The Sixth International Outdoor Education Research Conference 2013

**Future faces: Outdoor education research innovations and visions**

Conference Proceedings - Programme and extended abstracts

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**University of Otago, New Zealand**

*Hosted by the School of Physical Education, Sport and Exercise Science*

*Editors - Mike Brown and Mike Boyes*

*Dunedin 26-29th November 2013*
PREFACE

These proceedings come from the Sixth International Outdoor Education Research Conference held at St Margaret’s College, University of Otago, Dunedin, New Zealand in November 2013.

We give our sincere thanks to all participants for making the conference a success. 140 attendees from 24 countries shared their current research in presentations and posters.

We give special thanks to Dr Robyn Zink, our conference administrator, for ensuring the smooth running of the conference. We thank the organising committee of Dr Mick Abbott, Dr Mike Boyes, Dr Mike Brown, Steve Brown, Margie Campbell-Price, Scarlett Hagen, Dr Brent Lovelock, Tom Macfarlane, Shannon McNatty, Geoff Ockwell, and Dr Anna Thompson.

We are also indebted to the Academic Committee members for their wisdom and for reviewing the academic and extended abstracts – Dr Soren Andkjaer, Dr Johan Arnegard, Dr Morten Asfeldt, Dr Mike Boyes, Dr Andrew Brookes, Dr Mike Brown, Dr Kirsti Gurholt, Prof. Barbara Humberstone, Dr Mark Leather, Prof. Pip Lynch, Dr Pat Mayer, Dr Erik Mygind, Dr Tom Potter and Dr Glyn Thomas.

Lastly we acknowledge the presenters for their insightful and critical perspectives on the broad spectrum that comprises the field of outdoor education.

Mike Boyes and Mike Brown
Co-convenors
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Note

Extended abstracts have been subject to a single review conducted post conference. They were not subject to a stringent blind review process. They are intended to serve as a repository of material from this conference. Submission of extended abstracts was voluntary and is not a complete record of material presented at the conference.
### Monday 25 November

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>1500-1700</td>
<td>Registration open – Valentine Common Room</td>
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<tr>
<td>1700</td>
<td>International committee meeting - Atrium</td>
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### Tuesday 26 November

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<th>Time</th>
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<tr>
<td>8.30am</td>
<td>Registration opens – Valentine Common Room</td>
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<tr>
<td>10am-11am</td>
<td>Official Welcome – Quad 4 Lecture Theatre</td>
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<td>11am-11.15</td>
<td>Morning tea</td>
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<td>11.15-12.45</td>
<td>Oral presentations</td>
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**Session 1**
- Chair: Mike Brown
- Room: Study Centre
- Topics:
  - Group journal writing as a tool for learning enhancement and group development in outdoor education
    - Morten Asfeldt and Rebecca Purc-Stephenson
  - How does modality of reflective journal writing affect quality of reflection?
    - Janet Dyment, Timothy S. O’Connell and Heidi Smith
  - Climbing with groups: Much ado about something?
    - Simon Beames

**Session 2**
- Chair: Tom Potter
- Room: Atrium
- Topics:
  - Early childhood: Possibilities for learning and teaching in outdoor settings
    - Janette Kelly
  - Developing a can-do attitude in the outdoors
    - Helen Collins
  - Young children in outdoor education: An empirical study of children’s learning experiences
    - Yeong Poh Klow

**Session 3**
- Chair: Barbara Humberstone
- Room: Academic
- Topics:
  - The use of qualitative methods in adventure therapy program evaluations
    - Lynette Nikkel
  - Are outdoor education programs wrapped in cotton wool? Considering research associated with resilience in outdoor education
    - Casie-Anne Chalman
  - The effects of sail training on engagement with learning and education
    - Murray Henstock

**Session 4**
- Chair: Mike Boyes
- Room: Fellows
- Topics:
  - The application of brain theory to learning in an outdoor environment
    - Jean Cory-Wright
  - The use of a learning-centered strategy for developing more than the ABCs in outdoor education
    - Roger T. Couture, Michel Larivière, Stephen Ritchie, Daniel Côté, and Bruce Oddson
  - Current directions in research: the Outdoor Youth Programs Research Alliance
    - Ian Williams

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<td>12.45-1.30</td>
<td>Lunch</td>
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<td>1330-1500</td>
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**Session 5**
- Chair: Erik Mygid
- Room: Study Centre
- Topics:
  - Safe in nature - cultures of safety related to outdoor activities in the coastal regions in Denmark
    - Søren Andkjaer & Jan Arvidson
  - Supervision of secondary school children participating in snow sports at alpine resorts in Australia
    - Andrew Brookes & Peter Holmes
  - A phenomenological investigation of the experience of risk in outdoor adventure education instructors
    - Aaron Funnell

**Session 6**
- Chair: Pat Maher
- Room: Atrium
- Topics:
  - Constructing a sustainability identity through tertiary outdoor education in Aotearoa New Zealand
    - David Irwin
  - Do outdoor education programs have a role to play in introducing and connecting Australian students to the natural environment?
    - Sandy Allen-Craig and Dagmar Schade
  - Place-responsive outdoor education and the development of 21st century competencies through journeys: ‘Making the ordinary extraordinary’
    - Kim Seng

**Session 7**
- Chair: Andrew J Martin
- Topic: The importance of core values: Outward Bound New Zealand 1962-2012
| Pip Lynch                                      | • Outdoor recreation in change – adventure competitions and artificial settings  
| Room Academic                                 | Johan Arnegård                                                                 |
|                                              | • Archetypes, heroes and villains: Adventure as cultural practice and implications for outdoor education  
|                                              | Beau Miles and Brian Wattchow                                                   |
| Session 8                                    | • Well-being in the wilderness’: Self-determination theory & outdoor education  
| Chair Glyn Thomas                            | Ken Hodge and Susan Houge Mackenzie                                             |
| Room Fellows                                  | • Emotional-control through the outdoor education programs  
|                                              | John Kardjono                                                                   |
|                                              | • Natural disaster recovery program using bush adventure and narrative therapy approaches to recovery  
|                                              | Paul Stolz                                                                      |
| 1500-15.30                                   | Afternoon tea                                                                   |
| 15.30-1700                                   | Oral presentations                                                              |
| Session 9                                    | • The nature of skill and our perception of the natural world: A  
| Chair Mark Leather                           | phenomenological approach to canoe tripping  
| Room Study Centre                            | Jonas Mikaels and Morten Asfeldt                                                |
|                                              | • Outdoor clubs: structuring engagements with place  
|                                              | Philip M. Mullins                                                               |
|                                              | • A proposed place-responsive methodology for researching outdoor learning  
|                                              | Jonathan Lynch                                                                  |
| Session 10                                   | • Between local and global: internationalisation of outdoor education  
| Chair Søren Andkjaer                          | Pip Lynch                                                                      |
| Room Atrium                                   | • Policies of outdoor learning: lessons from an international comparison  
|                                              | Rowenenna Passy, Sue Waite, Peter Bentsen, Noel Gough,  
|                                              | Susanna Ho, Erik Mygind, Vilma D’Rosario, Alistair Stewart                      |
|                                              | • International experiences of outdoor education: from a case of a joint attempt  
|                                              | between Canadian and Japanese universities  
|                                              | Takako Takano                                                                   |
| Session 11                                   | • Distance and time perception and swimming capability across open water  
| Chair Johan Arnegård                         | James Croft and Chris Button                                                    |
| Room Academic                                 | • Outdoor education and health promotion  
|                                              | Stephen Ritchie, Jim Little and Sebastien Nault                                 |
|                                              | • Future faces of participant transportation in outdoor education: Innovations  
|                                              | for cultural shifts  
|                                              | Tom Potter, Sacha Dubois and Michel Bédard                                        |
| 1700-17.15                                   | Briefing for Wednesday activities – Valentine Common Room                        |
| 1900                                          | Kapa Haka                                                                       |
| 19.30                                         | Kiwi barbeque – Otago Yacht Club                                                 |

**Wednesday 27 November**

| 0800                                          | Registration opens – Valentine Common Room                                      |
| 08.30-1000                                    | Oral presentations                                                              |
| Session 13                                   | • Forts and bogs: decolonization, reinhabitation, and place-based education  
| Chair Tom Potter                             | John Telford, Laura Piersol, Mike Derby, Mike Caulkins, Sean Blenkinsop, Vicki  
| Room Study Centre                            | Kelly, Mark Fettes, & Jodi MacQuarrie                                            |
|                                              | • The future ‘faces’ of outdoor education: Possibilities and promises in the  
|                                              | primary school context in Aotearoa New Zealand  
|                                              | Marg Cosgriff, Lisette Burrows and Kirsten Petrie                                |
|                                              | • Outdoor education as a tool for recreation in rural village schools in Finland  
|                                              | Lea Höyrinen                                                                     |
| Session 14                                   | • The importance of ‘informal talk’ in residential outdoor education: it’s more  

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<th>Chair</th>
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<td>Influences of the ancestral health movement on outdoor education</td>
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<td>Zobe MacEachren</td>
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<td>Djurite/Mt Arapiles and outdoor education: Exploring place-responsive</td>
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<td>Alistair Stewart &amp; Peter Holmes</td>
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<td>“Don’t forget to bring your cup”. The role of the leader in the Danish</td>
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<td>Andrew Brookes</td>
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<td>and Nordic ‘simple outdoor life’ tradition</td>
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<td>Søren Andkjær and Mike Brown</td>
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<td>The rise and rise of the overseas school trip: Should outdoor educators</td>
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<td>notice? Margie Campbell-Price</td>
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<td>What is friluftsliv? A conceptual analysis Jakob Haahr</td>
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<td>Session 16 Chair</td>
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<td>A systematic evaluation of outdoor education courses used in higher</td>
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<td>Glyn Thomas</td>
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<td>Sam J. Cooley, Victoria E. Burns, and Jennifer Cumming</td>
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<td>Motivations of school-aged adolescent Singaporeans to participate in</td>
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<td>10.15-1100</td>
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<td>The benefits of outdoor education for internationalisation in higher</td>
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<td>Mark Leather</td>
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<td>Sam J Cooley, Jennifer Cumming, Mark J. G. Holland, and Victoria</td>
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<td>Untangling the relationship between coaches and performers in the</td>
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<td>adventure context: problematizing the issue and framing empirical</td>
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<td>Paul Gray</td>
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<td>Next step of outdoor education – outdoor education in an urban context</td>
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<td>Åsa Hellström and Maria Kylin</td>
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<td>Session 18 Chair</td>
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<td>Community-based participatory research and realist evaluation:</td>
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<td>Barbara Humberstone</td>
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<td>frameworks for indigenous health and outdoor education</td>
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<td>Stephen Ritchie, Mary Jo Wabano, Aaron Orkin, David VanderBurgh,</td>
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<td>Jackson Beardy, Jeffrey Curran, Karen Born, Nancy L Young</td>
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<td>Physical activity – as a part of the establishing process for newly</td>
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<td>arrived refugees in Sweden</td>
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<td>Anna Fabri</td>
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<td>Session 19 Chair</td>
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<td>Measuring relationships with nature</td>
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<td>Mike Boyes</td>
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<td>Peter Martin</td>
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<td>Applications of the commonplace journey: A mobile methodology and</td>
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<td>Philip M. Mullins</td>
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<td>1100</td>
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<td>Collect packed lunch and get organised for activities</td>
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<td>11.30</td>
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<td>Depart for activities</td>
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**Thursday 28 November**

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<tr>
<td>08.30</td>
<td>Registration opens - Valentine Common Room</td>
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<td>0900-10.30</td>
<td>Oral presentations</td>
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<td>Session 20 Chair</td>
<td>Injury causation during hiking activities: a systems analysis of reports from the NZ National Incident Database</td>
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<td>Søren Andkjær</td>
<td>Natassia Goode, Paul M. Salmon, Michael G. Lenne and Caroline Finch</td>
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<td>Room</td>
<td>Safety beyond procedures: How the led outdoor activity system can best</td>
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<td>support safety-enhancing improvisation</td>
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Study Centre  |  Margaret J. Trotter, Paul M. Salmon, Michael G. Lenné  
|-------------------|
| A tale of two tragedies: changes in outdoor education ‘best practice’  
| Ray Hollingsworth |

Session 21  
Chair  | Mark Leather  
Room  | Atrium  
|-------------------|
| Is outdoor education a discipline? A critical exploration  
| Tom Potter & Janet Dyment  
| Bourdieu in the backpack: habitus, field, and capital as a lens for interpreting outdoor education experiences  
| John Telford  
| A pedagogy of attunement: walking beyond performative encounters  
| Genny Blades |

Session 22  
Chair  | Mike Boyes  
Room  | Academic  
|-------------------|
| The outdoors: It’s not just the opposite of indoors  
| Jo Straker  
| Applications of the commonplace Journey: A mobile methodology and pedagogy  
| Philip M. Mullins  
| Foraging and wildcrafting: Our way to place responsiveness.  
| Steve Parker |

Session 23  
Chair  | Glyn Thomas  
Room  | Fellows  
|-------------------|
| Engaging schools with outdoor education: the way forward?  
| Rowena Passy & Sue Waite  
| Insights into outdoor education: A dialogue with rural primary school teachers in Aotearoa New Zealand  
| Tara Remington and Maureen Legge  
| Teaching teachers about outdoor and environmental education – what lies beneath the surface?  
| Chris North |

10.30-1100 Morning Tea  
1100-12.30 Oral presentations  

Session 24  
Chair  | Andrew Brookes  
Room  | Study Centre  
|-------------------|
| Exploring critical and transformative methodologies in outdoor education research  
| Allen Hill, Mike Boyes and Mark Falcous  
| Exploring concepts of ecologising outdoor education research  
| John Telford, Laura Piersol, Mike Derby, Mike Caulkins, Sean Blenkinsop, Vicki Kelly, Mark Fettes, and Jodi MacQuarrie  
| Poetic transcription as a way of data (re)presentation  
| Susanna Ho |

Session 25  
Chair  | Johan Arnegård  
Room  | Atrium  
|-------------------|
| “Fatties cause global warming”: Fat pedagogy and outdoor environmental education  
| Teresa Socha, Constance Russell, Erin Cameron, Hannah McNinch  
| What happens when we uncouple risk from adventure? Perhaps a nod in the direction of environmental sustainability  
| Robbie Nicoll  
| The senses, the body, the place and outdoor learning: Theory into practice-paradox of (re)-presentation  
| Barbara Humberstone |

Session 26  
Chair  | Tom Potter  
Room  | Academic  
|-------------------|
| Creating community through outdoor orientation programs: Impacts of participation in Brock BaseCamp  
| Tim O’Connell, Ryan Howard and Anna Lathrop  
| Searching for success on the Stikine River  
| Pat Maher  
| Expeditions well lived: Ascertaining the meaning and significance of outdoor expeditions throughout the lifespan using photo-elicitation  
| TA Loeffler |

Session 27  
Chair  | Mike Brown  
Room  | Fellows  
|-------------------|
| Lost in translation: a critique of ‘Forest School’ in the UK  
| Mark Leather  
| Physical activity levels at school using Udeskole as a teaching method in an urban environment  
| Erik Mygind and Jan Christian Brønd  
| “Nature interpretation by pedagogues in nature kindergartens”. Does this approach influence small children’s knowledge about the natural world?  
| Niels Ejbye-Ernst |

12.30 – 13.30 Lunch  
13.30-1500  

Session 28  
Chair  |  
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<tr>
<td>The Lurujarri Trail – Settler Australians’ struggles with Goolarabaloo knowledge</td>
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</table>
| Anna Thompson Room Study Centre | • Ghosts who walk: Lessons from the displaced history of minimal impact bushwalking in Australia  | Fiona McKeague  
• Māori perspectives of outdoor education  | Ihirangi Heke |
| Session 29 Chair Pip Lynch Room Atrium | • So what, who cares? An impact review of outdoor education research 2000 – 2012  | Andrew Brookes & Alistair Stewart  
• From classroom to community: boundary crossing and relational agency in an outdoor sustainability education teaching practicum in regional Australia  | Alison Lugg  
• “You want me to teach outdoor education where...?”: Lecturer reflections on teaching outdoor education online  | Heidi Smith, Allen Hill and Janet Dyment |
| Session 30 Chair Mike Brown Room Academic | • A comparison of the pedagogical approaches, and their impacts on students, in extended outdoor education programs with two different schools.  | Glyn Thomas  
• Secondary teachers’ and pupils’ experiences of local outdoor learning in Maths and Geography  | Beth Christie and Simon Beames  
• Touched by the Earth: The impact of a multi-sensory immersion program on Year 7-8 students  | Tonia Gray and Carol Birrell |
| Session 31 Chair Pat Maher Room Fellows | • Partnering with U.S. National Parks in outdoor learning: A long-term look  | Matthew Nickerson  
• The science of outdoor education: A meta-analysis of diverse OE programmes  | Carmen Leong Lai Yin  
• Places for active outdoor recreation  | Søren Andkjaer, Jan Arvidsen and Karen Dalgaard |
| 1500-15.30 Afternoon tea  
15.30-17.00 Discussion Groups  
19.30 Conference Dinner – St. Margaret’s Dinning Room  | Friday 29 November  
08.30 Registration opens - Valentine Common Room  
0900-10.30 Oral presentations  
Session 32 Chair Søren Andkjaer Room Study centre | • Participatory learning in the downhill mountain bike subculture in New Zealand  | Scarlett Hagen  
• Public pedagogies and standup paddling subcultures in Aotearoa/New Zealand  | Geoff Ockwell  
• “Living the lift-line: A phenomenological study of the lived experience of skiing”  | Kerensa Clark |
| Session 33 Chair Pip Lynch Room Atrium | • Outdoor education in a city state  | Cindy Ng  
• Inclusive outdoor education: “They’re not focusing on learning a new skill; they’re focusing on their survival”  | Mitch McLarnon  
• Policy and practice: changes in teachers attitudes to outdoor learning in relation to recent education policy in Scotland  | Pete Higgins |
| Session 34 Chair Tom Potter Room Academic | • The outdoor classroom is not a level playing field for all  | Matt Barker  
• Transitioning back to society after 28 days outdoors  | Shannon McNatty and Christine Furminger  
• Outdoor adventure education participant evaluation in Hong Kong  | Aaron Funnell |
| 10.30-11.00 Morning Tea  
11.00-12.30 Oral presentations  
Session 35 | • A novel methodological approach to course evaluation: Introducing the use of |
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<th>Morten Asfeldt</th>
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<td>Room Study Centre</td>
<td>a semi-structured video diary room to capture students’ experiences whilst immersed in outdoor education <em>Sam J Cooley, Jennifer Cumming, Mark J. G. Holland, Emily G. Novakovic and Victoria E. Burns</em></td>
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<td>Methodological challenges in researching new contexts of practice: developing practice-knowledge of work with families in the outdoors <em>Kate Breeze</em></td>
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<td><em>Mike Boyes &amp; Mick Abbott</em></td>
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<td>Calm, beautiful energy: Describing spiritual experiences in the outdoors</td>
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<td><em>Tom McFarlane</em></td>
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<td>Room Academic</td>
<td>Solitude speaks: Solo as fear, apprehension and uncertainty</td>
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<td><em>John Maxted</em></td>
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<td>The influence of perceived risk on participation in outdoor education by pre-teen age school children in New Zealand: Perspectives from EOTC teachers, Boards of Trustees’ parents and outdoor education providers</td>
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<td><em>Mark Jones</em></td>
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<th>Activity</th>
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<tbody>
<tr>
<td>12.30-1.30</td>
<td>Lunch</td>
</tr>
<tr>
<td>1.30-2.30</td>
<td>Conference summary, farewells and close</td>
</tr>
<tr>
<td>3pm</td>
<td>International Committee meeting</td>
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</tbody>
</table>
Do Outdoor Education programs have a role to play in introducing and connecting Australian students to the natural environment?

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Traditionally most outdoor education programs in Australia take place, to some extent, in an outdoor natural setting. The aim of this study was to examine whether Outdoor Education, through the interaction with local natural environments, offers the opportunity to introduce, nurture and connect students to the natural environment.

Experiencing the natural environment connects people to places, shapes their concern and sensitivity about the environment, and develops a relationship with the natural world. (Heerwagen & Orians, 2002; Hinds & Sparks, 2008; Kahn, 2001; Louv, 2008; Malone, 2007; Martin, 1996; Snyder, 1989). Martin (2005) explored human-nature relationships experienced by Outdoor Education students. His findings showed that the human-nature relationship was affected by an understanding of the concepts of a relationship with nature, comfort levels within place, extended time and activities in the environment, the amount of dependence on natural environment, and the degree of emotional response.

Schultz, (2002) argues that feeling connected to the natural world is important in developing an ethic of care, commitment and stewardship for the earth. Mayer and Frantz, (2008) assert that without the development of a relationship with the natural world, there is a greater likelihood of developing a society which has no commitment to the stewardship and protection of the natural world. Outdoor education programs may offer the opportunity for students to connect and develop a relationship with the natural environment and subsequently a stewardship for the natural world.

This study aimed to examine whether tertiary students developed a measure of connectedness to the natural environment, when exposed to natural environments and contextual environmental content through participation in a sequence of Outdoor Education units and if so did this change over time. Intervention and control groups were selected from students undertaking a Bachelor of Exercise Science. The intervention group participants were students undertaking the optional Outdoor Education (OE) units as their elective stream. This elective ran over the three years of the Bachelor of Exercise Science course, two OE units per year. 85 participants contributed data for both pre and post collection stages (male = 41, female = 44; age = 20.5 ± 4.6). There was an intervention and control group of students for each year level in the course. Intervention group: year 1=23, year 2= 12, year 3= 11. Control group: year 1= 14, year 2= 26, year 3= 30.

A ‘connectedness to nature’ questionnaire consisting of two measures, Connectedness to Nature Scale (CNS), (Mayer & Frantz, 2004) and Nature Relatedness Scale (NR), (Nisbet, 2008) was administered. A questionnaire also collected demographic information about the participant’s nature related activity background and location of upbringing.

The intervention and control group’s results of the self-reported demographic data on their participation in nature related activities during childhood showed that the intervention group had higher scores for 2 of the 3 year levels at the pre intervention stage. These difference could be attributed to the possibility that students who selected Outdoor Education may have had greater exposure to nature related outdoor activities prior to choosing the elective Outdoor Education or may have had the opportunity to spend more time during their childhood in the natural environment. Spending time in a natural environment is an important factor in developing a relationship with the natural world (Martin, 2005).
When these initial higher pre scores were controlled for, (for both instruments) results demonstrated a higher change in pre to post scores for intervention group participants compared to the control group. A statistically significant main effect for groups could be found (intervention and control) \((p = 0.002)\), and no main effect for years.

Table 1. Descriptive statistics for changes from pre- to post-intervention CNS and NR scores (negative scores indicate an increased change in connectedness scores)

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
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<tbody>
<tr>
<td>CNS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERVENTION GROUP</td>
<td>(-0.17 \pm 0.40)</td>
<td>(-0.17 \pm 0.56)</td>
<td>(-0.19 \pm 0.34)</td>
</tr>
<tr>
<td>CONTROL GROUP</td>
<td>(-0.08 \pm 0.29)</td>
<td>(0.01 \pm 0.47)</td>
<td>(-0.15 \pm 0.44)</td>
</tr>
<tr>
<td>NR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERVENTION GROUP</td>
<td>(-1.00 \pm 6.23)</td>
<td>(-6.38 \pm 10.61)</td>
<td>(-4.18 \pm 5.36)</td>
</tr>
<tr>
<td>CONTROL GROUP</td>
<td>(-1.82 \pm 5.12)</td>
<td>(-0.87 \pm 5.94)</td>
<td>(-0.16 \pm 7.14)</td>
</tr>
</tbody>
</table>

The intervention group of second and third year level showed a more substantial increase in NR scores after participation in the intervention unlike intervention group of first year level. The CNS showed an increase in scores for all intervention groups, however this result was not significant. The NR results displayed an increase from pre to post scores for intervention group participants at the second and third year levels. The lack of change noted at the first year level maybe explained by Kals, Schumaker, and Montana, (1999) who suggest that past and present experience of the natural environment predicts the way individuals form a positive emotional affinity with it. By the end of first year students have completed only 2 units OE units offered and have spent limited time in the outdoor natural environment in comparison the second and third year students. Moreover, this may indicate that a change in connectedness to nature is a longer process. Aspects of these results may be explained by examining the course content of the Outdoor Education units. During first year students develop fundamental skills in outdoor leadership with limited exposure to natural environments, theory includes minimal impact practices and examining their sense of place in relation to the natural environment. In the final 2 years content and assessment focuses on ecology and conservation issues for a variety of different outdoor environments and the examination of human nature relationships. In these final years, students spent large amounts of time outdoors interacting with natural environments. This is supported by Martin (2005) and Watchow (2008) who found that for a human-nature relationship to evolve, comfort levels within place, extended time and activities in nature are necessary. Participants from this study develop skills over time which may enable them to feel more comfortable in the natural environment in their final years. This preliminary study suggests that taking part in the Outdoor Education units where the students were exposed to the natural environment and contextual environmental content, on a frequent basis and over a period of time increased the students’ feelings of connectedness to the natural environment.

