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Journal of Outdoor and Environmental Education

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Editorial

John Quay

Welcome to volume 20, issue 1, of the J*ournal of Outdoor and Environmental Education.* In this issue, we celebrate specific contributions to the 19th National Outdoor Education Conference, the Australian version, which took place at the University of the Sunshine Coast in Queensland from 29 March to 1 April 2016. In drawing this issue together, the support of Glyn Thomas was vital. The tasks of assessing, reviewing, and developing the papers in this issue were significantly supported by Glyn, who played a major role in convening the conference.

The first paper, "Innovation and Outdoor Education," captures the keynote presentation of Simon Beames. A keynote paper challenges conference delegates, and Beames' paper does a masterful job of this by raising questions concerning technology and educational practices, while at the same time interpreting the conference theme "innovate–educate–celebrate." It is clear that this challenge was taken up across the conference, particularly in the papers chosen to appear in this issue.

Beames applies the double-edged sword analogy to the use of various technologies in outdoor education. This topic is contextualised in the work of Glyn Thomas and Brendon Munge, whose paper "Innovative Outdoor Fieldwork Pedagogies in the Higher Education Sector: Optimising the Use of Technology" suggests a framework via which teachers may assess the use of various technologies in outdoor education fieldwork. The goal is transformation of student learning opportunities, rather than mere replacement or augmentation of existing pedagogies.

The paper by David Spillman, "Coming Home to Place: Aboriginal Lore and Place-Responsive Pedagogy for Transformative Learning in Australian Outdoor Education," continues the emphasis on transformation. Here Spillman highlights how a pedagogical focus on place may to some extent redress the "placelessness" felt by many in contemporary Australian society. Such a focus is exemplified, Spillman suggests, in the establishment of local partnerships between outdoor educators and Aboriginal people, partnerships which draw on Aboriginal Lore as a way to undermine the colonial and anthropocentric discourses which continue to influence outdoor education practices.

Another challenging paper is authored by Tonia Gray, Sandy Allen-Craig, and Cathryn Carpenter. "Selective Hearing: The Unrecognised Contribution of Women to the Outdoor Profession" draws attention to an issue which affects many working in outdoor education and cognate professions. As debates about the status of women in professional life highlight the many unacceptable inconsistencies that continue to prevail, it is time that we looked in the mirror at how we are travelling. The analysis shared in this paper certainly provides such a look, raising questions about how we should proceed that require answers in the form of actions.

As Beames points out, innovation is not just about technology but deeply involves pedagogy. In their paper "Those Who Teach Learn: Near-Peer Teaching as Outdoor Environmental Education Curriculum and Pedagogy," Lucas Bester, Gregg Muller, Brendon Munge, Marcus Morse, and Noel Meyers share a pedagogical innovation applied in their programme. Near-peer teaching draws on students who have already successfully progressed through various aspects of a programme to support the teaching of those who are new to these aspects. Through a qualitative investigation, they examine and report on this innovation.

The next paper in this issue is authored by Jessie Booth and James Neill. Titled "Coping Strategies and the Development of Psychological Resilience in Outdoor Education," this paper explores various subtle aspects of the experiences of participants, illuminating those concerned with resilience. The efficacy of particular coping strategies is emphasised, highlighting the importance of such strategies in the conduct of outdoor education programmes.

A seemingly perennial issue confronting those teaching in university courses aimed at preparing graduates is whether those graduates are ready to undertake the challenges they will be confronted with. In their paper "What are the Capabilities of Graduates Who Study Outdoor Education in Australian Universities? The Case for a Threshold Concepts Framework," Scott Polley and Glyn Thomas explore this issue and propose that a threshold concepts framework may provide a way forward. Such a framework supports a process through which to discuss, and potentially reach agreement on, the forms of knowledge, skills, and experiences that graduates of university outdoor education programmes require.

The final contribution to this issue is a book review penned by Glyn Thomas of *Adventure Programming and Travel for the 21st Century* edited by Rosemary Black and Kelly Bricker.

I commend this issue to you as an opportunity to celebrate some of the very innovative work going on in Australia and beyond in outdoor and environmental education. And I sincerely thank all involved in its production: a real community effort.

