
Research update: Outdoor education fatalities in Australia

Dr Andrew Brookes

La Trobe University

Abstract

This paper is part of an on-going project to examine outdoor education related deaths in Australia since 1960. It records eleven incidents not included in previous papers in this series. A total of 14 students or staff died in the incidents. The paper reviews the incidents and identifies what further lessons can be learned about fatality prevention when these are added to the 114 fatalities previously analysed. Several incidents differed from those previously recorded: an incident of suicide reportedly following bullying on a school camp, two deaths from food-induced anaphylactic shock, and one death apparently from hyperthermia. It discusses some examples of a trend in the news media to focus on the impact of tragedy on families and survivors. Taking into account some new and previously unrecorded incidents, it argues that deaths from falling trees and branches should be considered as a distinct phenomenon in Australian outdoor education, and more attention devoted to prevention. It suggests that deaths due to drowning as part of an end-of-school-year activity be considered a distinct syndrome. Previous conclusions about supervision of teenagers in hazardous conditions, the significant proportion of deaths due to motor vehicle incidents, and the importance of planning for outside assistance are re-emphasised. It concludes that the study of fatal incidents remains essential to fatality prevention.

In three previous papers¹, I reviewed 114 fatalities on school and youth group camps and excursions between 1960 and 2002. The series of papers resulted from an on-going project to develop as complete a record as possible of fatal outdoor-education related incidents in Australia. The aim is to ensure lessons learned from particular incidents are recorded and accessible, and to build knowledge of fatality prevention by analysing patterns or common elements in the incidents.

This paper records and examines eleven additional incidents, involving the deaths of 14 staff or students (five local youths also died in one incident, a motor vehicle collision). Six of the incidents occurred since the previous paper was written. Five others have come to my attention since the publication of the first paper². The aim of this paper is to add these incidents to the outdoor education research literature, and to examine what additional insights or emphases they can contribute to knowledge of fatality prevention.

As in the previous papers, I refer to each incident by place and year, and have provided sufficient information for researchers or those compiling case-studies for training purposes to locate more information. For each of the incidents recorded in this paper, I have provided one or two newspaper references. Some incidents were the subject of dozens of newspaper articles, which I have not attempted to list

comprehensively. Information in the tables, and in the referenced articles, should enable readers to readily locate these additional sources in the archives.

Reiterating the argument developed in the first paper (Brookes, 2003a) the study of fatal incidents is a necessary (but not sufficient) component of fatality prevention, because fatal incidents are for the most part rare. When a fatal incident happens in an outdoor program, it is nearly always the first for that particular program – even large outdoor education organizations will not accrue sufficient knowledge of fatal incidents by experience alone. Moreover, a good record in managing more common (less serious) incidents may not be sufficient to prevent fatalities. Fatal incidents are not necessarily linked to failure to manage minor incidents, nor failure to monitor near misses; they can come ‘out of the blue’ in programs that by consensus seemed expertly run right up to the time tragedy arrived. Very often a situational factor that can be seen, with hindsight, to have contributed to a fatal incident, has been present on previous occasions with neither a near-miss nor a serious incident resulting. In other words what personal or corporate experience seems to have taught is safe (because it usually is) turns out, in the aftermath of a tragedy, to be unacceptably risky. The study of fatal incidents can therefore help those who work in the field to learn to recognise the kinds of circumstances that contribute to fatal incidents on rare occasions.

One other observation deserves reiteration. To identify lessons about future fatality prevention by studying past incidents is one thing. To judge who or what could or should have prevented a particular incident is another, and is not the aim of this research. It should be borne in mind that very few fatal incidents

1. (Brookes, 2003a, 2003b, 2004)

2. I have not included an updated version of the full list of fatal incidents in this paper in order to save space. An updated version of the list can be downloaded from http://www.latrobe.edu.au/oent/Staff/brookes_andrew.htm

in the outdoors involve recklessness or ill-intent. Especially when reading an account intended to show how an incident happened, it can be too easy to see 'if only' factors that would apparently have prevented the incident, and to be tempted to distribute blame. The first paper in this series discusses in detail reasons why this temptation should be avoided (Brookes, 2003a). Briefly, written accounts of accidents never tell the whole, or the only story. Even where slips, lapses and violations can be identified, very often they are of a kind that happens all the time, often without serious consequence. The fact there has been an error does not explain why there has been an error. It is an iron law of fatality prevention that everyone makes mistakes. Rather than apportioning blame, all of those involved in a fatal incident should be counted as having suffered a tragic loss, and attention focussed on lessons learned for the future.

