaden the understanding of education outside the classroom (EOtC) investigating the effects of physical activity, academic learning, social interaction and motivation among Danish pupils, grades 3-6. In total, 16 schools with a total of 19 education outside the classroom (EOtC) school classes and 19 non-EOtC parallel classes participated. Data collection took place at the beginning and at the end of the school year using standardised questionnaires and tests, measures of the children’s social relations, motivation for school, well-being, and academic performance. Data on PA levels were collected over ten day periods during the school year using accelerometers. The amount and characteristics of the actual EOtC provided in both EOtC and non-EOtC classes were monitored day-to-day throughout the school year using an online teacher survey platform. For boys, *udeskole* was associated with more daily PA time being spent moderately and vigorously while no differences were observed for girls. On days with *udeskole* both girls and boys had a significant higher light PA level as compared to normal school days without PE lessons. Social relations and academic learning outcomes will be presented and discussed after publication in autumn 2018.

Sense of place: A PFP Experience

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Singapore, a nation-state that is built on ideas of progress, has a rapidly changing urbanscape. Scholars like Sheldrake (2001) appealed for educators to pay attention to the “crisis of space,” defining it as “a sense of rootlessness, dislocation or displacement,” that is widely experienced by the city youths today. The recent nationalisation of Outdoor Education as a compulsory curriculum for school-aged children in Singapore is one approach undertaken to promote a sense of place and connection to the country.

Singapore is a nation with a population growth of 0.9 percent from beginning 2016 to end-June 2017. The Singapore’s economy also grew with the manufacturing sector at the forefront of business and the economy will continue to grow with the expansion in industry sectors such as aerospace, life sciences and precision engineering. The forecast in the increase in population and economy, lead to the expansion in the housing, transportation and industry infrastructure on top of the redevelopment works on existing infrastructure. However, Singapore have also planned for an increase in green spaces from 8 % in 2010 to 9% by 2030 with a total land use of 7250 ha from 5700 ha. With rapid development and redevelopment going on in the country, familiar landscapes have been altered and manicured, if not, lost.

In this unique case of Singapore where the country is featured with globalization, industrial, and diversity, this paper provides insights into an alternative approach to the provision of outdoor education in this educational reform. Using a case study of an outdoor education programme developed by Republic Polytechnic (RP), this action research discusses how the programme is designed to engage students with the ‘space’ and ‘place’ experience over a limited period of five weeks, once a week for two hours. Outdoor education module at tertiary educational level is unheard off and RP is the only tertiary education to offer OE as part of formal education through the Polytechnic Foundation Programme (PFP). PFP is a through train programme introduced by the Ministry of Education (MOE) which allow the top 10% of the GCE ‘N’ levels cohort to enter the polytechnic as students’ of year zero. This programme aims to prepare the students for entry to the specific diploma programmes without having to take the GCE ‘O’ Levels (“PFP Joint Admissions Exercise”, 2018).

The OE module is organised into three overarching categories; a. Explore, b. Experience and c. Excite. In the ‘Explore’ phase, students will be introduced to the concept of ‘place’ where they will take a journey out of their
classrooms to nearby spaces to immerse themselves community or environment of the given space. The ‘Experience’ phase will have students learn about identifying risk and risk management in the outdoors through the essential camp craft activities and lastly the ‘Excite’ phase of the component, will introduce students to outdoor recreational activities that they probably can prolong for a period of time, for example like kayaking and sport climbing. Therefore, each category of the component will be allocated a period of 5 weeks, before moving on to the next category.

To bring about rootedness, lessons in ‘Explore’ segment of the module was designed deliberately to introduce students to their surrounding places and spaces. Students will be introduced to the concept of ‘place’ through a journey they will take out of their classrooms to nearby spaces to immerse themselves in the community or environment. Locations were selected based on the level of relevancy of the space to the students from an educational standpoint of view. Republic Polytechnic is located at Woodlands Town, which is at the northern part of Singapore, thus 2 out of 5 places selected for this segment were: Woodlands Old Town and Woodlands Waterfront. The rationale behind this was to inculcate a sense of community in the place that they will be spending time in, in their course of study in the polytechnic. The other 3 places were: Kranji Marsh, Lower Pierce reservoir and Upper Seletar Reservoir with the rationale to educate the students on Singapore's key resources in nation building.

This study is divided into 2 phases. Phase 1: Pilot run of the study where lessons were structured to provide guidance for the lecturers as well as to solicit specific lesson outcomes from the students yet at the same time, remain fluid in the delivery method to respond to the students’ needs. Therefore a huge part of this study was to look qualitatively and quantitatively into the lesson design, method of delivery as well as the student feedback on the lessons. A total of 196 students and 5 lecturers participated in the module in 2017.

The outcome of Phase 1 on lesson design highlighted that lessons should have a moment of reflection for students to gather their thoughts and be present with the space, while method of delivery should remain concise. The students have also indicated that through these lessons, they are more willing and confident to take part in outdoor activities and they have ranked Upper Seletar Reservoir, Kranji War Memorial and Lower Pierce trail to be the top 3 spaces out of 5 identified spaces. Using these information, Phase 2 of the study will commence this coming April 2018 to Feb 2019. Lessons have been adjusted based on the above mentioned outcomes of Phase 1.

#40

Time, aesthetics and the ontological divide

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Employing a critical environmental hermeneutics research methodology, this presentation explores the tension between affective outdoor aesthetic experiences and the objective delineation of nature through the lens of linear time. An increasingly anthropocentric world is dominated by time characterised by invariance and abstracted from its natural sources. On the other hand, in an aesthetic, eco-centric world, nature’s time is cyclical, reversible, and embedded. Animate and inanimate time and rhythms combine to provide symphonies of wonder that form the grist of the affective aesthetic experience.

The analysis proposes that the aesthetic enjoyment of nature enables humans to transcend the scientific delineation of nature. In addition, there is the prospect that the holistic nature of the aesthetic experience is compromised by the ontological deficiency that separates nature and culture. Elias (1992) believed that temporalities of nature and culture interpenetrate and implicate each other. But can current ontologies reconcile industrial time and nature’s time? Developments in environmental hermeneutics such as Tuana’s (2008) concept of viscous porosity which acknowledges a complex interaction of phenomena and Ricoeur’s notion of a self, constituted by the other (nature) seek to mediate the tensions between competing environmental views and narratives. These will be explored and opened for discussion.
The impact of community gardening on perceived health and wellbeing in social housing communities
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Cohesive, healthy communities are central to wellbeing; yet contemporary research suggests inequalities exist in access to green spaces and their benefits to wellbeing. This study, conducted in partnership with the Royal Botanic Gardens’ Community Greening program, systematically surveyed new community gardeners using a mixed methods pre- and post-test design. The research took place at six new garden sites across the Sydney region in 2017-18. The purpose of the research was to better understand the relationship between community gardening and sense of community, health, wellbeing and social participation in low income communities. The research engaged participants in data collection activities, including: (a) the planning and construction of new garden beds; (b) data collection, including the Sense of Community Index, Personal Wellbeing Index, and focus group interviews; and (c) on-going gardening and outdoor educational opportunities provided by Royal Botanic Gardens. This presentation showcases the innovative partnership and key findings from this pioneering study, which is the first of its kind for the Community Greening program. Results include the experiences of new gardeners and their self-reports on the impact of gardening on wellbeing and social engagement. The findings support the benefits of community gardening in social housing communities for personal and community wellbeing.

Harvesting “wild” food: A pedagogic project in an Arctic kindergarten
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Harvesting “wild” food resources from nature could be one way of increasing children’s awareness of the origin of food resources and simultaneously engage them in natural exploration and physical activity through early childhood. The Norwegian government has strategy- and framework plans for how kindergartens can enhance the use of nature in their practice, and thus support a healthy lifestyle and nature experience among young generations. Encouraged by this, a kindergarten in Northern Norway engaged in a project with an extended focus on harvesting “wild” food resources throughout the year. Such activities are considered as an important part of northern traditions, specifically Sami culture. From nearby locations they harvested different fish, berries and plants as well as animals like ptarmigans and herded reindeer. The children spent considerable time in nature, where they took part in harvesting and thereafter in preparing and cooking the obtained products. During the activities, video and audio recordings were taken to observe physically and verbally participation. Half way, and in the end of the project period, members of the staff participated in interviews. The analysed data expressed that both children and staff experienced that the food resources harvested gave them many different dining and taste experiences in addition to a variety of physical challenges. The children also included new terms and approaches to nature diversity during the project. The staff experienced that their own theoretical and practical skills and didactic methods improved during the project period, and were of great significance for the outcomes of the project. The presentation will discuss the different learning and experience outcomes, both for the children and the staff.
#44
Digital Technology and Outdoor Education: Where are we now and where are we headed?
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The digital tools and platforms available to outdoor educators have increased significantly as has the mounting pressure to use them. Digital tools are platforms or devices that can record, store or display information and this will be the focus as opposed to technology in general. The literature shows positive and negative reviews on the effectiveness of this technology with both enhancement and distraction from learning being documented. This presentation will review the evidence on this debate looking at some key authors and the points they make for and against technology use. With augmented reality, drones and the explosion of artificial intelligence, the presentation will also look ahead to see what the future holds for outdoor educators.

