

Chapter 7 Informal learning outdoors

Introduction

This chapter considers the range and breadth of outdoor learning opportunities and how these relate to the inclusion agenda, and engages positively with current debates about challenge and risk in the outdoors. As Gibson and Haynes point out in their introduction to this book, there is a discrepancy in education between the agenda of 'pupil participation' and 'inclusive education' stated in policy documents (government, school, outdoor education centre) and a reality of exclusivity. Questions of who is 'in' and who is left 'out' are complex in outdoor settings. For example, there are cases of the Duke of Edinburgh Award scheme being used to extend 'gifted and talented' pupils in some schools; and as an alternative curriculum for 'under achievers' in other schools. Forest schools are sometimes provided as a treat for the 'disengaged' to be quickly removed should they misbehave; and at other times as an entitlement for the very youngest pre-schools and nurseries. There are many examples of outdoor activities being used to re-engage 'reluctant learners' or those with 'challenging behaviour' in outdoor centres and pupil referral units. Many of these terms: gifted, talented, under achievers, disengaged, reluctant learners, challenging behaviour are situated within discourses of exclusivity or self/other; and the chapter challenges these discourses arguing that outdoor learning is for everyone.

The chapter also critically examines claims regarding the positive contribution of outdoor learning to academic achievement and self-concept. Uncritically accepting such claims arguably contains the danger that outdoor education will become increasingly like traditional schooling and thus affected by the same inclusion/participation issues that surround schooling, and that could be avoided. I explain why I think this in case study 1.

The nature of informal learning.

As humans we are built to learn, and do so easily. Much, if not most, of what we know and can do has been learnt informally, out of school. Schooling is a modern phenomenon that has been widespread in most developed countries for about 150 years. It was not common before the early nineteenth century, is not universally accepted and may not last the test of time. The differences between informal learning and schooling have been discussed by Desforges (1995) and Kelly (2007) and I have summarised them in table 1.

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Table 1. Informal learning and schooling.

Informal learning	Schooling
Led by learner interest and enthusiasm	Led by curriculum design and national orthodoxies, such as “intended learning outcomes” defined by teachers
An imperative to know, or be able to do, something	An imperative to test
At the pace of the learners, at a time and in a place determined by them	Controlled by semesters, academic terms, timetables and over structured lesson designs

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I see the consideration of informal learning outdoors as central to a broadened concept of inclusion.

Outdoor learning is a problematic term, one that needs defining. Stables (2005) sees ‘learning’ as a reified theoretical concept and prefers the term making meaning from experience as a more useful, descriptive term. In my use of the term outdoor learning, I use learning as a metaphor for ‘constructing meaning from experience’. So, I consider learning as something that *happens* when people interact with each other in a social context, and/or with the environment. Thus, I am adopting a social-constructivist view of

learning, which is based on the philosophical position that knowledge does not exist outside of human and social discourses.

The outdoors can provide opportunities for far richer experiences from which to construct meaning than do classrooms and schools (e.g. Hattie, Marsh, Neill, & Richards, 1997). Why this may be so is not easy to determine. It may be because of the place, the activity carried out in the place or a person's affinity to the place; or (more likely) a combination of these factors. Defining the outdoors can also be difficult. Whilst some contexts are unproblematic (e.g. a moor, mountain, forest) others are problematic. For example, is a cave inside or outside? If I am snuggled in my berth, in cabin of a small boat being tossed around on a big sea, am I inside or outdoors? I once wrote a short case study based on powerful learning experiences that took place in a lambing shed on a Somerset farm (Rea & Waite 2007, p. 56). I called this outdoor learning; but was it? Similarly, some of the activities associated with the outdoors can be accomplished indoors, e.g. climbing and canoeing.

I have taken a liberal view of what constitutes the outdoors, central to which is a distancing from schools and schooling, and the formality that often accompanies these. I prefer outdoor 'learning' to outdoor 'education'. Learning is a less formal and more inclusive term that values everything learned, not just learning which matches some one else's professional definition or meets certain pre-designed objectives.

The range and breadth of outdoor learning opportunities is vast. Rickinson et al.(2004) have divided opportunities into headings, three of which I have used in table 2 below. They have been written about elsewhere (e.g. Re'em, 2001) and some of the theory used to explain their effectiveness overlaps with what I introduce below.