Further research is needed to explore whether students feelings of connectedness to the natural environment through participation in an Outdoor Education program subsequently leads to a development of stewardship for the natural world is worthy of further investigation.

References


A pedagogy of attunement: Walking beyond performative encounters

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LaTrobe University

Introduction
This paper seeks to consider the significance of a pedagogy of attunement in the context of walking and draws upon a review of literature which is part of my current PhD research. In describing attunement, it is not simply about coming up with a definition, it is about our work as educators. Fuchser (2006, p.13) states that “to pay attention to the movement of learning and the evolving creation of self is to make decisions centred on discernment. This is the work of attunement”. Walking is the body in movement and discernment foregrounds qualities of attentiveness and presence. My research considers the ethical significance of walking and consideration given in relation to our broader relationship to the earth.

This paper begins by exploring the performative conventions attributed to walking experiences in outdoor education which will then expand upon the consideration of these experiences as encounters. Then the nexus of body and place will be explored as a ‘peripatetic sense of place’ in Australia. The nature of this walking is described as walking through Country and in this paper is situated in the Australian indigenous sense of place. Finally, the combination of encounter and place will be considered in relation to making meaning and the pedagogical possibilities for an attuned practice considered. This research seeks to walk beyond performative encounters in order to attend to qualities of experience, place and meaning making that richly implicate us in our world.

Performative conventions in outdoor education: walking encounters
My walking experiences have taken me to varied places evoking multiple meanings. The footsteps I have taken have afforded their own unique contact with the ground and have informed both my teaching and research. As an educator, I have taken groups of students into outdoor settings on foot and in this research, critically reflect upon the performative conventions apparent in walking. The term ‘performative conventions’ was coined by Edensor (2000) in relation to urban design and walking, and is adopted in the context of outdoor education in order to critically view normative practices in outdoor education and how they are situated in the walking experience.

The walking experience in outdoor education conventionally involves the learning of a particular set of skills such as navigation and learning to walk in different terrain that may require attention to site-specific safety issues. The emphasis of walking using the guides of topographic maps and compasses has the walker constantly monitoring their direction, progress and location. Edensor (2000, p.97) suggests that “rather than an uninterrupted occasion for contemplation and sensual pleasure, such disciplines lead to continual physical self-control and spatial orientation”. This emphasis on skilled performance can compartmentalise the experience and be counter-productive to a developmentally attuned encounter that is open to the subjective dimensions of the experience that implicates us in our world.

Access to remote places for walking is another aspect to consider in relation to these conventions. Slattery (2008, p.20) argues that in outdoor education, “entitlement to remote places is earned through mastery of skills” and that “the pursuit of inaccessibility is a motivation, a lure, a challenge in its own right”. By virtue of the remoteness, the set of skills and attention to equipment needs is accentuated. Mediation is a part of experience and
manifests in a range of ways but it is worthwhile to bring into question the nature of the mediation and if gone unrecognised, has implications for education. Consider this observation made by Mulligan (2003, p.284):

Whenever we go, we recreate the frontier between the settled and the wild, and when we travel we are cocooned by our technologies. Even in our most dedicated efforts to ‘get back to nature’, we carry backpacks loaded with the ‘necessities’ for survival and we encase our feet in robust hiking boots…we need to keep in mind the degree of separation if we want to become more attentive and empathetic with the non-human world.

Reflecting upon this degree of separation, one could argue on a broader level how an unquestioned right of access into remote areas, devoid of human presence (except for the walker), is problematic. In Harper’s (2007) account of the history of bushwalking in Australia, she did note the dilemmas and differences that have existed between bushwalkers seeking the ‘wilderness experience’ and Aborigines who actively care for Country as custodians.

By acknowledging the nature of these mediations, the experience could be conceived in a way that implicates us more and is why I choose to use the word *encounter*. In seeking to walk with awareness and sensitive reciprocity, this situates us in-relation to our world. In a heuristic sense, the course of my walking has taken the form of ‘a dialogue of foot-to-ground’. This phrase was used by Mulligan (2003) and I adopted it as a metaphor in order to bring to my attention the texture of and movement of my footsteps and how that may be enacted as a dialogical encounter. Drawing upon the dialogical philosophy of Martin Buber that stemmed from two primary attitudes: ‘I-It’ and ‘I-Thou’, this research will examine the nature of encounter in the walking experience. The ‘I-Thou’ demands a shift to inter-subjectivity in that the subjective ‘I’ encounters the subjective ‘other’ (Buber, 1970) that prompt the pedagogical possibilities for an attuned practice of walking.

**Peripatetic sense of place in Australia: walking through country**

To explore walking as a dialogical encounter, the nexus of body, place and experience is an inseparable part of this research and the notion of *peripatetic* is applied. Adams (2001) explains that the word peripatetic derives from the Greek word *peri*, meaning around, and *patein*, meaning to walk. In relation to the literature concerning walking, Adams (2001) suggests that peripatetic theory has contributed to a strong sense of place as there is a tangible relationship between the walking body and the ground that brings us into immediate contact with our surroundings. Wallace (1996, p.18) states that peripatetic claims concerning the benefits of walking changed through history and as the industrial revolution shifted travellers’ attention to the process of travel and altered the “socio-economic content of walking”.

In relation to the Australian context, walking is situated within the post-colonial era and as such signifies important cultural aspects of place. Carter (1996, p.2) states that our (white Anglo Saxon) relationship to the ground is not “aligned to its inclines, folds and pockets. We glide over it;… to render what is rough smooth, passive, passable, we linearize it, conceptualizing the ground….as an ideally flat space” that can be traversed without hindrance. Mulligan (2003, p.280) points out “we need to look beyond the rational to decolonize our mindsets”. So rather than take the colonized position of ‘conquering’ a mountain and “climbing to a commanding point in order to see further”, we need to focus instead on the ground at our feet, “beginning to pay attention to its folds and inclines”.
So to walk *through* country requires a patient receptivity that listens to and sees the ground under our feet. In my research I will include autoethnographical material from a walk I did called the Lurujarri Heritage Trail. This Trail is situated on part of a songline and led by the local Aboriginal community.

**Embodied meaning making: walking towards an attuned pedagogy**

In terms of a pedagogical project, this is not a performative endeavour or a ‘how to’ manual for teaching walking. A pedagogy of attunement posited as a relationally-responsive pedagogy has addressed some of the emergence of ideas (Blades and Bester, 2013). Payne & Wattchow’s (2008) contribution concerning slow pedagogy in outdoor education that situates time and place in the learning experience informs this research as well.

The focus of my research is the bodily experience via the mobility and corporeality of walking as a means of making meaning in one’s world. Solnit (2001, p.5) describes walking in the following way:

> Walking, ideally, is a state in which the mind, the body, and the world are aligned...Walking allows us to be in our bodies and in the world without being made busy by them. It leaves us free to think without being wholly lost in our thoughts.

The educative possibilities are evident in terms of bringing various conditions in alignment where embodiment is the locus operandi. Geographers and ethnographers have contributed significantly to this research (Edensor, 2000; Ingold and Vergunst, 2008; Lund, 2012). This literature is informing the theoretical framework of this study. For instance, Ingold’s (2010, p. 129) reference to footprints registering as “emplaced movement” that configure the ground as an “interface between the mental and the material” offers a way in. From a phenomenological perspective, Merleau-Ponty (1968) explains this by way of the ‘motif of the ground’: the ground of all our thought, beneath our feet.

To conclude, my research focuses upon the subjectivity of our walking bodies in order to reveal how we are deeply implicated in our world. My intent in focussing on the ethical significance of walking is to conceive of a pedagogy of attunement that seeks to sustain us and our world.

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Practitioners working with young people are increasingly facing the challenges of working in inter-disciplinary contexts which involve new professional landscapes and terrains. In the UK, policy initiatives of the New Labour government, particularly the Every Child Matters strategy (DfES, 2003), called for holistic ways of working with children, young people and families, and emphasised integrated working. The current coalition government has continued this focus on families through its ‘Troubled Family’ strategy (DCLG, 2013). For youth workers and other practitioners working from an informal education tradition, these changes not only impact on ways of working but also on contexts of working. In particular youth work organisations and agencies now have to focus on work with young people with the most complex needs in the context of their families. Strategies to address a range of social issues including anti-social behaviour, unemployment, non-school attendance and drug and alcohol misuse focus on the family as a locus for change. This approach recognises the interconnectivity of adults and young people and the role of the family in young people’s lives (NYA, n.d.).

Alongside evidence based parenting programmes, mentoring and therapeutic approaches, outdoor and experiential learning is being explored as one way of engaging families identified as having complex needs. In this paper I discuss research undertaken with a national youth work charity that has developed its own home grown programmes working with families through outdoor and experiential learning. The organisation has a long history of working with young people through outdoor learning. However, work with families, adults and young people together, has raised a whole new set of questions about practice and its meaning. It is practice which challenges the trend to discuss outdoor learning in terms of individual development (Zink, 2010), instead focussing on inter-relational perspectives.

In these new contexts of practice, workers are challenged to generate knowledge and practice theory negotiated with those they work with (Eraut, 1999; Fook, 2004). This paper explores some of the methodological challenges and opportunities in researching workers’ understanding of their practice with families through collaborative action research. As such, our methodology seeks to address issues of power, giving equal value to the voice, expertise and insights of practitioners within a process that engages representatives from all parts of the organisation. It also seeks to draw upon the narratives of participating family members and workers from partner organisations to create a collective narrative contributing to the theorising and development of practice within the organisation and beyond.

In this paper I discuss the process of developing reflective cycles which engage practitioners and the organisation in critical reflection. This includes the development of critical reflexive practice which maintains a value-base and commitment to challenging power relationships within a broader socio-political and cultural context. In theory, practitioners who work from an informal education perspective are used to asking critical questions, and to addressing on a daily basis issues of equality and anti-oppressive practice. Our methodology therefore reflects these values in trusting and valuing research participants as co-generators of knowledge. Drawing on their shared narratives, participants engage in a reflective process which encourages problem-posing, or the problematisation of experiences...
(Freire, 1970) rather than looking for easy wins of ‘what works’. This contributes to the development of critical perspectives on why we work with families and the meaning brought to this work by those who participate in it. Ultimately it critically explores the family agenda within its social, cultural and political context. It encourages practitioners to make links between the personal, professional and political. In so doing it counters concerns that action research can lack theoretical ambition remaining focussed on problem-solving (Eikeland, 2012). However, action research is about putting those critical ideas into action turning conceptual categories “into living practices where people offer real-life explanations for what they are doing” (McNiff, 2013, p.51). Holding this tension between theory and practice, and facilitating the creation of praxis-orientated knowledge (Greenwood & Levin, 2007) is one of the challenges facing the collaborative action researcher.

Our research draws on a range of methods to create dialogical spaces for the researcher and participants to reflect on and question practice (McNiff, 2013). These include participant observation, reflective interviewing, action learning circles and the creation of an organisation-wide special interest group. It is a process which must engage with the on-going work of the organisation, informing new programmes and developing a critical and reflexive approach to the development of practice. It engages representatives of the organisation in a reappraisal of its values and purposes in the reality of marketization and pressures to meet government funding priorities. Our methodology also invites practitioners to participate in a process of critical reflexivity and explore, on a very personal level, questions such as ‘Who am I?’, ‘What do I bring into my work with families?’ and ‘What do I believe about what I am doing?’ This process is greatly enhanced by engaging in participant observation; sharing the experience of working with families, feeling some of the emotional dimensions of the work and engaging in a parallel process of self-reflection.

There have been high levels of participation in the research, with practitioners commenting that they value the interest being taken in their work. However, facilitating participation in the collaborative action research process has raised its own challenges, particularly in relation to equality. For instance, practitioners paid on a sessional basis, a common feature of recent practice, are not generally paid to undertake research or even spend significant time sharing and reflecting on their practice. Financial constraints can compromise the connection between researchers, strategic managers and those who deliver work on a face to face basis limiting the possibility of research genuinely informing action. When this tension is uncovered, researchers may also have to be attentive to feelings of frustration and unhappiness expressed by practitioners, associated with not feeling valued or heard within an organisation. However, collaborative action research can offer an empowering opportunity for participants to exercise agency and influence in their practice setting.

The research process questions the ways in which members of the organisation listen to and evaluate participant’s experiences, and engage with their feedback in its planning. Whilst evaluation and research is highly valued and supported within the organisation, outcomes-led practice and payment by results does lead to the prioritisation of some outcomes over others thus limiting the scope and criticality of evaluation. This can result in a failure to recognise broader outcomes and critical questions. This research invites members of the organisation to take a step back and reconnect practice with the organisation’s stated value base and purpose. Our experience to date has found that on-going engagement with partner organisations and families who participate in the residentials has provided a broader and longer term perspective on evaluation. This enhanced feedback on families’ experiences
provides the organisation with the opportunity to consider the impact of its contribution within participants’ everyday lives and social contexts.

In conclusion, our research has created new connections between people at different levels of the organisation and families it works with, contributing to the development of a stronger community of practice. It has created opportunities for practitioners and staff to listen to one another and strengthen the connections between practice and strategic development. Outdoor practitioners draw on a wealth of individual skills, professional approaches and political perspectives including therapeutic, psychological, informal education and feminist perspectives. Within this diversity there are common themes, challenges and questions that arise. Collaborative action research creates opportunities to build on individual practice-knowledge within a process of co-generation of practice-theory. The creating of new theories of practice makes connections to broader issues such as power and gender. This may contribute to both wider social and political debates about young people and families whilst raising new challenges in relation to their application to practice and the future work of the organisation.

References


Are outdoor education programs wrapped in cotton wool? 
Considering research associated with resilience in outdoor education.

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Introduction

With the World Health Organization (2012) acknowledging that “there is no health without mental health” and worldwide recognition of its importance, there is now a strategic focus on the development of youth programs that build skills to promote positive mental health in young people. Resilience is a fundamental element of mental health and psychological well-being is strongly associated with a person’s quality of life and productivity (Friedli, 2009; Wagnild, 2010). This paper views resilience as the capacity for an individual to positively adapt to adversity which is developed through previous exposure to progressive challenges and personal resources (Allan, McKenna, & Hind, 2012).

School based outdoor education programs have the capacity to be used as a platform for young people to develop resilience and coping skills. The nature of outdoor education allows for exposure to progressive challenges, relationship development and personal growth through adventure programming and exposure to real and perceived risks that may not be available in class room settings. There is a large body of literature on the benefits of outdoor education that supports the claims that outdoor education programs have the potential to positively influence a participant’s psychological and social health (Ewert & Yoshino, 2011; Neill, 2001). However, there is little evidence to suggest that participation in mainstream school based outdoor education programs enhances resilience in young people.

Aim and Scope

This paper aims to examine the gaps in research based on resilience in outdoor education with adolescents in mainstream schools. A structured approach was used to source relevant literature across four data bases (A+ Education, EBSCOhost, Scopus and Web of Knowledge) from 1970 to 2013. The review included four separate rounds of literature searching. The first round found over 5000 relevant articles. Keyword, title and abstract information were used. Search terms included outdoor education, adventure education, wilderness therapy, experiential education, and environmental education, which were then cross checked with the terms `adolesce*` (* the symbol is used for identifying all words starting with adolesce, e.g. adolescent, adolescence etc.), resilien*, coping, stress, stress inoculation, and challenge. After the last phase of cross checking 625 abstracts, only eight quantitative studies were included as they encompassed the construct of resilience as a key component of the research and were conducted in an outdoor education setting. Papers were only included if the study was conducted in an outdoor setting and had structured programming (i.e. the study was administered by an external qualified party, education provider or school), and the study focussed on the psychological constructs of resilience, resilience characteristics or stress and coping as major consideration of the paper.

Resilience at a Glance

Etymologically, resilience can be traced back to the Latin words resilio, resilire, resilui; meaning to leap back or spring back, rebound, recoil, retreat (Lewis, 1890).
Similarly, 21st century definitions of resilience use the same concepts, yet it is defined differently across disciplines and according to the context in which it is used. In educational based research, resilience has been conceptualised as a psychological ability that allows someone to maintain or regain mental health whilst overcoming adversity (Neill & Dias, 2001). Resilient people are seen to have the capacity to cope with and respond positively to adverse life events (Wagnild, 2010). Building resilience and coping skills in young people can minimise the risk and severity of adverse mental health conditions developed during adolescence and early adulthood (Friedli, 2009; Wagnild, 2010).

The attributes that make up resilience, can be characterised by a series of skills, behaviours or coping strategies that are used to overcome adversity (Allan et al., 2012). Therefore, in the context of this paper, resilience is referred to as a resource. Resilience as a resource is used to describe the ability for an individual to draw on their innate resilience (Grafton, Gillespie, & Henderson, 2010) and environmental resources (Allan et al., 2012) to achieve a desired outcome or respond positively to a stressor. Resilience as resource refers to the complex multi-dimensional relationship between interpersonal, intrapersonal, environmental, biological, sociological and psychological constructs that constitute an individual’s competence or capacity to cope (Allan et al., 2012; Grafton et al., 2010).

Outdoor Education Programs in Schools

Outdoor education programs are a growing part of school curriculum across the world. By the year 2021, it is expected that more than 300,000 young people in Victoria alone will participate in outdoor education programs (Australian Bureau of Statistics, 2007). Many structured youth programs have targeted personal sources of resilience through the use of experiential education pedagogies. Some studies have reported improvements in resilience as an entire construct (Gillespie & Allen-Craig, 2009; Neill & Dias, 2001) or increases in the individual components of resilience such as self-esteem, social competence and locus of control.

The outdoor environment presents an educational setting which can expose young people to stresses and arousal not experienced in other learning settings, providing opportunities for students to explore coping strategies and resilience attributes (Neill & Dias, 2001; Skehill, 2001). However, the field of outdoor education is currently lacking supporting evidence of how resilience can be developed, enhanced, and transferred into the everyday lives of young people (Allan et al., 2012; Neill, 2001).

Review of Results from the Literature Search

For the most part, research on resilience in outdoor education explores resilience in certain populations and circumstances such as youth at risk (Gillespie & Allen-Craig, 2009), delinquency (Bedard, Rosen, & Vacha-Haase, 2003), adverse health conditions (Buckner et al., 2005), low socio-demographics (Green, Kleiber, & Tarrant, 2000) and psychological disorders (Clark, 2003). There has been little and inconclusive research with mainstream, school aged young people (Beightol, Jevertson, Gray, Carter, & Gass, 2009; Skehill, 2001), yet the statistics show that 75% of all severe mental illnesses occur prior to the age of 25 (Australian Bureau of Statistics, 2007). This indicates the significance of mental illness in young people and the importance of giving our young people opportunities to develop these skills during outdoor education programs as part of a whole school approach to their mental wellbeing and education.
Out of the past eight studies conducted on resilience in outdoor education, only three studies have reported an increase in resilience scores after participation in outdoor education programs (Buckner et al., 2005; Gillespie & Allen-Craig, 2009; Neill, 2001). Two out of the three studies (Buckner et al., 2005; Gillespie & Allen-Craig, 2009) focussed on high risk populations and did not use control groups in their experiments. Most of the other studies reported mixed results, where only some attributes of resilience increased (Beightol et al., 2009; Green et al., 2000) or the control group had similar results (Ewert & Yoshino, 2011). A study conducted on Year 9 adolescents who participated in an Extended Stay Outdoor Education Program reported no significant increase in resilience and no reported increase of well-being or decrease in distress (Skehill, 2001).

**Conclusion**

Outdoor education has the potential to expose students to adversity and progressive challenges that they may not be exposed to in a classroom setting or their everyday lives. However, for these experiences to be resilience building, programs must provide opportunities for young people to practice initiating their coping skills and strategies to deal with these challenges. The level of challenge presented to participants may be the key to resilience development. The emerging concept of resilience as a resource, and the application progressive challenges and stress inoculation into outdoor education programming warrants further investigation. The available literature suggests that outdoor education programs can be beneficial; however, the diversity in research design, measurement and populations studied makes it difficult to draw strong conclusions. The transference of resilience across various contexts and settings is also a crucial area for future research.

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Introduction
Understanding student engagement with schooling is providing greater insights into why student’s complete or drop out of school; their levels of social connectedness, personal wellbeing and levels of academic achievement (Elmore & Huebner 2010; Smyth, McInerney & Fish, 2013; Zygnier 2008). As Willms (2003) from his analysis of data across 42 countries and over 8,000 schools identified, “engagement is probably closely tied to students’ economic success and long term health and wellbeing, and as such deserves to be treated alongside academic achievement as a schooling outcome” (p. 9). Engagement is not simply a student’s behavioural response to a learning activity, but it is the complex interaction between the students’ personal backgrounds and histories, with the unique ecologies and social geographies of the school (Lawson & Lawson, 2013).

The learning environment created within schools equally support or undermine the engagement of students as Skinner and Pitzer (2012) identify in their discussion of motivation and engagement. Teachers, peers and parents responses to student behaviours provide positive feedback to both engaged and disengaged behaviour. This means “these feedback loops are self amplifying forming virtuous or vicious cycles that magnify initial individual differences across time, making motivationally rich students richer, and motivationally poor students poorer” (Skinner and Pitzer, 2012, p.31).

Outdoor education programs have the potential to influence aspects of student engagement through novel learning settings in natural environments that present challenging experiences which encourage social connection and cognitive interaction. The natural environment provides equity and immediacy to a group of students and teachers who are participating in outdoor experiences. These experiences can be shared and reflected on back in the classroom to support the development of trust, personal understanding and engagement with learning.

Characteristics of engagement
The indicators of student engagement are the affective, cognitive and behavioural involvement with the activity (Fredricks, Blumenfeld & Paris, 2004; Gibbs & Poskitt, 2010). Together these three dimensions give a holistic view of a student’s engagement. Affective engagement describes students’ social, emotional and psychological attachment to the school. The relationships they have with peers, teachers and other adults within the school, their sense of belonging. Cognitive engagement is the psychological investment students have with the academic tasks. This is characterised by how deeply students think about ideas and concepts and how involved they become in ‘making sense’ of the material being
examined. Behavioural engagement is students’ physical involvement in the learning. This participation is reflected in task related behaviours, including completing reading, asking questions and following instructions. It is also seen in more general behaviours, including class attendance, homework completion, and involvement in other school activities (Fredricks, Blumenfeld & Paris, 2004). These three dimensions are not isolated elements but collectively constitute a students’ engagement. For example, a student who displays behavioural engagement by asking insightful questions about a concept is likely to be strongly cognitively engaged.

Disengagement is often thought of as a passive lack of interest in schooling that may include feelings of dejection or apathy, but it is a more complex construct (Skinner, Kindermann & Furrer, 2009). Students who report being disengaged from school are often academically capable, passing their studies and are compliant in the classroom (Lawson & Lawson, 2013; Zyngier, 2008). These students can be as disaffected from school as those who’s behaviour is more overt, withdrawing from activities, being disruptive or not attend classes. Decisions are being made not to engage with school whether this is due to the young person believing the learning activities are irrelevant to them or through feelings of alienation or lack of control.

Student engagement is “malleable, namely, it is amenable to improvement via pedagogy and other interventions (Lawson & Lawson, 2013, p. 435)”. Teachers who develop close caring relationships with their students tend to focus on the student’s learning needs rather than being preoccupied with on or off task behaviour. This approach increases engagement regardless of student background (Wooley & Brown, 2007). This can flow to the development of a positive classroom culture that builds friendships between students. These friendships can increase affective engagement and a sense of belonging which supports learning through class discussion, group projects and being able to talk through ideas (Gorard & See, 2011). A focus on mastery of learning and providing young people with a level of control and autonomy of their learning increases engagement with schooling (Smyth, McInerney & Fish, 2013).

**Combining outdoor education with school based inquiry learning**

A program aimed at developing the capacity of young people from disadvantaged backgrounds through a novel combination of learning thorough challenging experiences in the natural environment and school based inquiry projects was offered to 30 Year 9 students. An opportunity was also in place for them to continue with the program in Year 10. Extended pioneer residential living and outdoor expeditions were combined with a school based inquiry learning curriculum. The program combined school based curriculum with residential sessions and expeditionary journeys over the two years. Each year was tailored to the students’ developmental needs, focusing on personal development and organization skills in Year 9, extending these skills and exploring vocational opportunities in Year 10. From an initial group of 30 Year 9 students, 21 went on to complete the second year. Over the two years, students reported changes in all three dimensions of engagement that were verified by both parents and teachers.
Attendance increased and teachers reported behaviour and attitude changes in the classroom as described by Sarah a participating teacher, “The Evolve students have developed characteristics that help them work together, in the Evolve class they don’t muck up like in other classes. The mentality of the class, on the whole, is different. I’ve got another Year 10 class, healthy lifestyles, and they are so needy, can’t do much for themselves. With the Evolve class, they give it a go; their attitude towards trying things is completely different. The risk taking, being organised, taking responsibility, don’t blame others when things are not done” (teacher interview).