#47
The mysterious case of the “outdoors” for primary school teachers.
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Outdoor learning is a component of the Australian Curriculum, yet the uptake in Primary Schools is haphazard. Initial research has discovered teachers have heard the outdoors is beneficial for students; yet the how, when and what to teach outdoors are a mystery to them. However, this situation changes when effective professional learning and outdoor mentoring are enacted.

An exploratory mixed-method study was conducted in order to ascertain a best practice outdoor learning professional development model for Primary School teachers. Mixed method data was collected from; semi-formal interviews, observations, questionnaires and reflective journals. Data was collected from three different states of Australia and collated for examination. Initial findings report the most effective ways for teachers to be supported in implementing outdoor learning. The exploratory research is to be used to drive future outdoor learning professional development that is responsive to place, culture and curriculum.

#48
High school trekking programs in Northern Japan Alps
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This study will explore the effects of high school trekking programs in Northern Japan Alps. Omachi Gakuyo high school is located at the foot of the Northern Japan Alps which are famous for being a beautiful mountain range in Nagano, Japan. They have a unique and traditional program of school trekking started in 1948 with 446 students. Seventy years have now passed and the program still continues today. Every July, the school provides seven different courses of two or three days and students pick one of them depending on their physical abilities and desires. It is very interesting to observe the effects of the experience.

A questionnaire survey was administered pre and post the trekking experience in order to research the effects of trekking programs. The questionnaire has three themes: (a) self-growth, (b) school spirit, and (c) the view of nature. Data were collected from 500 participant. The analysis examines the relationships between the trekking experience and the three themes. The research documents how outdoor education programs are effective and valuable in their contributions to the school curriculum.
Walking with/in a postphenomenology methodology
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This presentation sets out some methodological challenges and opportunities that have arisen during PhD research, concerning the intent to reframe this inquiry of embodied experience by moving past epistemological limits of constructivist and phenomenological visions to a more postphenomenological attitude. In a departure from deductive approaches that work from theory, this research is enacted literally from the ground up, as a way to access, interpret and understand the ‘nature’ of walking as an embodied practice in various scapes of nature. The researcher/researched sensing, affecting body walking with/in selected environments/scapes in Australia is the scene of writing in this research. To illustrate the empirical grounding of this research, a combination of methods drawn from autoethnography and sensory ethnography via sampled extracts of writing/representation will be shared. These will demonstrate an ‘interplay’ between inductively identified phenomenon and abductively assembled interpretations that is unorthodox in its framing as a research design process. In other words, the theoretical and methodological task undertaken here is how the subjectivity of the researcher/walker can be decentred in ‘less’ anthropocentric thinking about and, representing of, the ‘nature’ of walking in various environments, natures/scapes in a PhD text.

An ecopedagogy of (bush)walking
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Outdoor education would and can claim that walking, as an educational practice, can foster sensitivity and connectivity to/with nature. However, scrutiny of these claims opens up the problem of presencing the human, and in the context of this research where outdoor education in Australia has adopted (bush)walking as the normative frame for curriculum and pedagogy on foot, there is the potential for the experience to be hu(manly) valorized. Also, by essentializing the experience within conventions such as safety, as well as universal notions of place, for example, ‘bush’, the walking experience can be de-sensitized, making absent the affecting, sensing body. This paper/presentation shares some findings from a PhD study on the nature of walking experiences, across selected scape in Australia that seek to bring present the sensing, affecting body, walking in selected scapes. The walking events/practices occur across space/culture/time of the researcher/researched reflexive sensory autoethnographic narratives in addition to third person narratives. In doing so, this study explores sense making as meaning making that takes into account a multisensory approach and an aesthetic imperative, an imperative that otherwise is attentive to ecoethical concerns. The aim is to reveal, at least partially, the prerequisites or ‘ecological’ precursors of formalizing knowledge generation (somatic understanding) constitutive of linguistic/rational/discursive ‘production’ as walking ecopedagogy.
Wilding pedagogy in an unexpected landscape: reflections and possibilities in initial teacher education

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This presentation stems from our participation in the Wild Pedagogies colloquium on Tasmania’s Franklin River in December 2017. The two presenters (Australian teacher educators) embarked on the 10-day rafting trip with a group of nine other educators and academics from Australia, Canada and England, engaging in extensive conversations about wild pedagogy principles in education. Conceived and developed by some of the Franklin river participants on earlier colloquia in North America and Scotland, wild pedagogy thinking and practice is constituted by six key touchstones, including: (1) agency and the role of nature as co-teacher; (2) wildness and challenging ideas of control; (3) complexity, the unknown, and spontaneity; (4) locating the wild; (5) time and practice; and (6) cultural change, and framed our group’s discussions pre-, during and post-colloquium. Drawing on the colloquium’s conversations and engaging with a number of the main touchstone ideas post-colloquium, in this presentation the teacher educators use two distinct case studies (regional and online contexts) to locate the wild within their initial teacher education practice. They do this by initially making links between current teacher education practice and the touchstone ideas, before re-engaging with the touchstones to collaboratively envisage future wilding possibilities. In conclusion the authors advance the touchstone ideas as particularly relevant to those teacher educators seeking to wild their teaching practice in challenging times.


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The UPLOADS project has been collecting Australian Led Outdoor Activity (LOA) incident data since 2014. This has produced a rich National incident dataset of over 2000 incidents reported by 35 organisations from across Australia. Using an accident analysis framework underpinned by systems thinking, 1367 injury incidents have been analysed to identify the web of interacting contributory factors involved. This presentation gives an overview of the analysis, including the nature of the incidents themselves, incident rates, the activities involved, the injury outcomes, and the contributory factors that interact to create injury. The findings show that camping in tents, free time activities, walking/running outdoors, and campcraft had the highest injury incidence rates, and that a wide range of injuries were recorded. The analysis also shows that a range of systemic contributory factors interacted to create the injury incidents, with a total of 2215 contributory factors identified. An important finding was that these contributory factors reside across multiple people and organisations spanning the LOA system. It is concluded that LOA injury incidents represent a systems problem. Accordingly, the development of injury prevention strategies should be driven by systems thinking and should focus on the overall LOA system as a whole rather than individual components such as activity leaders, participants, and activity equipment.
Speaking of Nature: Generating Ecocritical Questions from Ursula Le Guin’s (1929-2018) Speculative Fictions

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In the year of Ursula Le Guin’s passing, it seems timely to acknowledge and celebrate the unique contributions her SF (science fiction/ fantasy/fabulation) stories made to ecocriticism, literature that, as Cheryll Glotfelty’s (1996, p. xix) writes, explores ‘the interconnections between nature and culture’. When we engage learners in outdoor activities, and invite them to reflect on their experiences of the material worlds they encounter, we are in effect inviting them to provide us with intertextual readings of the world-as-text, because the ways in which they encode their interpretations will reflect their prior readings of other texts. This raises significant questions for outdoor education research and pedagogy. What readings should we encourage (or discourage)? Which texts should we deliberately place in the intertextual milieu within which learners read the world-as-text? Travellers’ tales? Natural history documentaries? Naturalist diaries? Field guides? I argue that in stories such as The Word for World is Forest, Always Coming Home, ‘The author of the Acacia seeds’, ‘The eye altering’, ‘She unnames them’ and ‘Sur’, Le Guin provides examples of ecocritical writing that generate questions for outdoor education researchers exploring the nature/culture interrelations represented by the cultural artefacts of language and literature.

Sydney Playground Project: Improving coping of young children with disabilities

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Outdoor play involves a range of social, cognitive and physical challenges. Such challenges are likely to have a positive impact on the development of children’s behaviours for management of personal and environmental demands (i.e. coping behaviours). Unfortunately, outdoor play time for young children has reduced in all contexts, including schools. We were particularly interested in examining whether improving outdoor play opportunities at school for children with disabilities would have a positive impact on coping skills. We introduced a play intervention in five schools, four of which were special schools for children with disabilities and one that had a support unit for children with disabilities. The intervention had two components: i) introduction of repurposed loose-part materials onto the school playground and ii) risk-reframing workshops designed to support parents and school staff to revise their risky play cognitions and responses. We conducted baseline observations of children’s play in each school for two terms, and observations of the playground for two terms during the intervention. Our outcome measures included teacher report on children’s coping (using Zeitlin’s 48 item Coping Inventory), pre and post intervention. Our results indicate that the outdoor play intervention had a positive impact on coping.
An exploratory study of Singapore teachers’ attitudes and approaches to outdoor education in schools
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The purpose of this exploratory study is to investigate Singapore teachers’ attitudes and approaches to outdoor education in schools. The study sought to achieve this by analysing school teachers’ qualitative responses to an open ended questionnaire. The study sample comprised of 26 teachers of a secondary school from a mainstream Singapore government secondary school.

