



**Education Outside the Classroom
Applied Research Readings 2010 - 2017**

**Report to the Ministry of Education and Education Outdoors New
Zealand**

**Shannon McNatty & Mike Boyes
University of Otago
February 2017**

Introduction

This review provides a compendium of research literature relating to Education Outside the Classroom (EOTC). Material is identified that can positively influence outdoor education practice in pre-school, primary and secondary schools in New Zealand and to answer questions regarding learning outdoors through EOTC.

The literature is drawn from research reports and documents and academic and professional journals. The journals include the Australian Journal of Outdoor Education (later the Australian Journal of Environmental and Outdoor Education), Journal of Adventure Education and Outdoor Learning, Journal of Experiential Education, Journal of Outdoor Recreation, Education and Leadership, the New Zealand Journal of Outdoor Education and others.

The articles are contemporary work published between 2011 and 2016. This is not an exhaustive list nor are we considering the articles the 'best' work in the field; rather they are selected as they offer insights for practice. There are undoubtedly other articles that we are unaware of. If you come across such articles it would be appreciated if you could share them with us.

The articles and reports are clustered under key topic areas:

- New Zealand and International research reports
- Key books in EOTC
- Theoretical concepts in EOTC
- Applied theory and practical approaches for teaching, learning and assessment in EOTC
- Leadership
- Treaty of Waitangi and Te Ao Maori in Outdoor Education
- International cultural perspectives in Outdoor Education
- Place-based Education, Sustainability, and Environmental education
- Risk and safety

Table of Contents

Table of Contents	3
Research reports	4
Key Books	5
Theoretical concepts on teaching, learning, and assessment	7
Applied theory and practical approaches for teaching, learning, and assessment	15
Leadership	21
Treaty of Waitangi and Te Ao Maori	23
International cultural perspectives	24
Place-based, Sustainability and Environmental Education	27
Risk and safety	36
Key word index	38

Research reports

English Outdoor Council. (2010). *Time for change in outdoor learning*. UK.

- A report detailing the evidence of the benefits and values of outdoor learning, the arguments for access and funding support. Outdoor learning is portrayed as being very effective, making a powerful contribution to curriculum aims. The report also highlights the disparity of opportunity for disadvantaged pupils. Reference links are included.

<http://www.englishoutdoorcouncil.org/wp-content/uploads/Change.pdf>

Malone, K. and Waite, S. (2016) *Student Outcomes and Natural Schooling. Pathways from evidence to impact report 2016*. Plymouth: Plymouth University. Available online: <http://www.plymouth.ac.uk/research/oelres-net>

- The report summarises the research on the influence that social and economic factors have on children's use and access to the natural environment. Challenges and opportunities are presented through case studies from 11 countries and suggestions for policy transformation are provided.

Natural England. (2016). *Natural England access to evidence information notes: (1) Connection to nature, Note EIN015; (2) Environment and obesity, Note EIN 021; (3) Environment and learning, Note EIN017; (4) Environment and mental health, EIN018; (5) Environment and physical activity Note EIN019; (6) Environment and physiological health, Note EIN020; (7) Natural connections final report*, Commissioned report NECR215. www.govt.uk/natural-england.

- This series of commissioned reports for the UK government gathers together the research evidence to support high quality learning outside the classroom in natural environments. Each report summarises the evidence of the relationships between the natural environment and a range of outcomes.

New Zealand Department of Labour. (2010).. *A contributing paper for Stock-take of risk management and safety provisions in the adventure and outdoor commercial sectors in New Zealand for the review of risk management and safety in the adventure and outdoor commercial sectors in New Zealand 2009/10*. Wellington: Department of Labour.

- A large amount of information from a large number of agencies has been compiled on risk management and safety provisions in NZ.

Richards. K, Stott.T and Peel. J. (2011). *Are those who camp richer for it? The physiological and social benefits of the camping experience*

- This easy to read report offers an insight into the positive effect of camping on children and adults and draws on the notion of emotional wealth.

<http://www.mountainsafety.org.nz/Research/Recent-Research/Outdoor-Recreation.asp>

The Royal Society for the Protection of Birds. (2013). *Connecting with nature. Finding out how connected to nature the UK's children are*. The Lodge, Sandy, Bedfordshire.

- The report presents a detailed analysis of current national UK data of children's declining connection to nature. Recommendations are provided for governments, local authorities, schools, families and organisations. The report includes 'ready to use' questionnaires for assessing children's connection with nature, with guidance on administration, collecting data and monitoring.

York Consulting. (2015). *Learning away final evaluation report*. UK.

- An independent consulting publication on the learning from residential camps. The report summarises the key findings and provides recommendations for schools, residential providers and policymakers. The account details how the residential programmes used by 60 primary, secondary and special schools clearly demonstrate the positive impact of residential learning on learner engagement and achievement, on peer and teacher- student relationships, and the valuable professional development opportunities it can provide for staff.

<http://learningaway.org.uk/news/2015/final-evaluation-report-published-impact-learning/>

Key Books

Attarian, A. (2012). *Risk management in outdoor and adventure programs. Scenarios of accidents, incidents and misadventures*. Champaign Ill: Human Kinetics.

- Through an examination of real-life scenarios, the reader explores how to examine hazardous situations and implement appropriate risk management strategies.

Beames, S., & Brown, M. (2016). *Adventurous learning. A pedagogy for a changing world*. New York: Routledge.

- Adventurous learning outlines key elements for a pedagogy of adventurous learning and provides guidelines which educators can adapt and tailor for teaching in their own contexts.

Beames, S., Higgins, P. & Nicol, R. (2012). *Learning outside the classroom: Theory and guidelines for practice*. London: Routledge.

- The focus of the book is on environmental exploration of the school grounds and local neighbourhoods by upper primary/ lower secondary school students. Ideas, support and practical advice to enhance the delivery of learning outside the classroom is provided.

Beard, C., & Wilson, J. P. (2013). *Experiential learning: A handbook for education, training and coaching* (3rd ed.). London, United Kingdom: Kogan Page

- A comprehensive book which explores skills and techniques that can be successfully applied and modified to enhance any learning experience. This book brings theory to life through practical examples from around the world.

Irwin, D., Straker, J. & Hill, A. (Eds.), (2012) *Outdoor Education in Aotearoa New Zealand* (pp. 84-103). Christchurch, NZ: CPIT.

- This influential book provides a practical, insightful, and innovative reappraisal of outdoor education theory and practice from a socioecological perspective. Many of the chapters appear in this resource.

Quay, J., & Seaman, J. (2013). *John Dewey and education outdoors. Making sense of the 'Educational Situation' through more than a century of progressive reform*. Rotterdam: Sense

- The book explores the history, philosophical understandings and examples of Outdoor Education as a subject and method.

<https://www.sensepublishers.com/media/1569-john-dewey-and-education-outdoors.pdf>

Stothart, B. (1993). *A chronology of outdoor education in New Zealand 1849-1992*. Wellington, NZ: Physical Education New Zealand.

- This historical document outlines the main events and personalities in the development of outdoor education in New Zealand.

Wattchow, B., & Brown, M. (2011). *A pedagogy of place: Outdoor education for a changing world*. Australia: Monash University.

- Provides an alternative vision for outdoor education, putting forth a renewal of outdoor education practice that is responsive to local conditions (places) and cultural traditions. The emphasis is on responding to and emphasising the local meaning and significance of outdoor places.

Theoretical concepts on teaching, learning, and assessment

Here are a number of articles that look at different aspects of teaching and learning in EOTC. The first group examines theoretical concepts around teaching in the outdoors and supporting teachers in this area.

Allen-Craig, S., & Hartley, C. (2012). Exploring the long-term effects for young women involved in an outdoor education program. *Journal of Outdoor Recreation, Education, and Leadership*, 4(2), 88-91.

- An investigation into the effects of a ten-day journey-based outdoor education programme for adolescent females, from six to forty-two months after completion; in relation to accepting challenge, community action, leadership, and environmental connection.

<http://dx.doi.org/10.7768/1948-5123.1153>

Allison, P, Carr, D. & Meldrum, G. (2012). Potential for excellence: interdisciplinary learning outdoors is a moral enterprise. *The Curriculum Journal*, 23(1), 43-58.

- The article considers the place and status of outdoor learning in the Scottish educational system. Teachers' understandings, beliefs and values of outdoor learning are presented and outdoor education is proposed as an interdisciplinary moral enterprise.

<http://www.tandfonline.com/doi/full/10.1080/09585176.2012.650469?scroll=top&needAccess=true>

Beames S. & Brown M. (2014) Enough of Ronald and Mickey: Focusing on learning in outdoor education. *Journal of Adventure Education and Outdoor Learning*, 14(2) 118-131

- Beames and Brown explore the tension between the New Zealand curriculum values of innovation, inquiry and curiosity and the key competency of thinking within the consumptive outdoor education experiences marketed at schools

<http://www.tandfonline.com/doi/pdf/10.1080/14729679.2013.841096?needAccess=true>

Bobilya, A., Kalisch, K., Brad, D., & Coulson, E. R. (2015). An investigation of participants' intended and actual transfer of learning following an outward bound wilderness experience. *Journal of Outdoor, Recreation, Education, and Leadership*, 7(2), 93-111.

- This retrospective study investigates students' intentions on transferring home from an outward bound course compared to the actual learning two years post-course in regard to personal growth, technical skills, and group dynamics. The discussion includes the lasting impact of such experiences

as reference points; perceived as meaningful accomplishments to relate to new situations.