Conclusion
Positive outcomes for students occurred in all three dimensions of engagement, affective, cognitive and behavioural that lead to a general expansion in understanding of themselves, their capacities and their interaction with others. The curriculum and pedagogy of the program were the tools for achieving this learning. A trust environment developed that enabled students to take the risks demanded by the experiential and inquiry learning. One Year 9 student describing, “it is like we are one big family” (student interview). Students all commented on the friendships and relationships they developed with each other, teachers and outdoor education staff through the residential and expedition activities. This development of trust environments and relationships is a common outcome for residential and outdoor based activities. However, transferring this learning back to the classroom where students apply the skills and understanding developed to academic activities is unusual. Two features supported this process, first the students and their teacher attended the residential sessions as a class group and second; the learning activities completed during the residential sessions developed the skills they needed to complete the school based inquiry projects. This purposeful connect between the residential and school based learning provided a clear link for students to identify the relevance of the activities conducted in different contexts.

References


Living the lift-line: A phenomenological study of the lived experience of skiing

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Keywords: risk perception, phenomenology, lived experience

Aim of Abstract/Paper – Research Question
The experience of being in the outdoors is highly subjective and may provoke a wide range of emotions, behaviours and reactions. This phenomenological study explores the lived experience of skiing through the subjective and personal stories of skiers, and highlights the complex interplay of responses within the skiing encounter. Informing this study; literature from the outdoor recreation/education, leisure, adventure tourism and outdoor adventure genres was drawn upon to indicate growing erudition in the nature of lived experiences within sport and recreation. The notion of seeking to understand lived experiences of the outdoors often runs counter to measured interpretations within these contexts which may not provide insight as to what the meaning of such experiences might hold. The first experience a person has on skis might be both enthralling and terrifying, and I assert that this study has important implications in terms of understanding how one’s subjective encounter with different outdoor contexts could convey one toward growth or withdrawal.

This study revealed that the lived experience of skiing elicits a range of outcomes which may be relevant to the outdoor education context. Experiences described included those relating to a sense of freedom (and escape), a sense of solitude as well as connection to a specific place, an awareness of one’s moving body; but perhaps most significantly a heightened alertness in the face of perceived risk. I suggest that ski professionals (e.g., ski instructors - who offer a mode of outdoor education), may benefit from understanding the highly subjective nature of risk and how we engage with people skiing for the very first time.

Literature Review
Very little scholarship exists on the subjective experience of skiing, and whilst there is considerable literature around ski area customer satisfaction (Clark & Maher, 2007), conflict between ski area users (Edensor & Richards, 2007; Gilden, 2004) and skier motivations (Needham, Rollins, Ceuvorst, Wood, Grimm & Deardon, 2011), the deeper meanings behind skier participation are not adequately revealed. I drew on literature where experiences in the outdoors were framed through an interpretive approach, thus allowing the deeper meanings to unfold and some parallels to be made with the lived experience of skiing. For example, Schmidt and Little (2007) used a phenomenological approach to unpack the experiences of 24 participants in various outdoor settings ranging from hiking to climbing, which they described as being linked to feelings of connection and spirituality. Some authors have queried the place of freedom in relation to being in the outdoors (Straker 2005), whilst others have sought to understand the attraction of the outdoors for people seeking solitude (Cole, 2011-2012; Chang & Gibson, 2011).

I drew heavily on the works of Sartre (1956) to gain a deeper understanding of the lived experience of skiing as he felt it to be, and I gained deep insight into the subjective nature of the moving body as presented by Johns (2010). The literature surrounding the nature of risk is prolific in the broad genre of the outdoors. Such literature ranges from scholarship on extreme sport participation (Booth, 2007; Buckley, 2012) to the concept of “the comfort zone” which has a growing body of literature dedicated to unpacking it’s highly subjective nature when related to risk (Brown, 2008; Holford, 2010).
Methodology and Method
This study employed an hermeneutic reflective approach which was rooted in phenomenological enquiry. Such enquiry delves into the nature of an experience and seeks meaning through eliciting a closer understanding of the phenomena that is the lived experience. I sought a purposive sample for my study with the intention that these people would all share a deep passion for the sport and thus share some “ways of knowing” inherent to skiing. I sought quality data that would provide a springboard for deep insight into what it means to ski, however, I was mindful that in order to gather an array of rich stories, I needed participants to be diverse enough from one another to allow the unique nature of the phenomena to unfold.

Participants were interviewed in unstructured in-depth interviews, allowing their stories to reveal their subjective lived experience, providing data for the emergence of themes. Thematic analysis involved a whole-part-whole approach where I was able to re-think interpretations and stay close to the experience as lived thus enabling meaning to be revealed rather than definitive answers. Ethics approval was granted through the AUT Ethics Committee and this study was deemed to be low-risk. Participant confidentiality and the principles of the Treaty of Waitangi were adhered to through the research process.

Findings and Discussion
Salient findings to emerge were predominantly around the concept of “towardness”. That being, the skier skis towards something – a potential that dwells. Towards being exposed (the gaze of one upon the skier); toward awareness of one’s body (embodied learning); towards a freedom or a freedom from (escape); toward risk (perceived and real). Perhaps the most significant of the findings to emerge were those centred round the concept of risk. Risk in outdoor and physical activities as a topic is incredibly broad (Hetland & Vitterso, 2009) and this study highlighted the myriad of concepts that could be further unpacked to shed light on its complexity. Perhaps one of the most striking concepts is the highly subjective nature of risk (Brymer, 2005) and the boundaries within which skiers are prepared to push when dwelling within it. Risk in this study, surfaced as being playful; at times overwhelming; sometimes as pushing comfort zones and often as both imagined and real. There appeared to be a common desire amongst participants, to at times quell or mollify risk, whilst acknowledging it also formed a large part of the attraction for skiers.

Implications for outdoor education were identified as being relevant directly for those in the snowsport industry, such as, being cognisant of the perception of risk for the ski client. Further implications could hold relevance for patrollers – if risk is indeed subjective, then how is this influenced by ski area management (we have defined areas – beginners, intermediate, advanced, expert and “unpatrolled”). For the broader outdoor education industry, there could be relevance in considering the perceptions of risk people might hold about adventuring into the outdoors. This could be particularly significant for schools in their management of outdoor education opportunities.

References


Clark, J., & Maher, J. (2007). If you have their minds, will their bodies follow? Factors effecting customer loyalty in a ski resort setting. Journal of Vacation Marketing 13(1), 59


Outdoor education increases students’ groupwork skills, attitudes and self-efficacy during higher education

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Groupwork skills in higher education are associated with academic achievement and successful employment (Prichard et al., 2006; CBI, 2011), and universities often use short, residential outdoor courses to develop these transferable skills. Although previous research has shown outdoor education (OE) to be an effective means of developing groupwork skills in a variety of populations (Hattie et al., 1997), a recent review argued that further exploration of their efficacy in a higher education context is warranted (Cooley, Burns, & Cumming, under review). In a qualitative study, we found students to report increasing their groupwork skills during OE, as well as developing more positive attitudes towards groupwork and enhanced self-efficacy regarding their ability to work effectively in groups (Cooley et al., 2013). Because an individual’s attitude and self-efficacy towards a behaviour can predict the likelihood of them improving their performance of that behaviour (Ajzen, 1991; Shivers-Blackwell, 2004), it is important to explore these associations further.

The present study aimed to build on our earlier research by carrying out a quantitative evaluation of the changes in groupwork skills, attitudes and self-efficacy following OE. Addressing limitations that have been highlighted in previous research (Cooley et al., under review), this study explored changes both immediately post-course and in a later follow-up measure to assess subsequent transfer to higher education with psychometrically valid questionnaires.

Method

Participants
Students (N = 166; 55% male; Mage = 21.49, SD = 2.22) were recruited from undergraduate or postgraduate degree courses in business and engineering. All students on these degree courses were encouraged to attend OE to develop their groupwork skills. The sample comprised 53% local (UK) students and 47% international students, who were mainly from China (39% of total).

Measures
Internal reliability was acceptable for all measures (Cronbach’s alpha =.71-.94).

Groupwork skills questionnaire (GSQ; Cumming et al., under review).
Two 5-item subscales measured students’ perceived frequency of displaying task (e.g., setting goals and establishing roles) and interpersonal (e.g., providing emotional support and being sensitive to the feelings of others) groupwork skills. Items are rated on a 5-point Likert type scale (1 = never, 5 = always).

Groupwork self-efficacy (GSE). Self-efficacy towards groupwork was measured using a revised version of the Personal Efficacy Beliefs Scale (PEBS; Riggs et al., 1994). On a 5-point Likert type scale (1 = strongly disagree, 5 = strongly agree) students rated 10-items that assessed their comfort with, and motivation to, demonstrate skills that facilitate groupwork (e.g., “I have all the skills needed to perform very well in groups”).
Attitude towards working in a group (ATWG; Chapman & Van Auken, 2001). The ATWG measured how students felt about working with others as part of their educational experience. Eight bipolar items (e.g., waste of time/good use of time) were rated on a 7-point semantic differential scale (1 = unfavourable; 7 = favourable).

Procedure

Questionnaires were completed immediately before and after OE and again 3-months later. Of the 303 students taking part in OE, 240 (79%) gave informed consent and 166 (69%) of these went on to complete the questionnaire at all three time points and were included in the analysis.

Separate multivariate or univariate ANOVAs with repeated measures were conducted with time (pre, post, follow-up) as the independent variable, and mean scores for the GSQ (task and interpersonal), GSE, and ATWG as dependant variables.

Results

Groupwork skills

A significant multivariate effect was found across time points for groupwork skills: $F(4,161) = 10.08, p < .001$, $\eta^2 = .059$. Univariate ANOVAs revealed a significant effect for time in the interpersonal subscale: $F(2,162) = 15.38, p < .001$, $\eta^2 = .087$, but not the task subscale: $F(2,162) = 0.91, p = .40$, $\eta^2 = .01$ (Figure 1). For interpersonal groupwork skills, post hoc analysis revealed significant increases from pre to post-OE. At follow-up, scores had significantly decreased from post-OE, but remained significantly greater than pre-OE.

Figure 1

Changes in task and interpersonal groupwork skills following OE

![Changes in task and interpersonal groupwork skills following OE](image)

Note. Error bars represent standard error. *** $p = < .001$. 
**Groupwork self-efficacy and attitudes towards working in a group**

A significant univariate effect was found across time points for both groupwork self-efficacy \( (F(2,163) = 20.02, p < .001, \eta^2_p = .11; \text{Figure 2}) \) and attitudes towards working in a group \( (F(2,159) = 17.134, p < .001, \eta^2_p = .097; \text{Figure 3}) \). For both variables, post hoc analysis revealed significant increases from pre to post OE; at follow-up, both had significantly decreased from post-OE, but remained significantly greater than pre-OE (Figure 2 and 3).

**Figure 2**
*Changes in groupwork self-efficacy following OE*

![Groupwork self-efficacy graph]

*Note.* Error bars represent standard error. *** \( p < .001 \).

**Figure 3**
*Changes in attitudes towards working in a group following OE*

![Attitudes graph]

*Note.* Error bars represent standard error. *** \( p < .001 \).

**Discussion**

In support of Cooley and colleagues (2013), this study demonstrates that short, outdoor-centred groupwork skills courses can be an effective way to increase
interpersonal groupwork skills in students, as well as their groupwork self-efficacy and attitudes. Interestingly, no significant changes were found for task groupwork skills. This finding could be due to the OE course in this study being less effective in developing task groupwork skills; yet this explanation goes against our qualitative research on the same OE course, which found students to report developing a range of task related skills (Cooley et al., 2013). We therefore believe that, due to a lack of structured groupwork skills training prior to OE, students may have become more aware of their task groupwork behaviours in need of improvement; thus resulting in more accurate measures post-OE, that were potentially more self-critical compared to those taken before. This effect has been observed in previous interventions designed to enhance life skills (Holland, 2010).

Measures taken 3-months after OE showed outcomes to remain significantly elevated above those taken before OE, showing that the improvements in these areas were sustained when students returned to higher education. However, follow-up measures had dropped from those taken immediately after OE, which highlights a need for more support to encourage transfer. Not all the students in the present study had the opportunity to engage in groupwork on their return to higher education, and for those that did, no more formal support was given after OE had finished. Providing students with the opportunity to practice their groupwork skills on their return, along with opportunities to further reflect on skills, would likely aid transfer and facilitate further development of groupwork skills and attitudes.

This study demonstrates that OE has a positive impact on students’ groupwork skills, attitudes and self-efficacy during higher education. Research on this study is ongoing; these initial findings are expected to be strengthened following path analysis, which is being conducted to explore the factors that influence these outcomes.

References


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**Footnote**

The type of OE referred to in this study was a 3-day outdoor-centered course, specifically designed to challenge and develop groupwork skills. Activities were facilitated by trained instructors and progressed from 30-min icebreakers (e.g., blindfolded tasks and the “spiders web”) to more complex activities (e.g., ropes courses, raft building, and mountaineering). Groups of 5-8 students were required to work together on these tasks, engage in reflection, and carryout housekeeping chores.

**Acknowledgements**

Funding was received from the Higher Education Academy and University Birmingham Sport (UBS). Although the outdoor education centre is funded by UBS, the research was designed, conducted, analysed and written by independent researchers; the funding sources had no direct involvement in the research or preparation of this article. The authors would like to thank manager Norman Beech and his team at the Raymond Priestley Centre for their cooperation, along with Emily Novakovic, Tonia Horgan, and Liam Deery for their help with data collection.
Evaluating learning experiences using a semi-structured video diary room

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Outdoor education (OE) experiences are typically evaluated before and after participation. Measures taken during OE are less common; this is unfortunate as they may provide additional insight into these experiences as they unfold and the process by which learning occurs. Traditional methods of data collection employed during a learning experience (e.g., interviews and questionnaires) may not be appropriate for OE due to being time consuming and disruptive. Participants could also feel burdened with additional ‘work’ when they should be experiencing a pristine wilderness removed from academic tasks.

To overcome these issues, we developed a method of qualitative data collection that is time efficient, fun for participants, and enables data to be collected with minor disturbance, whilst participants are immersed in their learning experience. This method is a semi-structured video diary room (Cooley et al., 2013), which involves “momentarily taking participants out of an experience, and into a private space, to reflect verbally on that experience in front of a video camera” (p. 3). The diary room was used in the present study to investigate students’ experiences of an outdoor education groupwork skills course within higher education. The aim was to develop the methodology and to understand students’ perceptions of the OE experience and the outcomes obtained through participation.

Method

Participants

A sample of 40 students (80% male; Mage = 20.55, SD = 1.09) was recruited from 206 undergraduate Engineering students taking part in OE1. There was a mixture of home/EU (55%) and international students (45%). OE was embedded within the degree course to prepare students’ groupwork skills prior to a yearlong academic group project.

Procedure

The diary room was set up in a private yurt and contained a video camera, armchair and coloured screening/lighting to create a relaxed atmosphere. Students were invited to give entries (via purposive sampling; see Cooley et al., 2013) on arrival and at the end of days one and two. Whilst alone in the diary room, students took an average of 4 minutes to respond to 3-5 question cards. Questions addressed the experience (e.g., “What things have helped you to overcome any difficulties?”) and perceived outcomes (e.g., “What have you learnt that you could use during your academic work or future employment?”). The questions were deliberately open-ended and non-leading, and required more than a yes/no response.

Footage (2 hr 45 min) was collected and transcribed. An inductive, thematic analysis was conducted according to guidelines by Howitt (2010). Trustworthiness
was established through reaching consensus with a second researcher who analysed 15% of data, and review by a panel of independent, expert researchers.

**Results**

Resulting themes were separated into those relating to the course *experience* (e.g., the process students went through during OE, Table 1) and the course *outcomes* (e.g., the outcomes resulting from the experience; Table 2).

**The Course Experience**

Table 1

*A thematic analysis of the groupwork skills course experience*

<table>
<thead>
<tr>
<th>First level themes</th>
<th>Second level themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual preconceptions</td>
<td>Motivation for attending</td>
</tr>
<tr>
<td></td>
<td>Positive affect</td>
</tr>
<tr>
<td></td>
<td>Preferences for groupwork</td>
</tr>
<tr>
<td></td>
<td>Information from peers</td>
</tr>
<tr>
<td></td>
<td>Past experiences</td>
</tr>
<tr>
<td></td>
<td>Concerns</td>
</tr>
<tr>
<td>Outcome expectations</td>
<td>Groupwork skills</td>
</tr>
<tr>
<td></td>
<td>Enjoyment</td>
</tr>
<tr>
<td></td>
<td>Improved peer relationships</td>
</tr>
<tr>
<td></td>
<td>Benefit to future behaviour</td>
</tr>
<tr>
<td>Key elements of the experience</td>
<td>Interesting and enjoyable activities</td>
</tr>
<tr>
<td></td>
<td>Challenging</td>
</tr>
<tr>
<td></td>
<td>Revealed weaknesses</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
</tr>
<tr>
<td></td>
<td>Time outside of activities</td>
</tr>
<tr>
<td>Overcoming the challenge</td>
<td>Interpersonal support</td>
</tr>
<tr>
<td></td>
<td>Intrapersonal support</td>
</tr>
<tr>
<td>Reflection on the experience</td>
<td>Positive and memorable</td>
</tr>
<tr>
<td></td>
<td>Exceeded expectations</td>
</tr>
<tr>
<td></td>
<td>Sense of achievement</td>
</tr>
<tr>
<td></td>
<td>Thoughts on transfer</td>
</tr>
</tbody>
</table>

Students arrived at the course with *individual preconceptions*. For example, some arrived to develop their groupwork skills whereas others attended because they felt it was compulsory (e.g., “I'm here today because we have to do it … I’m not really sure why”). Individual preconceptions also included mixed preferences for groupwork, with some responding positively and others stating a preference for independent working.

Another theme described the *key elements of the experience*, which included the importance of challenge. During OE, students experienced physical demands, intellectual demands, language barriers, and frustration, which revealed weaknesses in individuals and groups (e.g., “… no one was really listening to each other”). Students felt that time spent outside the activities doing housekeeping and socializing also added to the learning experience (e.g., “[learning has] come about just as much in
living with people and having to do cleaning with the people as much as having to do the particular tasks”).

To overcome the challenge, students reported receiving interpersonal support from group members, leadership, effective communication, role allocation, trust, humor and the instructors (e.g., “A bit of humour has certainly helped me to overcome a few things”); and utilised intrapersonal skills through applying previous knowledge, emotional control, improvisation, reflection, and planning (e.g., “I have had to keep my head cool”).

The Course Outcomes

Table 2

A thematic analysis of the groupwork skills course outcomes

<table>
<thead>
<tr>
<th>First level themes</th>
<th>Second level themes</th>
<th>Third level themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>Groupwork</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leadership</td>
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<tr>
<td></td>
<td></td>
<td>Team spirit</td>
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<td></td>
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<td>Group reflection</td>
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<td></td>
<td></td>
<td>Team roles</td>
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<td></td>
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<td>Cooperation</td>
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<td></td>
<td></td>
<td>Functioning of intact groups</td>
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<tr>
<td>Improved relationships</td>
<td></td>
<td>Peer group</td>
</tr>
<tr>
<td>Internationalisation</td>
<td></td>
<td>Student and staff</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>Mental toughness</td>
<td>Persistence</td>
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<tr>
<td></td>
<td></td>
<td>Self-confidence</td>
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<tr>
<td></td>
<td></td>
<td>Bravery</td>
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<tr>
<td></td>
<td></td>
<td>Adaptability</td>
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<tr>
<td>Task management skills</td>
<td></td>
<td>Planning</td>
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<td></td>
<td></td>
<td>Problem-solving</td>
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<tr>
<td></td>
<td></td>
<td>Time management</td>
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<tr>
<td>Self-awareness</td>
<td></td>
<td>Exercise</td>
</tr>
<tr>
<td>Physical activity</td>
<td></td>
<td>Outdoor recreation skills</td>
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<tr>
<td></td>
<td></td>
<td>Motivation</td>
</tr>
</tbody>
</table>

Students perceived improvements in their interactions with others (interpersonal outcomes). They reported an increased awareness and perceived value of groupwork, and developed skills to improve communication, leadership, team spirit, group reflection, role allocation, and cooperation (“e.g., [OE] taught me to be a bit more accepting, understanding sort of like appreciating what other people’s views are”). Other interpersonal outcomes were improved relationships with other students and university staff and internationalization (i.e., increasing skills and appreciation for working effectively in a multicultural environment).

Secondly, students reported personal development that did not relate directly to working with others (intrapersonal outcomes). For example, increased mental
toughness was identified as a theme; this involved becoming more persistent in the face of difficulties, able to adapt, self-confident and brave (e.g., ‘I become more confident about myself. I usually speak to myself that you can do it ... because you have the ability’).

Discussion

The diary room was an effective method for evaluating lived experiences. Students were willing to participate and appeared open and engaged during entries, resulting in rich responses. The speed at which entries were collected allowed participation in between activities with minimal disturbance to courses. It also allowed us to capture experiences whilst students were immersed in the moment.

This method is a cost and time efficient way of evaluating a learning experience. It requires little more than a video camera and a private space for participants to reflect on their experience. Further, the semi-structured question cards can be adapted to address any number of research questions, in a variety of contexts. The diary room could also be portable, making it practical for wilderness programs and expeditions.

Participants’ responses suggest that the diary room may also act as a reflective tool. The questions encourage students to examine how they are responding to the course, which may lead to new understanding and appreciation towards their experience. A limitation to the diary room method is the inability to follow-up on comments made. However, entries could be followed up afterwards through 1-to-1 interviews and/or focus groups.

In the present study, numerous outcomes were developed during OE, which would be expected to benefit students during higher education and employment. By the end of OE, the range of outcomes discussed was far greater than students’ expected outcomes on arrival; suggesting students became more aware of the different aspects of groupwork that could be developed. Some students also initially displayed negative attitudes towards groupwork and others were unsure why they were attending. An intervention could be employed before OE to ensure students understand why OE is a valuable opportunity. This understanding could improve attitudes and intrinsic motivation to attend, which would serve to enhance the learning experience (Ryan & Deci, 2000).

This study also highlighted the aspects of OE that students felt were important in achieving the course outcomes, such as the social and physical challenges. These findings support previous studies and models that aim to explain the OE learning process (e.g., Walsh & Golins, 1976). It was also interesting to find students discussing how important the housekeeping duties and down time was in the learning experience, especially as these aspects do not feature in all courses. Overall, the present study demonstrates a novel and effective method of data collection, and provides evidence supporting the use of OE in higher education.

References


**Footnotes**

1 The type of OE referred to in this study was a 3-day outdoor-centered course, specifically designed to challenge and develop groupwork skills. Activities were facilitated by trained instructors and progressed from 30-min icebreakers (e.g., blindfolded tasks and the “spiders web”) to more complex activities (e.g., ropes courses, raft building, and mountaineering). Groups of 5-8 students were required to work together on these tasks, engage in reflection, and carry out housekeeping chores.

2 Only selected themes are described within this paper. For a full description of themes please refer to the publication by Cooley et al. (2013).

**Acknowledgements**

Funding was received from the Higher Education Academy and University Birmingham Sport (UBS). Although the outdoor education centre is funded by UBS, the research was designed, conducted, analysed and written by independent researchers; the funding sources had no direct involvement in the research or preparation of this article. The authors would like to thank manager Norman Beech and his team at the Raymond Priestley Centre for their cooperation, along with Tonia Horgan and Liam Deery for their help with data collection.

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The Use of a Learning-Centered Strategy for Developing more than the ABCs in Outdoor Education

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The North American teaching model is commonly a ‘one-size-fits-all’ approach. Similarly, some outdoor education teachers believe in being the sole providers of knowledge (Davidson, 2001). The learning-centered strategy bases itself on student outcomes (Mostrom and Blumberg, 2012; Reynolds, 2006; Streitwieser & Light, 2010) and requires a paradigm shift. Educators should consider learning outcomes for students, rather than a teaching strategy. A learning-centered perspective is presented from the traditional classroom styles to the outdoor education learning-centered approach.

In 1966, Mosston introduced a continuum of eight teaching styles depending on the situation and content matter. The premise was based on a teacher-learner relationship. Mosston and Ashworth (2002) added three more learner-centered styles, from reproducing knowledge (styles A - E) to producing new knowledge (styles F –K). They comprised of the following: (A) command, (B) practice, (C) reciprocal, (D) self check, (E) inclusion, (F) guided discovery, (G) convergent discovery, (H) divergent production, (I) learner’s individual designed program, (J) learner initiated, and (K) self teaching. The latter styles were found to result in greater adaptive cognitive and affective responses with better quality work (Morgan, Kingston and Sproule, 2005). Hubball and West (2009) suggest that outdoor education is the most effective in life skills development and emphasize that students should assist with the planning and running of an outdoor experience. The following exploratory study examined the use of a learning-centered strategy to promote life skills.