John Quay, Ph.D
Editor

Innovation and outdoor education

Simon Beames

The University of Edinburgh

Abstract

Within our fast-paced, fluid society, it is arguable that outdoor education needs to be innovative to play a useful role in young people's overall educational enterprise. A critical view, however, would suggest that we must beware of accepting technological innovation for its own sake. Innovations (or improvements) in education can take the form of ideas, methods, and products. This paper discusses how outdoor educators need to recognise how some innovations may add unwanted layers of clutter that reduce direct interaction with geophysical, ecological, and sociocultural elements of the landscape, whilst lessening the quality and quantity of interaction between humans — whether with classmates or community members. It may be possible to assess the degree to which an innovative piece of equipment or educational practice is "good" by considering its ability to elicit meaningful engagement between the learner and the ideas, physical objects, and other human beings encountered.

Keywords: innovation, education, technology, outdoor, engagement, interaction

Introduction

The term "innovation" is ubiquitous. Restaurants, sports teams, and city garbage collection units all innovate. They, like most goods and services providers, need to innovate or risk being devalued by society. Indeed, Australia's National Innovation and Science Agenda (Australian Government, 2017) was created to "drive smart ideas that create business growth, local jobs and global success" (para. 1).

This paper considers innovation in education — outdoor education, in particular. The primary content draws on the keynote speech that I gave at the 19th National Outdoor Education Conference at the University of the Sunshine Coast, Australia in March 2016. The bulk of the discussion will consider the degree to which innovation can be regarded as a positive or negative feature of outdoor education practice. My aim is to offer applicable guidelines that educators can use when deciding how to innovate appropriately.

Before getting into the heavy stuff, let's consider the degree to which innovation might be desirable for those educators who teach across the school curriculum using local landscapes; who lead multiday expeditions for high school students; who take children paddling, climbing, and mountain biking at residential centres; who deliver environmental education programmes of all kinds; and for those who work with at-risk youth in adventure therapy programmes. Assuming that you inhabit one of these categories from time to time, do you regard innovation as something on which you need to focus very deliberately?

When I started to think about this more deeply, I quickly realized that I couldn't answer the above question without reminding myself of the specific meanings of two key words: innovation and education. Innovation is about improving, not inventing. It concerns ideas, products, and methods (Oxford Dictionaries, n.d.) and, in popular culture, is commonly associated with technology. My view is that innovation in education should be done for one principal reason and that is to move more effectively towards our educational objectives.

This brings us to the second key word. According to one early conception, education is about learning and developing skills, knowledge, and attitudes (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Crucially, it has ethical imperatives and involves an educator (unlike learning, more broadly) (see Roberts, 2011). It is arguable that, in the main, education focuses on developing thriving individuals (e.g., Aristotle, 2000) who can work for a better community/society (e.g., Dewey, 1916/2004) and care for the planet and its ecosystems (e.g., Carson, 1962; Orr, 2004). I just happen to believe that we can arrive at these three broad aims more directly through integrated indoor/outdoor pedagogies (see Beames, Christie, & Blackwell, 2017).

Returning to the earlier implied question of "Does outdoor education need to innovate?" there are perhaps two general perspectives. The first is "Yes, everyone's doing it." In high-income countries, young people's education and home lives are characterized by innovation. Outdoor education needs to keep up and stay with the times. The second perspective, "No," might suggest that outdoor education needs to be a form of resistance to these times, in that "We're the last bastion of authentic, real-world, direct experience that young people can access. No innovation for us, thanks!"

This debate on innovation is not, of course, taking place in a vacuum; it is situated within a wider social backdrop. "Our" outdoor education is taking place in a "risk society" (Beck, 1992), where people are obsessed with "minimizing bads," and in "liquid times" (Bauman, 2007), which are characterized

Innovative outdoor fieldwork pedagogies in the higher education sector: Optimising the use of technology