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Table 2. Opportunities for participation in learning outdoors.

Field studies and visits	Adventurous activities	School grounds
Farm visits Forest schools Geography studies Scientific studies	Outdoor centres Rock climbing Canoeing Caving Walking Expeditions Ten Tors Challenge Sailing, sail training Riding Camping Scouting and Guiding	Planting and growing Orienteering Outdoor art Outdoor drama Wide games, 'ride on' toys, sand and water play, climbing equipment

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In the past, participation in many of the activities in table 2, especially those in the centre column, was almost exclusively for the socially privileged. This position began to change during the 20th century. The Scouting (Baden-Powell, 1930) movement has long thrived in under-privileged areas, the Duke of Edinburgh's Award scheme is an example of how participation in such activities has been made more affordable to many, and much work has been done with children from inner city areas by the Outward Bound mountain and sailing schools. Yet access to the British countryside is still to a large degree the privilege of the white middle classes (Pendergast, 2004).

Outdoor adventurous activities have a long tradition in the Britain. They have been influenced by Baden-Powell, who founded the scouting movement, and the theories of Kurt Hahn, the originator of Outward Bound. Central to the thinking of Baden-Powell and Hahn was the idea that **character** is developed by experiencing and overcoming challenge. More recently Mortlock (1984) has argued strongly in favour of allowing young people to have access to

adventure for very similar reasons. Loynes (1996) has criticised the recent phenomenon of commercial corporations 'packaging' and marketing ready-made adventure opportunities, what he calls the 'McDonaldisation' of adventure, on the grounds that it tends to diminish the agency of participants. There is much research (see McKenzie, 2000; Rickinson et al., 2004) that suggests properly planned and managed outdoor adventurous activities can encourage a growth in self-confidence and self-esteem and other facets of self-concept. Mindful of these findings, many outdoor programmes have been developed for young people with 'difficulties': young offenders, 'disaffected' youth and their families. This type of remedial, or re-engagement, programme as been simplified and trivialised by the 'Brat Camps' TV series (<http://www.channel4.com/life/microsites/B/bratcamp/>). Yet claims of the efficacy of such programmes are widespread in outdoor literature, (see Rickinson et al., 2004, for an overview). Academic underachievers have also been the target of outdoor programmes (e.g. Dismore and Bailey, 2005). Outdoor programmes have been set up for young women with eating disorders, with research findings suggesting these enabled them to cope better with their problems (see Richards, 2001). One problem presented by these programmes has been that a different kind of exclusivity has developed, with outdoor learning opportunities sometimes being seen to be reserved only for learners with difficulties.

Other studies have pointed towards less tangible, but equally important and interesting benefits. For example, I have written about the role of outdoor experiences in promoting spiritual development (Rea, 2003), a theme also developed by Hitzhusen (2004); whilst Jacobs, McAvoy, & Bobilya (2004) have expanded research into outdoor learning by investigating outdoor programmes in relation to emotional intelligence (Goleman, 1996). Sue Waite and I have developed an argument for using the outdoors simply because it is enjoyable for both teacher and pupil (Rea & Waite 2007). One thing that characterises these studies, is that they expand and broaden interpretations of inclusion and participation, arguing that outdoor learning is an entitlement for all and identifying obstacles to inclusion and participation.

Participation in informal learning outdoors: benefits and learner outcomes.

Many claims have been made about the benefits of outdoor learning, and especially participation in adventurous activities. The value of outdoor learning opportunities is represented in a broad literature, useful summaries of which have been provided by McKenzie (2000) and Rickinson et al. (2004).

What is of great interest to mainstream educators and to students is that some studies suggest that engagement with outdoor learning opportunities may have a positive effect on academic achievement. This is more than the adaptation of experiential pedagogies to classrooms; rather taking (or sending) children away onto outdoor programmes. For example, Nundy (1999) shows that primary school children learn about physical geography better in the field than in the classroom; Christie (2004) reports academic gains in Scottish teenagers who took part in a programme aimed at those at risk of under-achieving; and Dismore & Bailey (2005) point to the raised achievement of key stage 2 pupils who took part in targeted outdoor activities. Perhaps because of these claims, the Government's manifesto for outdoor learning, produced as a well-meant reaction to the pervasive trend of passive, sedentary learning that does not suit all children, presents an argument for outdoor learning as an entitlement for all and states that:

learning outside the classroom is about *raising achievement* through an *organised*, powerful approach to learning in which direct experience is of prime importance.