Method

Participants --- Procedure

Most of the nine students aged 14 to 16 years (2 girls and 7 boys) who signed consent forms to participate in the study had minimal or no wilderness experiences. Five experienced observers and two university outdoor leadership students led a 10 day study, divided into two parts. For five days, part one consisted of team building activities, outdoor activity skills, swimming, canoeing and trip planning at a local school. On day five, students created the following trip group rules:

- fun
- listen
- confidentiality
- participation
- help everyone

- security
- confidence
- sense of humour
- respect everyone - the environment

Students prepared and presented the menu, equipment list, and proposed route plan for a 58 km canoe trip. A few Racoon Circle activities (Cain & Smith, 2002) symbolically solidified the group rules and the end of part one.
One week later, part two began with the canoe-tripping experience in late October-November. A week of harsh weather was chosen because strenuous group activities are thought to be linked to stronger group interactions and bonding (Goldenberg & Pronsolino, 2008). Students were involved with the decision-making process, problem solving and other leadership skills while adults exposed violations of the group rules.

Results
Data was gathered through participant observation, student conversations, photos and videos. Fictitious names were given to students in this presentation. Anecdotally, clear improvements were noticed. These observations were categorized into four main themes:

a. Mutual respect - tolerance toward others  
   b. Interdependency (team work)  
   c. Problem solving and conflict resolution  
   d. Behavioral Improvement (Self-confidence)

Mutual respect and tolerance toward others

The first two examples refer to Jack, a tall (186 cm – 6’1’’) 14 year old boy.

- The group was performing a Raccoon Circle team building exercise. Just as it was Jack’s turn, he dropped the webbing loop as though he had been shocked. His anxious response was ‘I am not going on this trip’. ‘It is not for me and I don’t like the outdoors.’ The group accepted that Jack’s view was different than theirs. He was encouraged to reconsider before leaving that evening. Next morning, Jack showed up and was accepted by the group. When asked why he changed his mind, he said ‘My father-in-law bought me some boots for the trip. He would have been mad if I didn’t go.’

- On day one of the canoe trip, Jack began his first experience in paddling. After about 5 to 6 hours of paddling against a cold wind, the group stopped for the night. Tents were set up and dinner was prepared. The group ate dinner except for Jack who stayed 80 m away watching us. Though the group saw him, he was not teased. Later in the night, Jack approached the kitchen site. Students cleaning dishes gave him leftovers. Jack began to feel accepted.

- On day 3, the campsite had a basic wooden latrine. The group was asked to use it when necessary. The following day, fresh feces were noticed along a trail. The group was assembled to discuss group rules. A decision was made. A camp shovel would be placed several paces away. The group would disperse for 30 minutes and come back. Meanwhile the person responsible would clean it. When the group returned, the problem had been solved without blame. A sigh of relief could be felt in the group.

Interdependency (team work)

This example of the second theme refers to Jack and Jill (16 year old girl).

- Jack and Jill had never been on a canoe trip. On their first portage (350 m/384 yards; day 2), they carried small back-packs and sat at the end of the portage while the group portaged two times. Once finished, the group discussed the rules ‘helping’. The group decided not to stop until everything had been carried. The group members felt heard and teamwork improved. Mindy (15 year old girl - about 152 cm/5’) began portaging canoes (40 kg/88 lbs) with a light jog and Mike (16 year old boy) started carrying double loads (front and back).
Problem solving and conflict resolution

This first example of the third theme refers to Kirk (a 16 year old leader with a strong personality)

- On day 3, following the latrine episode, students were invited to vent concerns. Kirk commented that adults should take turns washing dishes. Other students agreed. Adults accepted and the problem was solved. Students’ smiles grew wider and communication gradually became more transparent.

- On day 3, the group had not reached halfway. With two days left, the students discussed pros-cons of continuing. Considering the group speed, they chose to return on the same route. In doing so, the group felt good about their decision and their enthusiasm showed it.

Behavioral Improvement (Self-confidence)

- On day 4, the group canoed through shallow rapids where canoes could be stuck on rocks. As the first canoe, Kirk jumped on shore and began to help canoes navigate the preferred route. Kirk’s smile grew contagious with fellow canoeists.

- On day 5, Jack, who was reluctant to go, declared his sadness that the trip was already over. ‘The trees, lakes and animals are so nice out here.’

- On arrival, day 5, the 9 individuals had become a single unit with group hugs, despite their significant differences.

Conclusion

The study explored the effects of using a learning-centered strategy in outdoor education to promote student life skills. By allowing students to take ownership of the trip, four strong themes emerged. Similarly, Autry (2001) and Davidson (2001) concluded that learning through outdoor education contributed to participants’ intrinsic motivation and self-determination. This study supported the comments made by Hubball and West (2009) where a learning-centered approach is a valuable tool for developing life skills.

References


Injury causation during hiking activities: a systems analysis of reports from the NZ National Incident Database

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The National Incident Database (NID) has provided a standardised approach to incident reporting for the outdoor recreation and education sector in New Zealand (NZ) since 2005. Organisations involved include commercial, educational, not-for-profit and informal groups (Cessford, 2009). The Mountain Safety Council (MSC) prepares yearly summary reports (Cessford, 2009, 2010, 2013; Hill, 2011); however, these analyses have not yet explored in detail the contributory factors involved in incidents.

The aim of this study is to determine whether a systems theory accident analysis method, Rasmussen’s Risk Management Framework (RRMF), is appropriate for classifying the contributory factors involved in injuries and near miss incidents during outdoor activities. RRMF (Fig. 1) argues that safety is shaped by the decisions of all actors across the system, not just those on the frontline (e.g. instructors); hence incidents are caused by multiple factors across the system. This model extends upon well-known outdoor-specific accident causation models (e.g. Davidson, 2005; Hale, 1983 as cited in Leemon, 2005) as it supports identification of factors that potentially contribute to accidents beyond activity centre management. This framework has proved useful for analysing fatal outdoor incidents (Salmon, Cornelissen, & Trotter, 2012; Salmon, Williamson, Lenné, Mitsopoulos-Rubens, & Rudin-Brown, 2010). However, it is unclear whether it applies to less severe injuries and near misses that do not have in-depth investigations associated with them.

This paper focusses on hiking-related NID reports as an initial test of the framework. “Hiking” was defined as any activity involving walking or running in natural environments. This included “hiking”, “tramping”, “field trips”, “walking”, “orienteering”, “jungle trips” and “mud runs.”

![Figure 1. Rasmussen’s risk management framework (adapted from Rasmussen, 1997).](image-url)
Method

Data source

Outdoor education/recreation incident reports (N = 1017) collected from 2007 to 2011 were provided to the researchers by the MSC in de-identified form. Ethics approval was granted by the Monash University Human Ethics Committee.

To qualify for analysis reports had to involve: an injury; or near miss; and “hiking” activities. Injuries and near misses were coded in the original dataset. The researchers coded the activity type. 228 cases were identified.

Data coding

Coding was conducted over four stages. Three researchers independently identified contributing factors from the incident description and causal narrative fields, and assigned descriptive codes to the text. Each factor had to be explicitly identified in the text. One researcher collated all the factors identified from the data and ordered them into categories based on key themes. The categories were then reviewed by the other researchers, and disagreements resolved through discussion. Finally, the causal factors were classified according to the six levels of RRMF, adapted to reflect the outdoor activity domain:

1. Government department decisions and actions;
2. Regulatory bodies and associations, schools and parents;
3. Activity centre management planning and budgeting;
4. Supervisory and management decisions and actions;
5. Instructors, participants and other actors at the scene of the incident; and

Results

Incident characteristics

There were 166 injuries (72.8%) and 62 near misses (27.2%). On average, there were 18.2 (SD = 18.2) participants in the activity prior to the incident; 1.33 (SD = 1.1) qualified instructors; 1 (SD = 1.4); supervisor; and 1.42 (SD = 3.3) volunteer helpers. Severity ratings indicate that injuries on average had a minor to medium impact (M = 3.2, SD = 1.5), and had the potential for medium impacts (M = 4.6, SD = 1.9). In comparison, near misses were on average rated as minor (M = 2.56, SD = 1.02) but had a potential for a medium to major impacts (M = 5.32, SD = 2.2).

Contributing factors across the outdoor activity system

In total, 58 contributing factors were identified. On average, 4.3 contributing factors (SD = 2.2; range 1 to 16) were identified per incident. A summary of the factors identified across the outdoor activity system levels is presented in Figure 2. In the following sections the factors classified at each level are summarised.

1 The NID Incident Severity Scale can be downloaded here: http://www.incidentreport.org.nz/resources/Severity_Scale.pdf
Government

Few (5.3%) incidents involved factors at this level. However, all factors identified were associated with the Department of Conservation (e.g. failure to spray for wasps). On average these incidents were rated as minor \((M = 1.7, \text{SD} = .7)\), but had the potential for medium impacts \((M = 4.2, \text{SD} = 1.7)\).

Regulatory bodies and associations, schools and parents

Few (1.3%) incidents involved factors at this level. All factors identified involved failures to communicate information to the activity provider (e.g. concerning pre-existing injuries). Again, on average these incidents were rated as minor \((M = 2.7, \text{SD} = .6)\), but had the potential for medium impacts \((M = 5.3, \text{SD} = 2.5)\).

Activity centre management planning and budgeting

Again, few (4.8%) incidents involved factors at this level. All factors identified reflected problems with activity centre policies and systems. On average these incidents had a medium impact \((M = 4.2, \text{SD} = 1.6)\), and had the potential for major impacts \((M = 6.9, \text{SD} = 1.6)\).

Supervisory and management decisions and actions

10.1% of incidents involved factors at this level. All factors identified reflected problems with planning for activities. On average these incidents had a minor impact \((M = 2.7, \text{SD} = 1.6)\), and had the potential for medium impacts \((M = 5.9, \text{SD} = 2.2)\).

Instructors, participants and other actors at the scene of the incident

87.7% of incidents involved factors at this level. Factors at this level reflected issues with participants (77.2% of incidents), instructors or supervisors (51.3% of incidents), and other actors (6.1% of incidents). Severity ratings indicate that on average these incidents had a medium actual \((M = 3.2, \text{SD} = 1.3)\) and potential impact \((M = 5.1, \text{SD} = 1.8)\).

Equipment, environment and meteorological conditions

90.4% of incidents involved factors at this level. Factors at this level reflected issues with equipment (41.7% of incidents) and environment (86.4% of incidents). On average these incidents had a medium actual \((M = 3.02, \text{SD} = 1.4)\) and potential impacts \((M = 4.87, \text{SD} = 2.05)\).
Figure 2. Summary of contributory factors across outdoor activity system. Numbers in brackets represent frequencies and percentage within total incidents (N = 228).
Overall the findings suggest that RRMF is appropriate for classifying the contributory factors involved in less severe injuries and near misses that do not have in-depth investigations associated with them. Factors at all levels were identified. This indicates that safety during hiking activities is impacted by the decisions and actions of everyone in the system (e.g. public servants, activity centre managers, and schools) not just instructors and participants. Moreover, in line with RRMF, the analysis suggests that hiking incidents are caused by multiple factors across the system rather than one factor in isolation. Importantly, RRMF is capable of classifying the causal factors both when there are multiple causal factors across the levels and when there are only few causal factors at only one or two levels.

The analysis highlights limitations of the current data collection framework supporting the NID. Currently specific data on contributing factors is only collected in relation to participants, instructors, equipment, and the environment. In order to identify factors from other levels of the system, it was necessary to manually code the narrative and causal factor reports. This was a time consuming process: preliminary coding required approximately 10 minutes per report. This makes it difficult for organisations to adequately analyse their own data, and to rapidly disseminate the lessons learnt at an aggregate level.

Finally, the limitations of the study should be acknowledged. First, the identification of a comprehensive set of contributing factors was potentially limited by: biases in reporting; lack of instructions regarding the detail to include in the report; and a lack of detail within the reports. Second, it was not possible to identify the relationships between the factors from reports; this is a key aspect of the RRMF.

References


Touched by the Earth:  
The impact of a multi-sensory immersion program on Year 7-8 students

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Abstract

In light of the much discussed ‘disconnect’ from nature, educational moves towards a ‘connect’ with the natural world through ecological ways of experiencing, thinking and knowing are crucial: these are called ecopedagogies. When the arts are incorporated into ecopedagogies, what may this reveal about the nature of communication with the environment? ‘Touched by the Earth’ is a place-based enrichment program for year 7 and 8 gifted and talented students on the South Coast of New South Wales. Dialogue with artists, scientists, historians, and Aboriginal elders on the site was facilitated with students as a means of broadening their own creativity and providing immersion in the place as a multi-modal creative approach through film, dance, poetry, writing, drawing, painting, and music. Our case study approach, conducted through participant observation of the year-long program, examines the impact of creative methods on young adolescent participants. The research addresses the questions: What does it mean to be touched by the earth? How can the Arts amplify a personal relationship with the environment? Data was collected through interviews, student generated material (artifacts, video and photos) and observation notes. Our findings indicate the crucial role of embodied learning through creative methods in place-based pedagogies. It is a powerful vehicle for personal enrichment and facilitates a bridge between the outdoors and the classroom.

Touched By The Earth

‘Touched By The Earth’ (TBTE) is a learning enrichment program for Bomaderry High School year 7 and 8 gifted and talented students, conducted during the 2012 school year. This pilot program, informed by the rich environmental, historical and cultural heritage of Bundanon Trust, involved cross-curriculum studies and research in geography, history and science enabled through the arts. Bundanon Trust aims to develop this pilot program as a regular offering of the Trust’s education programs, normally focusing on the visual arts. The program is extended over the four school terms. Integral to the program was the opportunity for students to be involved with artists and scientists connected with Bundanon Trust’s SITEWORKS and artists in residence program (see Figure 1).

Figure 1: The raison d’être of Bundanon Trust and TBTE
The program also links with Bundanon Trust’s *Living Landscape* partnership with Landcare Australia, involving lantana removal and land rehabilitation promoting biodiversity. The students’ journey through the property included learning about bio-diverse ecosystems through visiting and documenting different locations on the property, at different seasons of the year. The students engaged with the Shoalhaven River through a kayak journey and overnight camp at Bundanon with poetry and drawing activities culminating in the production of an artist’s book (see Figure 2). They studied the world of the wombat, photographed a feather-tailed glider at night in the amphitheatre and made damper around the campfire. The final residential visit enabled students to create an individual creative project based on their year’s experience and opportunities to evaluate and record responses to their engagement with nature, artists and the environment.

![Figure 2: The multi-sensory immersion program TBTE](image)

The creative arts are a powerful tool for engaging students in cross-curriculum learning. Students are able to record and express their observations and understandings in varied ways. The arts encourage reflection, which, when linked to direct, immersive experience in nature and the environment, becomes a powerful tool for learning. A sense of ‘aliveness through active engagement in creative activities’ (Frauenfelder, 2011) motivates further student learning and deeper engagement in the site. The experiences of the students involved in the TBTE program during 2012 were expressed at the end of the program through creative projects and interviews, which indicated that they understood and integrated the concept of *Genius Loci* or *Spirit of Place* (Day, 2002) at Bundanon.

### 2. Why Nature for Children?

We have become increasingly blind to the reality that our species, like all species, evolved in a biological not an artificial or human created context, and that our physical, emotional and intellectual fitness continues to be reliant on a vast matrix of experiential ties to the natural world, especially during childhood. (Kellert, 2013)
Humans possess an inherent need to affiliate with nature that has been called *biophilia* (Wilson, 1984). This innate relationship is instrumental to human health, fitness and wellbeing, and is critically important during the formative years of childhood (Gray, 2012; Gray & Martin, 2012; Kellert & Wilson, 1993; Kahn & Kellert, 2002; Louv, 2008; Taylor, 2013). The increasing disconnect of children from nature constitutes a disturbing trend within contemporary society. Louv describes the ‘criminalisation of natural play’ in the United States from his research on what he terms ‘Nature Deficit Disorder’ (Louv, 2008); Gill (2007 p.12) likewise refers to ‘the shrinking horizons of childhood’. According to eminent Yale scholar, Stephen Kellert (2013):

> …recent data suggests children are engaged with electronic media (computers, television, games) on average 52 hours a week, while spending less than forty minutes outside. 

All indicators suggest we are working to denaturalize childhood (Sobel, 2013). *This begs the question: why is modern society moving against this tide of conventional wisdom?*

**The advent of ecopedagogies**

The positive dimensions of human-nature interaction are well researched (for instance Carson, 1956; Gray, 2005; Maller, et al, 2008; Martin, 2005; Townsend & Weerasuriya, 2010). Educational moves towards a ‘connect’ with the natural world through ecological ways of experiencing, thinking and knowing are called ecopedagogies (Birrell, Gray & Preece, 2013). The incorporation of arts with ecopedagogies was a fundamental educational choice for TBTE. The means by which this integration was achieved was through dialogue with the natural world and artists in residence at Bundanon. A multisensory, immersive program involved students writing poetry, drawing, painting, performing dance, and digital film-making in order to broaden their own creativity through a multi-modal arts-based approach (see Figure 3).
3. The TBTE study

The study by academics at University of Western Sydney focused on: 1) the students’ response to nature and the environment; 2) an evaluation of the multisensory, immersive program for the year; and 3) the integration of the Bundanon experiences with the school. Staff were also interviewed about their perceptions of the TBTE program.

Students were surveyed at the beginning and end of the academic year using the Nature Relatedness Scale (NRS) (see Figure 4). Preliminary data suggests that the pre and post-test scores revealed greater connectivity to nature was a result of participation in the program. Additionally, the researchers posited that pro-environmental behaviours, values and attitudes would be evident after engagement with the TBTE program. The following student comment illustrates this point.

-“It has given me a better idea of how we should preserve our beautiful land. Without this land, I wouldn’t have found my passion for nature. I love it!”
Conclusion

Preliminary analysis of the data suggests that programs such as TBTE are instrumental in fostering a closer connectedness of students with the natural world through an arts-based approach. An outdoor classroom that is student-centred encourages stronger personal creativity, enhanced group cohesion and a sense of stewardship over the land, which is exactly the visionary outcome of the Boyd-Bundanon legacy (see Figure 5).

![Figure 4:Nature Relatedness Scale](image1)

**Figure 4:** Nature Relatedness Scale

**Figure 5:** Participants of the TBTE program 2012 – the Boyd legacy lives on!
References


Effects of Sail Training on Engagement with Learning and Education.

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Keywords: Sail Training, Self-Concept, Learning, Engagement, Education, Social Networks, Outdoor Education, Experiential Learning.

Youth disengaged with learning are at risk of not fulfilling their potential and it is often difficult to provide them with the social support necessary to remain active contributors to society. Similarly, disengaged youth who do return to study are more likely to fail and drop out again, further reducing the prospect of creating productive members of society (Henry, Knight & Thornberry, 2012; Kirjansson, 2007). There is, therefore, a need to identify strategies to promote engagement with learning and education and one such strategy is the use of experiential education. In particular, among many experiential learning proposals, sail training is one potential avenue to provide disengaged students with the tools and desire to pursue further learning.

A voyage aboard Australia’s national sail training ship STS Young Endeavour, for example, requires youth aged 16 to 23 to live on a 33 meter tall ship, at sea in close confines with up to 36 others they have previously never met, for 11 days. During this time they engage in a number of experiential activities including climbing a 30 meter mast and participating in teamwork activities such as sail-handling, conducting regular ship duties, steering the vessel and taking control of daily operations. In this study the sail training experiences of five young Australians who recently participated in a voyage with Young Endeavour were examined with an aim to understand how the experience impacted their engagement with learning and education upon their return. By examining the behavioural, affective and cognitive components of the participants’ engagement a better understanding of how sail training can be a potentially good strategy to reengage youth can be achieved.

Two central questions driving this investigation were:

- Will participants returning home from a sail training voyage be more committed to formal learning and be better able to engage with others and develop social relationships?
- What key activities, conducted as part of the sail training program, can be attributed to enhancing commitments to future learning and social relationships?

In the context of this study engagement with education has been defined as the “time and energy students devote to educationally sound activities inside and outside of the classroom” (Wawrzynski, Heck & Remley, 2012 p.106). It is recognised as having three distinct components, these being; cognitive, behavioural and affective (Fredricks, Blumenfeld & Paris, 2004; Christenson, Reschly & Wylie, 2012; Wang, Willett & Eccles, 2011). This model provides a framework to examine engagement in sail training across three distinct yet interrelated components and importantly contributes to our understanding of what elements are most influential to promoting young people’s engagement.

Parker and Martin (2008) indicate that a way to increase engagement with learning is through interventions designed to enhance students’ self-concept through the building of their self perceptions and their capabilities (Simons, Capio, Adriaenssens, Delbroek & Vandenbussche,
Engagement with learning through sail training

2012). Experiential learning often entails developing strong social supports to accomplish novel learning tasks. In sail training, social supports are encouraged through team building activities on board the ship. It was predicted building social support and involvement in on-board activities, will increase an individual’s self-concept which will lead to greater engagement in a given task away from the ship (Grocott & Hunter, 2009).

Jonson-Reid, Davies, Saunders, Williams and Williams (2005) suggest academic self-concept impacts whether or not students will attempt or persist with learning which has important implications for their “educational adjustment and academic achievement” (Uwah, McMahon & Furlow, 2008, p. 303). In addition Meinhold and Malkus (2005), Ma & Kishore (1997) and Cervone (2000) all found attitudes towards school are influenced by a student’s self-concept and their perceived ability to succeed in a particular task. Students with a high academic self-concept may perceive themselves to have a greater ability to accomplish a task, will be more motivated to learn and subsequently more engaged (Logan & Skamp, 2008).

Marsh and Shalveson (1985) proposed a hierarchal model of self-concept which has been empirically tested and confirmed in many historical and recent studies (Tang, 2011; Moller, Retelsdorf, Koller & Marsh, 2011). At the apex of the hierarchy is general self-concept and this is dichotomised into academic and non-academic self-concept. Academic self-concept is further devolved into verbal/academic and maths/academic self-concepts whereas non-academic self-concept is devolved into social, physical, and emotional self-concepts. It is the interactions between these different self-concepts that forms the basis for this investigation.

Wang et al.'s (2011) model of engagement provided a theoretical underpinning for exploring the participant’s engagement in a water-based program and the subsequent effects on each individual through the qualitative recording and analysis of the participant’s thoughts and feelings recorded in semi-structured interviews. Creswell (2009) described this approach as a social constructivist one since the views of “participants can construct the meaning of the situation” and where the researcher must “interpret the meanings others have about the world” (p. 8).

Qualitative interviews for research into experiential learning is supported by Martin and Leberman (2005) who argue that although a significant amount of past research into the effects of these programs has been quantitative, it is qualitative data that better highlights the cognitive affects participants experience following participation in the program by providing an insight into an individual’s learning experiences highlighting the perceived value of experiential learning: “Research must move towards trying to encapsulate the meaning of these experiences to individuals by valuing the words they attribute to their learning” (p. 57). Noting the study’s aims, it was determined that qualitative interviews conducted before and after the voyage would enable a comprehensive exploration of each individual’s perceptions. It was identified this would not be possible with quantitative methodologies. The focus of the analysis was to identify changes in attitudes towards engagement and how the participant perceived or attributed sail training as the cause immediately upon return.

In this study data was drawn directly from individual experiences unique to each participant (Dibley, 2011). This was coded against key factors identified by the frequency of their appearance in the participants’ responses (LeCompte, 2000). Based on these responses, participation in sail training appears to have a positive impact on an individual’s perceptions of, and attitudes pertaining to, engagement with learning and education. Interestingly, but expectedly, the impact appears to be different for each individual and seems to be influenced by personal circumstances, academic and non-academic backgrounds and individual desires.
Following Wilson's (2009) recommendation of “breaking down the responses into categories” (p.9), four common themes were consistently raised to be influential to engagement with learning. These four themes comprised: friendships and social networks; motivation to learn; a strong sense of purpose behind learning; and the individual's self-concept.

Several studies directly involving sail training vessels support the notion of participants developing social skills as well as social self-concept. McCulloch, Allison, McLaughlin, Edwards and Tett (2010) found participants of sail training programs increased their general self-confidence as well as their social confidence. Finkelstein and Goodwin (2005) demonstrated sail training increases a participant’s ability to form new social connections and social networks. Similarly Grocott and Hunter (2009) demonstrate participation in sail training programs generate positive changes in both global and domain specific self-esteem. These social constructs can be combined under the banner of social self-concept (Marsh & Shalveson, 1985).