Glyn J. Thomas and Brendon Munge

University of the Sunshine Coast

Abstract

Outdoor fieldwork has been a long-standing pedagogy in the higher education sector, across a range of disciplines. Based on a review of the literature, this paper explores the use of outdoor fieldwork in the 21st century university with particular reference to the way technology contributes to student learning. Research has indicated that fieldwork enhances student engagement, links theory and practice, and assists students with the development of professional expertise. Many of the challenges for outdoor fieldwork, such as budget cuts, risk management concerns, and workload demands on staff, have been exacerbated by massification pressures in universities, such as the growth in student numbers and a more diverse student cohort. The increased use of technology on outdoor field trips both solves and creates problems, and technology use in outdoor education has been described as a double-edged sword (Cuthbertson, Socha, & Potter, 2004). It can be difficult for teachers to judge whether the benefits to student-learning outcomes created by introducing technology outweigh any negative impacts. Koehler and Mishra's (2009) concept of technological pedagogical content knowledge suggests that teachers need to develop a very specific kind of knowledge to make informed decisions about the use of technology. The substitution, augmentation, modification, redefinition (SAMR) ladder (Puentedura, 2006) can contribute to this teacher knowledge by focusing on how the use of technology can transform student learning rather than just replace, or augment, existing teaching tools and strategies. Some examples of how technology is used at the different levels of the SAMR model in outdoor education are provided.

Key words: outdoor fieldwork, outdoor pedagogies, outdoor education, TPACK, technology

In the higher education context, teachers in a range of discipline areas use outdoor fieldwork to facilitate high-quality student-learning experiences. Our perceptions of outdoor fieldwork pedagogies have emerged in response to our own reflective practice and through Brendon's doctoral research. This paper is an extension of a joint conference presentation at the 19th National Outdoor Education Conference in Australia. In this paper, we will review the literature from across several disciplines to identify some of the challenges and successes of outdoor fieldwork in higher education institutions in the 21st century. We will then specifically consider how digital technologies may be used to optimise student learning in outdoor education fieldwork. However, technology in outdoor education has rightly been described as a double-edged sword (Cuthbertson, Socha, & Potter, 2004) and we will introduce two frameworks to shed some light on the tensions. The frames of *technological pedagogical content knowledge* (Koehler & Mishra, 2009) and Puentedura's (2006) *SAMR model* will be used to consider ways to optimise the use of technology in outdoor education fieldwork. The first task in this paper is to review some of the recent literature across a range of disciplines exploring how outdoor fieldwork is used to produce high-quality student-learning outcomes.

Outdoor fieldwork pedagogies in higher education

For many university programmes in fields like geography, outdoor/environmental education, and some of the science disciplines, outdoor fieldwork is a core teaching and learning strategy because it enhances student engagement and the development of professional expertise (Fuller, Edmondson, France, Higgitt, & Ratinen, 2006; Herrick, 2010; Mcguinness & Simm, 2005). In our experience, student evaluations of courses in outdoor education consistently indicate that outdoor fieldwork is a very popular and important part of student learning. This is consistent with research conducted with 421 geography students across 16 British universities, which measured students' perceptions of outdoor fieldwork and found that most students considered fieldwork to be a "highly valuable pedagogic device" (Dunphy & Spellman, 2009, p. 27). Dunphy and Spellman also found that students valued time spent connecting theory and practice and thought fieldwork had the capacity to provide all of the subject-specific and transferable skills required within their chosen profession. The students also indicated they valued forming stronger social connections with peers and academic staff and that fieldwork inspired them to seek further engagement in the discipline/profession.

Mcguinness and Simm (2005) made similar observations about the value of outdoor fieldwork when they noted "fieldwork plays an essential role in delivering real-world relevant content, . . . [and] the ability to subject conceptual and theoretical understandings to the test of empirical evidence and encounters with real people and places is the perceived strength of fieldwork" (p. 243). Herrick (2010) also explained that outdoor fieldwork provides the space and time where "student and staff autonomy can be encouraged and cultivated" and "that this

Coming home to place: Aboriginal Lore and place-responsive pedagogy for transformative learning in Australian outdoor education

David Spillman

Western Sydney University

Abstract

In a significant way, the growing body of place-responsive research and practice within outdoor education in Australia can be perceived as an eco-inspired response to both the devastating impact of colonization on our ecological communities and the concomitant sense of "placelessness" or lack of a sense of belonging and purpose experienced by many Australians. In this regard, there has always been an ally in Aboriginal Lore, which worked to maintain ecological and social balance and wellness in Australia for thousands of years prior to the arrival of Europeans. Yet, it has been argued that many outdoor education programmes continue to perpetuate the colonial and anthropocentric discourses clearly responsible for much of this ecological and social damage. Not surprisingly, several place-responsive proponents have flagged the value of local partnerships between outdoor educators and Aboriginal people. This paper offers a brief critique of these dominant discourses and their impact upon outdoor education practice, followed by an exploration of what partnerships with local Aboriginal people might look like and offer. To this end, transformative and conversational processes will be proposed, supported, and nuanced with evidence from an intercultural collaboration project undertaken in the Northern Territory in 2008.