Burke, J., Nolan, C., & Rheingold, A. (2012). Nel Noddings' care theory and outdoor education. *Journal of Outdoor Recreation, Education, and Leadership*, 4(1), 3-15.

- The application and relevance of the 'theory of caring' as an underlying concept in Outdoor Education practices and programmes. Examples are provided through an ethic of care, policies of care, caring through leadership, relationships, and challenge by choice.

Cosgriff, M., Legge, M., Brown, M., Boyes, M., Zink, R., & Irwin, D. (2012). Outdoor learning in Aotearoa New Zealand: voices past, present, and future. *Journal of Adventure Education & Outdoor Learning*, 12(3), 221-235.

- The paper highlights how outdoor education is being re-conceptualised and practiced, particularly as influenced by the bicultural foundation of Aotearoa New Zealand.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Christie, B., Higgins, P., & McLaughlin, P. (2014). 'Did you enjoy your holiday?' Can residential outdoor learning benefit mainstream schooling? *Journal of Adventure Education and Outdoor Learning*, 14(1), 1-23. doi:10.1080/14729679.2013.769715

- This paper performs three functions: first, it examines the educational relationship between residential outdoor learning and mainstream education in Scotland; second, it considers the contemporary significance and continued relevance of outdoor learning more generally; and third, it examines the relationship between qualitative and quantitative approaches to such studies.

Fägerstam, E. (2014). High school teachers' experience of the educational potential of outdoor teaching and learning. *Journal of Adventure Education and Outdoor Learning*, 14(1), 56-81. doi:10.1080/14729679.2013.769887

- The purpose of this longitudinal study was to explore how teachers from different disciplines experienced regular school-based outdoor teaching and learning in the school grounds. The teachers reported increased motivation, communication and participation among students.

Gee, N. (2015). Creating a temporary community? An ethnographic study of a residential fieldtrip. *Journal of Adventure Education and Outdoor Learning*, 15(2), 95-109. doi:10.1080/14729679.2013.849609

- This paper explores the evolving perceptions of community sentiments for three teachers and secondary school students on a week-long residential fieldtrip.

Gurholt, K. P., & Sanderud, J. R. (2016). Curious play: children's exploration of nature. *Journal of Adventure Education and Outdoor Learning*, 16(4), 318-329. doi:10.1080/14729679.2016.1162183

- This article explores the concept of curious play as a theoretical framework to understand and communicate children's experiences of free play in nature. The children are conceptualised as active explorers and playful agents whilst embodying and creating knowledge, skills and understandings of themselves and their life-worlds.

Hartmeyer, R., & Mygind, E. (2016). A retrospective study of social relations in a Danish primary school class taught in 'udeskole'. *Journal of Adventure Education and Outdoor Learning*, 16(1), 78-89. doi:10.1080/14729679.2015.1086659

- Researchers have emphasised the positive influence of the outdoors on social development. The article explores a nature class taught outside the classroom one day a week and how it influences the social relationships of the pupils.

Hayhurst, J., Hunter, J. A., Kafka, S., & Boyes, M. (2015). Enhancing resilience in youth through a 10-day developmental voyage. *Journal of Adventure Education and Outdoor Learning*, 15(1), 40-52. doi:10.1080/14729679.2013.843143

- The research examines the enhanced resilience in a group of youth participating in a sail training voyage in NZ. The voyage participants experienced increased resilience over the course of the voyage which was maintained after the voyage. The key influencing variables were social effectiveness, self-efficacy and perceptions of the weather.

Hovey, K., Foland, J., Foley, J. T., Kniffin, M., & Bailey, J. (2016). Predictors of change in body image in female participants of an outdoor education program. *Journal of Outdoor Recreation, Education, and Leadership*, 8(2), 200-208.

- This study examines the predictors of positive change in body image of female participants of an outdoor education programme, when a negative body image existed prior to intervention.

<https://js.sagamorepub.com/jorel/article/view/7698>

James, J. K., & Williams, T. (2017). School-based experiential outdoor education: A neglected necessity. *Journal of Experiential Education*, 40(1), 58-71.

- This research study adds to the literature in support of school-based, experiential, outdoor education as one of many powerful ways to engage students in meaningful, memorable, and motivating learning. The benefits are examined through the voices of middle school students, preservice teachers, and practicing middle school teachers

<http://journals.sagepub.com/doi/abs/10.1177/1053825916676190>

Jostad, J., Paisley, K., Sibthorpe, J., & Gookin, J. (2013). The multi-dimensionality of group cohesion: A social network analysis of NOLS courses. *Journal of Outdoor Recreation, Education, and Leadership*, 5(2), 131-135.

- The authors identified differences in social and task cohesion structures in groups with diverse populations. Their findings suggest that the ability for students to feel comfortable talking with each other is critical in developing social cohesion and the importance of teaching students 'meta-skills' such as leadership.

Kafka, S., Hunter, J., Hayhurst, J., Boyes, M., Thomson, R. L., Clarke, H., . . . O'Brien, K. S. (2012). A 10-day developmental voyage: converging evidence from three studies showing that self-esteem may be elevated and maintained without negative outcomes *Social Psychology of Education*, 17(4), 571-601.

- Partly drawing on research evidence gained from the New Zealand sail-training vessel the Spirit of New Zealand, the paper presents empirical evidence that the participants' self-esteem elevates and maintains its elevation over time. In addition, the possible negative effects of high self-esteem were not observed. <http://link.springer.com/article/10.1007%2Fs11218-012-9177-3>

Leather, M. (2013). 'It's good for their self-esteem': the substance beneath the label. *Journal of Adventure Education and Outdoor Learning*, 13(2), 158-179. doi:10.1080/14729679.2012.737701

- This paper explores self esteem in relation to its use in adventure education and outdoor learning. The essence is that outdoor educators need to be more critical, informed and specific about exactly what it is they are trying to achieve, how their programmes are evaluated, particularly with outcomes that are related to potential changes in self and how these changes are measured

Martin, A. J. (2011). The dramaturgy approach to education in nature: reflections of a decade of International Vacation School Lipnice courses, Czech Republic, 1997–2007. *Journal of Adventure Education and Outdoor Learning*, 11(1), 67-82. doi:10.1080/14729679.2011.575691

- Dramaturgy goes beyond traditional interpretations of adventure training, allowing for the integration and balance of physical, social, creative and reflective waves that change according to group needs. The course design brings together elements of art, music, drama and adventure. The concepts provide examples of creative programming and applications to more holistic outdoor experiential courses for youth and adults.

Maxted, J. R. (2013). Boys go bush: Pedagogical insights to the experiences of New Zealand adolescents on solo. *Journal of Outdoor Recreation, Education, and Leadership*, 5(3), 140-144.

- This research highlights the potential for complexity and questions the educational insights of adolescent boys experiencing overnight solos. The article highlights psychological risks, anxieties, negative perceptions and the need for careful support for fears and apprehensions experienced by the boys. Maxted discusses a reconceptualisation of the insightful reflective space of the solo, as can be experienced by adolescents with day solo experiences.

McArdle, K., Harrison, T., & Harrison, D. (2013). Does a nurturing approach that uses an outdoor play environment build resilience in children from a challenging background? *Journal of Adventure Education and Outdoor Learning*, 13(3), 238-254. doi:10.1080/14729679.2013.776862

- At risk children were brought to a forested area for a programme that sought to promote resilience. Case studies of three of the children are used to illustrate the ways in which resilience has been stimulated. The nurturing and outdoor dimensions of the project were considered instrumental.

McClain, C., & Vandermaas-Peeler, M. (2016). Social contexts of development in natural outdoor environments: children's motor activities, personal challenges and peer interactions at the river and the creek. *Journal of Adventure Education and Outdoor Learning*, 16(1), 31-48. doi:10.1080/14729679.2015.1050682

- This study examines the influence of spending time outdoors on young children's physical and socioemotional development. Observations of children's motor activities, play and responses to challenging environmental features support the importance of accumulated experience and social contexts to develop confidence in the face of risk, individual exploration, positive social support and engagement with peers.

McNatty, S. (2016). The return home: Transitioning from a 28-day remote outdoor education programme. *Journal of Outdoor and Environmental Education*, 19(1), 42-50.

- This research highlights the importance of addressing the transition phase of leaving a long-duration outdoor education programme and strategies used to assist students with the adaptation process of returning back to their home, school, and society. Included is how to apply technical and life skills assessments through relevant project work in order to not only assess students work but to aid students understanding of what they have learnt.

Mikaels, J., Backman, E., & Lundvall, S. (2016). In and out of place: exploring the discursive effects of teachers' talk about outdoor education in secondary schools in New Zealand. *Journal of Adventure Education and Outdoor Learning*, 16(2), 91-104. doi:10.1080/14729679.2015.1086660

- The inquiry analyses interview transcripts from eight outdoor education teachers who work at secondary schools in New Zealand. Findings suggest that different discourses co-exist and are intertwined in the participants talk. Associated with a dominating discourse of adventure are subdiscourses of risk and safety, pursuit-based activities, and skill and assessment. Connected to a discourse of learning are subdiscourses of environment, sustainability and social critique.

Newhouse, G. (2015). Outdoor recreation for "Every Body"? An examination of constraints to outdoor recreation for individuals who are significantly overweight. *Journal of Outdoor Recreation, Education, and Leadership*, 7(2), 176-179.

- This brief article provides information for professionals working in outdoor recreation with individuals who are significantly overweight. The author identified structural, intrapersonal, and interpersonal constraints that existed for participants.