(DfES, 2005 my italics)

Thus, outdoor learning is now prescribed as an entitlement for all, an ideal few argue with. But is also now defined in terms of the school improvement agenda, measuring achievement using the existing formal methods used in schools (Dismore & Bailey, 2005) in order to blend with the Government's agenda. One danger of this is that informal, enjoyable learning that is fun may become formalised and prescriptive. In practice, despite government rhetoric about inclusion, many children are in danger of being excluded if this policy leads to a concentration of outdoor opportunities only for those who are

deemed by schools to be under-achieving. This is an interesting example of how government policy and agenda are quick to colonise the language of others; in this case that of inclusion. Other policies in education are in conflict with inclusion, for example

Current debates about challenge and risk in the outdoors and how this might affect participation.

In the early spring of 2007 a teenage girl drowned in a Dartmoor river, swollen by extraordinarily heavy rain. She was training for the annual Ten Tors Challenge organised by the army. Ten Tors has taken place since 1961 and each year some 2400 young people take part, spending a weekend walking 35, 45 or 55 miles over the moor, with full camping kit. It surely is a challenge. This was the first serious accident.

3500 people are killed in car crashes on British roads every year; ten times that number are seriously injured. There are 30 times more child pedestrian deaths than child car passenger deaths.

There will always be risks associated with taking children outdoors. There is a risk of physical harm ranging from very small injuries (e.g. a grazed arm or knee) to death. However, the probability of serious injury or death is very low indeed. It is certainly much lower than the risk of death or serious injury to a child incurred by crossing a road.

This small risk of harm should be set against two other factors;-

- The risks incurred through a sedentary and over-protected lifestyle
- The benefits of experiencing the outdoors

When all of this is considered, even the most pessimistic outlook would find it difficult to argue against taking children outside in order to enrich their learning. Yet, during the 1990s the number of children being taken outside school declined. The introduction by the Government of the Manifesto for Outdoor Learning is a recent attempt to redress this situation.

Complacency should be avoided. Before any outdoor trip or activity is undertaken a careful risk assessment should be carried out by somebody trained to do so. This should take into account any disabilities, learning difficulties and behavioural issues of the group.

A pedagogy for outdoor learning?

Kolb's (1984) theory has become a widely adopted pedagogic method. It underpins a number of practical models for use in the outdoors (Beard & Wilson, 2002). Amongst outdoor practitioners 'processing' (Bacon, 1987) and 'reviewing' (Greenaway, 2002) have become techniques that are now embedded into practice. Such approaches focus on experience plus discussion about the experience. They emphasise feedback, discussion and group processing practices. Many manuals for outdoor practitioners urge the promotion of reflective techniques. Ricketts & Willis (2001) have argued that practitioners ought to be extracting meaningful learning from experience whilst Pfeiffer and Jones (1983) went as far as to suggest that the processing modes of the experiential learning cycle are even more important than the experiencing stage.

This widespread acceptance and implementation of the Kolb (1984) model as a pedagogical approach has led to a high degree of proactive intervention by teachers, leaders and instructors on many programmes and has had the effect of formalising outdoor learning.

Critiques of this orthodoxy (Rea, 2007) suggest that these proactive group processing activities may be unnecessary and that learners are able to engage in reflective thinking about their experiences without formal reviewing activities.

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Case study 1

The Gables is a pseudonym for an outdoor education centre in England that is owned and administered by an English Local Authority (LA). Children reside

at The Gables for five days in groups of up to 34, accompanied by four teachers. The centre is staffed by the head and four other outdoor instructors (two of whom are qualified teachers) and support staff. Staff at The Gables feel pressurised by the LA into following practices that have become entrenched in the practice of schools. Thus they have defined a number of intended learning outcomes that all children are introduced to at the beginning of their residential experience. These are:-

- **Making the future** relates to The Gables' eco-centre (Eco-Schools, 2002) status and ethos.
- **Caring, sharing and being a social being** relates to aspects of social learning; for example, team work and relationship nurturing.
- **Adventure for life** is mainly about the acquisition of those skills and attitudes deemed to be necessary for a full and active participatory life style.
- **Risky business** is about doing things safely, emphasising risk assessment and risk management.