Keywords: place responsive, Aboriginal Lore, colonization, transformative learning, cultural assumptions, conversational circles

Introduction

There is a growing body of research and practice within Australia regarding "place-based pedagogy" in outdoor education (see Brooks, 2002; Cameron, 2003a, 2003b, 2003c; Stewart, 2004, 2008; Wattchow, 2001, 2007, 2008; Wattchow & Brown 2011). Arguably, though, these approaches remain at the margins of the field (Hockley & Humberstone, 2012; Wattchow & Brown, 2011). Variously labelled as "place sensitive" (Plumwood, 2003), "place conscious" (Gruenewald, 2003), and "place responsive" (Cameron 2003a, 2003c; Wattchow & Brown, 2011), these approaches share a consciously inquisitive focus on connecting with and coming to know the unique local places that host outdoor education endeavours (Wattchow & Brown, 2011). Further, they seek to explore the ways a deeper, more conscious engagement with place, its human and other-than-human inhabitants, and its cultural history can shape and change both human experiences, perceptions, and intentions and the natural environments in which these experiences occur. Aware of the focus on reciprocity here between humans and ecological communities or, as Plumwood (2003, p. 70) refers to it, the "dialogical mode of interaction," I shall use the phrase place responsive to designate these approaches. Not surprisingly, several authors have acknowledged the value and critical importance of connecting with local Indigenous knowledge and cultural histories to this end (Plumwood, 2000; Stewart, 2004; Wattchow & Brown, 2011).

In this paper, I offer a formative exploration of the potential contribution that Aboriginal Lore and cultural knowledge might make to place-responsive pedagogy within the field of outdoor education in Australia. Following Wattchow and Brown (2011), Stewart (2004), and several generations of Aboriginal Lore men and women (Callaghan, 2014), my exposition is grounded in an ethical ecological (including social) concern, leading to two main questions: (1) In what ways do outdoor education programmes and practices operate to perpetuate, challenge, and/or transcend the colonialist and anthropocentric discourses and assumptions that have clearly led to the damage and demise of many ecological communities within Australia? and (2) What might Aboriginal Lore and cultural knowledge offer here, and how might they be included within the field of outdoor education? Through interrogating these questions and encouraging partnerships and collaborations between outdoor educators and local Indigenous people, I aim to contribute to the growing body of place-responsive research and practice in Australian outdoor education.

Initially then, I shall engage with place-responsive research and writing to undertake a brief critique of the ways these dominant colonialist and anthropocentric discourses influence practices in Australian outdoor education. In particular, I will focus on the "taken-for-granted" assumptions within the field of outdoor education regarding "nature," the human/nature relationship (including the issue of

Selective hearing: The unrecognised contribution of women to the outdoor profession

Tonia Gray,[1] Sandy Allen-Craig,[2] and Cathryn Carpenter[3]

[1]Western Sydney University, [2] Australian Catholic University, [3]Victoria University

Abstract

The role, place, and often invisible contributions of women working in the outdoor learning profession have become an area for increased scrutiny. Alarmingly, there is an underrepresentation of women cited in research and practice, yet women make up approximately half those involved in outdoor education and outdoor recreation. A male-dominated narrative seems to prevail. The intention of this paper is to serve as a focal point for critical analysis and discourse about the status of women in the outdoor learning profession. We investigate the prevalence of females presenting keynotes at Australian national and state outdoor education conferences, complemented by dialogical engagement with women working in the outdoor learning profession regarding the opportunities for their voices to be heard. Our analysis clarifies some of the key issues and identifies constructive ways to recognise and support women's contributions with the aim of enabling both women and men to be valued for their unique and shared involvements in the outdoor learning profession.