Price, A. (2015). Improving school attendance: can participation in outdoor learning influence attendance for young people with social, emotional and behavioural difficulties? *Journal of Adventure Education and Outdoor Learning*, 15(2), 110-122. doi:10.1080/14729679.2013.850732

- The paper presents findings from a one-year outdoor learning programme situated within an English special school for young people. The paper concludes that although improvements in attendance can be achieved, the factors affecting attendance are complex and that improvements may be restricted to programmes that utilise an outdoor learning approach rather than being achievable across the whole school curriculum.

Remington, T., & Legge, M. (2016). Outdoor education in rural primary schools in New Zealand: A narrative inquiry. *Journal of Adventure Education & Outdoor Leadership*, 55-66. doi: <http://dx.doi.org/10.1080/14729679.2016.1175362>

- This article examines experiences and perspectives on how outdoor education is taught, programmed, and understood by New Zealand primary school teachers.

<http://dx.doi.org/10.1080/14729679.2016.1175362>

Richmond, D., Sibthorpe, J., Jostad, J., & Pohja, M. (2015). Social dynamics in outdoor adventure groups: Factors determining peer status. *Journal of Outdoor Recreation, Education, and Leadership*, 7(2), 180-183.

- This article explores the effect of gender and socioeconomic factors on students' status with their peers in outdoor adventure groups in both task based and social scenarios.

Sibthorpe, J., Collins, R., Rathunde, K., Paisley, K., Schumann, S., Pohja, M., . . . Baynes, S. (2015). Fostering experiential self-regulation through outdoor adventure education. *Journal of Experiential Education*, 38(1), 26-40.

- The authors conducted two separate yet interrelated studies to better understand the potential of outdoor adventure education (OAE) programs to affect students' capacity to regulate interest and goal direction

<http://journals.sagepub.com/doi/abs/10.1177/1053825913516735>

Quay, J. (2016). Outdoor education and school curriculum distinctiveness: More than content, more than process. *Journal of Outdoor and Environmental Education*, 19(2), 42-50.

- In this paper the author explores two of the more recent approaches to the question of outdoor education's positioning in the school curriculum: the question of distinctiveness and the question of indispensability. In conclusion he argues that the distinctiveness of outdoor education lies in neither a body of knowledge (content) nor skills and practices (process) but in a deeper level of educational understanding which emphasises ways of being.

Scrutton, R. A. (2015). Outdoor adventure education for children in Scotland: quantifying the benefits. *Journal of Adventure Education and Outdoor Learning*, 15(2), 123-137. doi:10.1080/14729679.2013.867813

- Outdoor adventure education (OAE) is widely recognised for its ability to elicit personal and social development for its participants. This project aimed to quantify this understanding. Mixed results were obtained and highlight the complexities of educational research with many variables.

Uhls, Y. T., Michikyan, M., Morris, J., Garcia, D., Small, G. W., Zgourou, E., & Greenfield, P. M. (2014). Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues. *Computers in Human Behaviour*, 39, 387-392.

- An examination of the short-term improvements in preteen's understanding of nonverbal emotional cues after an outdoor camp, which provided increased opportunities for social interaction combined with time away from screen-based media and digital communication tools. Whilst the results discuss links with findings in neuroscience, this article also provides questions for further discussion.

http://www.cdmc.ucla.edu/Welcome_files/A257%20Uhls%20et%20al.%20Camp%20study%202755v1%5B1%5D.pdf

Waite, S., Rogers, S., & Evans, J. (2013). Freedom, flow and fairness: exploring how children develop socially at school through outdoor play. *Journal of Adventure Education and Outdoor Learning*, 13(3), 255-276. doi:10.1080/14729679.2013.798590

- The study seeks to discover micro-level social interactions in fluid outdoor learning spaces. The methodology is child centred and captured their social interactions through mobile audio-recording. The outdoor contexts were characterised by lower levels of adult presence and control and were associated with freedom for children to engage in sustained inter-child play and interaction.

Whittington, A., & Budbill, N. (2013). Breaking the mold: Impacts of adventure education on girls. *Journal of Outdoor Recreation, Education, and Leadership*, 5(1), 37-53.

- This article explores the outcomes from a mountain biking programme for adolescent girls, in particular their body image; gender stereotyping; and resilience. The discussion includes specific aspects of the programme that the girls found to be significant for enhancing their confidence, strength, and relationships with other girls. Included are the girls insights regarding deconstructing cultural concepts regarding body image and stereotyping

Whittington, A., Budbill, N., & Aspelmeier. (2013). Promoting resiliency in adolescent girls through adventure education. *Journal of Outdoor Recreation, Education, and Leadership*, 5(2), 169-172.

- This study examined whether participation in an adventure mountain biking program increased the resiliency of 87 adolescent girls. Pre and post test self reporting using the Resilience Scale for Children and Adolescents (RSCA) revealed small but consistently higher levels of resilience after completing the program. The results were not affected by socioeconomic status. The long-term impact results indicate that observed increases in resilience persist over time.

Whittington, A., Mack, E. N., Budbill, N. W., & McKenney, P. (2011). All-girls adventure programmes: what are the benefits? *Journal of Adventure Education and Outdoor Learning*, 11(1), 1-14. doi:10.1080/14729679.2010.505817

- This study examined the benefits of adolescent all-girls adventure programmes from the girls perspectives. Adventure activities included rock climbing, sea kayaking, mountaineering, backpacking, canyoneering and mountain biking. Three beneficial themes emerged from the girls' point of view: feelings of safety and comfort, increased connection to others, and freedom from stereotypes.

Williams, R. (2013). Woven into the fabric of experience: residential adventure education and complexity. *Journal of Adventure Education and Outdoor Learning*, 13(2), 107-124. doi:10.1080/14729679.2012.731725

- Residential adventure education is a surprisingly powerful developmental experience. This paper examines the research questions of how pupils

change following a residential adventure education experience, how does any change relate to their experiences and what are the implications?

Wozencroft, A. J., Pate, J. R., & Griffiths, H. K. (2015). Experiential learning and its impact on students' attitudes toward youth with disabilities. *Journal of Experiential Education*, 38(2), 129-143.

- The researchers examine how students' attitudes toward people with disabilities were affected following an experiential learning opportunity where students were both exposed to lecture material and worked directly with people with disabilities in an inclusive camp environment

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.970.5825&rep=rep1&type=pdf>

Applied theory and practical approaches for teaching, learning, and assessment

Articles that provide practical suggestions and strategies for applying teaching and learning in EOTC.

Beeco, J. A. (2012). Programming night time activities in outdoor adventure programs. *Journal of Outdoor Recreation, Education, and Leadership*, 4(2), 92-94.

- A brief article which explores participants motivations, benefits, and the value of experiences of night-time outdoor recreation opportunities.

Campbell-Price, M. (2010). Is what is assessed in senior outdoor education all the students learn? *Out and About* (24), 10-15.

- The pedagogical approaches of teachers exploring alternative assessments which involve a critical approach to senior outdoor education.

Campbell-Price, M. (2012). School curriculum and outdoor education Part 2: Secondary school. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 84-103). Christchurch, NZ: CPIT.

- The chapter explores the place of OE in the secondary school curriculum. The writer uses snapshots from a noho marae visit, a marine aquarium, the adoption of local places, an outdoor centre, and an enviro-school to illustrate a range of outdoor learning approaches.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Chase, D. L. (2015). Does challenge by choice increase participation? *Journal of Experiential Education*, 38(2), 108-128. doi: 10.1177/1053825914524057

- This article discusses students responses to both the design and implementation of a challenge by choice (CBC) programme. The author explores the benefits and caveats of CBC through detailed observations of the sequenced activities, extracts from student journals, and interviews.

<http://journals.sagepub.com/doi/abs/10.1177/1053825914524057>

Churchill, D., Kennedy, D., Flint, D., & Cotton, N. (2010). Using handhelds to support students' outdoor educational activities. *International Journal of Continuing Engineering Education and Life Long Learning*, 20(1), 54-71

- A pilot study involving the use of handheld computers (portable digital assistants, PDAs) with a group of secondary school students engaged in a field trip as part of the Year 12 geography curriculum. Potential educational applications include student data collection, collaboration and reflection. These aspects were analysed, resulting in a number of recommendations for optimal use of PDAs in fieldwork. The potential benefits for learning are discussed.

Cosgriff, M & Gillespie. (2011). Assessment in senior outdoor education: A catalyst for change? *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 7-22

- This paper discusses assessment in New Zealand senior school outdoor education. The authors argue that it is possible for assessment to be the driver for student learning about sustainable relationships with the outdoors. The paper targets five catalysts that the authors propose may be integral to support teachers in this endeavour.

<http://search.informit.com.au/fullText;dn=187940390315215;res=IELNZC>

Courtney, S. A., Caniglia, J., & Singh, R. (2014). Investigating the impact of field trips on teachers mathematical problem posing. *Journal of Experiential Education*, 37(2), 144-159.

- This article discusses the impact field trips and accompanying professional development (PD) activities had on teachers' ability to create problems that provide students with opportunities to engage in meaningful mathematics. In particular, how PD activities can focus teachers' attention on the mathematical and pedagogical aspects of the trip.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1030.1956&rep=rep1&type=pdf>

Duan N.* & H. Schmidt. (2011). Writing to learn: can reflection journals be used to promote self reflection and learning? *Higher Education Research & Development*, 30(4): 519-532

- Investigates reflective journals as tools for learning and assessment

<http://www.tandfonline.com/doi/pdf/10.1080/07294360.2010.512627?needAccess=true>

Ee, J., & Ong, C. W. (2014). Which social emotional competencies are enhanced at a social emotional learning camp? *Journal of Adventure Education and Outdoor Learning*, 14(1), 24-41. doi:10.1080/14729679.2012.761945

- This study illustrates the improvement of social emotional competencies such as self-awareness, social awareness, self-management, relationship management, and responsible decision-making from a social emotional learning camp for secondary school students in Singapore.