Each of these intentions may be laudable. But Hayes has outlined the drawbacks of an over formalised school curriculum that squeezes children's learning into 'predetermined packets' of time to meet learning objectives, (2007 p. 151). He sees outdoor learning as a possible antidote to this. There is much evidence of the power of learning outside the classroom and the positive effects it may have on children. As one head teacher who regularly takes children to centres like this one told me, "you know, it's this they will remember. Not the end-of-key stage tests or the literacy hour. The children come back to visit us years after they have left the school, and it's their visit to the (residential outdoor education) centre that they want to talk about," (from Rea & Waite, 2007).

What a shame, then, that one of the first things children do at The Gables is sit for an hour listening to a presentation about the intended learning outcomes.

Education in England has become synonymous with schooling (Campbell, 2005) and schooling with organisation and formality. The current orthodoxy and 'best practice' in English schools is for the teacher to organise every aspect of a child's learning. But Shepherd (2007) suggests there is probably no universal and absolute best practice in education, and if learning is seen as a theoretical concept (Stables, 2005) then best practice orthodoxy becomes problematic. To organise learning requires first that learning be reified and treated as a material or concrete thing. Nationally agreed and overly prescriptive curricula and pedagogy, the trend towards outcome testing and the perceived influence of external inspections have all contributed to this reification. It has meant that child centred learning, with children passionately investigating problems that really interest them, has become a rarity (Hayes, 2007).

What is of even greater concern is the current 'best practice' mantra in English schools of teachers sharing their intended learning outcomes (often articulated in the bewildering language of the national curriculum) with children (Hayes, 2007) . This practice commits children to a passive role. Nobody would object to teachers engaging in discussions with their pupils about what has been learnt, but this can be done in a more inclusive way that recognises that meaning, and therefore learning, is filtered and constructed through multiple discourses, to which children contribute as much as adults.

If we accept that learning is a theoretical concept and that constructing meaning from experience may be a more useful way of thinking about it (Stables, 2005) then we are forced to recognise the active part the learner (child) has to play in that constructive process (Re'em, 2001; Strauss & Quinn, 1997). Thus the orthodoxy of teachers attempting to organise all aspects of children's learning needs to be challenged.

This may sound critical of the staff at The Gables, and if so it is unfortunate. The staff at this centre and others like it are providing an important and worthwhile contribution to children's education. They are caught up in the

policy agenda of others and in reality can do little to resist the LA's attempts to make them perform like schools.

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Case study 2

Countryside College.

Set deep in heart of the rural midlands, Countryside is a specialist post-16 college that accommodates the needs of around 90 late teenagers with learning difficulties. A large number of students have been diagnosed with autism or Asperger's syndrome. Many are funded by local authorities, some by their parents. Many of the young people who currently attend Countryside College have specific learning difficulties. The ethos and practices of the college, discussed below in some detail, follow Steiner principles. Most of the students return to their families during vacations, but a small number have no homes and they board at the college full time, effectively living there.

The college is housed in an old mill that was renovated by the founder and the first cohorts of young people. It is situated in large grounds that are used for farming, fishing and crafts. Making things from natural materials, using traditional tools and preserving traditional skills, movements¹ and names; and doing much of this in the outdoors, are central to the ethos of the Countryside College. This approach is based upon anthroposophic ideas. Anthroposophy is an approach to the understanding of the person and the spirit in a holistic way, that brings together body, soul and mind. It was theorised by Rudolf Steiner (1995). Early in the twentieth century, when care for the physically challenged and those with learning difficulties was largely ignored in many countries, anthroposophical homes and communities were founded. For example, the Camphill movement founded in Scotland. This has spread widely, and there are now well over a hundred Camphill communities and other anthroposophical homes for both children and adults in more than

¹ By this I mean physical movements, especially big, slow, deliberate and rhythmic movements such as those involved in using a scythe or working a hand bellows. These are thought to have beneficial properties, especially useful in the management of some of the syndromes encountered by students at this college.

twenty-two countries around the world. Much of the ethos and practice of Countryside College are related to the ideas of such communities.

Anthroposophy is the philosophy that links:

- Steiner-Waldorf schools where an anthroposophical view and understanding of the human being is put into educational practice
- Biodynamic, organic agriculture
- Anthroposophical medicine (which thrives chiefly in continental Europe and North America, and that has its own clinics, hospitals and medical schools)
- Eurythmy, a Steiner art form which seeks to renew the spiritual foundations of dance, transforming speech and music into visible movement.