Keywords: women, gender, equality, outdoor education, outdoor learning profession

Introduction: The gendered workplace

When asked why she would want to undertake her dangerous solo flight across the Atlantic, aviator Amelia Earhart replied, "I want to do it because I want to do it. Women must try to do things as men have tried. When they fail, their failure must be a challenge to others" (Langenheim, 2010, p. 240). Women are often drawn to the allure of working and playing in outdoor environments because these offer liberation, empowerment, and freedom from certain societal norms. As Tonia Gray and Carol Birrell (2015) confirm, the outdoors "is not exclusively a male domain; it has been the impetus for pioneering women to start expedition companies, travel through untrammelled regions, and push against socially imposed limits" (p. 207). Indeed, through the outdoors, "women can redefine themselves in terms of their capabilities and strengths, gain an awareness of cultural immersion, boost their self-esteem and develop life-long passion for travelling in adventurous settings" (p. 207).

The authors of this paper entered vocations in the "outdoor learning profession" (Wright & Gray, 2013, p. 12) based on a love of the outdoors and a passion for leading and teaching in natural environments. However, in so doing, we presumed that this outdoor learning profession, which prides itself on being inclusive and liberating for its participants, would also be inclusive and empowering for its leaders and instructors. It is only as the years have passed that we have grown to be aware of the common traits which the outdoor learning profession, involving outdoor recreation and outdoor education, shares with other gendered professions. Those running outdoor courses — leaders, managers, directors of outdoor centres — are predominantly men, and they are the primary voices in outdoor leadership. Avery, Norton, and Tucker (in press) support this point, noting that "whilst growth has occurred in the number of women entering outdoor vocations, white men are still the dominant face in outdoor recreation, outdoor education, and wilderness adventure pursuits." These findings concur with other researchers such as Johnson, Bowker, and Cordell (2001), McNeil, Harris, and Fondren (2012), and Siikamäki (2009). Elements of social role theory (Eagly, 2013) and gendered leadership (Eagly & Karau, 2002; Eagly, Makhijani, & Klonsky, 1992) play a pivotal role in this emerging situation.

As Bob Sharp (2001) has highlighted, males dominate in many arenas, and masculine characteristics and behaviours are often rewarded whilst female voices go unheard (see also Belenky, Clinchy, Goldberger, & Tarule, 1986; Humphrey, 2014; Warren, 1996b). Collective experiences of many women in outdoor education, whether they be practitioners or researchers, suggest that at times they feel relegated, side-lined, and undervalued (Bartley & Williams, 1988; Jordan, 1991; Martin, 2013; Martin, Maney, & Mitten (in press); Oakes, 2016; Smith, 2016). A heavily gendered professional environment can be a site of oppression and marginalisation (Eagly, 2013; Eagly & Karau, 2002; Eagly, Makhijani, & Klonsky, 1992; Gilligan, 1993; Sharp, 2001). For women working in outdoor recreation and outdoor education, numerous authors have identified experiences of alienation and invisibility over the past 30 years or more (Allin, 2000; Allin & Humberstone, 2006; Allin & West, 2013; Gray & Mitten, in press; Loeffler, 1995; Mitten, 1985; Pinch, Breunig, Cosgriff, & Dignan, 2008; Saunders & Sharp, 2002; Wright & Gray, 2013). This paper investigates the "hegemonic experiences" (Vahabzadeh, 2002, p. 98) of women working in the outdoor learning profession

Those who teach learn: Near-peer teaching as outdoor environmental education curriculum and pedagogy

Lucas Bester, Gregg Muller, Brendon Munge,

Marcus Morse, and Noel Meyers

La Trobe University

Abstract

Near-peer teaching is used within higher education because of its efficacy for both student teachers and learners. Our purpose in this paper is to highlight the possibilities of applying near-peer teaching pedagogies in outdoor and environmental higher education contexts. We begin by reviewing its use in the higher education sector, mainly focusing on health and medical education where it is regularly used. We then employ a qualitative methodology to examine the initial experience of near-peer teaching, in which third-year university undergraduate students teach first-year students in the field during a higher education outdoor environmental education programme in Australia. Both sets of students (teachers and learners) report valuing the experience for its authentic preparation for future outdoor environmental education, explicit outdoor environmental education curriculum and pedagogy content, and role in inducting first-year students into the community of professional practice within the programme. We also highlight distinct elements of the programme that contribute to the success of this unique near-peer teaching and learning experience and further discuss the limitations as a useful signpost for extending near-peer experiences across outdoor environmental education, and higher education more broadly.