Fägerstam, E. & Blom, J. (2013). Learning biology and mathematics outdoors: effects and attitudes in a Swedish high school context. *Journal of Adventure Education and Outdoor Learning* 13(1), 56-75.

- Learning biology in an outdoor environment has positive cognitive and affective impacts on 15-year-old, Swedish high school pupils. Secondary school age pupils learning biology and mathematics in outdoor environments showed a higher degree of long-term knowledge retention than those learning indoors. In addition, outcomes showed positivity towards the outdoors and the students valued the higher degrees of social interaction.

<https://www.childrenandnature.org/research/outdoor-learning-improves-long-term>

Heinrich, W. F., Habron, G. B., Johnson, H. L., & Goralnik, L. (2015). Critical thinking assessment across four sustainability-related experiential learning settings. *Journal of Experiential Education*, 38(4), 373-393.

- This project explored four different experiential learning courses that aimed to foster the development of engaged citizens capable of effective critical thinking about complex environmental problems. The authors discuss how critical thinking outcomes were promoted through implementing a conceptual model of integrated planning, design, content, and scaffolded application.

<http://journals.sagepub.com/doi/pdf/10.1177/1053825915592890>

Hills, C. (2011). Opportunities for using achievement standards for assessment in outdoor education within New Zealand secondary schools. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2 (5), 51-65.

- This paper discusses the opportunities of the use of achievement standards for assessment within senior secondary outdoor education courses. Two examples are provided to illustrate how achievement standards can be used to assess outdoor education courses configured for NCEA.

http://search.informit.com.au/documentSummary;dn=188108087056539;res=IEL_HSS

Hsin-Chih, L., Chun-Yen, C., Wen-Shiane, L., Yu-Lin, F., & Ying-Tien, W. (2013). The implementation of mobile learning in outdoor learning: Application of QR codes. *British Journal of Educational Technology*, 44(2), E57-E62.

- The authors develop an outdoor education multimedia tool which consists of an information system that combines environmental and cultural 'green maps' (GM) using barcodes which store information (QR codes). The authors suggest a multimedia teaching approach that integrates technology with outdoor experiences to complement and expand classroom instruction.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8535.2012.01343.x/full>

Linder, J., Russell-Mayhew, S., & Adair, C. E., McLaren, L. (2012). The experience of body dissatisfaction and body change behaviors among young adolescents in an overnight camp setting. *Journal of Outdoor Recreation, Education, and Leadership*, 4(1), 27-44.

- An investigation of the peer dynamics related to the body consciousness of adolescents on camp, with implications for both the camp setting and other adolescent environments. Provides insights and suggestions that may prevent body dissatisfaction and body change behaviours of adolescents whilst on camp.

<http://digitalcommons.wku.edu/jorel/vol4/iss1/4/>

Loval, T., & Clement, N. (2016). Service learning as holistic values pedagogy. *Journal of Experiential Education*, 39(2), 115-129. doi: 10.1177/1053825916628548

- This article investigates research and empirical evidence that interweaves values being at the heart of good practice pedagogy. The authors provide evidence which links service learning to the goals of education, including those pertaining to personal and social development as well as to academic achievement

Richardson, R. T., Kalvaitis, D., & Delparte, D. (2014). Teaching evaluations and reflective practice: Strategies for improving teaching skills in adventure education. *Journal of Outdoor Recreation, Education, and Leadership*, 6(1), 77-87.

- A range of strategies for improving pedagogy with suggestions for methods of reflective practice which assess teacher effectiveness and guide the role of the instructor in student learning.

Rios, J. M., & Brewer, J. (2014). Outdoor education and science achievement. *Applied Environmental Education & Communication*, 13(4), 234-240. doi: 10.1080/1533015X.2015.975084

- The authors discuss the use of the schoolyard setting for science-based outdoor education which allows for repeated visits and continued observation and data

collection opportunities. This article includes examples of activities and links to website resources.

<http://dx.doi.org/10.1080/1533015X.2015.975084>

Schumann, S., & Millard, N. M. (2012). The nature of feedback in adventure-based education. *Journal of Outdoor Recreation, Education, and Leadership*, 4(2), 120-123.

- The authors examine socially constructed feedback structures that exist in the context of adventure education and the use of feedback as a pedagogical approach

Schwab, K., & Dustin, D. (2014). Engaging youth in lifelong outdoor adventure activities through a nontraditional public school physical education program. *Journal of Physical Education, Recreation & Dance*, 85(8), 27-31.

- This article describes how the authors included non-traditional enjoyable physical outdoor 'lifetime activities' into the physical education and health curriculum requirements. Details of the rationale, programme description and lessons learned are discussed.

<http://www.tandfonline.com/doi/pdf/10.1080/07303084.2014.946189?needAccess=true>

Scott, K. E., & Graham, J. A. (2015). Service-learning: Implications for empathy and community engagement in elementary school children. *Journal of Experiential Education*, 38(4), 354-372.

- This study investigates the impact of service-learning on the constructs of empathy and community engagement in primary and elementary school children. Findings suggest that engaging young students in service-based learning assists both their academic and social learning. This indicates the development of civic efficacy through understanding about community helpers, social inequality, student leadership, community awareness, valuing diversity, tolerance, and character education.

<http://journals.sagepub.com/doi/abs/10.1177/1053825915592889?legid=spjee%3B38%2F4%2F354&patientinform-links=yes>

Shellman, A. (2014). Empowerment and experiential education: A state of knowledge paper. *Journal of Experiential Education*, 37(1), 18-30. doi: 10.1177/1053825913518896

- This article examines the construct of empowerment in experiential education settings as a process and an outcome. The paper concludes with recommendations and implications for researchers and practitioners in the field of experiential education who seek to understand ways in which programs can facilitate and foster the development of empowerment.

<http://journals.sagepub.com/doi/pdf/10.1177/1053825913518896>

Staempfli, M. (2009). Reintroducing adventure into children's outdoor play environments. *Environment and Behavior* 41(2) 268-280.

- Concerns are expressed about the declining rates of children's participation in outdoor play. The reasons for the decline are explored. Creative adventure playgrounds reinforce fundamental learning tasks, foster Independence and self-esteem and offer opportunities for testing boundaries and taking positive risks.

<http://eab.sagepub.com/content/41/2/268.refs?patientinform-links=yes&legid=speab;41/2/268>

Straker, J. (2012). Harper Pass: A slow journey across the Southern Alps. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 168-186). Christchurch, NZ: CPIT.

- This chapter describes journeying in the Southern Alps and how bodily engagement with the environment enhances individuals' connections to the environment and the planet. Drawing from positive psychology, positive emotions are identified as a way to generate creative solutions to the person environment interface.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Stur, P. T., & Sutherland, S. (2013). Undergraduate perceptions regarding the debrief process in adventure-based learning: Exploring the credibility of the Sunday afternoon drive debrief model. *Journal of Outdoor Recreation, Education, and Leadership*, 5(1), 18-36.

- This paper explains the use of the *Sunday Afternoon Drive* debrief model, with recommendations for teacher educators by providing examples and critiques of meaningful and complete debrief sessions.

<http://dx.doi.org/10.7768/1948-5123.1151>

Teaching and Learning Services (2014). *Guidelines for assessment of experiential learning*. Montreal: Teaching and Learning Services, McGill University

- A guide providing several strategies for assessing experiential learning

https://www.mcgill.ca/tls/files/tls/guidelines_-_assessment

Wilson, J. D. (2015). Comparison of methods to teach magnetic declination. *Journal of Outdoor Recreation, Education, and Leadership*, 7(2), 158-165.

- The author provides both a resource and a discussion of four methods of teaching magnetic declination, with the aim of increasing awareness and facilitating further discussion of the efficacy of the methods compared.

Wistoft, K. (2013). The desire to learn as a kind of love: Gardening, cooking, and passion in outdoor education. *Journal of Adventure Education & Outdoor Learning*, 13(2), 125-141.

- This article focuses on an outdoor learning initiative in which nature, food, and taste had key roles in the activities. The author indicates that the strategies used, and the passion of the educators core beliefs and values of the concept, created a unique communication between teachers and students which influenced students' motivation, desire to learn, and attainment of academic objectives.

http://pure.au.dk/portal/files/51414753/Desire_to_Learn_in_Outdoor_Education_12_12_12_kw_JAEOL.pdf

Wurdinger, S. D., & Carlson, J. A. (2010). Thoughts on assessment. *Teaching for experiential learning: Five approaches that work* (pp. 101-106). Lanham, Maryland: Rowman & Littlefield

- A discussion on formative assessment processes that can be aligned with experiential learning. This chapter includes assessment resources.

Leadership

Blenkinsop, S., Telford, J., & Morse, M. (2016). A surprising discovery: five pedagogical skills outdoor and experiential educators might offer more mainstream educators in this time of change. *Journal of Adventure Education and Outdoor Learning*, 16(4), 346-358. doi:10.1080/14729679.2016.1163272

- The research posits that outdoor educators may have particular pedagogical skills, honed by the contexts in which they work, that are useful to mainstream educators trying to expand their pedagogical repertoire, teach outdoors or be more environmentally focused in their practices.