The findings reveal that Singapore school teachers have positive attitudes and beliefs about the potential of outdoor education. The school teachers responded that the outdoors

1. provided a conducive environment that afforded real, authentic learning,
2. promotes discovery and adaptability,
3. provided multi-sensory learning approach,
4. engaged learners’ attention span; and
5. nurtured lifeskills

Factors that influence school teachers’ decision to use outdoor education are (a) the ability for the outdoors to achieve personal and social development, providing whole person growth potential; (b) practical considerations such as the availability of resources such as cost, time, manpower; the relevance of the subject content and learning objectives of the subject concerned for using the outdoors, as some lessons may not be suitable to be taught in the outdoors, readiness of students and their ability to cope in the outdoor environment; and (c) the ability of the outdoors to promote authentic learning, practical learning and improve learning retention.

The findings will be discussed and implications presented.

An ethnographic case study comparison of learning in the natural environment and learning outside of the classroom in two UK alternative education centres.
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This paper aims to present highlights of the findings obtained in a study of two alternative education centres in the South West of England, contributing to part of a wider PhD thesis. Students attending the centres have been excluded from UK mainstream schooling for fixed periods and attend these centres for fixed periods (until they are reintegrated back into the mainstream school system in the UK).

This paper explores the behaviour and interactions of students and teachers in natural environments and other environments outside of the ‘traditional classroom’, through the use of researcher reflection on participatory observations, interviews with teachers and students.

Findings suggest that behaviour and interactions between students and students-teachers are more positive in the natural environment in comparison with environments such as aquariums and sports centres.

This paper explores why students and teachers feel that learning in the natural environment is more beneficial than other learning outside of the classroom opportunities. Findings from this research adds to the body of research that highlights learning in the natural environment as integral to healthy and happy students, open and willing to engage in schooling (Zamani, 2016, p.172 ; Aspinall et al, 2013 p.1). Results also demonstrate differences in the perceived value of learning outside and learning in the natural environment from the perspective of students and teachers.
#59

**What might a joint Nordic Master in Friluftsliv Studies add to the global field of Outdoor Studies?**

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The aim of this paper is to contribute with knowledge that can shed light on the possibly diverse outdoor cultures and their national/regional and/or global bases. To do so, this paper asks; what may the indicated 'Nordic Outdoor Values' or ethos of friluftsliv mean and how may its manifestations be rationalised? The Scandinavian countries (Norway, Sweden and Denmark) have strong traditions in researching societal trends emphasising informal public outdoor life – *friluftsliv* - as part of everyday life and formal outdoor education in school. Furthermore, these developments are regarded as expressions of cross-national traits, which rationales may be grounded in the Scandinavian social democracies, viable friluftsliv-cultures and sustainable lifestyles, and state policies that promote public health *for all* citizens. Researchers worldwide also look to Scandinavia to unveil the ethos of friluftsliv to understand its alluring attractiveness, whilst searching for examples of how to facilitate, teach and promote green values and environmental sustainable developments on their own home-grounds. The curriculum of a new joint masters degree programme, titled Nordic Master in Friluftsliv (Outdoor) Studies, is in the process of accreditation by four collaborating universities in Norway, Denmark and Sweden. The Nordic Council has approved and financially supported the programme with a vision to kindle the prominence of what the Council calls 'Nordic Added Value'. Methodologically the paper derive from a review of two types of research literature that are critically discussed. These papers represent 1) Scandinavian (outdoor) values and societal developments (e.g., Emmelin, 1994; Gurholt, 2016; Jones/Olwig, 2008), and 2) cross-national comparison of outdoor education trends in the Scandinavian and Anglo-centric countries (e.g., Varley/Semple 2015; Henderson/Vikander 2007; Humberstone/ Pedersen 2001; Mygind/Boyes 2001; Reed/Rothenberg 1993). The final discussion embraces 'key values' of Scandinavian friluftsliv, such as the significance of intertwined cultural history and distinct topographies, socially egalitarian welfare societies, state policy of equality, free public schooling, viable friluftsliv-NGOs, free public access rights to land, and closeness to and care for nature rather than orientation towards risk and competitions.

#60

**Friluftsliv 2.0: Nature/culture connections in a new place**

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The tradition of friluftsliv is evident across Scandinavia. Scandinavian immigration to Western Canada is also well documented, with a variety of cultural supports to the diaspora well established. This study sought to understand the friluftsliv diaspora in Western Canada and determine whether the connections that individuals and their families have to this uniquely Scandinavian outdoor tradition have any bearing on nature connections in a new ‘place’. Mainstream Canadian outdoor experiences are increasingly ‘managed’ and occur as isolated from, rather than integrated with, daily life. In addition, there are increasing development tensions in the region over pipelines, dams, etc. and these serve to further strain connections to nature for all Canadians. This study utilized semi-structured qualitative interviews with seven respondents; taking place in August 2017. The participants included immigrants, or children of immigrants, from each of the three ‘homelands’ (Norway, Sweden and Denmark). Results show strong cultural linkages, but also raise questions about the importance of rurality, activity availability, and the influence of immigration gateways (particularly Minnesota/Wisconsin, USA in this case). This project was an exploratory look at how a unique outdoor tradition manifests itself in a new location, and how that manifestation serves to engage with critical conversations of human-environment relationships. Findings suggest more study is warranted with a broader geographical scope and a broader methodology.
#62

**Seeking Deep Campfire Experiences**  
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After attending two deep ecology events in the early 1990s, I was motivated to seek ‘genuine campfire experiences’ and other activities that align meaning making with the phenomena of fire. For over fifteen years I have asked teacher candidates (TCs) in an outdoor education program to explore pedagogically relevant replacements for skits, songs, TV jingles and the general ‘Disneyfication’ of campfire activities that have crept into the contemporary repertoire of outdoor leaders. As a class we explore activities that engage others in meaningful experiences with fire and what benefits are derived when fewer words are spoken and fire instead is listened to. TC’s journal and essay writing on the most significant learning experience of field camp have provided me with many answers as well as raising new issues. Are we culturally appropriating or indigenizing ourselves if we drum around a fire? Should we chant and sing songs in languages we don’t understand? The ‘primal campfire’ nights that TCs design, lead and participate in are among the most rewarding events of my career as a professional outdoor educator. I will discuss my reflection and analysis of the various activities TCs have developed and their specific outcomes synthesizing key ideas.

#63

**Thinking immanence in school-based friluftsliv/outdoor education through the concept of ecosophy**  
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Parallel to each other, yet separately, Arne Naess and Felix Guattari seem to have coined the concept ‘ecosophy’ almost simultaneously. This paper explores the educational potential of Naess’s and Guattari’s ecosophy respectively, for the purpose of discovering ways of addressing complex social and ecological problems within school-based friluftsliv/outdoor education. Within a human-centred epistemology, the dichotomy between the subject (the learner) and the object (what is learned) is being maintained. Initial findings suggest that Guattari’s ecosophy calls into question the status of human subjectivity. To decentralize the human subject on a plane of immanence, where everything coexists equally and on the same nonhierarchal level is an emancipation of the subject. However, this liberation of the human subject does not mean that it is liberated from responsibility. On the contrary, this means an emphasis of responsibility. Thinking immanence in school-based friluftsliv/outdoor education indicates that it is the fate of the human to assume a new responsibility for everything that is around us. Interweaving and holding it all together is the concept of place. As place-responsive practitioners, it is our ‘response-ability’ towards students, societies, and ecosystems to better meet the changing needs and ethical relations worthy the complexity of our changing world.

#64

**Learning philosophy outside the classroom**  
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One of the most important roles that philosophy can play in school curricula is in opening students up to experiencing - and ultimately cherishing - the experience of uncertainty and perplexity in the face of fundamental questions about life and the world around us. This perplexity has multiple benefits, investing empirical discovery with emotional dimensions, but also fostering experiences of wonder and humility that arise through it, with significance for the relationship between humans and the world around them. Outdoor
learning acknowledges real situations and developments as worthy of pedagogical engagement and in so
doing presents phenomena to students as often messy, ambiguous, uncertain, interconnected, and
certain. Because the outdoors is an obvious locale for the very perplexity that philosophy seeks to engage,
it seems that each can benefit the other when put into pedagogical relationship. In this paper, I suggest that
pedagogically meaningful inquiry depends on the interplay between three elements: coming to know
through discovery learning, coming to un-know through challenging habits and biases, and real outdoor
experiences. Through illustrating examples based on a course I teach for educators in Environmental
Philosophy and City-Based Learning, I hope to show how these three elements fruitfully interconnect and
enrich one another.