Many facets of the ethos and practice at Countryside College reflect and exemplify this philosophical approach. In addition the College believes that the students learn and develop through engaging with the environment in a meaningful way and by working with the variety of challenges that the natural environment and natural materials present. Students practice organic agriculture and market gardening. They grow much of the organic produce for their own table and the onsite café that is open to the public. Animals are bred, reared and killed; and their hides processed by students into leather products. A fish farm is located on campus. Trout are hatched, reared, caught, killed, smoked and eaten.

Green wood turning skills are practiced. The wood is coppiced from sustainable woodland, planted and managed by the students. Iron is smelted in outdoor, traditional furnaces where students use hand bellows and tools to make simple products. On a recent visit there, I was shown a small knife, the pride of a teenage boy who had made the blade from metal he had smelted and fashioned; with a hilt he had turned on a foot operated lathe; in a leather sheath he had also made. Clay is collected from a bank. It is processed by hand, and crafted using traditional throwing methods, then glazed and fired in kilns made by the students.

During their attendance at the college (usually three years) students will engage in all of these outdoor focused activities. Other aspects of their holistic education, such as Eurythmy and personal tutoring, are also addressed. In their final year, much of the emphasis is placed upon answering questions of progression; where will the young person go once they leave the college? How will they support themselves in the outside world?

The work of Countryside College offers effective alternative pedagogies that widen participation and promote inclusion. Holistic, learner centred, outdoor based education is shown to be effective by the engagement and enjoyment of the learners, and by the degree to which students are able to participate in worthwhile occupations upon leaving the college.

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Author's Note

I am passionate about the outdoors. I enjoy hills, moor land and mountains; and the sea. I began thinking about this chapter whilst taking part in the Tall Ships Race in August 2007, and drafted much of it whilst sailing across the North Sea. I love the outdoors and have strong beliefs about the positive contribution the outdoors can make to learning.

This began when I was 12 years old and a pupil at a boy's secondary modern school in Salford, I went away for a week on an outdoor activities 'holiday' with school. Later, when doing my CSEs I learnt all of my physical geography outdoors in north Wales, then did an Outward Bound Course in the Lake District. Each time I was terribly homesick, often cold and wet and swore to myself that I would not do this again. But I kept coming back.

When I became a school teacher I began to take young people out of school to participate in outdoor learning whenever I was able. I did this because I remembered the impact such experiences had on me, and had become

convinced that opportunities to participate in outdoor experiences, and learn from these experiences, can and should be available to everyone, regardless of age, race, sex, mental or physical ability, class or socio-economic position.

I still hold this conviction and the examples that I have chosen to use in this chapter reflect this. I have become more critical, however. I began researching my PhD, an ethnographic study of a residential outdoor education centre (Rea, in progress) in 2004. I now recognise things that worry me, which I have outlined in this chapter, but continue to see things that inspire me. On the whole, I remain optimistic about the future of informal learning outdoors and the possibilities for inclusion and participation it holds.

Tasks/ Things to do

1 Read chapter 2 of Kaye Richards' (2001) book on adventure therapy and eating disorders. Reflect on the participation and inclusion issues embedded within the chapter (and book). You may like to think about Richards' feminisation of both the body and eating disorders, and the effects on adventure therapy on inclusion in an outdoor sector with limited capacity.

2 Geoff Cooper's (1998) book contains many suggested activities for use with young people in the outdoors. Look at some of these activities (of you may find others published elsewhere) and consider them in terms of inclusion issues. To what extent are they inclusive? If you find they are not, how might they be further adapted to encourage participation and inclusion?

3 Examine your own values in the context of outdoor learning, entitlement, participation and inclusion.

Further reading.

Cooper, G. (1998). *Outdoors with young people*, Lyme Regis: Russell House Publishing.
Richards, K. (2001). *Adventure Therapy and Eating Disorders: a feminist approach to research and practice*, Ambleside: Brathy.

References.