With one exception³, I have not identified any individuals involved in an incident, although in most cases many have been named in news reports. I have identified institutions, because institutional involvement is what makes the incidents relevant to this study, but this does not imply anything about blame or culpability. In at least one instance although institutional relationships were reported, it is unclear whether or not the institution was directly connected to the incident.

I have provided one or two news sources for each incident. I sought a copy of inquest findings only in the case of Joffre Gorge 1976, but was informed by the West Australian coroner's office that files from that period had been destroyed. I did not seek an inquest report for Meander Falls 1993 because news reports contained sufficient details for my purposes. The other incidents have been the subjects of quite extensive media reporting and commentary. I have not included details not on the public record.

Summary of additional incidents

Table one lists and summarises the incidents included in this paper.

Analysis and discussion

In this section I will examine how each incident contributes to further understanding fatality prevention. Some of the media reports provide insights that should be useful to those who teach outdoor education teachers or guides. Twenty five years after the Bourke 1979 incident, it was the subject of an Australian Broadcasting Council documentary, as

3. I have left names in a section of a documentary transcript because it seemed to me the point of the documentary was to recognise the individuals touched by a tragedy, and it was not for me to render anonymous individuals who had deliberately identified themselves.

part of the 'Australian Story' series, first broadcast in September 2005 and repeated several times (Australian Broadcasting Commission, 2006). The Melbourne 2003 incident led to several articles and commentaries on bullying and suicide in the Melbourne Herald Sun. The Yanko 2002 incident was the subject of a feature article in The Age Good Weekend (Guilliatt, 2005) and prompted several articles about anaphylactic shock.

Joffre Gorge 1976 brings to 11 the number of deaths from falls (or falls followed by drowning). The pattern previously evident, that the victims of fatal falls have nearly all been teenage boys, is marginally strengthened by the inclusion of this incident. It is not possible to say if this incident offers any particular new insights into either supervision or the geography of risk, because few details of the actual incident were published. The death came one year after another incident in which a student from the same school was seriously injured in a fall at a gorge in the same area (now Karijini National Park). The school announced it was reviewing its outdoor education program after the second incident (The West Australian, 1976).

It is worth noting that deaths from falls involving school groups from the UK (both in the UK and on overseas excursions) recorded by Marcus Bailie of the UK Adventure Licensing Authority (Pers. comm., April 4, 2005) also seem to indicate a similar pattern (Table 2)⁴.

Seven of the eight UK victims were teenage boys. The leader of the group in which the girl died reportedly admitted he had not visited the location before and that the party was not equipped for the conditions (Fulbrook, 2005, p. 246). The supervision arrangements are unclear, so it cannot be determined to what extent the girl had a choice about her circumstances and actions. More commonly, falls have occurred when the boy or boys involved seem at some point to have made a fateful decision themselves. The strong conclusion that teenage boys should be very tightly supervised (or roped) around steep drops (and moving water) remains intact.

The Kedumba Valley 2006 incident was reportedly neither sanctioned nor organised by a school. Whether the victim was motivated to undertake the bushwalk that led to his death by his participation in a Duke of Edinburgh Award scheme through his school is unclear, and might remain unresolved⁵. The death appears to be consistent with hyperthermia, the

4. Not including skiing or tobogganing falls. Bailie lists two girls and one female teacher who have died on overseas ski fields.

5. According to the school's website, the scheme encourages "a spirit of adventure and discovery" and challenges individual students to "make their own way to the best of their ability". <http://www.sydgram.nsw.edu.au/CollegeSt/clubs/dukeofed.html> accessed 12/4/2007

Table 1. Summary of Australian outdoor education related fatal incidents since 1960 not examined in Brookes (2003a)