Boyes, M. & Hill, A. (2016). River crossing revisited: Bushcraft instructors beliefs and values. *New Zealand Physical Educator* 49(1), 14-16.

- The paper identifies the pressure points in river crossing practice from the perspectives of bushcraft instructors. Included are recovery methods, river-crossing techniques, decision making, how to educate the public and tourists, and resources.

Boyes, M., & O'Hare, D. (2011). Examining naturalistic decision making in outdoor adventure contexts by computer simulation. *Australian Journal of Outdoor Education*, 15(1), 22-34.

- Critical outdoor leadership decisions made in the field form the basis of a number of computer based simulations intended to learn more about how decisions are made by expert leaders. The outcomes identify the key information that leaders seek and how they analyse and make sense of the information. Being familiar with the environment influenced good decision-making and increased the confidence of the leaders.

Boyes, M., & Potter, T. (2015). The application of recognition-primed decision theory to decisions made in an outdoor education context. *Australian Journal of Outdoor Education* 18(1), 2-15.

- This paper identifies the unique decision features of the outdoor education context, in particular the pedagogical and environmental decisions made by experienced outdoor leaders. Taxonomies provide examples of decisions in the following categories – logistical, safety, pedagogical, environmental and group dynamics. An exploration of how these decisions are made is provided.

<https://www.questia.com/library/journal/1G1-435718054/the-application-of-recognition-primed-decision-theory>

Breunig, M. (2017). Experientially learning and teaching in a student-directed classroom. *Journal of Experiential Education*, 1-18. doi: 0.1177/1053825917690870

- The purpose of the study was to explore students and professor experiences with/in a student-directed experiential education elective course. What successes and challenges do students and the professor experience and how? What surprises, new learnings, and pedagogical risks ensue?

<http://journals.sagepub.com/doi/pdf/10.1177/1053825917690870>

Daniel, B., Bobilya, A. J., Kalisch, K. R., & McAvoy, L. H. (2014). Autonomous student experiences in outdoor and adventure education. *Journal of Experiential Education*, 37(1), 4-17.

- This article explores the use of autonomous student experiences in outdoor and adventure education (OAE). In this article the authors discuss the challenge of providing participants with independence and appropriate supervision. In particular how OAE programmes encourage students' ownership of their learning with opportunities to make decisions and live with the consequences of those decisions yet remain within the bounds of safety.

Hoad, C., Deed, C., & Lugg, A. (2013). The potential of humor as a trigger for emotional engagement in outdoor education. *Journal of Experiential Education*, 36(1), 37-50.

- This article argues that humor acts as an influential variable in learning environments, providing a trigger for increasing students' emotional engagement with the immediate task or topic. The authors propose that a capacity to knowingly perceive and productively engage with humorous moments can provide a pedagogical trigger for emotional engagement. In particular, a focus on how humor is likely to influence student– student,

student–teacher, and individual–context learning-related interactions is discussed.

Magnussen, L. I. (2014). Being close to each other. *Journal of Outdoor Recreation, Education, and Leadership*, 6(1), 20-32.

- An examination of the effect of progressions in experiential learning and the role and methods used by more proficient kayakers in guiding learners.

Williams, A. (2012). Taking a step back: learning without the facilitator on solo activities. *Journal of Adventure Education and Outdoor Learning*, 12(2), 137-155. doi:10.1080/14729679.2011.644906

- This focus on solos found that participants self-identified outcomes that were personally meaningful and important. The findings suggest that effective learning is focused on developing self-awareness and social relationships. Increased spiritual awareness was also identified, closely linked to a connection with the landscape and eco-system.

Treaty of Waitangi and Te Ao Maori

These readings examine methods of engaging with the principles of the Treaty of Waitangi and incorporating Māori pedagogical and cultural concepts into EOTC.

Boyes, M. (2010). *Re-envisioning outdoor education from a New Zealand Māori perspective*. Paper presented at the European Institute for Outdoor Adventure Education and Experiential Learning (EOE) Conference. Ratece-Planica, Slovenia Ratece-Planica, Slovenia.

- The paper briefly examines the traditional philosophies and values of Māori and explores how these philosophies can provide an eco-centric framework for outdoor educators.

Heke, J. I. (2013). Navigating Māori ancestral pathways: Using mountain bikes to reach Māori environmental gods. *Ki Waho* (8), 47-48.

- Describes how four iwi Māori racing teams participated in a 24 hour mountain bike race at Waipa, Rotorua, as a way to connect with atua (gods); including the rain (Te Ihorangi), the wind (Tāwhirimātea), the lightning (Tama te Uira), the bush (Tane) and the mountain (maunga). Includes details of the work put into the event by the hosts, Te Papa Tākaro of Te Arawa.

Legge, M. (2012). Bicultural perspectives of education outdoors. Part 1: A Pakeha perspective on biculturalism in education outdoors. In D. Irwin, J. Straker, & A. Hill

(Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 138-145). Christchurch, NZ: CPIT.

- The author explores Māori cultural identity and outdoor education from a Pākehā perspective. In particular, Tikanga Māori philosophies are linked to outdoor educators working in natural settings.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Ockwell, G. (2012). Waka ama as a vehicle for learning about Māoritanga. *Out and About* (27), 16-19.

- A detailed account of how Māoritanga and a Te Ao Māori world view is explored through waka ama and aquatic programmes by the school of Physical Education. This article includes links with course objectives, what, how and why this approach was implemented and the outcomes of this perspective for students.

Phillips, C., & Mita, N. (2016). Māori and the natural world. *Out and About* (32), 12-18.

- This article documents the experiences of community engagement projects guided by a Māori worldview. The initiatives and practices are informed by the key principles and values of whakapapa, kaitiakitanga, and manaakitanga.

Reti, H. (2012). Bicultural perspectives of education outdoors. Part 2: Eh tohu: A direction for Maori in the outdoors. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 146-150). Christchurch, NZ: CPIT.

- The author discusses the strong connections Māori have with natural places. He believes that colonisation has created some disconnection, but outdoor education can play a role in developing bicultural individuals strong in their cultural identities.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

International cultural perspectives

Andkjær, S. (2012). A cultural and comparative perspective on outdoor education in New Zealand and friluftsliv in Denmark. *Journal of Adventure Education and Outdoor Learning*, 12(2), 121-136. doi:10.1080/14729679.2011.643146

- The paper is based on a comparative and qualitative case study of friluftsliv in Denmark and outdoor education in New Zealand. The study identifies differences as well as similarities between these cultural expressions and discusses the results using theories of late modernity.

Bennett, R., Volet, S., & Fozdar, F. (2013). "I'd say it's kind of unique in a way": The development of an intercultural student relationship. *Journal of Studies in International Education*, 17(5), 533-553.

- This article explores the emergence, maintenance and development of intercultural student friendships in an educational setting, highlighting the affordances and constraints for positive intercultural student relationships.

<http://jsi.sagepub.com/content/17/5/533.full.pdf+html>

Butcher, A., & McGrath, T. (2004). International Students in New Zealand: Needs and Responses. *International Education Journal*, 5(4), 540-551.

- This paper considers international students' expectations and experiences in New Zealand. The academic, social (including health and safety), and financial needs of international students in New Zealand are identified and proactive responses to these needs are suggested.

<http://files.eric.ed.gov/fulltext/EJ903877.pdf>

Campbell, N (2012) Promoting intercultural contact on campus: A project to connect and engage international and host students. *Journal of Studies in International Education* 16 (3) 205-227

- The article discusses the outcomes, challenges, and students' evaluations of an experiential learning project designed to give social support to international students in the first few months of their sojourn. At the same time the project complements host students' class-based theoretical learning with practical, meaningful experience with peers from another culture. Recommendations for future projects are outlined.

<http://jsi.sagepub.com/content/16/3/205.full.pdf+html>

Campbell Price, M., & Duncan, T. (2015). Experiencing the different everyday on an international school-led trip: A New Zealand example. In C. N. Laoire, A. White & T. Skelton (Eds.), *Movement, mobilities and journeys*. (pp. 1-21). Springer. doi: 10.1007/978-981-4585-93-4

- This chapter reflects on the different experiences and levels of autonomy that young people develop on international school trips. The authors use perspectives from young people, their parents, and school leaders to present layers of learning in regards to the key competencies. In addition to the formal learning objectives, capacities for living well such as foreign language acquisition or enrichment of academic learning are learnt.

Cohn, I. (2011). Indigenous ways—fruits of our ancestors. *Journal of Adventure Education and Outdoor Learning*, 11(1), 15-34. doi:10.1080/14729679.2010.532992

- While recognizing the diversity of indigenous people, the paper explores common characteristics of thought and practice within indigenous traditions. The author concludes that indigenous ways have the potential to inspire a fundamental

change in outdoor education, while providing working models for theory and practice.

Ding, C., & Schuett, M. A. (2013). Examining the motivation and involvement of Chinese rock climbers. *Journal of Outdoor Recreation, Education, and Leadership*, 5(1), 54-73.

- This study investigated the motivations and involvement of Chinese rock climbers. Findings suggest climbing is a male-dominated outdoor activity, with climbers primarily motivated to escape from daily routine and learn more about nature. The popularity of rock climbing is growing, with the majority of activities organised via outdoor websites.

https://www.researchgate.net/publication/261366502_Examining_the_motivation_and_involvement_of_Chinese_rock_climbers

Lane, J. (2012). Toward a model of embodied environmental education: Perspectives from theatre and indigenous knowledge. *Journal of Experiential Education*, 35(3), 395-411.