#65
Understanding evolution outdoors
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Neo-Darwinist biology focusses on the gradual accumulation of change through the mutation of genetic
material at the microscopic level. Because of the pace of change, it is largely seen to have occurred in some
remote past. As such, the abstract logic of the process does not profit from engagement with actual outdoor
conditions to be understood. However, new theories of evolution, such as those that acknowledge “niche
construction” and “developmental plasticity,” foreground the fact that evolution is often much more rapid
than was previously imagined, -happening right now- and in part through the active engagements of
organisms negotiating and modifying their environment. Whereas neo-Darwinism tends to look for traits that
are handed down as adaptive behaviour, newer conceptions cherishes exceptions and seek out novelty in
form and behaviour. In this paper, we argue that such contemporary theories of evolution can best be taught
through incorporating new forms of field studies in the outdoors. We aim to outline what such field studies
might look like, why they are important and how they differ from traditional field studies approaches. We
close by considering how understanding organisms and indeterminate agents of evolution has important
implications for sustainability education.

#66
Pedagogy of death
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Loss, impermanence, and death are facts of life difficult to face squarely. Our own mortality and that of loved
ones feels painful and threatening; the mortality of the biosphere itself even more so. Consequently, we do
our best to dodge these thoughts, and the current globalizing culture supports and colludes in our
evasiveness. Even environmental educators tend to foreground ‘sustainability’ whilst sideling the reality of
decline, decay and loss. And yet, human life and ecological health require experiencing “unsustainability” too,
and a pedagogy for life requires a pedagogy of death. In this paper we explore experiences of loss and dying
in both human relationships and the natural world through four different types of death affording situations,
the cemetery, caring-unti-death, sudden death, and personal mortality. We trace the confluence of death in
nature and human life, and consider some pedagogical affordance within and between these experiences as
an invitation to foster an honest relationship with mortality of self, others, and nature. We end by suggesting
how outdoor learning might be an ally in this reconnaissance, scaffolding learning to help us courageously
accept both the beauty and the ugliness that death delivers to life.
The Meaning of Adventure in the Lives of Women: Narratives from the (sub-)Arctic
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Women’s relations with natural environments have changed remarkably over the last centuries, and are subject to cultural and societal transformations on a global scale. Women’s entrance into nature sports, outdoor adventure and nature-tourism is a global trend. The interest in the body, sports and adventure as symbols of the individual’s personality and character and as a means to live active, meaningful and adventurous lives, inspire ever more women, even girls at a young age, to embark on multi-days and multi-weeks (solo) expeditions in Arctic regions. Thus, women adventurers of today represent different ages, sociocultural backgrounds, and diverse motivation forces and gain considerable public attention in Norway and Scandinavia, as well as internationally. The women adventurers ranked as the first female ever to summit Mount Everest, reach the South and North Poles unsupported, and to cross the Antarctica on skis, etc., are claimed to be ‘extraordinary’ and ‘historical’, however, at the same time expressing a contradictory message, ‘everyone can do this’. This message is forwarded in recently broadcasted Norwegian NRK-television documentaries directed towards children and young adults, portarying young girl protagonists becoming the youngest to achieve ‘extreme’ goals such as stepping on the North Pole, and crossing the Northwest passage on skis and the vast Finnmark mountain plateau during a summer. By employing combined narrative/discourse methodology and critical ecocultural reading of the four shows; The Wildereness Children, Adventure Girls, Project Nansen, and Time to Live, this paper presents an analysis of how the meanings that the 'adventure girls' attach to the concepts adventure, the (sub-)Arctic landscapes, and femininities are presented.

Journeys in wilderness and personal growth: Philosophical perceptive
Jakob Thorsteinsson, Alma Árnadóttir, Karen Rut Gísladóttir, Ólafur Páll Jónson
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In recent years there has been much discussion about the importance of increasing students' opportunities education for personal and professional development in tertiary. Outdoor education and friluftslif has proved to be a powerful way of promoting that. This paper is based on a research on a four-day course called “Outdoor Journeys and Friluftsliv” at the University of Iceland. The aim was to explore the challenges which an interdisciplinary group of students face on a four-day trip in the wilderness and reflect on their opportunities to make sense of these experiences. The research question was: what meaning does a four-day’s journey have cognitively, physically and emotionally for participants? 40 summaries that the student who participated in the course wrote from their reflective journals form the core of the date on which the research is based. Qualitative content analysis was applied to the data to draw out common themes. The results indicate that strong feelings like anxiety, victory, fear, uncertainty and calmness are vivid in their experience and have influence on their broad scope of learnings. The descriptive data then formed the bases for a philosophical analysis guided by ideas derived from Aldo Leopold and David Orr. We argue that our findings are an important contribution towards understanding better the way nature supports student’s personal growth and what kind of educational merit in involves.
Challenging the conventional wisdom of time children spend outside
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Positive effects have been associated with time children spent outdoors e.g. increasing physical activity, preventing increases in overweight and reduced incidence rate of myopia. In recent years, strong indication is that children spend less time outdoors than before. These claims in Iceland are not supported with baseline research. In the paper, general changes in children’s outdoor life in Iceland and internationally are described. The aim is to measure how much time children spend outdoors.

The questions used were part of the Icelandic data set from the 2017/2018 Health Behaviour in School-aged Children (HBSC) study. All children in 6th, 8th and 10th grade in all schools in Iceland were asked to participate and just over 10 thousand opted to do so. They filled out a digital questionnaire during school-hours. The findings indicate that the picture is more diverse than expected and common beliefs are often misleading. When discussing the value of outdoor education in children’s education, it is important to realize the overall time spend outdoors. It can be assumed that it is even more important to emphasize on outdoor education, where children’s outdoor activities are limited. These findings are important basis for assessing current status and for policy making at local and governmental level.

The Cultural Politics of Naming Outdoor Rock Climbing Routes
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In outdoor rock climbing, it is common practice for the first person who successfully sends a route to choose a name for it. Often the naming of routes involves sexist innuendo, gender stereotypes and male sexual gratification. Loeffler (1996) found sexist naming practices in four climbing guides across the United States. I found the same in one local climbing area in Ontario, Canada. To name a few: She Got Drilled, Pussy Whipped, The Happy Hooker, and Res-Erection. This qualitative study, part of a larger research project, investigates how the naming of routes affects one group of local climbing women. I draw upon empirical data from seventeen, individual, semi-structured interviews and use interpretive analysis. Most informants were frustrated by the overt objectification and sexualization of female bodies but felt that nothing could be done to change these route names. Some internalized the sexism and found the route names humorous. A few of the women complicated the misogyny of these naming practices with settler-colonial relations in Canada, which importantly points to the intersecting categories of gender, sexuality and colonialism. This paper contributes to the ongoing and timely intersectional discussion of the discrimination of women who recreate and work in male-dominated outdoor spaces.

Wild Pedagogies: A Scholastic Experiment in Re-Wilding Research
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Wild Pedagogies began as a graduate course at Lakehead University in 2012 and has steadily evolved, through small conferences and ad hoc gatherings into a movement to challenge and rethink the domestication of wilderness, education, and human-world relations. Wild Pedagogies is also, in part, a response to certain interpretations of the Anthropocene with the advent of a “post-wild” world under the auspices of human hegemony. In this session, we will briefly discuss the theoretical roots and some of the contentious terminology employed, but more to the point, we will reflect on the research approach, conference structure and key inquiries of Wild Pedagogies to date. For example, we will discuss the rationale and results of not bringing prepared presentations and being scheduled into time slots in order to make
space for novel kinds of dialogue and eco-social understandings. We will also address additional changes to the conventional conference format including, how to mitigate the phenomenon of “losing momentum” with retreats, the promise and perils of collaborative writing, and some of the challenges, both conceptual and practice-based, with recognizing and incorporating the “voice(s)” of place and/or other-than-human beings in and as research. The session will conclude with some speculation and group discussion on what it means to think about and conduct outdoor and environmental education in a more-than-human world with “nature-as-co-researcher.”

#76
Teachings of a Bark Canoe: Practice, Place, and Living Deliberately
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In practical terms, this session reflects on the process of constructing a birch bark canoe, the practice of paddling it, and a deliberate presence that these activities demand that, in turn knits them together in a place. As a research experiment, it attempts to disrupt conventional research practice by being deliberately present in the world, and by welcoming the role of “nature as co-teacher and co-researcher.” As an exercise in scholarly representation, this session also attempts to weave three stories together-as fragments in a larger bioregional narrative-that allows understandings to arise from these places. This presentation chooses to employ a narrative representation, rather than just talking about doing so. These representations are conjoined with philosophical analysis of wildness and the wild learning experienced in the landscape. The final representation of this work is reminiscent of a lyric philosophy (Zwicky, 1992, 2003) that seeks to engage the connoisseur-reader of text and viewer of images-with this research.