Previous research shows that gains to general self-concept can filter through and have a positive influence on academic and non-academic self-concepts (Huang, 2011; Tang, 2011; Byrne & Shavelson, 1986; Marsh & Shaleson, 1985). Therefore it is possible to hypothesize sail training may lead to improvements in an individual’s general self-concept which may translate to improvements in academic self-concept and thus have a positive impact for the re-engagement of these participants with learning and education (Bloom, Loughead & Newin, 2008; Larson, 2007; Goldenberg, McAvoy & Klenosky, 2005). As such, undertaking a sail training voyage can help participants develop the skills required to establish a rapport with their fellow students and teachers and in the process develop social networks and social self-concept in an educational environment. This can enable more positive interaction to occur between staff, students and peers which in turn appears to increase their academic self-concept and engagement with learning (Komarraju, Mukulkin & Bhattacharya, 2010).

The participants of this study identified key activities within the sail training program which may have contributed to causing some of the turning points in their engagement with study. Common responses identified the activities of climbing aloft, watch interactions, group debriefs, Command Day, and a community sail as having the most impact.

These activities appear to develop greater social self-concept through interactions with new people and developing the skills in making new social connections (Finkelstein & Goodwin, 2005). McCulloch et al. (2010) in their study of a number of different vessels with different voyage programs and program implementation, identified programs with a structured approach generated the best results in terms or personal outcomes. In addition, Byrne and Shalveson (1986) suggest it is the non-contrived and ‘real’ activities that seem to improve both “academic and non-academic self-concept domains” (p. 486). Therefore, it is suggested, participation in a sail training program appears to help students developing supportive social networks, increase their non-academic self-concept which in turn has a positive influence on academic self-concept and their engagement with learning and education.

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Engagement with learning through sail training


For several decades, critical qualitative research has been employed in educational contexts to expose and interrogate injustices related to issues such as gender, race, and class. More recently, concerns have been expanded to include the ecological and environmental sphere in educational research (Gruenewald, 2003; Kahn, 2010). A key issue or moment in these critical research traditions has been a shift towards action. No longer satisfied with critique alone, approaches to critical research have increasingly blended critique with action; a change which Lincoln, Lynham, and Guba (2011) argue came about in response to the non-utilization of critical evaluation findings, and through an increase in political and ethical commitment. This shift reflects the inherently transformative intent of critical research which seeks “to change society and individuals to social democracy” (Cohen, Manion, & Morrison, 2011, p. 31). As Lincoln Lynham, and Guba (2011) assert, “the shift towards connecting action with research, policy analysis, evaluation, and social deconstruction has come to characterize much new-paradigm inquiry work” (p.117). It is within this new-paradigm of inquiry that this paper is positioned.

Since the turn of the twenty first century there has been a growing body of research literature which has subjected dominant notions of adventure based outdoor education to critical scrutiny (for example see, Harrison, 2010,2011; Hill, 2011; Humberstone & Pedersen, 2001; Irwin, 2010; Mullins, 2013; Nicol, 2002, 2003; Payne & Wattchow, 2008; Wattchow & Brown, 2011; Zink & Burrows, 2006). Much of this type of work has involved a re-appraisal of the purposes and goals of traditional outdoor education programmes and the theories that might underpin such programmes. More than a decade ago Payne (2002) warned of a looming theory-practice gap brought about through theory and criticism in outdoor education “moving much faster than actual practice” (p. 6). We contend that this gap may still pervade outdoor education and seek to engage conversation in how critical and transformative research might contribute to both theory and practice. Moreover, the methodological implications in any such endeavour are central to such a conversation.

To contextualise this conversation we draw from research (Hill, 2011), which worked with eight outdoor educators in Aotearoa New Zealand to critically examine their conceptions of outdoor education and work to transform programmes and practices through the incorporation of sustainability concepts and principles. To achieve these aims, critical ethnography and participatory action research methodologies were employed in a multifaceted, three phase research design containing elements of both critique and transformative change (Guba & Lincoln, 2005). Whilst appearing highly commensurable at a methodological level (Lincoln, Lynham, and Guba 2011), these two approaches became uncomfortable bedfellows at a pragmatic level. The political act of promoting more sustainable educational approaches led to tensions between critique and transformation of current practice.

Phase one of the project utilised critical ethnography methods such as semi-structured interviews, to gather data about teachers’ perceptions and practices related to outdoor
education and sustainability. Phase two employed participatory action research to facilitate pedagogical change and professional learning. Phase three involved reflection and evaluation of the research process and exploration of the potential for outdoor education to educate for a sustainable future.

These phases involved some innovative strategies, for example, in phase one a post-it-note generative activity was used to gather dialogical data. Selected initial interview quotations from analysis themes were collated onto posters and placed around a room. Teachers were asked to circulate by themselves or in pairs around the posters to read, discuss and place comments, questions, and clarifications via post-it-notes. In particular teachers were asked to engage in critique of themselves and others. Dialogue was further enhanced through a recorded group discussion which took place immediately after the post-it-note activity.

The strategy used above was informed by a dialogical commitment often found in critical research. This work with teachers sought to avoid authoritative cultural accounts or realist representations linked to post-positivist ethnographic methods (Kincheloe, McLaren, & Steinberg, 2011). Rather, there was recognition of the research process being characterised by complexity, subjectivity, reciprocity, and dialogue rather than certainty and objectivity (Kincheloe, 2001). The actors in this process, both teachers and researcher, were actively involved in shaping this research through their own lived realities and vale-laden positions which profoundly influenced the participatory action research phase. Here teachers were invited to take part in professional learning workshops and readings, and design and implementation an action plans to incorporate sustainability into their teaching programmes or pedagogy.

So why the transition from critique to action? Guba and Lincoln (2005) have suggested that if critical research aims to be emancipatory it must involve both critique and transformative change. This point is emphasised by Malone (2006) who argues that critical methodologies which are limited to critique can be confined to raising understanding and lack empowerment toward collective political action. As a response in this research we drew on insight from critical theorists/researchers such as Morrow and Brown (1994) and Hemment (2007) to position participatory action research as a basis for re-defining, extending or reconceptualising ethnographic work. In this sense participatory action research can then provide methodological foundation for educational research which seeks to be both critical and transformative (Robottom & Hart, 1993; Robottom & Sauve, 2003).

In the third and final phase teacher’s evaluated their action plans and reflected on the overall influence of the research process. Of particular interest were teachers’ perceptions of how the research had impacted on their own thinking and practice, the people around them (their students, other staff, and local community), and the potential for outdoor education pedagogy to contribute to educating for a sustainable future. The three selected quotes below (using pseudonyms) give insight into how the research process impacted on some of the teachers.

I think absolutely, without a doubt, in the, what have I been teaching, 10 years, this has been the most valuable thing I have ever done and I don’t say that lightly . . . we’ve kind of had a group thing and we’ve had pedagogical input from you . . . kind of smorgasbord where we can take ideas from each other which has been really valuable and really energising and we’ve been really
Well supported and resourced while still doing our own thing. (Sophie, Final Interview, Dec 09)

Yeah, I thought it was successful. I mean, I found that you expressed very clearly early on, that your goal was that we make progress towards our goals and you would support us in how we did that. I feel like that’s been successful. So I feel like I’ve moved. This project has been an added incentive and an opportunity for me to move more towards the [sustainability] goals that I had. (Josh, Final interview, Dec 09)

I found it really stimulating. I’ve found the meetings quite, the level of thinking really deep. I’ve found them very stimulating and thought provoking, got me thinking about possibilities and about opportunities. (Mike, Final Interview, Dec 09)

These narratives reveal an authentic and powerful account of how this research impacted teachers. The level of personal and pedagogical change that occurred as a result of teachers’ involvement in the research was significant. How then does this become a focus of research inquiry that moves beyond the bounds of facilitated professional learning? Exploring tensions and challenges in the research alongside findings of critique and transformation was one way of focusing this inquiry.

A significant tension emerged between meeting the reciprocal and collaborative obligations of participatory action research (Kemmis & McTaggart, 2005; Le Grange, 2009) whilst engaging critical examination of teachers’ existing outdoor education pedagogies and practices. The maintenance of professional relationships and a reciprocal research philosophy meant that it was very difficult to engage teachers in meaningful self-critique. It was challenging to elicit critical reflection about assumptions that might undergird their thinking and practices. Such assumptions tend to ‘wander unnoticed’ and as a consequence it was very difficult to create a dialogical space where teachers could not only identify assumptions, but also critically examine how such assumptions interacted with their conceptions of outdoor education and sustainability. In this way,dialogical critique can be problematic in research which deals with the lived experiences of teachers. The focus on change and positive participation in the action research phases tended to marginalise the criticality of the research.

This presents some possible limitations of a research approach which attempts to be both critical and transformative. Whilst literature supports the methodologically commensurate nature of these approaches, it may be at the pragmatic level where tensions raise their head. We would argue that critical research is important to explore, expose, examine, or interrogate power relations and social construction of ideas and practices which constitute discourses such as outdoor education. However, deconstruction alone can leave educators / social actors with a sense of ‘where to from here’. Research which attends to both the critical and transformative holds promise for inquiry which is not satisfied with the status quo.

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A tale of two tragedies: changes in outdoor education ‘best practice’.

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Introduction
The Sir Edmund Hillary Outdoor Pursuits Centre of New Zealand (OPC) is a specialist outdoor education facility in the central North Island of New Zealand. On April 15th 2008, on the second day of an outdoor programme led by an OPC instructor, six students from Elim Christian College in Auckland, and their teacher, were drowned trying to escape rapidly rising water in the Mangatepopo Stream Gorge.

I had trained at OPC in the mid-1980’s and worked there in the early and mid-1990’s. I knew people working there in 2008. Beyond the immense sadness of the ‘Event’, I was perplexed as to how could this event have happened. OPC, and its Chief Executive Officer Grant Davidson, were at the forefront of developing and promoting organisational frameworks, especially safety systems (see for example, Haddock, 1993; Hogan, 2002; Williams, 2002; Davidson, 2004). In 2008, OPC had highly trained and qualified senior staff, and a systematized approach to training and practice that was replicated in other organisations and considered normal. It appeared to be using ‘best practice’. But if ‘best practice’ resulted in the deaths of seven people, then were other organisations that also used ‘best practice’ at risk of a similar tragedy? Moreover, was there an alternative to what was ‘normal’? The epistemology of poststructuralism offered a way to examine these questions.

Research Framework
Poststructuralism “rests on an assumption that no-one can stand outside the traditions and discourses of their time” (Grant & Giddings, 2002, p.20). We are influenced historically, politically, culturally and often unconsciously. Poststructural investigations take into account complex, inter-relating power relationships. Discourse analysis, and especially the approach of Michel Foucault, is a methodology that sits comfortably within this paradigm.

Foucault’s notion of examining normalising practices provided an analytical framework. One of the methods employed by Foucault, was to compare two different periods in the history of the formal knowledge (i.e., ‘best practice’). It was done in order to understand how the earlier period differed from the latter period in its implicit knowledge, and then to illuminate the ‘discontinuity’ that drove the emergence of the formal body of knowledge. Thus I elected to examine these ideas by comparing the 2008 tragedy with another tragic event, from 1953, to see if things were historically different in ‘best practice’.

Data was collected through analysis of literature relating to outdoor education in New Zealand, and of the media commentary surrounding the two events, specifically looking for dominant themes, or discourses, influencing practice. In this study ‘practice’ encompassed instructing or guiding outdoor activities, and teaching of outdoor / adventure education, either paid or unpaid. ‘Practitioner’, then, has an element of a teacher /student or authority / client relationship. ‘Practitioner’ encompasses instructors, guides and teachers of outdoor /adventure education. People undertaking their own outdoor recreational experiences, are not ‘practitioners’, though
they probably embody the ‘practice’ of the time. Technically they are just outdoor recreationists or outdoor enthusiasts.

The discourses that emerged were then further explored through semi-structured qualitative interviews with six seasoned New Zealand outdoor educators, whose years of service gave their voices a collective authority of experience.

**The 1953 Event**

Mt. Egmont / Taranaki is a conical volcano on the western edge of the North Island of New Zealand. In 1953, within the space of a week, eight lives were lost on Mt. Egmont / Taranaki in two separate incidents. For the purposes of this research, these two incidents make up the 1953 Event.

The first incident occurred on Sunday the 26th July, when a winter ascent of Mt Egmont / Taranaki was undertaken by the Nurses Tramping Club, assisted, organised and lead by the Taranaki Alpine Club (TAC). The party numbered 31, including nine members of the TAC. Of these, a NZ Alpine Club report considered that all were adequately clothed and shod, but only six were experienced. The group was split up and roped into six sub groups. Twenty people had ice axes but only two had crampons (NZAJ, 1954).

They left Tahurangi Hut at approximately 11.30am in fine weather with light winds. Steps were cut in the hard snow and ice by the TAC and the summit was reached by 3.45pm. The descent commenced at 4pm. After 5pm, in gathering darkness, the wind had freshened to between 30 and 50 knots. The snow had become frozen hard and extreme cold, fatigue, lack of food, poor visibility and inexperience contributed to numerous slips. About 6.30pm the group of six attached to the Chief Guide, Russell, slipped and pulled each other down the slope and over a twelve-metre bluff.

The alarm was raised within seven minutes as they were close to the hut. The weather during the rescue operation was bitterly cold with strong winds. By 10.30pm it had started to snow and for the rest of the night, most of the work was carried out in a blizzard. Six of the seven climbers died from injuries and hypothermia. This accident raised questions about the equipment carried by the party, and why the large group had continued climbing so late in the day.

The second incident occurred on Sunday 2nd August, when two climbers – later deemed by the NZAC to be inexperienced – slipped on steep ice and fell to their deaths from high on the mountain. One of the curious things about this incident was that the climbers were observed in the late afternoon, steadily climbing and not in difficulty, yet the alarm was raised and search and rescue teams were mobilised.

**What The Analysis Revealed: The 1953 Event**

What emerged from the analysis of the 1953 Event, through the reading of the newspapers, weekly magazines and the New Zealand Alpine Club reports, were several discourses about practice in the outdoors. The reaction of the climbing fraternity, the Park Board and the government itself, was one that sought to inform and teach people about the ‘right way’ to do things, rather than impose regulation or focus on blame. This discourse – of education - promoted sharing knowledge as the way to prevent future accidents from occurring. For example, the Minister of Internal
Affairs, Mr Bodkin, suggested that the government promote mountain safety around the country:

We could do nothing better in memory of these fine young folk than to concentrate all efforts behind our campaign to widen the knowledge of safety factors which are so essential to the enjoyment of trips into our rugged back and high country. (NZ Herald, 5.8.53)

The discourse of experience and judgement, emphasized accumulating time in the field to gain experience and skills, and being mentored by someone more experienced so as to develop judgement:

If, for instance, two inexperienced men wanted to climb they should get the help of two experienced men… the experienced men would have found out the weaknesses in the men they were taking up … Only experienced men would know if conditions needed rope… (The Weekly News, 19.8.53)

The public had been deeply moved by the two accidents, and felt they might have been prevented by the exercise of good judgement and the use of proper equipment. (NZ Herald, 4.8.53)

The discourse of the responsibilities of the leader, offered another insight into the prevalent practitioner attitudes of the day:

… The Chief Guide of the Club, who lost his life in the fall, was among those who responded to the duty which the club undertook, but too much was left to him. Yet his was the final responsibility for setting out… (Italics added) (New Zealand Alpine Journal, 1954, p. 562)

In this discourse, the leader of the party in the field had the overall responsibility to make the decisions for the members of the party.

The question of where keen novices could go to develop their experience, skills, judgement, and leadership, as there were no qualifications pathways in 1953, emerged through the discourse of rules. This emphasized a 'right way’ to do things:

…. This accident resulted largely from failure to adhere to rules of safe climbing which are applicable generally and which are taught by mountain clubs to their members personally and in their instruction books…. (NZ Herald, 10.9.53)

Through examining the discourses around the 1953 Event, it became clear that clubs were the primary vehicle for the transfer of knowledge in the outdoors. For those starting out, experience was accrued via club trips; for those desiring leadership, clubs offered the structure. The position and power of the field leader is clear. Clubs provided an apprenticeship model, whereby those with more experience mentored inexperienced practitioners. Clubs were the repositories of knowledge about practice. They were also the gatekeepers of that knowledge and, as such, held power over who had access to knowledge, and how that knowledge was passed on. Clubs then, were where the practitioners were trained. However, the 1953 Event suggests that the training of practitioners could have benefited by having either more rigorous training.
or some systems that were more clear. The situation was very different in the 2008 Event.

What The Analysis Revealed: The 2008 Event

What emerged from the analysis of the 2008 Event, was predominantly the discourse of systems. This refers to a compartmentalized, systematic approach to knowledge acquisition and management of outdoor practice. This approach incorporated pre-employment training courses, in-house policies and standard operating procedures, as well as checklists of ‘competencies’ for new employees. By 2008, this had been championed for nearly two decades as the best way to train people, partly as a result of the waning of the role of clubs as training vehicles for outdoor practitioners. However, systems failure emerged in the reporting as the cause of the tragedy:

...No one had advised her not to proceed, despite predicted thunderstorms (NZ Herald, 16.2.2010)
... My obligation was to my group... (NZ Herald, 18.2.2010)
...The coroner has articulated just how poorly OPC was running, even though it’s had all these policies and was... held up as the benchmark of outdoor adventure centres. [Licensing] wouldn’t make any difference. Who is going to monitor that? They passed an audit on the day the kids died. What did they have to do to fail? (NZ Herald, 31.3.2010)

However, a secondary discourse that emerged with the coroner’s report and subsequent newspaper articles, was the discourse of culture. The dysfunctional culture of OPC appeared to have had a part to play in the tragedy (but was largely ignored in the coroner’s recommendations):

...Staff turnover and the subsequent loss of institutional and local area knowledge was a significant root cause of the tragedy...
...There were significant pressures upon centre staff to deliver quality programmes with very limited resources...
...The manner in which the instructional team was organised meant that instructors were required to operate more independently and with less active supervision than was ideal... (NZ Herald, 18.2.2010)

The discourse of culture suggested that information and experiences were not easily shared because of the high staff turn over; there was high staff turn over because people were unhappy; people were unhappy because they were not heard or not valued.

The culture of OPC perpetuated the compartmentalization of training, and as such, OPC was representative of other organisations that also used this approach. Moreover, these discourses made visible the underlying belief system in operation – economic efficiency equates to do more with less.

What The Interviews Revealed

Emerging from the interviews was the despair of older practitioners who were ‘trained’ in a pre-discontinuity era, but who are engaged in the complexity of the practice of the current era. Their comments illuminated the changes - the apprenticeship style lasted until mid-1980’s – while describing how the shape of
current practice is different. These descriptions suggested there was too much paperwork, and there has been an increase in the cost of practice:

That’s the change in society, coming back to compliance and risk management: it does have an effect because in a sense you are literally forced from an economic point of view, to put people into the field in an earning capacity perhaps before they are truly ready… Everybody wants great risk management but nobody wants to pay for it.

(Interviewee Mr Grey in Hollingsworth, 2011)

The thing that makes people ‘truly ready’ for work in the ‘field’, is experience. But experience alone isn’t enough, as the discourse from the 1953 Event tells us; there needs to be suitable training and systems. The 2008 Event highlighted a highly systematized organisational approach to practice, but this too was not enough to prevent a tragedy.

The discourse around the two ‘events’ suggested something about how outdoor/adventure education was practiced in 1953 and in 2008, in New Zealand. The interviews, while not quite reaching that far back in time, reiterated the same overarching themes – that practice in the past was an ‘apprenticeship’ model, and that practice in 2008 (and today) was dominated by ‘systems’. The interviews were also able to allocate a ‘point-in-time’ – the mid to late 1980’s - where the model of the past was taken over by the model of the present. Neo-liberal policies, which came to the fore in New Zealand in the mid-1980s, were identified as one of the key drivers in the change in training and risk management practice in outdoor education.

Implications
Learning from other people’s mistakes is a key ingredient to furthering one’s own experience. However, comments from Hersey (2009) eloquently point out that there are no guarantees in any of this:

… That is the problem with hindsight. While we want to use it to learn from mistakes, we can also lose sight of the difficulty of decision making at times of stress. Looking back it is easy to see what went wrong, but at the time this is not always apparent… (Hersey, 2009, p.21)

… over-vigilance doesn’t necessarily translate into lesser risk  

(Ibid, p.157)

In the aftermath of the 2008 Event, Davidson’s response was to allocate blame and then to create a better tool for analysing risk in outdoor activities (the FLASH process -Factors Likely to Accentuate Serious Harm), which was subsequently adopted by OPC. This suggested that he (and OPC) was systems oriented, rather than people oriented, and that a better system or people using those systems correctly, might have prevented the tragedy. A contrasting view, offered in the following quote from parent Andy Bray, suggested that this response may have missed the point:

… revamped systems are not enough to guarantee safety. OPC already had good policies and a chief executive with a doctorate in risk management on the day Natasha died. You don’t need policies, you need common sense …

(Dominion Post, 17.4. 2010).
The 2008 Event was an unsettling experience for the New Zealand practitioners of outdoor / adventure education, as it raised doubts about the ‘normal’ approach to practice, especially its ability to produce practitioners who can make good ‘judgement calls’ in the heat of the moment. The outdoor industry was strangely quiet in its professional reflections, possibly denoting an unwillingness to criticize itself or an unwillingness to criticize a powerful figure within the industry.

This study uncovered that the approaches to training practitioners and managing risks in the outdoors, as examined in the 1953 Event and the 2008 Event, were both flawed. It suggests that what is needed in the future is less emphasis on systems and therefore less paperwork, in conjunction with a re-visiting of the amount of experience and the quality of those experiences needed in order for practitioners - especially new practitioners - to make quality judgements in the field.

In addition, ‘quality of experience’ would encompass some type of mentoring, and activities deemed to be particularly hazardous would only be run by new practitioners, in conjunction with more experienced practitioners. In essence, a blending of the old system and the new. However, further deaths involving outdoor organisations, in August 2012 and March 2013, suggest that the right blend has yet to be found.

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Trying on a new hat: Constructing a sustainability identity through tertiary outdoor education

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Introduction
Identity is a term that implies a complex and shifting array of perceptions and realities that are difficult to capture at any single moment but that define us all the same. People are active players in the formation of their identity and the identity of others around them. Any discussion about a sustainable future must turn to identity, for the way we live in the world is defined by how we perceive ourselves within that world. This article explores how education for sustainability (EfS) in outdoor education creates spaces for students to explore their identity and can create a new understanding of their sense of place. It is argued that by encouraging students to carefully reflect upon their identity, one helps students find a sense of community and obligation to the land.

This paper describes some of the findings of a qualitative PhD research completed in March 2010. The research employed an overarching participatory action research methodology. Using an outdoor education degree programme at CPIT as a case study, the research leaned heavily on the lived experiences of staff and students.

The formation of identity
Within communities, individuals are engaged in the creation of their own identities. This is a process that della Porta and Diani regard as "…neither a thing one can own, nor a property of actors, but as the process through which individual and/or collective actors, in interaction with other social actors, attribute a specific meaning to their traits, their life occurrences, and the systems of social relations in which they are embedded." (2006, p. 92)

Blewitt argues “We become who we are in communities” (2006, p. 96), and that the individual and community are entwined. However communities can take many shapes and notions of community extend to universities and polytechnics and even to departments and faculties. Important here is that social identification with a community is the “perception of oneness with or belongingness to some human aggregate” (Ashforth & Mael, 1989, p. 21).

However belonging also suggests change because belonging to any community is not static. The process of reconstruction to align identity with a changing community context has been called identity work (Cockburn, 1998). This is a process of active transformation based upon thinking and working on perceptions of oneself, and of the context as one perceives and experiences it (Giddens, 1997). Importantly people look to their lived experiences to remind them who they are and to their communities to define who we are and how we are different from them (Thompson, Day, & Adamson, 1999). This process is referred to as othering, and explains the way individuals and groups celebrate the similarities that define their group as being different from the similarities defining other groups.

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Plumwood (2002) suggests the process of othering is not limited to distancing oneself and one’s community from other social relationships, but also extends to ecological relationships that can also become distanced. Therefore, redefinition must also be reflective of a wider ecological context where “…the rationality of Othering our planetary partners must be countered by an alternative self-critical rationality of ‘studying up’ to find the source of our problems and difficulties with nature” (Plumwood, 2002, p. 167).

The concept of creating safe spaces for students to explore an understanding of who they are in relation to others is important for EfS in outdoor education. Cockburn maintains it is only through local political practices of individuals working in collectives that can create these spaces, creating the “…difficult reality of unavoidable, unending, careful, respectful struggle.” (1998, p. 216)

Students taking action

The idea of taking action with a view to bring about some form of change has been a fundamental part of EfS discourse and more recently was included as one of the five aims in the Guidelines for environmental education in New Zealand (Ministry of Education, 1999). It is also clearly the intention articulated through the vision, principles, values and key competencies of the New Zealand Curriculum (Ministry of Education, 2007b) and demonstrated through the development of Ministry of Education achievement standards (Ministry of Education, 2007a). Action events associated with EfS constitute what one person interviewed called “real life learning experiences”.