- This research explores the notion of embodiment, as understood from theatre and the perspective of indigenous knowledges. The voices of six environmental educators exemplify how embodiment is conceived and how it might be applied to a model for environmental education. The findings suggest aspects of embodiment that allow students to look and listen in ways that increase their environmental sensitivity.

<http://journals.sagepub.com/doi/pdf/10.1177/105382591203500302>

Lo, S., Gidlow, B., & Cushman, G. (2014). Adventure education and the acculturation of first-generation Chinese Canadians in Vancouver, Canada. *Journal of Experiential Education*, 37(2), 113-128.

- This article reports on research that demonstrates how parents in first-generation Chinese families in Vancouver, Canada, control their children's involvement in local adventure education (AE) programs in order to exert control over their children's exposure to wider Canadian culture. For the parents, AE is more a method of improving and/or correcting their children's social and psychological development, rather than a cultural interchange. This selective acculturation becomes a strategic response which minimises the likelihood of intergenerational cultural conflict.

<http://journals.sagepub.com/doi/abs/10.1177/1053825913489106>

Ritchie, S. D., Wabano, M. J., Corbiere, R. G., Restoule, B. M., Russell, K. C., & Young, N. L. (2015). Connecting to the Good Life through outdoor adventure leadership experiences designed for Indigenous youth. *Journal of Adventure*

Education and Outdoor Learning, 15(4), 350-370.

doi:10.1080/14729679.2015.1036455

- The purpose of this research collaboration with Canadian Wikwemikong people was to understand how a 10-day outdoor adventure leadership experience (OALE) promotes resilience and well-being for Indigenous youth through their participation in the program.

Zhang, Z., & Brunton, M. (2007). Differences in living and learning: Chinese international students in New Zealand. *Journal of Studies in International Education*, 11(2), 124-140.

- This article explores the educational experiences of Chinese international students. The influence of sociocultural factors beyond the learning experience are shown to be vital in facilitating mutually beneficial outcomes for the students and the international education industry in New Zealand.

<http://jsi.sagepub.com/content/11/2/124.full.pdf+html>

Place-based, Sustainability and Environmental Education

A place-responsive and environmental approach focuses outdoor education as a way to view relationships with the environment, people, and places.

Ampuero, D., Miranda, C. E., Delgado, L. E., Goyen, S., & Weaver, S. (2015). Empathy and critical thinking: primary students solving local environmental problems through outdoor learning. *Journal of Adventure Education and Outdoor Learning*, 15(1), 64-78. doi:10.1080/14729679.2013.848817

- The study explores the outcomes of teaching empathy and critical thinking with primary school children to solve environmental problems.

Becker, P. (2015). To be in the garden or not to be in the garden—that is the question here: some aspects of the educational chances that are inherent in tamed and untamed nature. *Journal of Adventure Education and Outdoor Learning*, 15(1), 79-92. doi:10.1080/14729679.2014.908514

- This is a fascinating paper that explores the lack of opportunity for children to engage in nature. Through an examination of tamed and untamed gardens, Becker show us how important nature, landscape and gardens can be in the education and upbringing of children.

Birdsall, S. (2014). Measuring student teachers understandings and self-awareness of sustainability. *Environmental Education Research*. doi: 10.1080/13504622.2013.833594

- The author discusses the need for the development of teachers' understandings of sustainability so that they can plan and teach effective sustainability education programmes.

<http://www.tandfonline.com/doi/abs/10.1080/13504622.2013.833594>

Breunig, M., Murtell, J., & Russell, C. (2015). Students' experiences with/in integrated Environmental Studies Programs in Ontario. *Journal of Adventure Education and Outdoor Learning*, 15(4), 267-283. doi:10.1080/14729679.2014.955354

- The research focusses on Canadian secondary school environmental studies programs that are interdisciplinary, helping to link subject matter and encouraging student responsibility. The students experienced changes in environmental attitudes and behaviours as a result of programme participation.

Brown, M. (2012). Student perspectives of a place responsive outdoor education programme. *New Zealand Journal of Outdoor Education*, 3(1), 64-83.

- This article investigates student perspectives of a place-responsive outdoor education programme. The outcomes confirm positive interpersonal relationships and the strengthening of the students' appreciation and attachment to place(s).

Brown, M. (2012). Developing a place-based approach to outdoor education in Aotearoa, New Zealand. Outdoor ed in our place: 'Keepin' it real". *Wellington: Teaching Learning Research Initiative*.

- This article explains how schools developed local journey based programmes that engaged students in activities that responded to the geographical, historical and cultural contexts in which they are located.

Brown, M. (2012). A changing landscape: Place responsive pedagogy. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 104-124). Christchurch, NZ: CPIT.

- The paper defines place-responsive education and portrays student responses to a place responsive outdoor education programme. Links are made to the role outdoor educators can play in contributing to 'big picture' ecological and environmental debates.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Boyes, M. (2012). Historical and contemporary trends in outdoor education. In D. Irwin, J. Straker, & A. Hill (Eds.), *A new vision for the 21st century* (pp. 26-45). Christchurch, NZ: CPIT.

- This chapter initially provides a social history of outdoor education from the perspectives of adventure and learning. This is followed by an exploration of the social dynamics and power structures between adventure, outdoor learning and environmental sustainability.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Chapman, D. J. (2011). Environmental education and the politics of curriculum: A national case study. *The Journal of Environmental Education*, 42(3), 193 - 202.

- This historical analysis highlights the political nature of the school curriculum and proposes educators look to their own community for strength and leadership in environmental education.

<http://www.tandfonline.com/doi/pdf/10.1080/00958964.2010.526153?needAccess=true>

Cosgriff, M., & Thevenard, L. (2012). School curriculum and outdoor education Part 1: Early childhood and primary school. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 65-83). Christchurch, NZ: CPIT.

- The chapter begins by exploring the outdoor curriculum through students' relationships with natural places in early childhood and primary school settings. Examples are drawn from enviro schools and integrated units of learning.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Cumming, F., & Nash, M. (2015). An Australian perspective of a forest school: shaping a sense of place to support learning. *Journal of Adventure Education and Outdoor Learning*, 15(4), 296-309. doi:10.1080/14729679.2015.1010071

- This article researched the impact of the forest school approach to learning in a primary school in Western Australia. Results indicated that the approach can promote a sense of self, belonging and relational connections. These in turn help to develop dimensions of place, identified as place attachment and place meaning.

Dolan, A. M. (2016). Place-based curriculum making: devising a synthesis between primary geography and outdoor learning. *Journal of Adventure Education and Outdoor Learning*, 16(1), 49-62. doi:10.1080/14729679.2015.1051563

- This article makes links between primary geography and outdoor learning, to promote education for sustainability. Specifically, the article argues for a conscious synthesis which blends the three dimensions of place, space and sustainability into the geography place-based curriculum.

Graney, B., & Graney, S. (2012). The role of outdoor education centres. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 125-137). Christchurch, NZ: CPIT.

- This chapter explores the changes being made by outdoor centres towards integrating environmental sustainability and the New Zealand curriculum more strongly into the traditional adventure activities base of school development, personal growth and interpersonal relationships.

Gray, T., & Birrell, C. (2015). 'Touched by the Earth': a place-based outdoor learning programme incorporating the Arts. *Journal of Adventure Education and Outdoor Learning*, 15(4), 330-349. doi:10.1080/14729679.2015.1035293

- This paper explores how the Arts may be incorporated into ecopedagogies, and what creative work can reveal about the nature of communication with the environment. From working with young adolescent participants, the findings indicate the crucial role the Arts can play in embodied and multi-sensory learning for participants, which in turn nurtures greater nature awareness and attachment.

Hill, A. (2012). Introducing a critical socio-ecological approach for educating outdoors. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 46-64). Christchurch, NZ: CPIT.

- This chapter highlights the diverse ways that socio ecological approaches are applied to outdoor education. Educating for a sustainable future poses a number of challenges. The author outlines four principles to assist teachers in educating for sustainable action.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Hill, A. (2012). Developing approaches to outdoor education that promote sustainability education. *Australian Journal of Outdoor Education*, 16(1), 15-27.

- This article introduces a model which describes a change process towards a sustainability focused pedagogy

Hill, A. (2013). The place of experience and the experience of place: Intersections between sustainability education and outdoor learning. *Australian Journal of Environmental Education*, 29, 18-32. doi: 10.1017/aee.2013.13

- Hill critiques, discusses, and argues caution in regard to the importance of place-based pedagogies and their links with sustainability focused outdoor education.

<https://doi.org/10.1017/aee.2013.13>

Hill, A. & Brown, M. (2014) Intersections between place, sustainability and transformative outdoor experiences. *Journal of Adventure Education & Outdoor Learning*, DOI: 10.1080/14729679.2014.918843

- The authors explore intersections between transformation, sustainability and place, and examine what types of outdoor learning experiences might assist in the promotion of sustainability. The article draws on teachers' perspectives and the authors suggest that a framework of sustainability may facilitate greater intentionality on the part of place-responsive educators to improve the opportunities for improved human–nature relations.

<http://dx.doi.org/10.1080/14729679.2014.918843>

Irwin, D. (2012). Constructing a sustainability identity through student action projects. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 151-167). Christchurch, NZ: CPIT.

- This chapter reflects on the development of student identity as a reciprocal process of developing a sense of community and obligation to the land. The chapter is proactive in discussing opportunities to help students become active agents for change.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Irwin, D., & Straker, J. (2015). Tenuous affair: Environmental and outdoor education in Aotearoa New Zealand. *Australian Journal of Environmental Education*, 30(2), 151-166.