Falls							
Joffre Gorge 1976	M 16	29/7/1976	Joffre Gorge, Karijini NP, WA	Hale School	Fell approximately 30 meters, body not recovered until next day. A 15 yo boy from the same school was seriously injured in a fall at nearby Weeno Gorge in August of the previous year (1975).	News	West Australian, 30/7/1976, p. 1, 2nd Ed. West Australian, 31/7/1976, p. 3.
Suicide / homicide							
Melbourne 2003	F14	10/8/2003	Melbourne, VIC	Thomas Carr College	Suicide following 3 day school ski camp. Suicide note reportedly referred to bullying at camp.	News	Herald Sun, 18/8/2003, 1st Ed. p. 10.
Natural causes							
Yanko 2002	M13	20/3/2002	Yanko NSW	Hurlstone Agricultural High School	Student known by parents and teacher in charge to be allergic to peanuts took spoonful of peanut butter in trivia night challenge supervised by a different teacher who did not know of the allergy. Parents, teacher in charge unaware allergy could be fatal.	News (I)	The Age, 19/7/2005, p. 3.
Daylesford 2007	M13	30/3/2007	Wombat Forest, VIC	Scotch College cadets	Reported death due to allergic reaction to peanuts in army beef satay ration pack. A doctor treated the victim at the scene. 4 ambulances including 1 MICA, plus helicopter dispatched. First ambulance arrived after 40 minutes. Difficulty ascertaining location.	News	The Age 16/5/2007 p. 2 Rural Amb. Vic. Statement to Win News
Motor vehicle							
Bourke 1979	M11 M10 M10 (M21 F17 F20 M22 M20)** **Panel van	26/8/1979	Bourke - Tarcoon Road, NSW	Cranbrook School	"Informal" outback excursion - 1 teacher 1 aide, 2 vehicles. Dusty outback road, head-on (passenger sides) with panel van. 3 students died, 5 passengers in the panel van (locals) also died. Driver of panel van charged, acquitted.	News	The Age, 27/8/1979, p. 1. Australian, 27/8/1979, p. 1.
Falling object (tree or branch)							
Meander Falls 1993	M17 M38*	17/8/1993	Meander Falls, TAS	Hellyer College	5 students, 2 teachers, bushwalk in forest. Severe weather, very high winds. Tree snapped at base, fatally injuring 1 student 1 teacher. Remaining teacher injured, students went for help.	News	Hobart Mercury, 19/8/1993, 1st Ed. p. 1.
Wombeyan 2005	F16	2/2/2005	Wombeyan Caves area, 15km west of Mittagong, NSW	Queenwood (Sydney) (Wombaroo Adventure Centre)	Wilderness component of whole school camp. 16 yo leading 15 year-8 girls, supervised by teacher and 1 camp staff. Severe storm, large tree fell on tent, 1 killed, 1 survived.	News	Sydney Morning Herald, 3/2/05, p. 3.
McKillops Bridge 2005	F16	31/8/2005	McKillops Bridge, VIC	Toorak College/The Outdoor Education Group	12 students, with staff (? #) on first night of rafting trip. Camped in forest camping ground. Severe weather, very high winds, tree branch fell on tent around 2.00 am, killing one, one uninjured.	News	The Age, 1/9/2005, p. 1.
Drowning							
Timbertop 1960	M?	4/2/1960 approx	Timbertop, VIC	Geelong Grammar School	Student drowned during swimming trials in school dam on the second day of term.		(Clark, 2003, p. 60)
Glenbrook 2006	F8		Glenbrook Swim Centre, NSW	Cambridge Gardens Public School	200 students at pool for end of year activity. Student drowned, circumstances yet to be determined.	News	Sydney Morning Herald 16/12/2006 online edition
Hyperthermia, Hypothermia							
Kedumba Valley 2006	M17	11/12/2006	Kedumba Valley, NSW	Sydney Grammar (reportedly a private trip)	Party of 3 training unofficially for a D of E award. Victim went ahead of his companions to find a river, did not arrive. Three 000 calls from him caused a search. His body was found 9 days later. Possible (probable) dehydration/hyperthermia.	News	Sydney Morning Herald, 19/12/2006, online edition.
*Teacher or staff member News = newspaper report of incident News (I) = newspaper report of inquest. Inquests are pending for some incidents at the time of writing							