The skills associated with taking action have come to be regarded as action competence. This is described by influential Danish academics Jensen and Schnack (1997) as built around the ability to act on a societal as well as a personal level in a manner that addresses solutions to problems being studied. Citing Jensen, Eames et al. (2006) describe action competence as “…a process in which students identify environmental issues, determine solutions, and take actions in ways that develop their competence for future action to solve or avoid environmental problems” (P.8). The actions that students undertake and the way they go about undertaking them tell us a lot about how students view their place in the world around them.

The protest action

Over the course of the three years of the outdoor education degree, a student became progressively engaged in sustainability discourse. The student (Mark) asked for additional readings, asked probing questions, actively engaged in class discussions, made changes to his daily routines, and worked on waste management and food choices with flatmates. Mark sought out workshops and lectures outside of class and raised questions at several significant public events. For his final year action project Mark decided to lobby for a need to adopt more sustainable ways of living relating to climate change. Mark wrote letters to politicians, and attended and actively participated in local public meetings. But it was not until the end of the course, that Mark disclosed how he (and an accomplice) had climbed the Chalice in Christchurch’s Cathedral Square at 4:00am one Monday morning and hung a banner made from two double bed sheets sewn
together that displayed the earth in flames and text that read “we need to change to stop climate change” (see Figure 1.1).

![Chalice protest action (photo: student contribution)](image)

**Figure 1.1:** Chalice protest action (photo: student contribution)

When Mark climbed the Chalice early on the morning of his protest, he demonstrated in a very public way the emerging values that underpinned his identity and how he perceived that identity fits with community. First, it is likely he saw himself as part of a larger international social movement, thinking globally and acting locally. Second, the way he planned and implemented the protest including the choice of a high visibility site, illegal but not destructive behaviour, and engagement of media demonstrated an alignment with well-established social movement activism. Third, Mark was able to engage the assistance of a friend (who was not in the class) in, what must have been known by the friend, was an illegal activity; for Mark had developed his own community beyond the class that shares the vision of a sustainable future.

Mark demonstrated how student actions can fall beyond the established legal and policy framework, not because they have been directed to do so, but because they have chosen to do so. This means that engagement with sustainability discourse can result in identity work that moves students to act in a manner that can be considered both counter cultural and subversive.

Just how far students should be encouraged or permitted to push these boundaries is an important question with ramifications for the teacher, institution and student. When considering the question of how daring actions should be, Jensen and Schnack respond that “…we should dare a lot, as long as the objectives are of an educational nature!”
This is because there is so much at stake and change to new ways of thinking and acting is critical.

References


MOTIVATIONS OF SCHOOL-AGED ADOLESCENT SINGAPOREANS TO PARTICIPATE IN OUTDOOR ADVENTURE EXPERIENCES

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Introduction

Outdoor education has gained wide acceptance in all Singaporean schools as a distinct curriculum offering in recent years (Wang, Liu, & Kahlid, 2006) as well as observed as a compulsory component of the Singapore school curriculum (Shanmugaratnam, 2004; Daipi, 2004; Lui, 2007). As outdoor and adventure experiences are offered to all school students, the aim of this study is to identify the main motivational factors that influence school-aged Singapore adolescents participating in outdoor and adventure experiences. The study sought to achieve this through the Recreation Experience Preference (REP) scale inventory (Driver, 1983), a questionnaire designed to measure the extent to which “specific experience are desired and expected from leisure activities” (Driver, Brown and Peterson as cited in Sugarman, 2001, p.23) as well as focus group interview.

Methods

A stratified sampling approach was used to contact all secondary schools for the recruitment of sample respondents. The finalized REP inventory for this study was made up of 66-items. Respondents were asked to complete the 66-item REP questionnaire and some basic information on their outdoor adventure experiences as well as indicate if they were interested to be interviewed. A 6-point Likert scale was used for the REP questionnaire ranging from (1-Not Important) to (6-Extremely Important).

Results

The final study sample comprised of a total of 963 participants from nine secondary schools, between the ages of 12 to 14 years old. Three focus group interviews were conducted with 25 students. As the REP was previously never validated locally in Singapore, the present study’s reliability coefficient revealed all scale inventory factor to be reliable for this study profile with the Cronbach’s Alpha within the range of .673 to .884. From the results of the REP scale inventory, it was observed that overall motivations of Singapore school-aged adolescents participating in outdoor and adventure experience are as shown in Table 1.
From Table 2, the present study observed differences in motivations between boys from Independent school and boys from Government schools. The top four motivations of boys from Independent school were “Similar People” (M=4.13, SD=1.13), “Physical Fitness” (M=4.11, SD=1.47), “Achievement/Stimulation” (M=4.05, SD=.96) and “Learning” (M=3.99, SD=1.05). Boys from Government schools’ top four motivational preferences were “Achievement/Stimulation” (M=4.51, SD=.87), “Learning” (M=4.51, SD=.96), “Social Security” (M=4.46, SD=1.07) and “Physical Fitness” (M=4.36, SD=1.25).

It is also observed that the mean scores of boys from Independent school for most REP factors were significantly lower than the boys from Government schools (p<.05). The r coefficients showed that there was a moderate effect between the two groups in terms of “Autonomy/Leadership” (r=.31), and “Teaching-Leading Others” (r=.30) and large effect in the preferences for “Social Security” (r=.51) and “Risk Reduction” (r=.53).
Table 2: Independent Samples t-Test Result and Effect Size for REP Inventory Factors between boys from Independent school and Government schools (N=541)

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<th>Government schools Boys</th>
<th>t-Test</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Achievement/Stimulation</td>
<td>424</td>
<td>4.05</td>
<td>.96</td>
<td>115</td>
</tr>
<tr>
<td>Autonomy/Leadership</td>
<td>424</td>
<td>3.61</td>
<td>1.10</td>
<td>116</td>
</tr>
<tr>
<td>Risk taking</td>
<td>424</td>
<td>3.85</td>
<td>1.37</td>
<td>116</td>
</tr>
<tr>
<td>Similar People</td>
<td>424</td>
<td>4.13</td>
<td>1.13</td>
<td>115</td>
</tr>
<tr>
<td>New People</td>
<td>424</td>
<td>3.71</td>
<td>1.13</td>
<td>116</td>
</tr>
<tr>
<td>Learning</td>
<td>424</td>
<td>3.99</td>
<td>1.05</td>
<td>115</td>
</tr>
<tr>
<td>Enjoy Nature</td>
<td>424</td>
<td>3.54</td>
<td>1.36</td>
<td>116</td>
</tr>
<tr>
<td>Introspection</td>
<td>424</td>
<td>3.72</td>
<td>1.39</td>
<td>116</td>
</tr>
<tr>
<td>Creativity</td>
<td>424</td>
<td>3.65</td>
<td>1.33</td>
<td>116</td>
</tr>
<tr>
<td>Nostalgia</td>
<td>424</td>
<td>3.40</td>
<td>1.42</td>
<td>115</td>
</tr>
<tr>
<td>Physical Fitness</td>
<td>424</td>
<td>4.11</td>
<td>1.47</td>
<td>116</td>
</tr>
<tr>
<td>Physical Rest</td>
<td>425</td>
<td>3.51</td>
<td>1.44</td>
<td>116</td>
</tr>
<tr>
<td>Escape Personal-Social Pressure</td>
<td>424</td>
<td>3.67</td>
<td>1.08</td>
<td>115</td>
</tr>
<tr>
<td>Social Security</td>
<td>424</td>
<td>3.46</td>
<td>1.27</td>
<td>116</td>
</tr>
<tr>
<td>Escape Family</td>
<td>425</td>
<td>2.24</td>
<td>1.36</td>
<td>114</td>
</tr>
<tr>
<td>Teaching-Leading Others</td>
<td>424</td>
<td>3.26</td>
<td>1.13</td>
<td>115</td>
</tr>
<tr>
<td>Risk Reduction</td>
<td>424</td>
<td>3.13</td>
<td>1.16</td>
<td>115</td>
</tr>
</tbody>
</table>

Note. * p<.05 *** p<.001
Focus Group Interviews

Through content analysis of the focus group interviews with the students from the three government schools, students shared that their motivations for participating in outdoor and adventure experiences were along the following themes:

1. Activities that provide opportunity for social interaction;
2. Personal and social development;
3. Awareness of need for lifelong skills and challenges; and
4. Opportunity to attempt novel activities and environment

Discussion

Boys from Government schools had a significantly higher motivation for outdoor adventure programs in all REP factors compared to boys from Independent school, except for the preference factors of “Similar People”, “Physical Fitness” and “Escape Personal-Social
Pressure”. There was a large effect found, with substantial differences in “Risk Reduction” (r=.53) and “Social Security” (r=.51). It appears that boys from Government schools sought assurances of knowing what is to be expected, preferring to avoid unexpected outcomes and a safe environment with considerate people during the outdoor and adventure experiences. The moderate effect of difference between the two groups in “Teaching-Leading Others” (r=.30), and “Autonomy/Leadership” (r=.31) was also worth noting. Boys from Government schools hoped to be given chances to teach and lead their peers during the outdoor and adventure programmes and get a sense of independence and to be on their own. The explanation for this could possibly be that as boys from Government schools undergo the prescribed curriculum, fewer opportunities are made available to undergo specialized enrichment programmes which boys from Independent schools experience as part of leadership development. Hence, they could be aspiring for such opportunities. Since boys from Independent school have specialized enrichment activities and opportunities that are already enabling them to undertake teaching and leading their peers, these two preferences to teach/lead others and autonomy and leadership, which are regular characteristics of their student development framework, may not feature as much as in Government schools where such opportunities may be reserved for a few. This observation requires further examination in future studies, as there is no available local literature to explain this.

As Singapore youths are observed to be pragmatic, with a view for self-improvement for personal achievement (Ho, Ng, Ho and Nazira, 2010), the “Learning” preference in the REP inventory features prominently between boys of both Independent school and Government schools as well as girls from Government schools (see Table 3). In addition, as Yip (1992) describes Singapore adolescents to be performance goal oriented, this possibly explains “Achievement/Stimulation” as a high factor of motivation too. For the REP factor on “Physical Fitness”, Singapore adolescents seem to see outdoor and adventure experiences as a means to developing physical fitness. Possible explanations could be that as there is a dominant culture of ‘fitness training and testing’ for students to be physically fit to pass national fitness tests (McNeill, Sproule & Horton, 2003), students are likely to view outdoor and adventure experiences as a means to train physically because outdoor and adventure experiences are often associated with physical education in Singapore schools. The implementation of outdoor education in the physical education curriculum is one approach that some Singapore schools adopt (Ho, 2013).

Discussion of Qualitative Focus Group Interviews

Activities that provide opportunity for social interaction

Low, Quah and Yeap (1999) found that there was high percentage of Singapore adolescents who experience loneliness. Given that the family size has shrunk considerably from 1999 to 2009 (Department of Statistics Singapore 2010), and as many families have opted to have only one child, the relatively small family size is likely to mean the children in the Singapore family have fewer opportunities for sibling and social interaction. These may lead the young children having an exaggerated sense of self, who think of themselves and do not have emotional bonding with others and hence have the propensity to be a lonely individual later. Therefore outdoor and adventure activity participation could be seen as an opportunity for young people to meet and interact with other people to make up for this missing social interaction at
home. This finding of opportunity for social interaction is similar to the findings of Festue (2002) and Bentley (2009) whose study was to investigate motivations for participation in outdoor and adventure experiences of Romanian and American participants respectively.

**Personal and social development & awareness of need for lifelong skills and challenges**

Students perceive overcoming challenges to be a goal for outdoor and adventure experience but they also see it as a means for personal growth and development. This finding echoes Davidson’s (2001) finding that participants of outdoor and adventure programmes perceived such programmes required them to respond to the challenges, which meant that they had to think of other ways to manage the challenge. Students also related participation in adventure camps as given opportunity to learn and develop leadership when carrying out their responsibility for tasks accountability, due to a greater tolerance to accept learning from mistakes and experience. Hence they were more inclined to learn and to achieve in outdoor and adventure programmes due to this reconciliation and perception of such programmes in their lifespan development. The realization to acquire greater undertaking, responsibility and opportunity to learn and the need for lifelong skills is also aligned with Singapore adolescents’ inclination for self-improvement (Ho, Ng, Ho and Nazira, 2010).

**Opportunity to attempt novel activities and environment**

Students shared that experiencing unique activities and doing things which are not normally experienced were strong reasons that they can associate with outdoor and adventure programmes. These underlying reasons seem to be similar to the REP inventory factor of “Escape Personal-Social Pressures”, as the sub factors under this factor includes ‘To have a change from my daily routine’, ‘To get away from the usual demands of life’, ‘To have my mind move at a slower pace’ and ‘To have a change from everyday life’.

**Limitations**

This study had limitation in the sample size. This is notably due to the non-representative profile of participating schools respondents which consisted of 44.1% from Independent school and 55.9% from Government schools. According to the Education Statistics Digest 2011 (MOE, 2011), 92.9% are Government schools, and 7.1% are Independent schools. Hence the result of this study can only apply to this study profile and not representative of the Singapore school-aged adolescent.

**References**


Davidson, L. (2001) Qualitative research and making meaning from adventure: A case study of boys' experiences of outdoor education at school, Journal of Adventure Education & Outdoor Learning, 1:2, 11 — 20


Ho S. (2013): The purposes outdoor education does, could and should serve in Singapore, Journal of Adventure Education & Outdoor Learning, DOI:10.1080/14729679.2013.798587


I. Introduction

Anger and anxiety are part of the basic emotions which often overwhelm humans. According to Ekman (1994) in Goleman (1995:311), “Anger is the most dangerous emotion; some of the main problems destroying society these days involve anger run amok.” Anxiety also is stressful to one’s mental health and causes disorders such as, “phobias, obsessions and compulsions, panic attacks” (Goleman, 1995:66).

According to Bucher (1979), in the future education will utilize experiential learning programs more and more, giving individuals more opportunities to apply their knowledge and experience. The three aspects of physical education introduced by Bloom and Krathwol (1956) are included in Outdoor Education experiences, which provide students with learning activities about a particular situation (cognitive objective), the appreciation of learning experiences (affective objective), and the emotional and skill aspects derived from participating in an outdoor experience (psychomotor objective). Bucher further argued that “Every learning experience should be examined in terms of how its teaching can be enhanced through outdoor education.” According to Priest (1997) in Taniguchi (2004:45), “Outdoor education creates events that put students into problem solving predicaments and the decisions they make impact them directly and usually quite quickly.”

Hiking or walking are basic outdoor activities which can capture beautiful places. According to Oleson (2000), hiking is “… one of the best exercises there is, walking, with some of the most spectacular beauty to be found on our planet, nature.” Conditions which one has to face while hiking in nature are various, such as narrow paths, savannahs, thorny bushes, slippery ground, rocks, rivers, steep climbs and downward slopes. The ability to think and make good decisions is an essential requirement to overcome and navigate these varied conditions, including when confronting emotional stress. In addition to this, hiking outdoors demands physical and mental skills, courage, patience, caution, discipline, concentration, and teamwork among the group, which are important elements in the management of emotions.

According to Tice (1993) in Goleman (1995:63), regarding anger management, “Perhaps a safer alternative is going for a long walk; active exercise also helps with anger.” Tice explained that this method will “change the body’s physiology from the high arousal of anger to a low-arousal state, whereas the nature of the activity can distract from whatever triggered the anger.” Oleson (2000) stated that, “… hiking the wilderness is a peaceful, relaxing, and stress reducing experience most of the time even when it is challenging.”
(1994:192) added that the clean outdoor air will increase “changes in the brain waves” which affect the level of relaxation and tranquility.

Various theoretical and literal studies have proven that outdoor educational programs provide meaningful learning experiences. These characteristics make outdoor education through a hiking program one of the most effective learning experiences to help solve an individual’s emotional problems. Therefore, the purpose of the present study was to observe whether outdoor education through a hiking program can also have an affect on emotional experiences, particularly in controlling basic emotional anger and anxiety.

II. Method

1. Subjects

The subjects who participated in this study consisted of 62 male and 16 female freshman students (analyzed separately) from the Physical Education and Health Department at the Indonesian University of Education. Ages typically ranged from 18 to 20 years. The subjects were divided into two groups: an experimental group and a control group.

Anger and anxiety scale tests were used to measure the effects of the outdoor education hiking program on both groups. The tests were conducted on two occasions, comprising a pre-test and a post-test.

2. Hiking program

The researcher chose a 4 week Hiking Program, with a frequency of hiking 3 times in one week. To implement this program, the difficulty of the hiking was gradually increased, from the easiest and safest hiking to quite strenuous and challenging hiking. During the activities, subjects were encouraged to enjoy and learn about nature and to freely meditate on it with their own minds and feelings.

3. Scale Test

The Anger Scale used comprised of 46 questions taken from the Clinical Anger Scale (CAS) developed by Snell et al (1995), while the Anxiety Scale consisted of 24 questions from The Liebowitz Social Anxiety Scale (LSAS) developed by Liebowitz (1987).

4. Statistical Analysis

The data of this study was computed by the standard deviation and average of measuring value using SPSS/PC 12.0. Paired t-tests to compare data before and after the intervention and an independent t-test (p<0.25, p<0.10, p<0.05) was used to investigate the difference between groups.

III. Results

The analysis of the effect of the hiking program on males’ anger control was as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>48.74</td>
<td>47.16</td>
<td>1.15*</td>
</tr>
<tr>
<td>Control</td>
<td>57.74</td>
<td>57.03</td>
<td>0.53</td>
</tr>
</tbody>
</table>

p<0.25
The analysis of the effect of the hiking program on females’ anger control was as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>52.12</td>
<td>46.12</td>
<td>0.95*</td>
</tr>
<tr>
<td>Control</td>
<td>62.38</td>
<td>66.50</td>
<td>-0.98</td>
</tr>
</tbody>
</table>

p<0.25

The analysis of the effect of the hiking program on males’ anxiety control was as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>25.45</td>
<td>20.16</td>
<td>4.43*</td>
</tr>
<tr>
<td>Control</td>
<td>25.48</td>
<td>22.42</td>
<td>2.57*</td>
</tr>
</tbody>
</table>

p<0.05

The analysis of the effect of the hiking program on females’ anxiety control was as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Pre-Test</th>
<th>Mean Post-Test</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>29.88</td>
<td>25</td>
<td>1.10*</td>
</tr>
<tr>
<td>Control</td>
<td>24.12</td>
<td>23.25</td>
<td>0.48</td>
</tr>
</tbody>
</table>

p<0.25

IV. Discussion of Findings

Both the male and female experimental groups showed an improvement in anger control at a degree of reliability (≤ 0.25). Although emotional anger does not depend entirely on the situation, the research finding provides support to the method of anger control suggested by Tice in Goleman (1995:63) that, ”going for a long walk... helps with anger.” In other words, this method replaces a high anger stimulation environment with a low anger stimulation situation (cooling off physiologically). In addition, during the treatment times, subjects appeared to be relaxed and to gain great happiness through the hiking program. This observation supports the opinion of Zillmann in Goleman (1995) that; “It’s hard for a person to stay angry when he or she is having a pleasant time.”

Both the male (≤ 0.05) and female (≤ 0.25) participants in the wilderness Hiking program showed an improvement in the ability to control anxiety. Generally, emotional states tend to be unstable in stressful situations, and may be very different between men and women. According to Zap (1998) “Women tend to act on feelings much more than men do” Perhaps for a number of women, feelings can tend to outweigh the rational in many situations.

Also the research results found that male of the control groups showed increase in ability to control anxiety (≤ 0.05), researcher assumption, the daily exercise of subjects from physical education give some effect to shift anxiety. This finding supports the theory proposed by neuro-scientist Joseph LeDoux (2001) in Ratey & Hagerman (2008:105) in his article entitled “Overcoming Anxiety through Active Coping.” LeDoux explained that, “active coping means doing something in response to whatever danger or problem is causing anxiety”
rather than passively worrying about it.”  Active coping, according to LeDoux, refers to a physical action (exercise).

According to Oleson (2000), through activities such as the hiking program, individuals may gain more peaceful, relaxing and stress reducing experiences. Another benefit obtained by the subjects of the experimental group was that they were exposed to greater supplies of fresh air in the rich outdoor environment. Nelson (1998), explained that the cleaner the air such as in mountain areas, the greater its ion content. There are two or three million ions in each breath we take in such locations, and that is five to ten times more than the recycled air in polluted cities. Nelson further explained that a person who lacks oxygen often experiences headaches and is easily offended, while extra oxygen will clear someone’s mind and develop a fresh perspective.

V. Conclusions and Suggestions
The results of the four week intervention showed that the Outdoor Education hiking program had significant positive effects on the levels of anger control and anxiety control. An Outdoor Education Hiking Program can create an experience of “active meditation,” especially when the subjects focus more on a reflective situation rather than just concentrating on reaching the destination.

References
Liebowitz, MR. (1987). Liebowitz Social Anxiety Scale. C:\Documents and Settings\Windowz XP\My Documents\The Anxiety Community - Social Anxiety Disorder Liebowitz Social Anxiety Scale.htm.
In this paper I argue that outdoor practitioners working in formal educational contexts could support participants’ personal and social development by paying more focussed attention to the informal educational opportunities that arise, in order to address the wider social and political issues and matters of social justice in the communities, regions and countries in which they practice.

The theme of relationships and development of self in social settings is central to outdoor education and has long been considered as significant in the literature. For example, Priest (1986) discussed both human and environmental relationships; and Martin (1999) defined and discussed issues of environmental and social justice relationships as ‘critical outdoor education’. More recently Quay (2013) argued that outdoor education is more than just relations between self, others and nature and he explored the differences and connections between the aesthetic and reflective aspects of experience suggesting that issues involving the “self” emerge from and return to aesthetic ways of being.

The issue of social justice in outdoor and experiential education has been considered by Rose and Paisley (2012) who used “whiteness” as a critical and theoretical lens and Warren (2002) who argued for its inclusion in the education and training of future outdoor leaders. She concluded that the “potential for social justice education within the outdoor experiential education field creates an imperative for [its] inclusion” (2005, p.38). The importance of social justice in the research of outdoor experiential education has been articulated by Warren and Loeffler (2000) who argue for studies that originate in generating rather than testing theory, in emancipatory outcomes, and in questioning traditional paradigms of inquiry. It is my intention here to offer outdoor practitioners a conceptual model of informal outdoor educational opportunities for use by individuals as well as organisations in the continuing professional development (CPD) of staff and in the design of programmes. It is not my intention here to provide a thorough rationale for including issues of social justice in the practice of outdoor education. The promotion of education for social change was championed by John Dewey and Kurt Hahn, significant and influential writers concerning issues of outdoor education; for example, Dewey (1959) states that direct experience in a social milieu “is the fundamental method of social progress and reform” (p. 30) whilst Hahn argued that the ultimate aim of education was the nurturance of civic responsibility; he concluded that this was evident in students’ defence of human decency and acts of compassion (James, 1995a). Hahn’s principles were founded in Plato’s philosophy who argued that a human being cannot achieve perfection without creating a just society (James, 1995b). In research, Warren and Loeffler (2000) highlight how social justice is of critical importance in the management and delivery of programmes, the training of staff, and the experience of participants. The question of how the labyrinth of relationships and experiences provides opportunities to address matters of social justice, and issues for educators is explored here.

I argue that the residential setting for formal outdoor education provides the space and opportunities for practitioners to engage in ‘talk’ or more specifically what Batsleer (2008) discusses in terms of chat, conversation and dialogue, about the bigger issues concerning matters of social justice, power and equality. These residential contexts for informal ‘talk’ can be found
in traditional outdoor education centres, a bunkhouse or camp, on a boat or tall-ship or anywhere that the physiological needs of food, warmth and shelter, the basis of Maslow’s (1970) Hierarchy of Needs, are shared and need to be collectively addressed. On these outdoor residential experiences, group members share the responsibilities for preparing food, making a secure shelter and keeping people warm. I suggest that when this type of communal living is combined with shared outdoor activities that are aesthetically, cognitively and affectively stimulating, this provides powerful and authentic experiences. These can act as a catalyst with which to engage participants in ‘talk’. In order to help conceptualise this I propose a model of informal outdoor education that is located in the physical, socio-cultural and personal contexts, as shown in Figure 1 below.

![Diagram of Informal Outdoor Education Model](image)

**Figure 1: Informal outdoor education model**

In this model I propose that ‘talk’ connects the three different contexts of an outdoor education experience, one that is an ‘engaged experience’ due to the nature of the aesthetic and reflective properties it has. A skilled outdoor practitioner may be able to explore all aspects of these experiences through the careful facilitation of chat, conversation and dialogue. It is my intention that this model offers a visual representation of a structure that allows outdoor educators to consider the different facets of a person’s experience since evidence suggests that outdoor practitioners may avoid these challenging issues. For example Rose and Paisley (2012) describe:

> When racial or other social justice conversations periodically arose during evening circles or daily interactions, I pleasantly deflected these conversations so I could commence what I saw as the important work of experiential education, teaching various aspects of character development, leadership, technical outdoor skills, or communicative interpersonal skills (p.138).