Keywords: near-peer teaching, outdoor environmental education, pedagogy

Introduction

Near-peer teaching (NPT) is used within higher education for its efficacy relating to both student teachers and learners (Falchikov, 2003; Topping, 1996). In particular, NPT is used within health and medical courses (see Burgess, Dornan, Clarke, Menezes, & Mellis, 2016; Secomb, 2008; Ten Cate & Durning, 2007a) as well as education-focused courses (see Topping, 1996). Our review of higher education NPT research reveals a strong focus on health and medical courses in particular, with minimal examination of the practice in the field of outdoor environmental education (OEE). Whilst there is considerable variation in the settings for the studies reviewed, the findings, in conjunction with the results of the OEE case study examined herein, assist in understanding the potential usefulness of NPT in the context of higher education. We begin by considering some distinct ways that NPT is employed in higher education before offering an example specific to OEE. For the purposes of this paper, *near-peer teachers* (NP teachers) refer to more experienced students involved in teaching less experienced students, and *near-peer learners* (NP learners) refers to the less experienced students who are being taught/tutored by NP teachers.

Peer-assisted learning and cross-level NPT come in many forms and typologies. Falchikov (2003) differentiates examples of these forms by desired outcomes and aims (see Figure 1). Below we highlight the characteristics of these forms in terms of the aims of primarily curriculum (for example, proctoring and supplemental instruction) and/or enculturation (mentoring and parrainage) to provide an understanding of the range of NPT options.

In *proctoring*, students who are more senior work individually with less advanced students to assist them gain proficiency of the syllabus; it is primarily curriculum focused. Topping (1996) describes the proctor's role as a "checker, tester, and recorder, to ensure tutee mastery" (p. 329). Proctors "practice and rehearse the skills they have acquired during the preceding years of study" (Goldschmid & Goldschmid, 1976, p. 18) to support other students. They are often specifically chosen for the role. The one-to-one nature of proctoring differs from *supplemental instruction* (SI), which seeks to add additional opportunities for student instruction via a one-to-many model. SI has been characterised as the "best known (and used) of such cross-level schemes" (Falchikov, 2003, p. 36). It often utilises "successful later-year tertiary students to facilitate peer-learning sessions" which may involve "discussion around course content and related study skills," as well as preparation of "learning activities" (Dawson, van der Meer, Skalicky, & Cowley, 2014, pp. 611–612). Congos and Schoeps (1993) highlight that SI is frequently applied in courses that involve new and challenging content, intermittent feedback and assessment, and a prevalence of lectures over more student-centred learning activities — with the aim of reducing dropout rates and failures within these higher education contexts. With SI, instructors are often deliberately chosen and the focus is targeted,

Coping strategies and the development of psychological resilience

Jessie W. Booth and James T. Neill

University of Canberra

Abstract

This paper describes psychological theory about stress, coping, and psychological resilience, and considers how coping strategies can help develop resilience in the context of outdoor education. Outdoor education programs often aim to develop psychological resilience through structured challenging and reflective experiences. Use of coping strategies such as positive reinterpretation appears to be resilience enhancing, whereas passive acceptance and focusing on negative emotion are resilience undermining. Further research is needed to better integrate psychoeducational curricula about stress and coping into challenge-based outdoor education programs which aim to foster psychological resilience.

Keywords: stress, coping, resilience, outdoor education

Introduction

This paper overviews psychological theory about stress, coping, and resilience, reviews research about the coping strategies in outdoor education, and explores how outdoor education programs could more intentionally support the use of coping strategies that help in the development of psychological resilience.

Outdoor education programs often aim to develop participants' psychological resilience (or mental toughness) through structured challenging and reflective experiences (Neill, 2008; Sheard & Golby, 2006; Shellman, 2009). Such experiences, however, can be a double-edged sword, with potential for both growth and harm. Some participants thrive, whilst other participants seem to be reluctant or resistant.

Psychological theory about stress and coping can assist understanding of this problem (Miles & Priest, 1990; Watts, Webster, Morley, & Cohen, 1992). The type of coping strategies employed in response to stressful situations influence the psychological outcome (Neill & Heubeck, 1998; Skehill, 2001; Smith et al., 2008). There are benefits in developing coping strategies such as problem-solving and positive thinking, as they can foster psychological resilience, whilst other coping strategies, such as ignoring the problem and worrying, may undermine resilience (Booth, 2015).