Table 2. Deaths from falls on UK outdoor education trips

Date	Location	Victims	School / organization	Summary	Source
May 1988	Austrian Alps	4 M 13 - 15	Altwood School, Maidenhead Berkshire	Escaped supervision (Baillie) or left unsupervised (Fulbrook), went sliding on backsides in area specifically banned by supervisor, fell 100m	Marcus Baillie, (Fulbrook, 2005, p. 49)
June 1996	Yorkshire dales, Buckden Ghyll	1 M 13	A West Yorkshire middle school	Found dead in waterfall pool (fell while traversing waterfall)	Marcus Baillie, (Fulbrook, 2005, p. 59)
July 2001	Mt Fansipan, Sapa area, North Vietnam	1 F 17	Wycombe High School / World Challenge Expeditions	Fell 150 meters after losing her grip on a tree while descending backwards down a muddy slope.	Marcus Baillie, (Fulbrook, 2005, pp. 39, 55, 246)
July 2003	Val d'Aosta	1 M 17	Harrogate Grammar School / Exodus Travel	Fell into mountain stream, apparently having left path. Possibly attempting to wade stream. Not directly supervised.	Marcus Baillie, (Fulbrook, 2005, pp. 52-53)
June 2004	Cornish coastal footpath near Lizard	1 M 17	Blackburn College	Died when he fell from cliffs while walking along a coastal path. Startled by a dog. Victim had a particular aversion to dogs.	Marcus Baillie, (Fulbrook, 2005, p. 131)

only such incident recorded in this study. It might tentatively be placed in the category of deaths involving unsupervised teenage boys, which is not to say there was any person or organization in this case who could (or should) have supervised.

Patterns of fatal incidents involving teenage boys lend strong support to the view that teenage boys (and probably teenage girls) tend to take risks that adults would not. This is consistent with research into adolescent risk-taking and development more widely. Reyna and Farley (2006), in a major review of the subject, argue that adolescents generally should not be placed unsupervised in situations where they might be tempted to take risks that adults would categorically avoid. Teenagers generally are more willing than adults to gamble what they can't afford to lose. It is not that teenagers feel invulnerable, or do not weigh up risks and benefits, but rather they will make bad choices more often than adults if left unmonitored, and might be willing to try things adults would not contemplate.

Inclusion of the Bourke 1979 incident maintains the proportion of motor vehicle related deaths at about 20%. A panel van containing six locals returning from a party the night before, in convoy with a second vehicle, collided head-on (passenger side) with a Range Rover driven by a teacher or gap student (also in convoy, with a Kombi van), as part of an informal school excursion to the outback. Another vehicle had driven along the road before the collision, leaving clouds of dust. Both of the vehicles that collided were evidently driven too fast to stop when the other materialised out of the dust. Although the driver of the panel van was driving while disqualified, and

alcohol may have been involved, he was acquitted of eight counts of culpable driving, implying neither of these factors actually contributed to the incident. The incident reinforces the importance of environmental circumstances in most fatal incidents. The dust would, of course, have been obvious to both drivers.

Perhaps the main contribution of this incident to understanding fatal incidents in outdoor education is the portrayal, 25 years later, of the effects on the survivors and family members. The program tells the story of how the sister of one of boys who died set out to find others who had been involved in or touched by the incident, and to organise a memorial service at the site. While research can tend to turn tragedies into anonymous 'cases,' the documentary directly approached the human face of tragedy, as the following extracts show:

CAROLINE HASKI: It happened at 10 o'clock in the morning, but... And I don't know if I knew something, but I had a terrible day that day. I was very cross and cranky and unsettled.

DANI HASKI: We got home in the late afternoon and the phone was ringing as we walked in the door, and Mum went and picked up the phone, and it went dead.

CAROLINE HASKI: And we got the knock on the door from the police that everyone dreads, to tell us what had happened.

DANI HASKI: And all I heard was wailing. I suddenly heard my parents start to cry, and I knew. It was weird. No-one actually told me. I just thought, oh my God, I know what's happened.

CAROLINE HASKI: I remember wishing that time had stopped and would start running backwards so that I wouldn't hear this. I never doubted that it was true. But... And I knew in an instant that life had forever changed for me and for my husband and for our kids and everybody else we knew who cared.

...

DANI HASKI: Phillip told me about Tim Seale, the panel van driver, and how he'd coped over the last 25 years.

PHILLIP PARNABY: He did say to me once, he counselled himself every morning. Just to get out of bed.

DANI HASKI: And suddenly this guy who had not been a person, he'd actually been a monster, in many ways, started to become a person. And I started to get the truth of what had happened to him and how remorseful he had been.