#77
Views from a pinhole: Experiments in Wild Pedagogy on the Franklin River
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This work-written and photographic art-consists of a series of ontological experiments with participants on a rafting expedition, on the Franklin River in Tasmania. Through photographic experiences in the landscape, the experiments interrogated ideas about ways to represent experiences and ideas. Taken together, this is also an experiment with self-willed learning, or a kind of wild pedagogy. The experiments began with informal riverside workshops on pinhole photography followed by making pictures and developing them in the field. The photographs, artistic expressions of these experiences, have been made with a homemade pinhole camera that has neither a lens nor a viewfinder. Making photographs thus demanded special sensual presence during creation. The written expression of this work is comprised, in part, of reflections gathered through questions that asked participants to consider what drew their attention to particular photographic images, and what feelings, emotions, experiences, memories, or thoughts these chosen images evoked. These reflections are conjoined with philosophical analysis of wildness, and the wild learning, experienced in the landscapes. The representation of this work is reminiscent of a lyric philosophy (Zwicky, 1992, 2003) that seeks to engage the connoisseur-reader of text and viewer of images-with our experiments.
Structural reform of safety regulation for led outdoor activities: the next step.

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Efforts to influence safety management in led outdoor activities in Victoria have been undertaken by government and non-government agencies for decades. The advent of the Adventure Activity Standards in the early 2000s, the reform of the Education Department’s safety guidelines in the early 2010s, and the more recent emergence of ATAP Camp and Adventure Activity accreditation have been notable milestones. While the resulting mix of standards, guidelines, accreditation and licensing mechanisms may have a positive effect on safety management, when viewed as a whole system they lack coherence. The resulting potential for confusion can have negative impacts for outdoor education practice at the delivery, planning, and management levels.

A set of studies undertaken in 2017 used human factors and systems-theoretic methods to analyse the structural capacity for efficiency and effectiveness of Victoria’s broad regulatory environment for led outdoor activity safety. Interviews with a diverse set of activity providers, including OE teachers, informed and was combined with a document search to construct a model of the functional structure of the whole regulatory system. This model then formed the basis of a workshop where providers and representatives of all the main regulatory instruments engaged in a facilitated process to generate design concepts to support structural reform. This presentation will share the findings of these studies and discuss implications for future reform of safety regulation both in Australia and around the world, and how such reforms may influence OE practice.

‘Learning through your feet’: Multidisciplinary case studies investigating the role and purpose of outdoor fieldwork in Australian universities

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‘Learning through your feet’ has been a key-metaphor amongst geoscientists to describe the learning process in university outdoor fieldwork. Being immersed in the field, and engaged in structured learning activities with others, have been highlighted as crucial components of good outdoor fieldwork that contributes to discipline-based learning. But research suggests that academics using outdoor fieldwork as a pedagogical tool face an increasing range of constraints and issues. How, in the changing university environment, do academics continue to use outdoor fieldwork, justify its purpose, contend with the apparent issues associated with its use, and contribute to student outcomes? In this presentation, I will describe the initial findings of a multidisciplinary research project that investigates the role of outdoor fieldwork in universities in Australia. My theoretical interpretive framework was based on Giddens’ (1984) Theory of Structuration and Biesta’s (2010) concept of the role of education for qualification, socialisation and subjectification. I investigated outdoor fieldwork academic’s insights into the purpose of outdoor fieldwork, their pedagogical practice and theoretical concepts through ‘walking interviews’ (Lynch & Mannion, 2016) and fieldwork observations. Other sources of data included focus groups with student participants on outdoor fieldwork programs, interviews with senior university administrators and members of the associated professional bodies. These data will enable an interdisciplinary study of the issues facing outdoor fieldwork in higher education at the micro, meso and macro levels (Munge, Thomas, & Heck, 2017).
#82
**Resilience through place: An ethnographic study**  
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This project examines the possibilities of building resilience in a local Regional Park which is being innovatively designed for the ecological wellbeing of both people and place. It also aims to examine whether there is a relationship between the resilience of the place and of the people who use it. Drawing on both Ungar’s (2007) ideas of (human) ecological resilience and biological resilience based in the scientific realm, the initial stages of this project outline the possible intersections of resilience building aspects of a place and the design of local parks with wellbeing of both people and place in mind. At the beginning stages of this re-imagined doctoral program, this presentation explores these concepts along with the mixed methodology to be used in this project – biological measurements of the ecological resilience of the place, the use of a validated resilience measurement of park users and an ethnography of selected park users to examine the possibilities of building resilience.

#83
**Troubling experience? Re/thinking epistemology, ontology and ethics with/in outdoor environmental education**  
*Alistair J. Stewart,*  
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How might I (and our field) think pedagogy and research differently if I/we foreground the dynamics between, and within, epistemology, ontology and ethics of outdoor environmental education? St. Pierre (2016) observes that ‘privileging practice over thought has a long history and is dominant in applied fields like education’ (p. 111). My purpose in this paper is to re/consider what my pedagogy and research might look like if I placed equal importance (more or less) on epistemology, ontology and ethics? The trigger for this paper comes from a teaching experience in which several of my students expressed discomfort during a challenging canoeing experience that I thought was going well. The paper draws on Barad’s (2007) notion of onto-epistemology, and St. Pierre, Jackson and Mazzei’s(2016) ethico-onto-epistemology, to trouble assumptions about experience, learning and knowledge construction. To examine the epistemology, ontology and ethics of my pedagogical practice I draw on Pinar’s (1975, 2004) curriculum autobiographical method, *currere.* Pinar (1975) developed *currere* as a method of curriculum inquiry to disclose the experience of living with/in/through teaching and learning. In bringing these concepts together I take up the invitation of Gough (2016) and Lather (2016) to be inventive in responding to ontological turn of postqualitative research.

#84
**Do we need more failing in Outdoor Education?**  
*Jorgen Weidemann Eriksen,*  
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It is a common belief that failing plays a significant role in human learning and academic development. Colloquially, we say we learn through trial and error, a statement that is so well established that we tend not to question it. Several influential learning theorists, including John Dewey, Donald Schön, Lev Vygotsky, and Martin Heidegger, also emphasize failing as a key element in human learning. The learning potential of failing is related to how we respond to situations that we did not handle in a proper or fluent way. When we fail to handle such situations, our fluent coping with the surroundings is interrupted. Our mindset transforms into a state of doubt, inquiry and critical reflection. We stop and think about what went wrong, and what kind of
changes should be made to succeed at the next attempt. When reflective thought contributes to a change in knowledge or skills, the great thinkers consider this as an important part of our learning process. This indicates that failing should be considered as something valuable, rather than something to avoid.

However, a brief look at outdoor education in Norway gives the impression that we are more concerned about facilitating positive experiences and safe learning environments than utilizing the learning potential of failing/failure. This indicates a gap between theory (the already mentioned theorists) and praxis. This gap should be interesting to explore further through questions like: Is failing a possible path towards increased learning outcome in outdoor education? If so; do we expose our students enough to situations where they can experience failing? Should we prepare for situations where students are more likely to fail? What are the consequences of such an approach? These questions will be discussed in relation to topics such as learning, safety and ethics. Such discussions should also contribute to challenge our established praxis as outdoor educators in general. The presentation is based on pedagogical and philosophical reflections and should be considered as an outline of interesting questions, suitable for further investigation through planned qualitative research in Norway.

#85

Why do parents send their children on outdoor education experiences?

*Kathleen Pleasants,*

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School camping programmes are a commonly experienced form of outdoor education in schools in Australia. They have been variously described as an integral element of whole-school programs, and central to children gaining realistic experiences of living and working with others. When Lugg and Martin (2001) asked teachers and principals to rank twelve possible outdoor education learning outcomes, they found that group cooperation, improved self-esteem and increased responsibility were identified as of most value.

Previous research has explored how outdoor education is perceived and practiced by students, teachers, school administrators, instructors, group leaders, social workers, and adult participants, among others. Copious amounts of information has been gathered and reported about attitudes to and understanding of, outdoor education outcomes, objectives, safety practices, staffing and support needs, sustainability, environmental values, affect and effect and educational worth. However, with the exception of a small number of studies relating to summer camp selection in the US, I have been unable to identify any research that focuses on the expectations and experiences of parents in relation to outdoor education programmes.

