Research Readings

Here you will find research articles listed under various topics to help you get started on answering some of the questions you have about EOTC. We have selected the topics based on what teachers are asking for information on, what has been identified as some of the current trends or issues in EOTC, and on areas that schools are being asked to do more work on in bringing the curriculum alive. The articles listed here represent some of the recent work that has been published and we hope you find this to be a good starting point for your own research journeys. This is by no means an exhaustive list, nor are we suggesting this is the ‘best’ work in the field by listing it here. If you come across articles or references that you think other teachers will be interested in share them around by posting up the references and a short description on the EONZ Facebook page linked off the EONZ website at www.eozn.org.nz. You will find articles under the following topics:

- Overview of New Zealand Research
- Teaching and Learning in the Outdoors
- Treaty of Waitangi and cultural issues
- Sustainability and environmental education
- Place-based education
- Critical research
- Risk and safety

NB: All of this work should be accessible through university libraries. The articles with a doi (Digital object identifier) number can be found by putting the doi into a search engine, which then links you to the appropriate database that houses the article. Some of these articles can also be found on Google Scholar http://scholar.google.co.nz/

Overview of New Zealand research


- A stocktake of all New Zealand based outdoor recreation research; including outdoor education research undertaken between 1995 and 2010, was published in 2010. This is an excellent resource as it summarises all of the research related to New Zealand outdoor recreation and outdoor education, identifies current gaps in the research, and has a comprehensive bibliography of published research.

http://researchcommons.waikato.ac.nz/handle/10289/3424
- This gives an overview of outdoor education in the Health and Physical Education curriculum in New Zealand.

- This report was identifies the training and qualification needs of teachers taking students outside the classroom.

- Cathye Haddock surveyed primary and secondary schools in 2007 to get a national picture of what is happening in EOTC in schools.

- Teachers were asked about their EOTC practices and some of the beliefs and values they have about EOTC.


Teaching and Learning in EOTC

Here are a number of articles that look at different aspects of teaching and learning in EOTC. The first group examine a range of issues around teaching in the outdoors and how to support teachers to feel more confident about teaching outside. The second group look at some subject specific research examining how outdoor learning can support and enhance the curriculum.

Teaching outside the classroom

- Hill explores the complex relationships between teachers’ beliefs, values, and self-perceptions and pedagogical practice.

• This paper highlights the importance of teachers’ interactions with children on residential programmes in providing democratic, shared, and positive learning.


• This article explores a pedagogical approach to enterprise education that involves engagement with the community.


• This paper reports on a partnership project in which student teachers worked alongside classroom teachers to create outdoor activities in primary mathematics.


• This provides a guide for teachers to help students formulate biology research questions and discusses assessment forms to measure science literacy.


• This book explores a range of theoretical perspectives on experiential education and the implications these have for practice.


• Explores the role reflective practice has in supporting teachers to gain confidence to teach outdoors.

**Subject specific research**


• This study evaluates residential fieldwork of 33 000 London school students (11-14 years). They found that students benefit from exposure to learning environments that promoted authentic practical inquiry.


• This study analyses the promotion of scientific literacy through practical research activities in a marine science laboratory and identifies children’s conceptions about scientists and how they do science.

• Outdoor educational programmes are examined to see if those focused on practical work with plants influence participants’ knowledge of and attitudes towards plants.


• Community based training in chemistry was found to increase students’ engagement and confidence, and their appreciation of real-world applications of chemistry. The study points to limits in the development of critical thinking and the level to which community needs are met.

Treaty of Waitangi and Culture

Teaching and learning in New Zealand requires teachers to engage with the principles of the Treaty of Waitangi and with the question of how to incorporate Maori pedagogical and cultural concepts into schooling. Schools also have to respond to the increasing cultural diversity in New Zealand. The readings listed below examine some of these issues.


• Explores common characteristics of indigenous practices and the potential these have to inspire fundamental change in outdoor education.


• Discusses the implementation of Hauora for mainstream secondary school environments.


• This review of traditional and contemporary Maori pedagogies from a wide range of records and publications explores traditional teaching, learning, and child rearing practices and how they apply within the European context.


• This paper discusses biculturalism in education for sustainability within an outdoor education context and argues that collaborative bicultural outdoor education experiences create spaces for students to explore their identity.


• In this article, a group of four indigenous Maōri educators and one non-Maōri educator comment on a proposed amendment to the New Zealand National Curriculum Framework to replace the current separate sets of skills, values and attitudes with five generic performance-based key competencies.