PHILLIP PARNABY: He doesn't understand why he lived and the others died. (Australian Broadcasting Commission, 2006, no page numbers)

Such detailed portrayal of the aftermath of tragedy might be used effectively as part of safety training focussed on categorical avoidance of potentially fatal situations. I have found the tape of the program engages and moves students.

I included the Melbourne 2000 incident, a suicide following a school camp, because the victim reportedly blamed bullying at the camp. Leaving aside the circumstances of that particular incident, which are unresolved, the incident adds to the small number of incidents in which behaviour ranging from skylarking through to criminal intent has been allegedly linked to a fatality. It is reasonable to suppose that these particular behaviours tend to occur when the attention of supervisors is otherwise engaged, even if only momentarily (cf Loftia Park 1977, Noojee 1984 and Bungonia 1991), and therefore may be more prevalent than supervisors know. The Loftia Park 1977 incident,

in which a child was killed by another child, is a reminder that camps and outdoor excursions might offer particular opportunities for bullying or worse.

Three additional incidents involving falling trees or branches – Meander Falls 1983, Wombeyan 2005 and McKillops Bridge 2005, lead me to propose a small but significant revision to my original study. These incidents bring to 28 the number of deaths from falling objects, and reinforce the observation that more outdoor education related deaths⁶ have occurred in Australia from falling objects than from falls, and that (unlike deaths from falls) the victims have been of both sexes and all ages. It seems clear that dangers associated with a person falling are perceived differently from the dangers associated with something falling onto a person. Given the number of falling object incidents, I now think it is important to resolve them into two sub-categories. Fourteen deaths have involved rocks or sand, fourteen trees or branches; in the revised table I have separated these.

Each of the three additional falling tree or branch incidents occurred during, or after, severe weather. While these particular incidents may have been unpreventable (inquests have yet to be concluded for Wombeyan 2005 and McKillops Bridge 2005 at the time of writing), when added to the original study the number of broadly similar incidents suggests to me that preventing future tree falling incidents should be a priority for the outdoor education field, or at least for those engaged with activities in treed areas. This is a matter for a separate study, but deserves as much attention as been given to hypothermia and paddling safety in the past. I examine the preventability of such deaths in more detail in a companion paper (Brookes, In press).

The Yanko 2002 and Wombat Forest 2007 incidents both involved allergic reactions to peanuts, and bring to ten the number of outdoor education related deaths from natural causes. The Yanko incident differs from the others partly because very detailed accounts have been published. Almost no information is in the public domain about some previous incidents, for example some deaths from asthma. (Of course, a death from natural causes that simply happened to coincide with a school camp might not enter the public record at all).

The reported details of the Yanko 2002 incident refer to a cluster of 'if only' or 'but for' circumstances that illustrate the importance of not assuming a 'cause' has been found once something that would have prevented an incident has been identified. The tragedy occurred when all of the circumstances lined up in a certain way – removing any one would have prevented

6. *It possible, but unlikely, that there are a large number of incidents that did not come to light in this research.*

it, but the presence of no single circumstance 'caused' the tragedy. A partial list of the 'if only circumstances follows. There was some confusion in the minds of the parents over whether the camp was compulsory (it was not). Perhaps they would not have allowed their son to attend had they known. The boy was being treated by a homeopath, and the parents were not aware that peanut allergies could be deadly. The parent did discuss either an allergy to peanuts or the fact their son couldn't eat peanuts with the teacher in charge of the camp. The teacher was unaware peanut allergies could be deadly, and made no note because the menu did not include peanuts. The teacher in charge was unaware that the trivia night challenge involved eating a spoonful of peanut butter. The victim was probably unaware until the last moment what challenge he was volunteering for. The teacher who ran the activity was aware of anaphylaxis, having previously suffered allergies, but not longer carried an EpiPen and was unaware that peanuts could trigger allergies. The victim went to the toilets after tasting the peanut butter. It was some minutes before the teacher saw him, recognised what was happening, and called an ambulance. There was no EpiPen on hand. The ambulance took 13 minutes to arrive. The NSW Governments Anaphylaxis Working Party did not convene its second meeting until the day after the tragedy (eight months after the first meeting), and then took 21 months to release guidelines for teachers (Guilliatt, 2005).