This paper will explore why parents send their children on outdoor education experiences and what factors might influence their choice of programme. Describing some of the values and expectations of parents and guardians, will also provide insight into how parents understand and make decisions about what level of risk they are prepared to accept in relation to their children participating in outdoor education programmes.
A Retrospective Study of the Perceived Importance of a Mandatory Outdoor Canoe Excursion from the Perspective of Alumni from a University in Canada

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Outdoor adventure education programs often feature common elements, such as backcountry settings, small group sizes, and different levels of challenges. A mandatory outdoor canoe excursion (MOCE), offered at a university in Canada, involves a 3-4 day wilderness canoe trip, and it has been offered annually for nearly 50 years. Research related to outdoor programs offered at universities has identified a number of positive outcomes related to personal and social growth and academic performance. However, little is known about longer-term impacts, and how alumni perceive the experience years later. The purpose of this study was to address this gap by providing insight into alumni’s perspective of the importance of their participation in the MOCE. This mixed methods study comprised data collection using an online self-report questionnaire with a combination of closed- and open-ended questions to explore the importance of the MOCE experience. Data analysis (n=167) involved: (1) two regressions using visual analogue scales of MOCE importance; and (2) inductive qualitative analysis of the reasons for the importance of the MOCE, grounded in self-determination theory. It is anticipated that results will reveal factors related to the relative importance of the MOCE with insights into reasons why. Due to the sparse literature on retrospective research in outdoor education, this study will provide the unique perspective of alumni reflections years after the experience occurred. This study is timely given the increasing number of outdoor programs offered at post-secondary institutions.

Toward an Ethic of Belonging for Outdoor Education

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A tension exists between the dominant Leave No Trace (LNT) ethic designed to protect wilderness from visitors, and an emerging sustainability paradigm intended to help students and educators in the outdoors understand and take responsibility for their social, economic, and ecological entanglements. This tension speaks to the need for outdoor travel and living skills that embrace and enable various lived socio-ecological relationships with places, landscapes, and environments. Given the ubiquity of LNT, and the lack of alternatives, I first examine LNT in terms of the ways in which its core ideology is expressed discursively through products and practices, and how these have spread globally from origins in the USA. I then sketch for comparison a different outdoor ethic based on the participatory ecological approach drawing on theoretical notions of dwelling and inhabitation, which I hope can respond better to local realities. I try to speak back to the dominance of LNT, and in particular highlight its guiding ideology, which I see as limiting and problematic. I provide and explain a set of eight principles for an ethic that I hope provides (a) a stronger understanding of the limitations of LNT by providing a comparator, and more importantly (b) a positive way to actively, creatively, and reflexively build relationships in support of sustainable social and ecological communities through outdoor travel practices. I argue LNT involves a hidden curriculum, and I outline an analogous ethic starting from a position of belonging to enable positive, creative, socioecological participation.
Learning Lessons from Outdoor Recreation
Phil M. Mullins,
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Outdoor education can learn a great deal from the non-formal educational processes that occur as part of learning and progressing within an outdoor activity recreationally. This presentation will update the audience on the implications for outdoor education of research that took a relational and phenomenological approach to fly fishing. The researchers used qualitative methods and a collaborative approach to describe this recreational activity in terms of social, ecological, environmental and personal relationships involved for participants. The researchers used a combination of standardized measures, semi-structured interviews, and field based workshops. Of particular interest may be video footage narrated by participants as they fished, and participants’ critical reflections on their practice, gathered riverside. Broader findings of the research will be discussed, with a specific focus on the implications for how recreation was conceptualized as an educational process, and what this can tell outdoor education, educators, and students. The research highlights the importance and need for outdoor educators to engage intentionally with (a) a broad hermeneutic phenomenological circle functioning in outdoor recreation and education, and (b) education from and along our students’ paths, rather than as a set and bounded program. The project was funded by the Social Sciences and Humanities Research Council of Canada.

Inside the curl: A qualitative search
Alex Prins, Brian Wattchow
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In this session we present the findings of a research project into the lives of young Australian surfers. Our interest was to ask how young surfers learned to surf. In particular, how young people learn about surf places and perhaps more importantly how they become attached to surf places was a major focus. To do so we developed models of the ‘Sea as Teacher’ and enskilment, based on the writings of the Canadian environmental educator James Raffan and the Scottish social anthropologist Tim Ingold. We will also discuss how the research took us on a long qualitative search to find a way to give a voice to the research participants and the places they surfed through narrative inquiry. The final fictionalised account blends voices and stories about the importance of the outdoors in the lives of young coastal Australians.

Secret lives: The qualitative research journey in outdoor studies.
Brian Wattchow, Beau Miles, Alex Prins
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This presentation considers what the qualitative journey in Outdoor Studies research asks of the researcher. Building on developments in the social sciences that have promoted novel ways of researching people’s subjective experiences, the use of ‘new’ research approaches to inquiry has raised considerable debate in sport and physical education (Gratton and Jones, 2004; Hopper et al., 2008; Sparkes, 2007, 2008; Smith and Sparkes, 2009) but far less in outdoor education and studies. In this presentation we ask, are their unique requirements and possibilities for conducting research in Outdoor Studies? We discuss the aims of the qualitative project, research design elements that bring structure to qualitative projects, and what criteria a community of researchers may consider to ascertain whether a qualitative project is good or not. Working largely in an interpretivist tradition – we will
present examples of recent studies (Miles, 2018; Prins, 2017; Wattchow, 2010; Wattchow, 2015) into outdoor experiences in swimming, surfing, sea kayaking and canoe travel. Ultimately, we propose that the qualitative journey is a search for coherence across aims, questions, discourses, methodologies and the representation of people’s lived experiences of the outdoors.

#91

Outdoor Learning in Scottish State Schools

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Since Curriculum for Excellence was launched in Scotland in 2010, relatively little attention has been paid to understanding the degree to which children’s new found entitlement to outdoor learning is being realised. This study interrogates the official government inspection reports from each of the 2505 schools in Scotland for evidence of outdoor learning provision. This funded piece of work aims to establish a robust set of benchmark data, which can be built upon in years to come. The research team is manually analysing each report – all of which have been downloaded from a public website. Reports are being scoured for positive indicators of the following kinds of outdoor learning activity: lessons in school grounds or local area, day excursions, residential outdoor centre stays, learning for sustainability, and afterschool clubs. Initial findings show that local learning outside the classroom is taking place in half of the primary schools, but in only 1 in 5 secondary schools. Residential centre visits are being accessed by fewer schools than expected, with only 18% of Special, 19% of primary, and 33% of secondary schools taking part. The most surprising finding is that despite the 2013 revised Professional Standards for Teacher Certification featuring Learning for Sustainability, there is little evidence in the inspection reports of sustainability being embedded into teaching and learning. Once the data analysis has been completed, implications for policy and practice will be suggested.

#92

An Analysis of Alumni Stories Related to their Participation in a Mandatory Outdoor Canoe Excursion at a University in Canada

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A mandatory three to four day outdoor canoe excursion has been a compulsory course at a Northern Canadian university for nearly five decades; however, little research or evaluation has been conducted on the experiences and perspectives of students who participated in these excursions. Similarly, there is very little retrospective research in the outdoor education literature focused on understanding participant reflections on their experiences many years after they occurred. To address this gap, an online survey was sent to program alumni, and their responses to an open-ended question about their trip experiences were analyzed (n=150). The qualitative analysis software Leximancer (see Angus, Rintel & Wiles, 2013) was used to conduct a thematic analysis and create a concept map that portrayed the dominant themes. Framing Theory (see Entman, 1993; Burch, Frederick, & Pegoraro, 2015) was used to explain the three frames (people, activity, environment) and supporting concepts, describing the common components between many alumni’s stories. The dominant frame related to “people” and social interactions, and this is consistent with the broader outdoor education literature. Further findings will be discussed related to the story of outdoor experiences shared by alumni across five decades and the complexities of conducting a retrospective study on a short-term outdoor excursion.
Challenges and opportunities related to collaborative research with Indigenous communities in Canada
Stephen D. Ritchie, Aaron Orkin, David VanderBurgh, Diane Jacko, Julia Russell, Nancy Young
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University and Indigenous community collaborations related to research generate opportunities and inevitably encounter challenges. Many are unique to a project, community, or context. However, some reveal insights to enhance future collaborations.

We have experience with several collaborative research projects with Indigenous communities in Canada that were informed by principles of community-based participatory research [1-4]: (1) the Outdoor Adventure Leadership Experience; (2) the Aboriginal Children’s Health and Well-Being Measure, (3) the Community-Based Emergency Care model; (4) the Outland Youth Employment Program; and (5) the Aboriginal Youth Mentorship Program. Our collective experience was combined by reflecting on over a decade of collaborative research. Five themes emerged: geography, methodology, capacity, data accessibility, and transferability. Each of these themes reflects the importance of understanding cultural differences and embracing a blend of Indigenous and Western knowledge and ideologies. We will share and discuss each of these themes and our key learnings from each. Our experience may be a useful reference for other researchers involved in or planning partnerships with Indigenous communities in outdoor education contexts. Launching future research initiatives with these themes in mind may avoid pitfalls and improve the quality of collaboration.