This paper describes psychological theory about resilience, coping, and coping skill interventions. It then reviews the limited research about the role of coping skills in the development of psychological resilience in challenge-based outdoor education programs and suggests directions for future research and application.

Psychological resilience

Psychological resilience is one's capacity for adapting well in the face of tragedy, trauma, adversity, threats, or significant stress (American Psychological Association, 2010; Rutter, 1987, 1996) or, more simply, "bouncing back" from challenging experiences (Smith et al., 2008). Conceptualisation of resilience between the 1960s and early 1990s focused on capacity to avoid manifesting psychological dysfunction despite exposure to risk factors such as distressing family environments (Garmezy, 1991; Werner & Smith, 1992). Resilient individuals were understood as possessing something special that made them relatively invincible or invulnerable (Pines, 1975, as cited in Masten, 2001).

More recent approaches emphasise the role of protective psychological factors, such as optimism, meaning in one's life experiences, and sense of personal control (Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000) which give individuals an adaptive advantage when faced with adversity (Bonanno, 2004). The earlier idea of remarkable individuals has been challenged, and resilience is now framed as a normally achievable, basic human adaptation system that is relevant to everyone (Luthar, Cicchetti, & Becker, 2000; Masten, 2001). There is a degree of ordinariness to this phenomenon, as it becomes more evident that any individual can build resilience.

A process-focused approach considers resilience to be malleable and elastic, a changing and developing positive adaptation system (Luthar et al., 2000; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). Different people respond differently to different environmental hazards, contexts, and outcomes (Rutter, 2006). A process-focused approach centres on understanding and supporting the way individuals deal with and think through risky situations.

What are the capabilities of graduates who study outdoor education in Australian universities? The case for a threshold concepts framework

Scott Polley[1] and Glyn J. Thomas[2]

[1]University of South Australia, [2]University of the Sunshine Coast

Abstract

Research has indicated that some stakeholders in the Australian outdoor education profession are uncertain about the capabilities of students graduating from university outdoor education programmes. Unfortunately, there is currently no formal or informal agreement amongst university programmes regarding the knowledge, skills, and experience that an outdoor education graduate should be expected to acquire. The situation becomes more complicated when these graduates are required by some employers, land managers, or insurers to undertake additional vocational education and training (VET)-based training to obtain activity leadership qualifications. This paper outlines a process to identify and document the forms of knowledge, skills, and experience that graduates of university outdoor education programmes need to work in the profession. In the last decade, several fields and discipline areas have used a threshold concepts framework to optimise curriculum design and pedagogical development based on the work of Meyer and Land (2003). Threshold concepts articulate critical knowledge areas that graduates entering the profession must master, and these concepts have been characterised as being transformative, irreversible, troublesome, integrative, and bounded. Using a threshold concept framework to design curriculum allows professionals to identify essential concepts and alerts academics to areas where their students are likely to experience difficulties. Suggestions for developing threshold concepts outlined in the literature are summarised, and a collaborative, consultative process is recommended to establish threshold learning outcomes in university outdoor education programmes in Australia. Some suggestions for new nomenclature that can be used to describe outdoor leaders, including graduates of university outdoor education programmes, are provided.

Keywords: threshold concepts, outdoor education, higher education

Introduction

> Outdoor education provides unique opportunities to develop positive relationships with the environment, others and ourselves. These relationships are essential for the wellbeing and sustainability of individuals, society and our environment. (The Fremantle Declaration, Meredith, 2010, p. 6)

The Fremantle Declaration was developed at the Australian National Outdoor Education Conference in 2010. The content and focus of the declaration were discussed extensively by the conference delegates, and the statement represents a strategic attempt to clarify the potential contribution of outdoor education (OE) to (Australian) society. This paper is intended as a focal point for university OE programmes in Australia to explore the specific forms of knowledge and skills required by graduates to work in the OE profession and enact the declaration. Some stakeholders in the OE profession have expressed uncertainty about the capabilities of OE graduates (Munge, 2009). These concerns are in part linked to uncertainties about assessment strategies and standards used across the higher education sector to measure the skills, knowledge, and capabilities of OE graduates. The concerns may also be simply due to the failure of the university sector to effectively communicate what graduates of university OE programmes know and can do. We seek to advance discussion on this matter and identify a framework and process that could be used to address this challenge in the future.