If outdoor practitioners equally address all three context rings detailed in the model then I argue this provides a more balanced consideration of experiences and opportunities to ‘talk’ and
engage participants. From my experience there are times when there are lost opportunities to talk about a sense of place, or matters of social justice. For example it is not unusual in outdoor education to focus on the activity itself; this may be learning the technical skills necessary for kayaking a white water river, a discussion about route planning for an expedition in the mountains or a safety briefing on board a yacht prior to sailing. These activities are well placed within the physical context ring above. A skilled outdoor practitioner may well also address the issues that arise from these activities in the personal or socio-cultural context, and I suggest that is influenced by a number of factors; the setting, the organisational culture and the education and on-going continual professional development of the outdoor practitioner.

However, my argument is that outdoor education is dominated by activities to the detriment of other aspects. If the priority of practitioners is to ensure safety and manage risks, whilst providing challenging activities, then this is unsurprising. I argue that participant’s experiences provide ideal opportunities to address matters of the socio-cultural and personal contexts since they are also present during the activity. For example, on a sailing programme, the sense of place in the socio-cultural context enriches student learning (Leather & Nicholls, 2013); and with facilitated reflection the personal context may also be explored; e.g. participants sense of self (Leather, 2013) and their attitudes to learning can be explored when reviewing a backpacking expedition in the mountains. With a broader understanding of the three contexts outlined above, this opens up possibilities to ‘talk’ and for educators to engage in conversation and dialogue to address the bigger issues, however, as Rose and Paisley (2012) describe above, these may be “pleasantly deflected”(p.138).

In order to ‘talk’ about social justice an educator needs to have education and training as well as technical and facilitation skills (Warren, 2002). Here the academic community can help with theory and practice. For instance, Martin (1999) explores critical outdoor education which accepts there is both a local and global environmental crisis, and that social and environmental injustices are both a cause and consequence of this crisis. It also examines the beliefs and practices in terms of whether they maintain or resist the dominant historical human nature relationship, namely one of exploitation; a subject that perhaps makes for stimulating discussion for a crew over supper when the ship is anchored. Similarly, Cramer, Ryosho, and Nguyen (2012) explore how experiential exercises can be effective in teaching about diversity, oppression, and social justice and conclude that these “have the potential to help students develop empathy… toward clients of diverse social and cultural background” (p.11).

My argument, and the model proposed here, is in response to the empirical data collected in an exploratory study which purposively sampled managers of residential centres in south-west England. This conceptualisation of ‘engaged experience’ offers a picture for educators involved in the planning, development and facilitation of residential who aspire to develop personal attributes including morality and a lack of prejudice; some of those qualities that Maslow (1970) described as “self-actualisation”. The need for a model is supported by Henderson, Whitaker, Bialeschki, Scanlin, and Thurber (2007, p.988) who state how there is increasing evidence “that well-designed, well-implemented, youth-centered programs that consciously use a youth development model [emphasis added] have positive outcomes for both young people and their communities”. Currently, there is no evidence that residential settings in England have a model for this purpose. Whether programmes are receptive to the notion of ‘informal talk’ or their clients wish to engage with ‘more than the activities’ is a matter requiring further research illustrated by this honest response,
...we have no clearly espoused underpinning philosophy. Every now and again my conscience pricks me and I write a list of all the things a “proper” outdoor centre should have and this is one of them, but the reality is that customers aren’t really interested in it. They want good food, good beds and fun, safe activities!

Brian, Head of Outdoor Centres, Countyshire

If outdoor educators believe that relationships and the development of self are fundamental, then the goal of Maslow’s (1970) self-actualisation, including constructs of morality and a lack of prejudice, means they are duty-bound to ‘talk’ and ‘engage’ with participants about the bigger issues; social and environmental justice, power and equality. The spaces are present in residential outdoor education and with informal ‘talk’ these can start to be addressed.

References


i See Warren (2002; 2005) for a fuller consideration of social justice and the influence of Dewey and Hahn.
ii There are a number of critiques about the structure and nature of Maslow’s Hierarchy – e.g. see Neher (1991) – nonetheless it still provides a useful framework and reference point here to explore the main premise considered in this paper.
iii There are a range of 3-ring models with which outdoor educators may also be familiar e.g. Adair’s (1973) Action centred leadership and the suggestion that equal attention is given to each circle.
Lost in translation: A critique of ‘Forest School’ in the UK

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University of St Mark & St John, Plymouth, UK

In this paper I critique the approach to outdoor education called ‘Forest School’. This is a brand of outdoor education that is associated with Early Years education (children from age 3) and owes its heritage to Scandinavian Friluftsliv and Danish Udeskole in which young children visit forest or woodland areas to learn personal and social group skills. Knight (2009) defines Forest School pedagogy as

one where the experience is regular, repeated and in an unfamiliar setting, it is made as safe as reasonably possible, it happens over time, there is no such thing as bad weather - only bad clothing, trust is central and the learning is play based and, as far as possible, child-initiated and child-led (p.16-17).

Stevens (2013) describes the typical activities including; the lighting, managing, and cooking on fires; the building of dens, and shelters; engaging in imaginative, and fantasy play including storytelling; climbing trees, rope swings, using full size tools to cut, carve, and create using natural materials, and playing environmental games.

This critique is a contemporary international issue. For example in 2012 Archimedes Training piloted the first ever Bush Schools course in Perth, Australia stating “Bush Schools is based on the ethos and philosophy of the European Forest Schools movement but all materials and content have been adapted to suit the Australian culture and environment” (Archimedes Training, 2012a), a commercial assertion that has yet to be evaluated.

Forest School: The new kid in the woods

The reason to critique is because there has been an exponential rise in Forest Schools, a supposedly ‘new’ approach to outdoor education in the UK. This is exemplified in the work primarily of Knight (2009, 2011a, 2011b) as well as the commercialisation of training provision of Forest Schools (Archimedes Training, 2012b) and “If we are to develop a shared national model for Forest School in the UK there must be robust discussion and debate” (Knight, 2009, p.14). Therefore, to add to this debate I set out to critique Forest School as a “methodical practice of doubt” (Gasché, 2007) as well as my position as an experienced, sceptical, outdoor educator and researcher.

Many recognise the activities of shelter building, making fires and using tools (e.g. knives and axes) in the outdoors as nothing new. These activities have been enjoyed educationally since at least the writing of Baden Powell in 1908 (Scouts, 2013). Additionally, the personal and social development ethos of Forest School has been at the core of outdoor adventure education exemplified by Kurt Hahn and the practice of Outward Bound. Along with traditional adventure education, the area of environmental and Earth education is also an influence; for example Cornell’s (1978) Sharing Nature with Children is a definitive work of fifty experiential and sensory activities. His classic “meet a tree” (Cornell, 1989/1998, p.28) sees participants blindfolded and using other senses to explore the tree. This is found in many programmes including Forest School. All these approaches have an experiential pedagogy and the
Philosophical base and its importance, is articulated by John Dewey, and considered elsewhere (see Ord & Leather, 2011; Quay & Seaman, 2013).

Absent from the literature are the theoretical and philosophical foundations upon which Forest School is based. It claims to bring a fresh approach to outdoor education with younger children and a ‘play pedagogy’. This child centred and child initiated play is possibly new for some outdoor practitioners and contexts, and as such potentially exciting for outdoor educators. This pedagogy challenges the current orthodoxy, for example fires and tools with 3-5 year olds tests the traditional age of participation in such activities (e.g., the Scout Movement). Similarly in the UK, encouraging young children to go outside to play in “bad weather” is an example of challenging what Gill (2007) discusses in his book as the issues of “growing up in a risk averse society”. This is in contrast to the Scandinavian approach to childhood, education and outdoor living. What I wish to highlight is how Forest School has taken a foreign concept that is grounded in the concept and philosophy of Friluftsliv and imported it into a UK context and culture and how without a full understanding much of the underlying rationale becomes ‘lost in translation’. The point is that outdoor activities, experiential pedagogies and play have been present for decades. For experienced outdoor educators these all influence how we construct a Forest School in the UK. For new outdoor educators there is much to be gained from understanding these antecedents of the Forest School label.

The negative aspects of this critique

Firstly there are unsubstantiated claims about the outcomes of Forest School on individuals; secondly, there is a poorly explored theoretical base and thirdly the commercialisation of training to become a Forest School leader leads to a commodification and oversimplification of the educational experience. As such the original philosophy and pedagogy is ‘lost in translation’.

The unsubstantiated claim regarding self-esteem is striking and often repeated. Knight (2009) states that:

Confidence and self-esteem are improved as skills develop and no one fails.
This has a snowball effect, because as confidence grows so the children find more exciting things to do, which they will succeed at, thus improving their sense of self-esteem even more (p.39).

There is no evidence cited to support this. I have discussed elsewhere how outdoor educators need to be more aware of the self-esteem label and how “the evidence base regarding self-esteem from the research on Forest Schools is not currently that robust and needs to be treated with caution” (Leather, 2013, p.171).

Secondly, the theoretical underpinning of Forest School pedagogy and philosophy is poorly articulated in the academic literature, the commercial training documents and websites. I suggest that two related yet different social theories, constructivism and constructionism, provide useful lenses to understand children’s experiences, and this is absent in Knight (2009, 2011a, 2011b). Maynard (2004) used Foucault’s work and found the story of Forest School and primary teachers could be read as a “battle between dominant discourses, one exacerbated by the outdoor context in which it took place and how opportunities for environmental education [were] under-emphasised” (Maynard, 2007, p.320). While there is brief credit of the early pioneers of child
centred and nature oriented experiential education as well as the “Outdoor Adventure Education movement” (Knight, 2009, p.64). contemporary authors on play and child development are absent. I argue that much could be understood from the research on play and learning in the early years and the writing of Maynard and Thomas (2009), Bruce (2011) and Wood (2009, 2010). Specifically Wood’s “Integrated pedagogical approaches to play” (Wood 2010, p.21) would be a useful model in translating Forest School for the UK.

Thirdly I argue that the training of a leader commodifies the educational experience. Level 3 practitioners may ‘deliver’ Forest School, however the original ethos becomes ‘lost in translation’ in Britain because the ability to facilitate child initiated play is culturally influenced and as Wood and Attfield (2005) explore play remains problematic in theory and practice. My initial research indicates that the ability of the leader to facilitate play is influenced by their background. Additionally, a market dominance of training provision narrows the opportunities for outdoor education when Forest School is perceived as the only acceptable badge and qualification to take children to the woods.

The positive aspects of the critique of Forest School

Forest School has much for outdoor educators to consider that could be useful. Firstly the play based and child (participant) pedagogy. For example, the thrill of jumping in water, whilst not featuring in the syllabus of skill acquisition for sailing or canoeing (except as rescues), can provide opportunities for fun, excitement, group development, personal expression and a sensate connection with the environment or the *somaesthetic experience* as supported by the writing of philosopher Shusterman (2008, 2012).

The positive aspect of taking young children outdoors has two components. Firstly, they become exposed to learning in natural environments from a young age, and conceivably this becomes more normal. These early experiences may seed the future and engender a desire for more. Studies of significant life experiences (Tanner, 1980; Chalwa, 1998) of environmental educators suggest that these early experiences are crucial. Secondly, this age group challenges the pre-conceptions of traditional approaches for example, adventurous expeditions of the Duke of Edinburgh Award Scheme start at fourteen and traditional sports, such as sailing, may commence independently from eight years (Royal Yachting Association, online). These societal shifts need to be considered against the bigger picture of how childhood is culturally and socially constructed and what young children are capable of physically, cognitively and emotionally (e.g. Steinberg & Kincheloe, 2011). My concern is that without a fuller understanding of the construct called ‘Forest School’ outlined here, we will see a reified and constricted version of outdoor education in a Forest School approach, the child’s subsequent experience within it and the benefits to the wider outdoor education community may all be ‘lost in translation’.

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i Archimedes Training is a commercial company that provides training courses.

ii The plural Forest Schools is a trademark of Archimedes Training Ltd.

iii See the NOCN Level 3 Certificate in Forest School Programme Leadership (QCF) Qualification No: 600/8874/6

iv Exploratory interviews conducted with experienced Forest School practitioners.
The Importance of Core Values: Outward Bound New Zealand 1962-2012

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Abstract: In his book Organisational culture and leadership Edgar Schein asserts that artefacts located at the surface of a culture, which are visible or tangible but sometimes not decipherable, are realisations of underlying values that in turn are manifestations of deeper assumptions. This paper highlights Outward Bound New Zealand’s (OBNZ) core values that have remained consistent over the past fifty years. Primary data for this case study was obtained through the use of semi-structured, in-depth interviews (14) with past and present School and Executive Directors. The information was analysed according to well-established principles of qualitative data analysis: data reduction, data display, conclusion drawing and verification. The credibility and dependability of the research was enhanced by triangulating the information involving relevant documentation (OBNZ annual reports), the data collected from the interviews, and the researcher with his previous extensive experience of OBNZ.

A key finding is that OBNZ has stayed true to the original values of Kurt Hahn, which have been reviewed and formalised through the ‘fundamentals’ of greatness, compassion, responsibility and integrity. Important visible symbols of the OBNZ brand are the compass logo and motto of ‘to serve, to strive and not to yield’. The core course assumption is still focused on self-discovery and the OB motto ‘there’s more to you than you think’. These findings provide insight into the culture within the OBNZ organisation, which has been largely independent of political influence, but responsive to the current needs and expectations of society. It is anticipated that these findings will be transferable to other contexts and assist in the organisational development of effective leadership and culture.

Introduction
The purpose of this study was to examine the organisational culture of OBNZ throughout the successful development of its courses over the past 50 years, from 1962 to 2012. Schein (2010) defines organisational culture as, “a pattern of shared basic assumptions learned by a group as it solves its problems of external adaptation and internal integration” (p. 18). The theoretical frame work for this study was based on his model of artefacts, values and assumptions. What is remarkable about OBNZ is that over fifty years its Standard/Classic (three-week) Course has remained largely unchanged and is still its primary core business despite major macro environmental changes (political, economic, socio-cultural and technological) throughout that period. This case study aims to evaluate the key factors of OBNZ’s organisational culture, how they are manifested in the programmes run, and the external factors that have impacted the OBNZ culture during this period.

Outward Bound New Zealand
Over 54,000 New Zealanders have taken part in courses over the past fifty years (OBNZ, 2011). The unique New Zealand course design at a beautiful Marlborough Sounds location typically involves three weeks of intense activity in the outdoors with a diverse group of participants in a safe and supportive environment. As a values-based educational organisation, OBNZ places emphasis on the values of compassion,
greatness, responsibility and integrity. These values have been reviewed and documented, are promoted within their courses and are central to their mission of ‘inspiring personal and social development through value based experiential learning in an outdoor environment’ (OBNZ, 2013). These physical journeys lead to self-discovery, an outcome supported by research on the significant course impacts of the ‘inward sounds of Outward Bound’ (Martin & Legg, 2002; Martin & Leberman, 2005).

Outward Bound International
In the mid-1990s, Outward Bound International (OBI) reported that many OB schools were experiencing falling rolls and financial problems (Pereira, 1997). For example at OBNZ the trend was towards shorter courses with the original three or four week course in decline. Internationally the diversification towards shorter OB courses and away from the traditional three–week course has continued over the past decade. This diversification in courses has been mirrored at OBNZ since 1997 when the organisation was virtually broke. However, their core business remains the 3-week course and internationally has maintained the longest average course length. Whilst OBNZ's longer courses appear to be out of step globally with OB and other providers (Sibthorp, Furman, Paisley & Gookin, 2011), they appear to still be a strong and powerful agent of personal change and development. The objective of this study was to examine the factors that have allowed OBNZ to continue to prosper, whilst sticking to their original course rationale.

Method
Primary data was obtained through the use of semi-structured, in-depth interviews (by telephone/ in person) with past and present OBNZ School Directors (n=10) and Executive Directors (4). It is noted that a broader sample of staff could have been undertaken, in particular instructors. However, as Schein (2010) notes in the title of his book, there is a close connection between leadership and organisational culture. So in a study of these issues it is appropriate to focus on the organisation leaders and their perceptions in particular. The information has been analysed according to Huberman’s (1994) well-established principles of qualitative data analysis. These are data reduction, data display, conclusion drawing and verification. The credibility and dependability of the research was enhanced by triangulating the information (Stake, 2008) involving relevant documentation (OBNZ annual reports), the data collected from the interviews, and the researchers with their previous extensive experience of OB.

Findings/Discussion
Macro-environment factors
OBNZ largely operated independently from political influence for the first thirty years, despite being opened by the Governor General that bears his name, the Cobham Outward Bound School (Grady, 1987). However, over the past twenty years there has been an increasing cost of regulatory and safety compliance as a result of the Health & Safety Act (1992) and Resource Management Act (1991). OBNZ enjoyed a very successful period for the first thirty years with full courses and often waiting lists. However declining roles, decreasing funding, increased competition, and two deaths in the early 90s (Brett, 1994) resulted in reserves being eroded to the point whereby in 1997 it was virtually bankrupt. This was a defining time for OBNZ and a period of significant governance change, review of values, and diversification of courses to
attract greater funding streams. This strategy has been successful with the development of a more consistent product and quality focused management systems leading to significant financial reserves and a return to waiting lists (OBNZ, 2011).

**Micro-environment factors: Safety and leadership**

A key theme that has been consistent through the fifty years of OBNZ has been the emphasis and focus on safety. Throughout this period there have been systems in place which have reflected society’s views on safety of the time. During the early courses, with the demands of nature, adventure and the physical activities, it was accepted that injuries were part of the course. There were three deaths in the first thirty years. However, following the two deaths in the early 1990s (Brett, 1994) there were thorough internal and external audits, and a complete review and rewrite of the Standard Operation Procedures (SOP) handbook, which had become unwieldy and outdated. Following the Mangatepopo tragedy in 2008 at the Sir Edmund Hillary Outdoor Pursuits Centre (Brookes, 2011) and the resulting New Zealand Government’s Adventure Activity Review in 2009, social expectation has changed. It is no longer appropriate or acceptable to take risks where there is a meaningful and real chance of someone dying. It was an important wake up call for many in the industry and heightened the sense of responsibility for staff at Anakiwa.

Priest and Gass (1997) indicated proactive facilitation approaches enhance the student experiences and increase the benefits of transfer. The instructors have been a key factor in OBNZ’s success. Their passion and exceptional empathy has facilitated and enhanced the personal and professional development of course participants, as well as their own life learning and experiences. Given the demands and intensity of the roles, and the potential for burnout, the three to five year period of the limited term contracts for instructing staff ensures that they do not stay too long, enabling them and the organisation to remain energised and refreshed.

**Course factors: Design principles and location**

An important factor has been the overall course structure in New Zealand, which combines learning through adventurous and challenging experiences, integrating the bush, sea, rivers, community service, solo and activities involving rocks, ropes and running (Grady, 1987). Course objectives focus on self and social development, identifying values, appreciation of the natural environment and service to the community (OBNZ, 2013). The school’s beautiful location at Anakiwa in the Marlborough Sounds, arguably a Taonga [national treasure], provides an ideal context for the outdoor physical adventure activities (Brown, 2008).

**Rites & rituals: Course opening and closing, morning PT**

The OBNZ student’s course begins at the South Island port of Picton, with an immediate departure from the harbour into the Marlborough Sounds, providing an important metaphor for the name ‘Outward Bound’ and opportunities of self-discovery. Each OBNZ course’s opening is an important rite and ritual. It is a time of coming together and acknowledging the heritage and legacy (McKenzie, 1998), but also the potential for opportunities for ‘place based learning’ (Brown, 2008). There is a Māori welcome and farewell, recognising that te kawa a Māori [rituals and cultural practices] are an important part of the lives of many who come to Anakiwa. The formal welcome on to the front lawn also invites the students to sign in and commit to some course conditions and rules. This signing in sets the scene, expectations and
provides protocols. These rites and rituals support Wattchow and Brown’s (2011) emphasis on the importance of place in outdoor education settings, with a focus on attributes of history, geography, ecology, culture and community. Another important rite and ritual is the departure involving a tree planting ceremony, which started in the mid-1980s and symbolises putting roots down and belonging. Schein (2010) points out that at the first level of culture these visible factors, artefacts and creations, are used by the organization to convey meaning. The beginning of each day at Anakiwa also has some specific rites and rituals that provide a metaphor (Bacon, 1983) of a refreshing start and renewal. Physical Training (PT), a run, a swim and a cold shower are done 365 days of the year.

**Symbols: The badge, the logo and the cutter**
There are three distinct symbols related to OBNZ, the badge, the logo, and the cutter. Students finishing a course at OBNZ are extraordinary proud of their achievements, which are represented by the badge, which is gifted to students on course completion. The motto of ‘To serve, to strive and not to yield’ has been entwined with the logo. The Cutter [boat] has been an important OB symbol since its beginning in 1941.

**Values & beliefs: Greatness, compassion, responsibility and integrity; experiential learning**
There is a belief at OBNZ that the longer Classic 3-week courses are more powerful, which is supported by other outdoor program’s research (Jostad, Paisley & Gookin, 2012; Sibthorp, Paisley & Gookin, 2007). Another important belief, based on the foundations of Hahn’s philosophy, has always been the importance of learning through experience (James, 1990).

The wording of the OBNZ values has been reviewed and changed, becoming more modern and relevant, but the fundamental understanding of these values has not changed since 1962. The directors and instructors have been guardians of these values, which at times present a paradox related to safety and the adventure opportunities presented in the New Zealand outdoors, and the care and compassion required in engaging participants in self-discovery.

**Core assumptions: Self-discovery**
The core assumption of self-discovery has remained consistent throughout the 50 years of OBNZ reinforced by the motto of ‘there’s more to you than you think’. There is an emphasis on challenging yourself to doing your best, being your best self. Whilst OBNZ’s core organisation values are promoted during the course, it provides the students the opportunity to review their own values. The course also provides a microcosm of part of a student’s life’s journey, a ‘rite of passage’, testing perceived limits.

**Links to Schein’s Organisational Culture Model**
Overall, the success of OBNZ’s organisational culture has been a combination of having such strong rites and rituals, core values and beliefs, its acceptance within the ‘Kiwi’ New Zealand culture, and also at the same time being responsive to changes in the macro environment. The 3-week course design and the unique location, developed over fifty years, have built an expectation for ‘Kiwis’ [New Zealanders] that OBNZ changes lives. It is hoped that these findings can be transferred to other Outward
Bound schools and business organisations internationally who are trying to cope with
the increasingly changing demands of the modern world.

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The Ancestral Health Movement (AHM) is based upon examining the diets and activities of the distant past in order to better understand and address the health issues of today. Evolutionary archeological research indicates that our paleolithic ancestors were healthier than people from later agricultural societies. The AHM is based on the premise that optimum health is best obtained by emulating the diet and daily movement activities of Stone Age humanoids. Scientists and medical doctors are increasingly addressing today’s systemic health issues (e.g., obesity, diabetes, Alzheimer’s, arthritis, GI issues) through examining the role that diet, nutrition and exercise play and concentrating less on the cures that medical interventions and the pharmaceutical industry encourage. (Sisson, 2012)

The AHM goes by many names: the Paleo, Primal, New Evolutionary and Caveman Diet. Initially the movement’s ideas were introduced through an article that led to Loren Cordain writing The Paleo Diet (2002). As contemporary fitness enthusiasts discovered the book they recognized how taking an evolutionary lens offered a new critical way to examine diet and fitness ideas. Increasingly the AHM is associated less with diet and fitness routines and more with lifestyle changes.

Supporters of the AHM are encouraged to experientially examine the role changing their diet plays in their own health levels instead of relying on external opinion and experts. The AHM generally supports eating whole food and moving outdoors rather than the “indoor practices” of consuming processed foods or exercising on fitness machines. Understanding the rationale behind the AHM may offer support for outdoor educational pedagogy that aims to move beyond the glamour social media and adventure marketing are focused. As the AHM is generally associated with the health versus the education system, an examination of the relationships between the two merits consideration. The Ancestral Health Society posts videos of many of its past symposium presentations of which most are related to health and a few address the role of movement, play and outdoor activities. (see http://vimeo.com/ancestralhealthsymposium).

**Dietary Component**

Although the AHM’s dietary component uses various terms, with Paleo being most commonly known, each AHM idea can be associated with a past diet or fitness pattern from indigenous cultures or associated with archaeological-based study. Generally, highly processed food is avoided as whole real food is preferred with the Paleo diet eliminating agricultural food sources, such as grains, legumes, dairy products, and processed sweeteners. Even industrial raised meat that is grain fed is limited, with grass-fed, pastured animals preferred.