- The authors investigate education for sustainability in outdoor education and how meaning is and can be, ascribed to outdoor experiences.

https://www.researchgate.net/publication/273529215_Tenuous_Affair_Environmental_and_Outdoor_Education_in_Aotearoa_New_Zealand

Irwin, D., Straker, J., & Hill, A. (2012). Charting future directions for outdoor education in the 21st century. In D. Irwin, J. Straker, & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand* (pp. 187-195). Christchurch, NZ: CPIT.

- As the last chapter in this book, the editors reflect on the diverse contributions in preceding chapters in order to explore the possibilities and challenges for outdoor education. They promote the notion that personal and collective outdoor education practices can be instrumental in social change towards more sustainable ways of living.

<http://www.eonz.org.nz/site/eduoutdoorsnz/files/Resources/Outdoor%20education%20in%20Aotearoa%20New%20Zealand%20CCL.compressed.pdf>

Kangas, M., Kopisto, K., Löfman, K., Salo, L., & Krokfors, L. (2017). 'I'll take care of the flowers!' Researching agency through initiatives across different learning environments. *Journal of Adventure Education and Outdoor Learning*, 17(1), 82-91. DOI:10.1080/14729679.2016.1246256

- In a case study approach, the agency of a primary school pupil was examined across different learning environments including learning activities in a classroom, in a vegetable garden and on a nearby farm. The findings show that the pupil's agency varied across learning environments. The importance of opportunities to exercise agency in versatile contexts is emphasised.

Mannion, G., Fenwick, A., & Lynch, J. (2013). Place-responsive pedagogy: learning from teachers' experiences of excursions in nature. *Environmental Education Research*, 19(6), 792-809. DOI: 10.1080/13504622.2012.749980

- This article explores teachers' roles and experiences of planning and enacting excursions. The analysis indicates that teachers' sensitisation towards place was aided by collaboration, advance planning visits and the practice of making place-responsive excursions with pupils. The authors propose a theory of place-responsive pedagogy, involving explicit efforts to teach by means of the natural environment with the aim of understanding and improving human–environment relations. Some implications for teacher professional development are offered.

<http://dx.doi.org/10.1080/13504622.2012.749980>

McDowell, K. A., Parrott, M. Y., & Christol, P. G. (2014). Outdoor investigations to connect water to you. *Journal of Outdoor Recreation, Education, and Leadership*, 6(2), 161-169.

- The paper details the effectiveness and implications of a maths and science based programme which used the outdoor environment as an integrated context for students to learn about issues and solutions related to the water quality in their local community. This article includes suggestions and links to free educational resources for practitioners.

MacQuarrie, S., Nugent, C., & Warden, C. (2015). Learning with nature and learning from others: nature as setting and resource for early childhood education. *Journal of Adventure Education and Outdoor Learning*, 15(1), 1-23. doi:10.1080/14729679.2013.841095

- Nature-based learning is an increasingly popular type of early childhood education. Through the use of a group discussion and case studies with Scottish and Nordic teachers, positive examples and challenges are presented.

Nicol, R. (2014). Entering the fray: The role of outdoor education in providing nature-based experiences that matter. *Educational Philosophy and Theory*, 46(5), 449-461.

- The author explores the potential of learners' connection to sustainability-concepts from their first-hand nature-based experiences and reviews what this means for outdoor education.

<http://www.tandfonline.com/doi/abs/10.1111/j.1469-5812.2011.00840.x>

Nicol, R. (2014). Fostering environmental action through outdoor education. *Educational Action Research*, 22(1), 39-56.

- Nicol explores the actions of students but also the way they approach, internalise and externalise their own learning

<http://www.tandfonline.com/doi/abs/10.1080/09650792.2013.854174>

Norðdahl, K., & Einarsdóttir, J. (2015). Children's views and preferences regarding their outdoor environment. *Journal of Adventure Education and Outdoor Learning*, 15(2), 152-167. doi:10.1080/14729679.2014.896746

- This study aims to enhance awareness of what young children want to do outside and their preferences regarding their outdoor environments. Data is gathered from children who participated in decision-making about how their common school ground should be constructed. The findings show that the children wanted to challenge themselves as well as to be secure, explore things, be in contact with others, find or create nests and enjoy beautiful things outdoors. The children highly valued the natural environment and liked diversity in playground equipment.

North, C. (2011). The sidelining of environmental care education in outdoor education programmes: Why it happens, why it shouldn't and what we can do about it. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 35-50.

- This article considers barriers and enablers to including environmental care education (ECE) in secondary outdoor education programmes. Planned behaviour theory is discussed with practical applications, as a way to conceptualise and practice more effective behavioural changes in ECE.

http://www.leavenotrace.org.nz/uploads/files/north_ece_in_oe.pdf

North, C., & Harasymchuk, B. (2012). Climbing as if you care: Rock climbing at Kura Tawhiti / Castle Hill as a place based approach to sustainability. *Sports Technology*, 5(3-4), 132-142.

- This study focuses on an area in Aotearoa New Zealand called KuraTawhiti/Castle Hill. The authors explore ways that climbers engage with climbing areas and highlight opportunities that climbing offers to develop, through place-based education approaches, an ethic of care for these places.

<http://www.tandfonline.com/doi/pdf/10.1080/19346182.2012.686505?needAccess=true>

North, C., Jones, M., & Moore, D. (2014). Leave No Trace and crafting: Are you being crafty and careful? *Out and About*, 14-19

- This article considers the approaches of crafting and 'leave no trace' as ways to connect with people and places in respectful and sustainable ways. The authors discuss the ecological and cultural appropriateness of impacts on the environment and suggest methods to ensure the messages we impart to students are consistent with practices that will be sustainable in the long-term.

http://www.eonz.org.nz/site/eduoutdoorsnz/files/Out%20and%20About/OA_issue_29.pdf

Smith, G. A. (2013). Place-based education. In R. B. Stevenson, M. Brody, J. Dillon & A. E. J. Wals (Eds.), *International handbook of research on environmental education*. New York: Routledge.

- The author presents a description of two successful place-based education projects and the common principles underlying the approach. Preliminary insights are provided into the potential impact on students' academic engagement, achievement, and self-perception as citizens and stewards.

Okada, M., Okamura, T., & Zushi, K. (2013). The effects of in-depth outdoor experience on attitudes towards nature. *Journal of Outdoor Recreation, Education, and Leadership*, 5(3), 192-209.

- This study examined students' attitudes to nature through in-depth outdoor experiences. Findings identify the importance of solitude, primitiveness, and humility in programmes for improving attitudes towards nature.

Skar, M., Wold, L. C., Gundersen, V., & O'Brien, L. (2016). Why do children not play in nearby nature? Results from a Norwegian survey. *Journal of Adventure Education and Outdoor Learning*, 16(3), 239-255.

doi:10.1080/14729679.2016.1140587

- Based on a nationwide Norwegian survey among 3160 parents of children aged six to 12 years, this article identifies and discusses barriers for children's engagement with nearby nature. A set of social factors related to time pressure are evaluated as more significant barriers than environmental factors such as accessibility, safety and landscape quality.

Wals, A. E. J. (2011). Learning our way to sustainability. *Journal of Education for Sustainable Development*, 5, 177-86. DOI: 10.1177/097340821100500208

- The author explores collaborative action and social learning in light of sustainability. He discusses how learning that leads to a new kind of thinking, with alternative values and co-created, creative solutions, co-owned by more reflexive citizens, and living in a more reflexive and resilient society may be needed to create a more sustainable world.

https://www.researchgate.net/publication/254837565_Learning_Our_Way_to_Sustainability

Townsend, J. (2011). Challenges and opportunities in implementing a place based outdoor education course in a New Zealand secondary school. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 7-22.

- The author discusses the implementation of a place-based outdoor education course at a secondary school in Aotearoa NZ. This outdoor education pedagogy provides students with the opportunity to engage with the unique histories,

geographies and cultural understandings associated with their particular places. In particular, this approach present an opportunity to reflect the needs and aspirations of Māori learners.

Wals et al (2014) Convergence between Science and Environmental Education. *Science*. (344) 583-584

- This brief article examines the potential for a convergence of EE and SE that might engage people in addressing fundamental socio-ecological challenges.

<http://science.sciencemag.org/content/344/6184/583.full>

Wattchow, B., & Brown, M. (2011). Signposts to a place-responsive pedagogy in outdoor education. In B. Wattchow & M. Brown. (Ch.9, pp.180-199) *A pedagogy of place*. Melbourne: Monash University.

- In this chapter, the authors present four signposts that help point the way towards a place responsive outdoor education pedagogy. They are: (1) being present in and with a place; (2) the power of place-based stories and narratives; (3) being apprenticed to outdoor places; and (4) the representation of place experiences.

Wattchow, B., & Brown, M. (2015) Programming for place-responsiveness: Enhancing adventure learning and outdoor travel. In R. Black & K. Bricker (Eds.), *Adventure programming and travel in the 21st century* (pp. 35-47). State College, PA: Venture.

- The authors explore and discuss the role and importance of place in strengthening the pedagogical foundation of adventure programming and the quality of participants' and leaders experiences. A case study of Moab, Utah provides an example of a place famous for its adventure activities.

Winks, L. (2016). The hand model: Its practical potential for guiding outdoor learning for sustainability. *Field Studies*.

- This paper provides insight into how the hand model for real world learning might be used to further our thinking, develop educational approaches and forge connections in order to build Learning for Sustainability into outdoor education and fieldwork practice.