The aforementioned concerns are exacerbated by a lack of clarity about the very nature of OE. OE has been recognised as both a subject and a teaching method in Australian schools (Dyment & Potter, 2015; Martin, 2008). Until relatively recently, curriculum in Australian schools has been determined at the state level. Most Australian states (Victoria, Tasmania, Australian Capital Territory, South Australia, and Western Australia) have a formal senior-school subject titled Outdoor Education or Outdoor and Environmental Studies or a derivative of these two terms (Martin, 2008). Data available from surveys conducted in three states suggest that OE, although not a compulsory part of any past state or current national curriculum document, exists as a subject option or a component of the general curriculum or part of another subject — typically Health and Physical Education (HPE) (Lugg & Martin, 2001; Picknoll, n.d.; Polley & Pickett, 2003).

In Australia, students can earn a tertiary qualification through a university or vocational education and training (VET) provider. The qualifications from both types of organisation are part of the Australian Qualifications Framework

Adventure programming and travel for the 21st century

Reviewed by Glyn J. Thomas

Black, R., & Bricker, Kelly S. (2015). *Adventure programming and travel for the 21st century.* State College, PA: Venture Publishing, Inc.

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This book is effectively a third edition of the original Venture Publishing texts *Adventure Education* (Miles & Priest, 1990) and *Adventure Programming* (Miles & Priest, 1999). This latest edition, edited by Rosemary Black and Kelly Bricker (2015), provides an additional focus on adventure travel because of the "need to refocus on sustainability and increased concerns for the health and well-being of our planet and inhabitants" (p. 3).

The book is divided into seven sections, which the editors describe as "trailmarkers." These sections are titled "Glancing Back and Trekking Forward in Adventure," "Places and Spaces for Adventure," "Diverse Outdoor Connections for the 21st Century," "Planning, Programming, and Managing Adventures," "Current Issues and Dilemmas in Adventure Programming and Travel," "Sustainable Adventure Management," and "Adventure Debrief." Across these seven sections there are 19 chapters, 13 of which are authored by Americans and the remaining six contributed by authorship teams that include Australian academics and professionals. This strong presence of Australian authors is likely due to the connections of editor Rosemary Black, an academic at Charles Sturt University in Australia. The more international feel of this latest offering from Venture Publishing is an improvement on previous editions. However, when reading the chapters written by American authors, I am still surprised by the Americentrism. Given the easy access and availability of research publications online, I find it surprising that some American authors still fail to draw on the high-quality work of many European, British, and Antipodean writers.

To make the text more relevant to a wider readership, the editors have done well to include case studies from practitioners and academics from around the world within each chapter. In most chapters, these case studies provide a relevant practical application of the theories or principles discussed in the chapter. I was a bit perplexed by the case study provided for Wattchow and Brown's chapter on place responsiveness, as it could have been better aligned with the content of the chapter. In most other chapters, the case studies were excellent examples of theory in practice and could have easily been significant contributions to the book in their own right.

At first, I was a bit dubious about how well the focus on adventure travel would blend with adventure education given the potentially different goals and philosophies of education and tourism. However, I think the chapters on tourism provide some useful insights to issues that confront both educators and tourism professionals alike. It is positive for academics from outdoor education/recreation to be exposed to some of the research and thinking of tourism researchers and practitioners.

The book would be suitable as a course textbook for some adventure recreation/tourism courses, and each chapter and case study provides a set of discussion questions which can be used to facilitate student engagement. A compact disc is also provided with the book, which includes a document with weblinks to YouTube videos that can be used to supplement teaching within each of the book sections. The quality of the videos themselves varies considerably, but some of them would be useful as teaching tools. For academics teaching within an outdoor leadership or adventure tourism programme, I think there are definitely chapters and case studies that would be useful.

References

Black, R., & Bricker, K. S. (2015). *Adventure programming and travel for the 21st century.* State College, PA: Venture Publishing.

Miles, J. C., & Priest, S. (1990). *Adventure education.* State College, PA: Venture Publishing.

Miles, J. C., & Priest, S. (1999). *Adventure programming (2nd ed.).* State College, PA.: Venture Publishing.

About the author

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