Other variables concern the types and percentages of carbohydrates, fats, nuts, salt, and whole-fat dairy products allowed. Two reasons are offered as to why grains and legumes are not eaten. First, they contain phytate, an antinutrient that prevents the absorption of some vitamins, and lectins, which increase the permeability of the intestinal wall, thereby contributing to numerous systemic reactions (Cordain, 2002) Other concerns about grains focus on their high gluten content due to genetic manipulation and industrial refining processes.
The overarching premise against consuming “grains or legumes” is that paleolithic people did not have access to these foods, in significant quantity or through enough generations, to evolve a means to safely digest them. High density foods, such as meat and fat, are emphasized, with vegetables and limited fruits offering micro nutrients and fiber.

**Fitness Component**

The fitness component of the AHM critiques specialization as it occurs in sports, fitness pageantry, and competitive racing. Instead the AHM supports a generalist notion of becoming fit through a variety of outdoor routines done in small groups that mimic the daily activities of paleolithic times (e.g., sprinting and long walks, climbing trees, and lifting rocks or logs.)

Many proponents of barefoot running and CrossFit exercises are aware of and support AHM ideas, specifically the Paleo or Primal Diet. The research of Daniel Lieberman, chair of Department of Human Evolutionary Biology, supports the mechanics and benefits of barefoot running and the superior health of Paleolithic humanoids, while also providing evidence of the declining health of people during agricultural and industrial times.

CrossFit, founded by Greg Glassman, provides a philosophy quite different than any previously established fitness practices. Durant attributes CrossFit’s success, in part, to its aim of encouraging the fitness of the ultimate generalist and its basis in an exercise psychology that although is competitive, capitalizes on human’s desire for relationships (e.g., naming workout routines after military heroes) (Durant, 2013). Durant outlines how paleo-based fitness practices are increasingly heading away from the CrossFit boxes, yoga studios, and Mixed Martial Arts Stadiums to the playground.

A pioneer in providing an example of this outdoor play/fitness practice is Erwan Le Corre, fitness founder of MovNat. MovNat, now offers workshops around the world and is based upon reclaiming and teaching the skills of movement in the outdoors. Participants walk across logs, lift heavy rocks, learn a progression of ways to get up on a tree limb, etc. MovNat emphasizes efficiency through focusing on the form and skill required to move and play naturally in a wild terrain.

MovNat provides a model of how to reclaim natural movement in our school physical education curriculum. While it offers much of value to outdoor education (OE) it can still be argued that its classes lack authentic reasons to move in the outdoors beyond trying to stay fit, whereas camping and working in natural settings readily offer an authentic rationale for outdoor movement. Examining the philosophies and success behind the latest fitness trends, specifically MovNat, offers a rationale for many OE programs. OE could benefit from clarifying the real value in an outdoor curriculum, especially in light of the growing health issues and the cost of addressing them with traditional medical practices.

**AHM Growth**

Proponents and knowledge of the AHM is growing rapidly in mainstream culture in North America and the world. Cordain’s book *The Paleo Diet* came out in 2002. In 2010 Cordain’s student, Robb Wolf, published *The Paleo Solution* and used the web and social media sites to share ideas. Now, in 2014 gluten-free and Paleo-Diet recipe books are increasingly popular and e-books, e-magazines, and paleo recipe sites abound. Both large and small food industries use AHM terms to market their products. It is clear that the AHM is growing, and outdoor educators will need to address its influence and some of these are addressed in the next section.
Connecting AHM with OE

There are many ways the AHM and related industries will find a relationship with OE programs. Local and Eco-based food industries may take on sponsoring outdoor programs (e.g., marketing of grain-free health bars). Participant inquiries may support the establishment of totally new pre-cursory programs (e.g., raising one’s own food and learning to dehydrate it). Fishing and hunting as part of outdoor travel experiences, could reclaim their past as a more dominant curricular component. Trip leaders would become trained in accommodating a wider variety of dietary needs, and participants would be encouraged to reflect upon their internal sense of how what they eat is affecting their wellbeing. Educators will also become versed in encouraging others to discuss and examine the impact, both physical and environmental, of their food choices.

Footwear is a noticeable area where the AHM will impact outdoor programs. When students and staff show up for wilderness expeditions with their new minimalist footwear, will our policies allow them on extended expeditions or insist they have broken-in hiking boots with padded heels? How will we determine whose feet and ankles are conditioned enough that they won’t become a detriment on an extended wilderness program?

Mark Sisson, author and founder of *The Primal Diet*, now offers retreats in natural resort centers where participants spend their day learning about diet and nutrition, and then playing in the natural terrain. (http://primalblueprint.com/products/PrimalCon-Vacation-Tulum-Mexico-2014.html). OE directors may soon be examining if their centers would benefit from catering to fitness enthusiasts?

**Conclusion**

The AHM has numerous common ties with the OE market. Both share concern for the way outdoor activities are offered to participants, and both recognize the natural environment as the origin of our wellbeing through food acquisition and human-powered travel activities. Acknowledging the way our health and cognition have evolved with the outdoor landscape may well be advisable and form the basis of the way OE will survive and thrive in the future.

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This study provides an insight into the lived experience of seven participants in the Somers School Camp (Somers Camp) programme. It is significant in that it is the first such examination of the programme. The participants revealed themselves to be perceptive individuals and worthy commentators on the phenomenon of their experiences of the camp, describing an experience which was rich, deep and complex in nature.

The methodology (phenomenology) and method (photo-elicited interviews) which I used in the study required me to listen to the participants and give them voice. This provided a new and different perspective from which to view Somers Camp. A broad range of themes emerged from the interviews. These developed from the labels the students gave to the piles of photos they created and from coding the interview transcripts and organising them onto a ‘monster dog’ style grid (Miles and Huberman, 1994, P.178). This demonstrated some themes as far stronger and more complex than others, and some differences in range and emphasis from those expressed in the programme aims.

Friendship was by far the strongest and most complex theme, occupying more than half of the interview time. Making friends posed the biggest challenge for participants. Dewey (2004/1916) and Gardner (1993) asserted the dominance of friendship in the student experience, listing it as the students most immediate project. Its emergence as a context for learning is similarly important, as Dewey emphasised.

The interviews revealed the processes and contexts involved in making and developing friendship, the importance of friendship in students’ lives, its role in developing their sense of self, its contribution as a pathway to the creation of a caring community and the attributes of friends. The capacity to articulate such complexity around the notion of friendship indicated reflection by the participants, and development of their consciousness of the theme through that reflection.

The participants considered care between individuals to be the foundation of relationships and an important personal value. As care was also a strong dimension of the student construct of environmental education at Somers Camp, it has developed as a central theme to be considered for the Somers Camp aims. Just as developing friendship was the most immediate project for the students, creation of a caring community emerged as an important general project of the experience, as well as a significant educative context. Quay, Dickinson & Nettleton (2000) suggested creating a caring community as the best context for social development. Care is such a strong theme in the study, appearing in all three domains of self, others and environment, that it should be included as an aim of the programme. This also supports the fourth part of Nicol’s (2003) model of experiential education – care as practical knowing manifest in caring action.
The strongest theme after friendship, and some distance behind, was environmental studies. The responses affirmed that the aims of the environmental studies programme, developed from those of the Tbilisi Declaration (UNESCO, 1977), were being achieved. This supports Dewey’s (2004/1916) contention of the importance of aims in the achievement of educational outcomes.

The importance of context and method (Dewey, 2004/1916) in the educational process at Somers Camp became obvious as the participants demonstrated consciousness of the fact that they were in an educational environment (as distinct from being on holiday), and that they were learning. They were able to compare learning at Somers Camp and learning elsewhere. Comments by the participants covered all aspects of the experiential method of education as discussed by Nicol (2003), but also revealed a way of knowing which added meaning to their lives.

Another significant finding of the study was the range of contexts revealed by the participants. Particular situations became meaningful educative contexts because they were being directed by both the student aims and those of the programme. The importance of the contexts is determined by how teachers have constructed them. Any of the contexts directed by different aims would have achieved different outcomes. This point highlights the importance of having programme aims and understanding the intent of those aims. The strength of the aims of the participants evident in the study underscores Dewey’s (2004/1916) entreaty for teachers to structure their aims within the scope of the aims of the students or risk failure. To ignore context and method in the aims risks the outcomes becoming haphazard.

Challenge emerged from the interviews as a dimension of all contexts, rather than as a context in its own right. Challenge became evident in the study when purposefully crafted contexts, used alongside experiential methods, took participants out of their comfort zone. Hence, the study reveals situations at Somers Camp as challenging physical, social, emotional, intellectual or psychological contexts rather than simply a challenge. Ultimately the challenge was to their sense of self. It presented the participants with opportunities to develop new propositions about themselves; to develop their sense of self.

Reflection was an important part of the process of developing meaning from activity, understanding causality and using that insight to inform the foresight of the participants. The meanings which developed out of their experiences were alive in their memories. If the Somers Camp experience is to become part of the context of memory of its participants, then it must place a high premium on reflective activity. Without it, achievement of the aims is left to chance. This defines the difference between education and activity (Dewey, 2004/1916).

It is Gardner’s (1993) contention, that in middle childhood and adolescence, individuals search for a variety of roles they may be comfortable with. Somers Camp provided the participants with many opportunities to try new roles; to add new meanings to their lives. The participants’ sense of self was expanded through the strongly held belief that they had become friends, helpers, carers, archers, boaters, surfers and climbers; amongst other roles. Adding a way of knowing, which develops meaning in the lives of students, to the experiential model of education proposed by Nicol (2003), would reflect the reality of the experience.
Minor themes emerged from comments throughout the interviews. Themes such as encouragement, help, tolerance, trust, support, sharing, cooperation, acknowledgement and honesty have been subsumed into the major theme of friendship, which includes care and the personal intelligences. They have added to the richness of that theme, rather than becoming lost amongst a myriad of small themes.

The Somers Camp statement of aims starts by listing activities and the categories into which they fall. To list categories is helpful as it directs attention to the areas of endeavour of the programme – environmental, outdoor recreational and adventure activities, and acts as a contextualizing statement. In a significant omission, the groupings do not mention education. And the list of activities is just that – a list of activities. The activities are not aims; rather they are the means to achieving aims. They lack the structure of a framework to give them guiding purpose.

Stating that the children will learn about themselves, the environment and others through guided activities are appropriate educational aims. In Dewey’s (2004/1916) terms the aims are general, flexible, able to grow, able to respond to the needs and strengths of individuals and they have been chosen by the organisation. These aims have much support in the disciplines of outdoor and environmental education. Gair (1997), Hales (2006), Hopkins and Putnam (1993), Mann (2002), Mortlock (1984), Nicol (2002) and Priest and Gass (1997) discuss them as worthy aims of outdoor and environmental education programmes. To then list specific qualities, as the Somers Camp aims do, narrows the possible outcomes and doesn’t reflect the breadth of what is really happening.

The lived experience of the students in the Somers School Camp programme was revealed as rich, broad and deep. The themes of the student experience reside in those domains of activity, predicted by the literature (e.g., friendship, development of sense of self and nature) for the age of the Somers School Camp cohort. That the Somers School Camp aims do not reflect this state of affairs more comprehensively leaves some of the achievements to chance. It also makes assessment of the students and evaluation of the programme problematic.

The results of this study point to obvious adjustments which could be made to the aims. They need to incorporate the notion of thinking and reflection to qualify as educative (Dewey, 2004/1916). The aims also need to indicate those methods and contexts which will assist in their achievement. This would allow the aims to fulfil their role – to give guiding purpose to the programme and to the student experience, and facilitate meaningful assessment and reporting of student learning outcomes and evaluation of the programme.

REFERENCES


YOUNG CHILDREN IN OUTDOOR EDUCATION: An Empirical Study of Children’s Learning Experiences

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‘Play’ and ‘Place’ are two increasingly prominent ‘theoretical’ terms in outdoor education for young children, however there has been little empirical research to inform a ‘play-place-responsive’ approach and programming design for outdoor educators. ‘Play-Place-responsive’ pedagogy is a term coined by the researcher team to symbolize the combined principles in design and practice of play ideology (Fisher, 1992; Hughes, 1999; Isenberg & Quisenberry, 2002), the ecological systems theory (Bronfenbrenner, 1979, 1989, 1993), and the pedagogy of place (Wilson, 1997; Woodhouse & Knapp, 2000). This research investigated, how and in which ways, young children respond, or do not respond to the Open Green Minds (OGM) programmes. The OGM programme was the result of the researchers’ combined experiences and knowledge, and the designs were supported by principled-based and theme-based methodology to inform a ‘play-place-responsive’ approach.

Researching Outdoor Education

A heuristic ethnography methodology was chosen to allow scope for the research questions to emerge from the team’s involvement as programmers and researchers in that which is being researched. Two tributaries flowed into this process. One branch emerged from the research team accumulation of experiences as outdoor educators and programme designers. The second branch flowed from an initial review of diverse play and place literatures. Heuristics, being the guiding methodological framework for this study, is derived from, and shares aspects of, ethnography but it is unique in that it incorporated the researcher’s voice with others – the academics, the children, and the facilitators conducting the programmes. It became a telling of lived experience, to some extent, which in turn opened up possibilities for re-interpretation, reflection and re-telling, and thus informing us about the guiding research questions. The ethnographers, being the human research instrument in this study, were therefore the primary source of data (Woods, 1994).

Trustworthiness of qualitative research is a subject of much debate (For example, Guba & Lincoln, 1989; Hall & Callery, 2001; Wolcott, 1994). The researcher team considered the trustworthiness of this study via several means. The credibility was accounted for through the methodical approach to conducting and recording of all ethnographic observations, because the credibility of heuristic inquiry stems from systematic observation of and dialogues with self and others (Patton, 2002). For ‘transferability’ (generalizability), the researcher team was mindful of van Manen’s (1990) reminder that narrative in general is to: “Never generalize!” (p. 22). This is due to the fact that emergent theory of naturalistic inquiry is dependent on a specific context and interactive dynamics, therefore necessarily lowering the possibility and desirability of a focus on external validity, as compared with positivistic inquiry (Lincoln & Guba, 1985). Instead "solid descriptive data," or "thick description" (Patton, 1990) of the experiences, as well as the definitive exposition of the researcher is provided to improve the study’s transferability. To establish dependability, the team engaged Professor Peter Higgins (Dr) as the ‘auditor’ to examine the process by which the various stages of the study, including analytic techniques, were conducted. The auditor advised whether this process was applicable to the research undertaken and whether it was applied consistently (Lincoln & Guba, 1985). To illustrate confirmability, a record of the inquiry process, as well as copies of notes on all discussions has been maintained.
This study was situated within the setting of a school curriculum structure as it would directly respond to the issues and challenges of offering outdoor education for Singapore’s young children. The ‘tool’ of the study was two OGM programmes, designed in two sequential modules, one for each cohort of a local Primary School level One and Two pupil. The OGM was conducted as part of their Programme for Active Learning (PAL) Outdoor Education (OE) lessons, offered through experiential learning methodology over weekly engagement of six to seven weeks. Field notes were recorded by six researchers (who were also the designer of the programmes) observing 302 young children in their PAL (OE) lessons. Text data were also gathered from the pupil’s learning journals and text artefacts during the programmes, and facilitators’ feedback. The multiple sources of data sought to capture stories of lived experience of the young children who were participants of the OGM programmes. These stories or learning experiences were interpreted and themed. Heuristic contributions were drawn from the researcher’s own journal and observations, which included reflection on the themes, the responses of the children towards their facilitators and the programme structure that emerged from the field observations.

**Making Outdoor Learning ‘Stick’**

This study documented and explored the lived experiences of young children’s learning in the outdoors through the OGM Programmes. The researcher team summed up this study by presenting eight guiding principles for the provision of outdoor playing and learning opportunities. In essence, they are:

1. Children need authentic and multisensory outdoor experiences.
2. The outdoor environment breeds play and learning naturally.
3. Nature is systematic but children’s learning is not.
4. Do outside what you do inside.
5. Plan the physical space.
6. Offer versatile equipment and environments for children.
7. Believe in the value of outdoor play.
8. And provision of outdoor playing and learning opportunities is not about….
   ..... the need to have purpose--- build environment, equipment or fancy built structure;
   ..... the need to have elements of adventure--- based facilities;
   ..... character building only, it encompass multi--- disciplinary;
   ..... completing the syllabus only, teachable moments are meaningful learning moments;
   ..... assessing summative outcomes of children’s outdoor learning;
   ..... having a ‘one size fits all’ programme, syllabus or curriculum.
Final Reflections

A common thread weaves through all of the stories and lessons learnt in this study. To provide a rich outdoor provision, all three parties are needed: the curious child, the involved adult, and the diverse natural environment. The researcher team offered four main points for the broader outdoor education community to consider if a ‘play--- place--- responsive’ pedagogy approach is to be realized: 

There is a need for teachers or educators--- alike in Singapore to receive more exposure to the outdoor environment if a play--- place responsive approach to teaching and learning is to be realised. More than gathering the technical and competency to ‘teach’, they need to be comfortable in the outdoors, and to love and like being in the outdoors.

The findings of this study signal a need for educational institutions to reconsider the value of play and outdoor provision for young children. It suggests and proposes a more holistic integration of these concepts into the entirety of academic curriculum via the guiding principles, rather than positioning them as a ‘standalone subject’.

The commonplace assumption that outdoor education can educate for personal and social relations as well as academic learning goals is called into question by this research, especially under the many structural constraints such as physical setting, timetabling, class size, curriculum progress etc. The conflict between these multiple aims means that programmes need to become more focussed in what they attempt to achieve rather than claiming to address all of these educational goals.

If outdoor education is concerned with more than personal and social development, then the entirety of young children’s academic curriculum must be replaced with a style of learning intentionally concerned with deepening into play and place.

This study made three significant contributions. Firstly, it proposed eight design principles for educators on how to make outdoor learning ‘stick’ for young children. Secondly, it recorded and reflected pedagogical issues for the broader outdoor education community to consider if a ‘play--- place--- responsive’ pedagogy approach is to be realized, particularly in the context of urban outdoor education setting such as Singapore. Lastly, this study reflected a commitment to methodological approaches most suitable for such study to be incorporated into future approaches to research in outdoor education.

References


FOSTERING TRANSFORMATIVE LEARNING: A phenomenological study into the lived experience of reflection and transformation in adventure education

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Adventure experiences are presumed to be able to lead to transformative-like learning, however no pedagogy for such learning in adventure education on empirical evidence has yet been proposed. The aim of the study was to consider the meaning, structure and significance of the lived reflection experiences and pedagogical influence of outdoor leaders in adventure education. The assumption was that if this meaning, structure and significance can be interpreted and represented via appropriate and adequate methodological means, then recommendations concerning the pedagogy for an adventure education that may foster transformative learning can be proposed.

Researching Human lived Experiences

The research first critiqued adventure education discourses and demonstrated how theoretically, and therefore by implication practically, adventure education has neglected the potential of teaching and learning in three ways: (1) through the misunderstood meaning of experience; (2) through the undermined role of reflection in adventure learning; and (3) through an erasure of the role of outdoor leaders due to the promotion of a universalised adventure education paradigm. Consequently, the transdisciplinary literatures of teaching and learning were critiqued through an examination of the existential ground (van Manen, 1990) upon which human experiences are unavoidably ‘lived’. This critique was coupled with a focused review of reflection and transformative learning scholarship to provide a conceptual framework that guided data collection and interpretation.

The study adopted a narrative, phenomenological orientation to examine the lived experiences of teaching and learning encounters in adventure education. The reflective writings of 61 participants enrolled in three separate adventure programmes were reviewed. Ten participants were selected and interviewed. Four outdoor leaders responsible for the conduct of the adventure programmes were also interviewed to provide perspectives of their own teaching and learning experiences. The written and oral data interpreted produced 14 biographical case studies of people’s responses to adventure experiences. These cases were combined and thematised, as guided by the conceptual framework established earlier, to present a collective lived experience of adventure education in using narrative inquiry and hermeneutics, specifically through stories and storytelling. The resulting research text (van Manen, 1990) is presented as a novella, *Tile Island*, as part of this study to illuminate the “meaning, structure and essence of lived experience(s)” (Patton, 2002, p. 104) of the participants and leaders in adventure education. *Tile island* was constructed based on real accounts and characters to illuminate lived experiences of the leaders and learners involved in the three adventure experiences on Pulau Ubin, Singapore, where the research setting was based. The story utilised two types of plots, setting and flashback, with scenes shifting to accelerate or emphasize on certain critical events/stories that happened during the experiences. It was at this stage that the distinctive structure of representing lived experiences, and storyteller (the researcher) and co---storytellers’ (leaders and learners) interpretations began to emerge.
It is worthwhile to note that issues of rigor in interpretive inquiry are confusing to discuss, at times, as there is not an agreed upon language used to describe it, or one universal set of criteria used to assess its presence (Denzin & Lincoln, 2005). Sparkes (2002) argues that the differences between alternative forms of inquiry, “in terms of their process and products, need to be acknowledged so that each can be judged using criteria that are consistent with their own internal meaning structures and purposes” (p. 199). Consequently, the researcher’s response to producing a credible research text is situated in the demonstration of honesty (trustworthiness), responsibility (accountability), critical inquiry (reflexivity) and authenticity (verisimilitude) throughout the entire research journey. In addition, the researcher adopted three other strategies suggested by Creswell and Miller (2000) to ensure trustworthiness and authenticity of data: (1) The use of multiple sources of data; (2) Member checking; and (3) peer debriefing.

**Reflections and Plausible Insights on Tile Island**

Reflection from the narratives found support to argue for the reinterpretation of meaning inherent within the fundamental constructs of adventure education. First, adventure education is indeed a kind of transformation education where transformation as consciousness-raising (Freire, 1970), development (Daloz, 1986), individuation (Boyd, 1991), critical self-reflection (Mezirow, 1978, 1981) and soul work (Dirkx, 1997, 2001) were evident. Second, the ‘data’ revealed that experience, as a key construct in adventure education, is often a reflective learning space where the impulses, feelings and desires of the concrete experiences has been transformed into higher-order purposeful action (Dewey, 1938). Third, shared stories from the participants and outdoor leaders in *Tile Island* reveal that reflection in adventure education: (1) engages individuals to explore their experiences for new understanding and appreciations (Boud, Keogh, & Walker, 1985); (2) encourages individuals, through educative, feedback given to individuals from others and, unassisted self-observation, metacognition processing which can lead to deep personal changes (Caine & Caine, 1994); and (3) is a social-action notion, inherent in one’s process of interpretation by judging its effect on the authenticity and truthfulness of one’s ideas (Mezirow, 1991). Last but not the least, the study found support from the ‘data’ that teaching and leading in adventure education, is about fostering changes in learners.

In addition, the plausible insights, birth from the lived experiences narrative analysis process, exposed the significance of engaging learners holistically in lived body, lived relation, lived space and time, and lived stories so as to encourage reflection and transformative learning in adventure education. These themes illuminated the mysterious phenomenon of experiential pedagogy (Conrad & Hedin, 1981), and suggested that these four themes are fundamentally the structure of an adventure education phenomenology lifeworld. These plausible insights therefore, contributed as the grounded, theoretical work for considering the possibilities of what has been revealed for change---responsive adventure education pedagogy.

**The Parable of Teaching for Change**

The narratives and plausible insights serve as guide in several important ways towards exposing a transformative pedagogy in adventure education. The researcher gestured towards five indicators that may constitute a transformative pedagogic pathway that combine the embodied, sensory and interpretive lifeworlds or people’s reflection and transformative learning in adventure education. They are:
Indicator #1  Being and the adventure experience
The critical point is in the careful selection and consideration of the choices and a whole person experience for learners.

Indicator #2  Group work and group spaces for transformation
The emphasis of being in group and what it entails brought to forefront the ethical care and consideration for leaders, as educators, as possible change agents.

Indicator #3  Fluid, dynamic and dilemmatic situations as connector for reflection
The critical attention paid to reflection highlighted the accountability on educators and leaders to be reflective in their practices (Brown, 2004).

Indicator #4  Transformation as embodied narrative
Storytelling is an inclusive approach that blurs the line between leader and learner. Leaders can help to create a communicative space by offering a personal story as a model.

Indicator #5  Existential approach as the fundamental for transformative pedagogy
It is in the agenda of an existential inclusive pedagogy to evoke proactive, holistic consciousness in learners. As a way forward the researcher proposed that this can be done in two steps: establishing credibility and setting out the invitation to learn.

The final words in this study belong to the existential lifeworld of adventure education. Awareness of the existential dimensions of education must also acknowledge the importance of supporting a transcending process. Existential pedagogy seeks to be attuned to, and evocative of, human learning as a major life- shaping project and quest: including all of its energies and vulnerabilities. This study contributed, from an empirical basis, insights into the adventure education teaching and learning phenomenon and an understanding of limitations and possibilities of a change- responsive pedagogy of adventure education. In addition, the demonstration of the use of a very novel approach to methodology – hermeneutic phenomenology, and (re)presentation of data/findings via fictional narrative, added to the small, but increasing, number of studies using emergent methodologies in adventure education discourses.

References