Few details of the Wombat Forest 2007 incident are available at the time of writing. The victim reportedly died due to a reaction to peanuts in an army beef satay ration pack. The incident underlines the need for outdoor educators to understand and be prepared for severe allergic reactions. This is especially important because of the role that timely administration of first aid, especially the use of an EpiPen, might play. The outcome of very few outdoor education fatal incidents turns on the application of first aid, but severe allergic reactions might fit that category. Rates of food-related anaphylaxis are difficult to determine, but are believed by some to have been growing over the last two decades (Sampson, 2003).

A doctor at the scene reportedly provided first aid, and an ambulance called, but the ambulance service had some difficulty ascertaining the exact site. The first ambulance arrived 40 minutes after the emergency call, followed by the Mobile Intensive Care Ambulance (MICA) shortly after, then two other ambulances. The helicopter arrived 14 minutes after the first ambulance then followed the ambulances to a suitable landing site. At the time of writing it is not known whether the delayed arrival of an ambulance contributed to the tragedy. However the incident reinforces the observation that an emergency involves a 'change of state' from what may be a well-planned activity to a new and different activity that might not be

well planned. Trip planning should include planning access for emergency services, and working through how to communicate locations unambiguously and effectively.

Full details of the Glenbrook 2006 incident are not available at the time of writing. It can be tentatively placed alongside Lake Eppalock 1980, Bibra Lake 1994, Bayswater 2000 and possibly Morley 2000 in a category labelled 'end-of-year-activity drowning syndrome.' Each of the earlier incidents involved relatively large numbers of students in free play that included swimming. Free play with large numbers in a pool is potentially a very difficult situation to supervise. Each incident involved whole-school or whole-class end of year activities, which introduces the possibility of individual staff taking unfamiliar roles, and framing errors associated with end of the formal school program (i.e. there is the potential for a school that normally has tight restrictions on supervision and staffing for water-based activities – 'swimming requires special precautions' frame – to mistakenly view the end of year activity as less serious – 'informal end of year program' frame). The number of broadly similar incidents is sufficient to suggest a particular risk around such programs. My recommendation to school principals would be to view large scale, relatively informal visits to pools or other swimming locations at the end of the year with considerable caution.

Educational benefits versus prevention

I have not examined the educational aims and purposes of any of the programs examined here, although in some instances these were aired or discussed in reports of the incident. It is always reasonable to ask, in outdoor education, if the benefits justify the risks. These incidents reinforce the observation that, with hindsight, nearly all fatal incidents in outdoor education could be avoided without abandoning the whole enterprise. Usually no educational disadvantage seems attached to action necessary to remove a fatality risk factor. None of the tragedies presented here fit the category of incidents that just go with the territory of outdoor education. These incidents do not support the view that risks can only be reduced at the expense of educational benefits.

Conclusion

It is perhaps some comfort to those affected by tragedy to know that knowledge gained from each fatal incident might help prevent their recurrence. It is incumbent on the field of outdoor education to absorb the lessons from past incidents. Fatality prevention is different from safety concerned with more minor things. It entails deliberately taking steps that personal and corporate experience might suggest are unnecessary, because fatalities are rare. I hope the study of fatal

incidents helps foreground possibilities that might otherwise seem unlikely enough to be disregarded, or that might not even have been considered without knowledge of some past incident.

Fatal incident research tends to take the scholarly path of not naming individuals, and focussing on the facts of the incident rather than intruding into the private grief of those affected. News reports, on the other hand, especially more recently, have gone the other way and reported personal details and emotions. These often harrowing accounts serve to emphasise that however unnecessary or 'over the top' fatality prevention may seem prior to a tragedy, in the aftermath of a tragedy what matters to those affected is whether the possibility of death could be foreseen, and whether it could have been prevented. Very few outdoor education deaths have been from what I would consider genuine freak accidents; in my opinion outdoor education should not be conceived around notions of necessary risks, but around learning to feel and be safe in the bush. There is no reason for outdoor education not to aspire to be the safest part of a school's overall program.

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About the author

Dr. Andrew Brookes teaches and researches in the School of Outdoor Education and Environment, La Trobe University, Bendigo, Australia. In addition to his research on fatal incidents and safety, he has interests in outdoor environmental education, and examining the validity of claimed aims and purposes for outdoor education. He is presently completing a study examining some educational aspects of long term travel in remote Australia by families. Email: a.brookes@latrobe.edu.au