Teaching and learning landscape-based navigation
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This scholarship of teaching and learning presentation provides participants with an insight into the developing approaches of teaching and learning landscape-based navigation utilising an Augmented Interactive Mapping Sandbox (AIMS). The AIM Sandboxes were specifically built to assist teaching and learning the concepts and practice of landscape navigation, and the qualitative body of evidence from this research project outlines the effectiveness and limitations of this technology.

One of the more difficult cognitive tasks with learning navigation is to interpret two-dimensional representations of topographical relief and transfer this understanding to real-world landscapes and vice-versa. This technology allows an immensely rich representation of concepts that enhance and contribute to student expertise and capacity. The evidence of this research project suggests that students show a greater understanding of key concepts as well as considerable cognitive gain, which also contributes to enhanced student learning and work-ready graduate outcomes.

Participants will have the opportunity to see footage of the AIM Sandboxes to help gauge their own understanding of how the instantaneous representation of contour features in a three-dimensional landscape may assist their own scholarship of teaching and learning enabling students to understand landform features and the critical principles of navigation.
Rethinking Outdoor Education Leadership Spaces: Using catching features, hand rails, and bearings to help amplify lesser heard voices in the broad landscape of outdoor learning.

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Recent lively dialogue among women in the outdoor education profession has led to the realization that more care and attention is needed to ensure that this profession receives the benefits of diverse voices and standpoints (Gray and Mitten, 2018). These mostly ‘peripheral’ or unheard voices are needed in research and practice. We intend to elucidate the societal privileges, unconscious entitlement, and implicit biases that prevail in our profession.

As a collective of feminists from Australia, Canada, New Zealand, and the USA, we queried our varied experiences and perspectives in contemporary outdoor education leadership spaces, intertwined with recent data and narratives collected from students and professionals. We asked whose voices we most often hear and whose voices are missing. By initiating conversations, describing the contemporary gendered landscape, identifying cultural and institutional blind spots, including intersectionality, and pinpointing areas of future focus, we aspire to shift awareness in meaningful ways as we rethink outdoor leadership. As we work together to redress the imbalance in voice and move towards a more collegial system, fresh insights about equity responsibilities may emerge.

Second Language Learning in an Outdoor Context

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This study has the following overall research question: How might outdoor education help lower secondary school pupils increase their speech fluency in English as a second language? The research is planned to be published as four articles, each answering one of these research questions: What motivates pupils for learning spoken English, and how might outdoor education increase the pupils’ motivation? How can outdoor education help pupils become active agents in their learning of spoken English? How does outdoor education help different learners become active agents in their learning of spoken English? Does outdoor education help different learners improve their fluency in English?

English speech fluency does not naturally develop by itself and demands particular fluency-oriented tasks (Tavakoli & Hunter, 2017; Wood, 2010). Also, teenagers learning a second language may suffer from language anxiety and hence be reluctant speakers. Learning in a different context will therefore offer new and different affordances which may have a positive effect on the pupils’ spoken English production.

This is a randomised pre-post intervention study with a control group. The intervention group will be introduced to an outdoor programme which will focus on real life communication situations. A mixed-method approach will be applied using both questionnaires, individually structured interviews and recordings of speech. Data will be analysed both qualitatively and quantitatively.

Expected outcomes are an increase in fluency (especially among the pupils who show low achievement of learning objectives in English reading and writing) and in pupil motivation. Children with reading and writing difficulties may feel less measured outdoors and learning in an outdoor context may change learning attitudes (Fiskum & Jacobsen, 2015; Fiskum & Skaugen, 2015).
#99

**Death of a healthy teen: An outdoor education course shut down in its prime**

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In 2017 ‘Bachelor of Sport and Outdoor Recreation’ (BSOR) studies, a popular and distinct undergraduate program in Australia ended after 19 years of educating pre-service teachers. Hiring ‘Benbullen’, an A-frame ski lodge as a summer writing retreat, past students and staff came together to reflect on the courses closure over shared meals and daily bushwalks. As a collective voice, I annotate these discussions based on experiences as a past student and the last remaining fulltime teacher within the program.

Via a discourse of narrative identity, a research pathway typically focusing on how people narrate experiences of bereavement and tragedy, this paper sets out to illustrate how an outdoor education school-of-thought was shared and reflected on by members of a built community. Approaching the Benbullen gathering autoethnographically, comments, conversations and rowdy discussions from our time together will be annotated. Described by the most senior of our team as ‘death by a thousand cut’s, this paper portrays an institutional identity in its death-throes. It also puts forward that narrative identity needs to be considered as both a singular (auto) and collective (ethno) voice in terms of representing and revealing our sense of community, world view, and outdoor education.

#100

**Understanding the holistic health impact of a land-based program for youth from an Aboriginal Community in Canada**

*Stephen D. Ritchie, Trisha Trudeau, Lawrence Enosse, Koyo Usuba, Nancy Young*

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**Background:** The Outdoor Adventure Leadership Experience (OALE) is a multi-day canoeing program that was co-developed with the leadership in Wiikwemkoong, Ontario. It was intentionally designed to promote resilience and well-being among Aboriginal youth. The purpose of this study was to evaluate the impact of participation in the OALE on holistic well-being.

**Methods:** Aboriginal youth from Wiikwemkoong were invited to participate in the OALE program evaluation. All consenting participants completed the Aboriginal Children’s Health and Well-Being Measure (ACHWM), which contained 62 items. The participants then completed the OALE and after which the participants repeated the ACHWM. Data were analyzed using a paired samples t-test (two-tailed).

**Results:** A total of 33 participants completed the OALE and the ACHWM at both time points. Their mean age was 13.7 (8.2–19.5), and 15 (45%) were female. Their overall well-being scores were 74.7 (SD=1.9) at baseline and 79.1 (SD=1.8) after the program for a mean improvement of 4.4 points (SD=0.86; t (32) = 5.07, p < 0.001). Note that ACHWM scores range from 0 to 100.

**Conclusions:** The OALE had a positive impact on the holistic well-being for youth participants from Wiikwemkoong. However, these results were short term, and are not generalizable to other land-based programs in other Aboriginal communities.

#101

**Ageing and life long outdoor learning: Decrepit and empowered**

*Barbara Humberstone,*

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This presentation is concerned to explore concepts of ageing through the life course and interpret these in light of notions of life long outdoor learning. It will consider social and political perspectives on ageing populations in Western industrialised cultures and the implications for the outdoor field and for the
significance of nature-based physical activities. Following on, the presentation will consider claims, that being active in the outdoors (in green and blue ‘space’) is particularly beneficial throughout the life course in maintaining health and wellbeing. Drawing upon ethnographic and autoethnographic research, the paper will present perspectives of older participants (the number of participants interviewed depend upon ethnographic circumstances, but will remain in single figures) who continue to participate in nature-based physical activities, examining what it means to age, how they perceive their outdoor identities and whether life long learning in the outdoors has fostered physical, emotional and other benefits. Or has continued engagement in nature–based physical activities placed unwarranted demand on the body. It is hoped this presentation will promote discussion and further research.

#102
The axeman and the activist: Collusions in the tea room
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What happens when a wood chopping axeman from rural roots shares a pot of tea with a tree hugging environmental activist from the inner city? Based on Asfeldt and Beames’s (2016) collaborative and storytelling autoethnography, this paper explores the authors personal histories inherent to how they interact, use, judge and spiritualize their seemingly divergent experiences of outdoor life.

Why do our backgrounds and stories as educators matter? Why do students engage with story and narrative far easier than with data and statistics? Should we train them out of this or embrace it to our advantage? When it comes to understanding our world, storytelling and personal narrative have been used throughout time. This paper examines the meaningful, provocative and reflexive conversations that can unfold in a safe space (over tea and lamingtons), unpacking why personal narrative is such an important and emotive tool of understanding. We argue that differing worldviews are inevitable and representative of modern society and should be poked at and massaged to better understand how middle ground can be found on environmental issues. Finally, we look at how these tea room conversations translate to in-field storytelling with pre-service outdoor education teachers.