<http://fsj.field-studies-council.org/media/2842631/fs2016-winks.pdf>

Wistoft, K. (2013). The desire to learn as a kind of love: gardening, cooking, and passion in outdoor education. *Journal of Adventure Education and Outdoor Learning*, 13(2), 125-141. doi:10.1080/14729679.2012.738011

The article reports on a Danish organic school gardens project where the intention is to expand children's competences and their knowledge of nature, farming and food preparation. The main conclusions include

students developing a desire to learn, a greater knowledge of science and other school subjects.

Zamani, Z. (2016). 'The woods is a more free space for children to be creative; their imagination kind of sparks out there': exploring young children's cognitive play opportunities in natural, manufactured and mixed outdoor preschool zones. *Journal of Adventure Education and Outdoor Learning*, 16(2), 172-189. doi:10.1080/14729679.2015.1122538

- This study examined four-to-five-year-old children's cognitive play experiences in an outdoor preschool with natural, mixed and manufactured zones. The findings suggest incorporating natural features and settings in outdoor preschools to support a diverse spectrum of cognitive play.

Risk and safety

Aadland, E., Noer, G., & Vikene, O. L. (2016). Sea kayaking incidents in Norway 2000–2014: an issue of bad weather or poor judgement? *Journal of Adventure Education and Outdoor Learning*, 16(2), 131-145. doi:10.1080/14729679.2015.1121505

- The aims of this study were to analyse recreational sea kayaking and touring incidents in Norway with a specific focus on wind conditions and to elaborate on practical implications for the prevention of future incidents.

Andkjær, S., & Arvidsen, J. (2015). Safety cultures in water-based outdoor activities in Denmark. *Journal of Outdoor Recreation, Education, and Leadership*, 7(2), 140-157.

- The authors analyse the risk management and safety cultures of the outdoor activities of small boat fishing, sea kayaking, and kite surfing in Denmark. They also advocate a broad managerial approach through the framework of a safety culture at many levels, and make suggestions for improving safety in small boat fishing.

<http://dx.doi.org/10.18666/JOREL-2015-V7-I2-7009>

Brander, R. W. (2016) The importance of visual rip current education. *New Zealand Physical Educator* 49(1), 17-19.

- This paper discusses types of rip currents and strategies for swimmers to overcome them. The social media is suggested as an educational platform to provide visual media to school children.

Brookes, A. (2011) Preventing fatal incidents in outdoor education. Lessons learnt from the Mangatepopo tragedy. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2, (6), 7-32.

- In the aftermath of the tragic deaths of six students and a teacher in the Mangatepopo stream on April 15 2008, it is clear that the wider New Zealand

community expects fatality prevention to be the priority for outdoor education. But what does fatality prevention actually consist of, and how far should it extend, given that most programs and operators would claim to already put 'safety first'? <http://search.informit.com.au/documentSummary;dn=188406214596670;res=IELHSS>

Brown, M., & Beames, S. (2016). Adventure education: Redux. *Journal of Adventure Education and Outdoor Learning*, 1-13.
doi:10.1080/14729679.2016.1246257

- The authors argue that programmes and activities focused on risk and danger limit the pedagogical potential of adventure. An alternative approach to adventurous learning is proposed that embraces features of late modernity and takes as its starting point the everyday life of the learner.

Dahl, L., Lynch, P., Moe, V. F., & Aadland, E. (2016). Accidents in Norwegian secondary school friluftsliv: implications for teacher and student competence. *Journal of Adventure Education and Outdoor Learning*, 16(3), 222-238. doi:10.1080/14729679.2015.1122542

- This article reports and discusses results from a nationwide, quantitative survey of accidents and near-accidents in educational outdoor activities (friluftsliv) in Norwegian upper secondary schools during the period 2010 to 2013.

Farmer, V. L., Fitzgerald, R. P., Williams, S. M., Mann, J. I., Schofield, G., McPhee, J. C., & Taylor, R. W. (2017). What did schools experience from participating in a randomised controlled study (PLAY) that prioritised risk and challenge in active play for children while at school? *Journal of Adventure Education and Outdoor Learning*, 1-19. doi:10.1080/14729679.2017.1286993

- In a social environment of risk aversion, the degree of risk that children encounter in play situations is limited. In this research, opportunities to engage in risky play are provided to children, with very positive outcomes recorded.

Hill, A. (2008). Take away adventure. *Out and About* (20), 16-17.

- The author looks at the impact of commodified adventure recreation experiences on how New Zealanders perceive adventure. A discussion ensues on the messages, branding, perception of risk and learning when the outdoors is experienced in this way.

http://www.eonz.org.nz/site/eduoutdoorsnz/files/Out%20and%20About/O&A_issu e%2020%20web.pdf

Stan, I., & Humberstone, B. (2011). An ethnography of the outdoor classroom: How teachers manage risk in the outdoors. *Ethnography and Education*, 6(2), 213-228.

- This article explores how teachers approach risk management in outdoor activities and the impact on students' outdoor learning through a framework of control, constraints and limits.

Jackson, J. (2016). Beyond decision making for outdoor leaders: Expanding the safety behaviour research agenda. *Journal Of Outdoor Recreation, Education, And Leadership*, 8(2).

- This paper addresses the greater context of safety behaviour and addresses important areas other than outdoor leadership decision-making, to further the understanding and the complexity of safety behaviour.

Sullivan, R. (2014). A review of New Zealand's EOTC policy and curriculum. *Curriculum Matters*, 10, 73-93.

- This review discusses the evolving understandings of safety in EOTC policy and curriculum and the consideration of safe practices when providing outdoor learning experiences. Insights are provided into how a more holistic view may guide current and future practice for EOTC.
http://www.nzcer.org.nz/system/files/CM2014_10_073_0.pdf

Sullivan, R. (2014). "No harm done": Teachers' humorous talk about children's safety. *European Journal of Humour Research*, 2(1), 19-30.

- This article looked at how teachers' humour is an important strategy in managing the concerns between safety and risk, pleasure and danger. Humour enabled an opening up of the anxieties around children's risk-taking and danger in the outdoor classroom, mediating the safety regimes.

<https://www.europeanjournalofhumour.org/index.php/ejhr/article/view/50/pdf>

Sullivan, R., Carpenter, V., & Jones, A. (2011). Dreadful things can happen: Cautionary tales for the safe practitioner. *Journal of Outdoor and Environmental Education*, 15(1), 12-.

- This paper focuses on how teachers interpret the linked tasks of both keeping children safe and enabling them to experience the joys of participation in outdoor activities. A discursive analytic approach emphasises the formation of teachers' safe practice within the broader context of risk society.

<https://www.questia.com/library/journal/1G1-267429087/dreadful-things-can-happen-cautionary-tales-for-memory-of-course-content-and-activity-for-students-in-high-school-biology-and-reveals-increased-positive-student-attitudes-towards-learning/ of experiential learning 1.pdf>

Key word index

A

activities, 11, 12, 14, 15, 16, 17, 19, 20, 21, 24, 27, 29, 31, 32, 37, 38, 39, 40
adolescent, 6, 11, 14, 19, 31
art, 10
assessment, 2, 3, 6, 12, 15, 16, 17, 18, 21, 22
assessments, 11, 15
attitudes, 15, 17, 18, 29, 35

B

behaviours, 19, 29
benefits, 4, 5, 9, 13, 14, 15, 16
bicultural, 8, 25
body image, 9, 14

C

camping, 5
challenge, 7, 16, 23, 34, 38
climbing, 14, 27, 34
communicate, 8
community, 7, 8, 20, 25, 30, 32, 33, 38
confidence, 11, 14, 22
cooking, 21, 37
critical thinking, 18, 28
cultural, 2, 3, 6, 14, 18, 24, 25, 27, 29, 35
curriculum, 4, 7, 12, 13, 16, 20, 30, 31, 39

D

decision making, 22, 39
disabilities, 15
drama, 10

E

economic, 4
experiential education, 20, 23

F

female, 9
field trips, 17

G

garden, 28, 32
Gardening, 21
geography, 16, 30

H

history, 6, 29

I

identity, 24, 32

J

journey, 6, 20, 29

L

local, 5, 6, 16, 27, 28, 29, 33
long-term, 6, 14, 17, 18, 35

M

mathematics, 17
mountain bike, 24
multimedia, 18
music, 10

N

night time, 15

O

Outcomes, 4

P

play, 8, 11, 14, 20, 25, 29, 31, 35, 37, 38
policy, 4, 39
practical examples, 6
pre-school, 2
primary, 2, 5, 9, 12, 20, 28, 30, 32
professional development, 5, 17, 33

R

reflection, 16, 17
relationships, 4, 5, 7, 9, 14, 16, 24, 26, 28, 29, 30, 31
residential, 5, 8, 15
resilience, 9, 11, 14, 28
resources, 19, 22, 33
risk management, 4, 37, 39
river crossing, 22

S

safety, 2, 4, 12, 15, 22, 23, 26, 35, 37, 38, 39
secondary, 2, 5, 8, 12, 16, 17, 18, 29, 34, 36, 38
self, 9, 10, 13, 14, 17, 20, 24, 28, 30, 35
self-efficacy, 9
social, 4, 5, 9, 10, 11, 12, 13, 14, 17, 19, 20, 24,
26, 27, 29, 32, 35, 38
solo, 11, 24
spiritual, 24

T

traditions, 6, 26

transition, 11

V

values, 4, 7, 19, 21, 22, 24, 25, 35

W

waka ama, 25
weather, 9, 37
women, 6