• This New Zealand text examines the history of research on indigenous people and sets a new indigenous research agenda. It concludes with an excellent section on Kaupapa Maori Research.


**Place-based pedagogies**

Outdoor education in New Zealand has a strong tradition of an activity and outdoor pursuits focus. More recently some of the assumptions that underpin this focus have been challenged and the possibilities that open up in EOTC when place is taken seriously as a pedagogical tool are explored.


• A critical pedagogy of place challenges all educators to reflect on the relationship between the kind of education they pursue and the kind of places we inhabit and leave behind for future generations.

Using interview data, this article explores cultural assumptions present in outdoor education and how these influence connection to place.


This article explores some of the theories and practices embedded in a place-based education for Aotearoa New Zealand and recommends a set of principles for advancing the practice.


Explores different definitions of the term “outdoors” and how to support students to come to develop deeper connections to the outdoors.


This book discusses theories of place-based pedagogies and presents a series of case studies examining how teachers are engaging with place in their teaching.

### Sustainability education

Schools are required to integrate the principles of sustainability throughout the curriculum and in their everyday practices. The research work conducted in this area is connected with the work on place-based pedagogies so if you are interested in sustainability have a look at the work listed in the section above.


This thesis explores whether an intervention carried out in a senior secondary school Environmental Science class was able to develop action competence in Education for Sustainability in the students.


This study describes the effects seven environmental education programmes had in connecting participants to nature.


This paper explores consumption related impacts from outdoor recreation by combining ecological footprint analysis with the technique of scenario planning.

- This article reports on 'Titiro Whakamuri, Hoki Whakamua. We are the future, the present and the past: Caring for self, others and the environment in early years' teaching and learning’. This study had the aim of investigating how early childhood centres can work with their local communities in fostering ecologically sustainable practices. This project utilised a philosophical framework grounded in kaupapa Maori notions such as manaakitanga (caring) and kaitiakitanga (stewardship), along with an ethic of care.


- This article explores the complexities teachers face as they try to implement environmental education into their school programmes.

### Critical Research

One of the functions of research is to question the assumptions made about a practice and to challenge people to think differently about some their theoretical perspectives and their current practices. Engaging in critical research is one of the ways to keep EOTC alive and vibrant, and ensure that EOTC practices are appropriate given the changing world we live in and the changing learning needs of our students. Below is a very small selection of the varied and rich body of critical research.


- The author argues that climbing provides insight and critique about the role of human / non-human agency and the role of technology in this.

[http://www.ingentaconnect.com/content/routledg/ceer/2008/00000014/00000003/art00008](http://www.ingentaconnect.com/content/routledg/ceer/2008/00000014/00000003/art00008)

- Some of the assumptions made in place-based pedagogies are examined and challenged in this article.


- Examines some of the assumptions made in outdoor education about the ability to transfer learning from one context to another and argues that learning is more contextual than theories of transfer often allow.


- This article examines some of the assumptions that underpin the comfort zone model and finds there is not strong support for the model in educational literature and therefore should not be used as a model to underpin programming or pedagogy.

- Explores the complexity of gender politics in the scouting movement with the introduction of girls.


- This article challenges some of the assumptions of place pedagogies and presents some radical re-thinking of these.


- Examines boys education and explores outdoor education as a site that can reproduce dominant masculine regimes, but also holds the potential to be a place to re-imagine these dominant regimes.


- Uses the story of *Into the Wild* to examine how we come to understand ourselves through our relationships with others.

**Risk and Safety**

Risk and safety have received a lot attention, both as a pedagogical tool and as a pragmatic process. An annual report is published based on data from the National Incident Database (NID), describing trends in incidents and accidents and analysing some of these in detail. The following reports are available on: [http://www.incidentreport.org.nz/reports.php](http://www.incidentreport.org.nz/reports.php)


Andrew Brookes has produced a series of articles examining fatalities in outdoor education in Australia. These provide some very useful insights for outdoor education in New Zealand.

Another perspective on risk and safety emerges through research exploring attitudes toward risk and safety and how this influences teaching practices.


- This study investigates how parents and teachers perceive risk and what influence this may be having on participation rates and programming for outdoor education.


- Examines the different ways primary school teachers talk about risk and safety and the implications this has for their teaching practice.


- The author explores some of the assumptions in the ways risk and safety are talked about and how these assumptions shape outdoor education practices.