#103
Is Outdoor Education a Movement?
Chris Loynes,
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The outdoors, and, by extension, outdoor education, can be understood as on the edge of society, a wild space to escape to and, also, a liminal space of new possibilities psychologically and socially. In this space it is possible for personal identities and social norms to be explored ahead of and out of sight of mainstream society’s progress. Some outdoor education organisations have been identified as ‘movements’ as a result of this socially innovative role, the German Wandervogel ‘Movement’, the Scout ‘Movement’ and the Outward Bound ‘Movement’ are examples. However, others would argue that Outdoor Education is also adept at adopting and reproducing the established norms of society. Based on archival material, this contribution will examine to what degree some Outdoor Education organisations deserve to be described as ‘movements’, what role this might play in society and whether it justifies or explains the place of Outdoor Education as always partly on the edge of and partially hidden from society. I will argue that the critical and radical pedagogy, supported by the constructions of certain landscapes may play a significant transformative role in some cultures and speculate on what this role might be in the current changing times.
Indigenous wisdom in outdoor programmes: An Australian case study
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Missing Australian Indigenous voices in outdoor programmes motivated this qualitative case study, which explored why and how Indigenous wisdom was incorporated in one Australian outdoor programme. The findings were discussed as causes (colonialism and modern culture), effects (societal and environmental), and solutions (authentic delivery by an Indigenous Elder on Country). The heart of the programme was an Indigenous pedagogy of ceremony, which involved the experiential teaching of Indigenous wisdom through its four components of story, song, dance, and art. It inspired moral responsibility for society and environment through learning about interconnected relationships with and of Country. An Indigenous worldview was a potent part of this transcultural programme for its non-Indigenous participants.

The inclusion of Indigenous wisdom in outdoor programmes through partnering with local Indigenous wisdom holders was considered to have decolonising potentials on the colonial anthropocentric origin of outdoor education in Australia that tends to dominate nature and see Indigenous cultures as inferior (Plumwood, 2003). The study therefore supports the literature’s encouragement of such partnerships as best practice (Watchow and Brown, 2011; Stewart, 2004; Spillman, 2017). The creation of a network of Indigenous wisdom holders and outdoor programmes was recommended. Exploration into Indigenous perspectives of outdoor leadership is proposed.

Outdoor education in Hong Kong: incorporating place-based learning in Outward Bound programmes
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Outdoor education was first introduced to Hong Kong in the 1970s through Outward Bound when the colonial city needed more local leaders amid rapid social development. The British influence was imminent as most of the early staff were brought in from the UK. Imported as a foreign idea, outdoor education appears to be at odds with the Confucian Chinese education philosophies. Nowadays, the objectives and activities of an Outward Bound course in Hong Kong are still very similar to that in the UK.

The presentation is about how Outward Bound Hong Kong has attempted to introduce elements of place-based learning into our practice in recent years, and overcome the challenges faced. We have been advocating a slower journey through which participants could have more time and space to engage in meaningful interactions with the local place and people. For example, we have established strong ties with nearby fishermen villagers to learn about their traditional wisdom and also initiate long-term service projects.

We have also adapted our practice to include elements of Chinese culture, e.g. yin-yang, tai chi. However, participants have been resistant to this change as they have strongly associated Outward Bound with the traditional Anglo-Saxon notion of outdoor adventure.
It is well established that humans have changed the planet’s ecosystems significantly over the last 60 years to meet the resource demands of a growing and wealthier population. Issues relating to sustainability are systemic and will require a committed and ongoing societal focus for the foreseeable future. It is clear therefore that significant attention should be given to developing outdoor education approaches which enable more sustainable ways of living. This presentation supports the increasing call for reorienting outdoor education practices such that the concept of place receives a central role. Place-responsive outdoor education practices recognise that the histories and physical characteristics of a place are central to the learning experience.

Based on recent research for a Master in Social Science thesis, a model is presented which conceptualises how outdoor educators integrate place in their practice. As part of this conceptual model, it is argued that place-constructive outdoor education practices recognise that the student-place relationship is interdependent, and therefore that outdoor education practices should be both responsive, as well as reciprocal, with regards to place. Such mutually beneficial approaches locate students within their socio-ecological communities, and allow for meaningful integration of programme outcomes and pedagogies of both sustainability education and outdoor education. The presentation will use the Port Hills area of Christchurch, New Zealand, as a case study to illustrate a range of place-constructive approaches to outdoor education.
#108

**Do vans and buses constitute a third place? The importance of transport time in OE**

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This research explores school teacher’s perspectives of transport time in outdoor education (OE) programmes. Students may spend many hours travelling to and from OE programmes and this time is often relatively unstructured. Oldenburg (1982) theorised the importance of ‘third places’ – places which are neither home nor work and in which participants gather together with no particular agenda. Research suggests that third places are important for social development and civil citizenship in general. In this research, eight OE teachers from New Zealand and Australia were interviewed to investigate whether transport time can be considered as a third place. Results revealed that teachers considered that learning during transport time was an important aspect of OE and which could not be replicated in other contexts. Experiences of students during transport time were seen as emergent and unpredictable. Of particular importance were development of social relationships and learning about the places the vehicles were passing through. Concerns involved the safety of teachers driving vehicles particularly at the end of intense trips, the cognitive load of at times needing to manage student behaviour while driving. Convergences and divergences between transport time and third places are discussed.

#110

**Epistemological questions in case-based outdoor fatality prevention**

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In this presentation I will review epistemological questions arising from research into case-based prevention of outdoor education related serious and fatal incidents. Researchers must not only take into account the social construction of knowledge in case materials, but also epistemological dimensions of the arenas in which decision-makers with different roles operate. A comprehensive review of catastrophic OE related incidents pointed to tension between production pressure and fatality prevention, the resolution of which requires insights into the epistemological assumptions beneath alternative approaches to staffing and decision-making. Understanding case-based material requires knowledge of the contexts in which material is produced, which ranges from personal accounts or news reporting through to in-house or independent investigations and on to court materials produced for inquests, prosecutions, or civil cases. Multiple readings of such accounts are possible, including feminist, structuralist, post-structuralist and socially critical. Prevention requires a pragmatic approach, which seeks insights that can be applied to "what if" analysis of programs and practices. Past previous incidents could almost invariably have been prevented had knowledge from earlier incidents been applied, so the question becomes how and in what form must case-based knowledge be distributed.

#111

**Regular outdoor learning in secondary school-students’ experiences**

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The aim of this study was to explore lower secondary school students’ experiences of using the school grounds as a learning environment. School grounds were used on a regular basis during two to three years, mainly in mathematics and German. Fourteen students were interviewed about their experiences. The way outdoor learning was implemented facilitated student-centred and cooperative learning, which was considered positive in terms of academic as well as emotional dimensions. Perceptions regarding on-task
orientation were more varied and included experiences of increased as well as decreased on-task orientation. Teachers’ control could be poorer outdoors, resulting in a negative influence on on-task orientation. This study contributes to previous research on outdoor learning by focusing on regular school-based outdoor learning in a secondary school context.

#112
The Social and Economic Impact of Outdoor Practices – A Significant Opportunity for Schools
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As it is, the available data on outdoor practices in Quebec is scattered and incomplete. A few organizations have decided to rectify the situation by supporting a research project. Two separate surveys were conducted with a web panel consisting of randomly picked Quebec citizens. The first survey (n=1000) was about expenses related to the practice of outdoor activities, i.e. transportation, lodging and equipment. The second survey (n=3011) gave a precise account of the field’s enthusiasts and of their perception of the field’s social value.

Results of the first survey show a global economic impact of 2.2 billion dollars and over 30 800 jobs related to the field. The second survey shows that 66% of Quebec’s citizens practice outdoor activities and appear to have healthy lifestyle habits. Compared to the average population, they are more active, they practice outdoor activities within 50 km of their homes and they have a strong perception of the social value of the field, i.e. stress reduction (87%), wellbeing (86%) and healthy habits (87%). So going far and deep into the woods doesn’t seem to be an essential criteria for practicing. The study also shows that 59% of children experiment the outdoors at school. School therefore plays a major part in reconnecting kids with nature and pursuing the development of healthy habits.

Following this study, the organizations involved were able to influence government policies and encourage investments to help promote and develop the field, particularly in schools. Similar studies conducted in other countries could provide a cross-cultural overview of outdoor enthusiasts and stronger evidence of economic impact.

#116
Life effectiveness and outdoor education: Theory, research, and applications
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Much of the philosophy of outdoor education focuses on its potential utility for facilitating participants’ psychosocial development. Arguably, the most common aim of outdoor education is to enhance personal competence, or “life effectiveness”. Life effectiveness can be conceptualised as a person’s realised capacity to adapt, survive, and thrive. The Life Effectiveness Questionnaire (LEQ) and related tools offer a distillation of enhanceable and measurable generic life skills. The LEQ has been used and adapted by several outdoor education organisations for program evaluation purposes and attracted some research activity. This presentation will discuss underlying theoretical principles, psychometric design, research findings, practical applications, limitations and critiques, and possibilities for future LEQ development.

Key words: life effectiveness, outdoor education, program evaluation