- Bacon, S. B. (1987). *The Conscious Use of Metaphor in Outward Bound*. Denver: Colorado: Outward Bound School.
- Baden-Powell, R. S. S. (1930). *Rovering to success*. London: Herbert Jenkins Ltd.
- Beard, C., & Wilson, J. P. (2002). *The Power of Experiential Learning, a handbook for trainers and educators*. London: Kogan Page.
- Campbell, R. (2005). Primary education or primary schooling? *Education 3-13*, 33(1), 3-6.
- Christie, E. (2004). *Raising Achievement through Outdoor Experiential Learning? A case study of Scottish secondary school students*. Unpublished PhD, Edinburgh University.
- Desforges, C. (1995). Learning out of school. In C. Desforges (Ed.), *An Introduction to Teaching*. Oxford: Blackwell.
- DfES. (2005). *Education Outside the Classroom Manifesto*, London: DfES.
- Dismore, H., & Bailey, R. (2005). "If only": Outdoor and Adventurous Activities and Generalised Academic Development. *Journal of Adventure Education and Outdoor Learning*, 5(1), 9-20.
- Eco-Schools. (2002). Eco-Schools home page. Retrieved 17 January, 2008, from <http://www.eco-schools.org.uk>
- Goleman, D. (1996). *Emotional intelligence: Why it can matter more than IQ*. London: Bloomsbury.
- Greenaway, R. (2002). The active reviewing guide. Retrieved 31 July, 2006, from <http://reviewing.co.uk/>
- Hattie, J., Marsh, H., Neill, J., & Richards, G. (1997). Adventure Education and Outward Bound: Out-of-Class Experiences That Make a Lasting Difference. *Review of Educational Research*, 67(1), 43-87.
- Hayes, D. (2007). What Einstein can teach us about education. *Education 3-13*, 35(2), 143-154.
- Hitzhusen, G. (2004). Understanding the role of spirituality and theology in outdoor environmental education: A mixed-method characterisation of 12 Christian and Jewish outdoor programs. *Research in Outdoor Education*, 7, 39-56.
- Jacobs, J. A., McAvoy, L. H., & Bobilya, A. J. (2004). The relationship between summer camp employment and emotional intelligence. *Research in Outdoor Education*, 7, 73-89.
- Kelly, P. (2007). The joy of enhancing children's learning. In D. Hayes (Ed.), *Joyful Teaching and Learning in the Primary School* (pp. 10-16). Exeter: Learning Matters.
- Kolb, D. (1984). *Experiential Learning: turning experience into learning*. New Jersey: Prentice Hall.
- Loynes, C. (1996). Adventure in a Bun. *Journal of Adventure Education and Outdoor Leadership* 13 (2), 52-57
- McKenzie, M. D. (2000). How are adventure education program outcomes achieved? A review of the literature. *Australian Journal of Outdoor Education*, 5(1), 19-28.
- Nundy, S. (1999). The Fieldwork Effect: The role and Impact of Fieldwork in the Upper Primary School. *International Research in Geographical and Environmental Education*, 8(2), 190-198.

- Pendergast, S. (2004). *Social inclusion involving people from ethnic minorities in the Peak District National Park, England*. Paper presented at the Open Space, Edinburgh, UK.
- Pfeiffer, & Jones. (1983). *The Annual Handbook for Group Facilitators*: John Wiley & Sons.
- Re'em, M. (2001). Young minds in motion: interactive pedagogy in non-formal settings. *Teaching and Teacher Education*, 17, 291-305.
- Rea, T. (2003). Why the outdoors may be an effective repository for spiritual development. *Horizons*, 23(summer, 2003), 12-14.
- Rea, T. (2007). "It's not as if we've been teaching them..." reflective thinking in the outdoor classroom. *Journal of Adventure Education and Outdoor Learning*, 6 (2), 107-120.
- Rea, T. (in progress). *Understanding children's experiences at a residential outdoor education centre: from scientific 'tales' to co-constructing fictionalised narratives*. Unpublished PhD, University of Plymouth, Exmouth.
- Rea, T., & Waite, S. (2007). Enjoying teaching and learning outside the classroom. In D. Hayes (Ed.), *Joyful Teaching and Learning in the Primary School: Learning Matters*.
- Richards, K. (2001). *Adventure Therapy and Eating Disorders: a feminist approach to research and practice* (Vol. Brathy): Ambleside.
- Ricketts, M., & Willis, J. (2001). *Experience AI: A Practitioners Guide to Integrating Appreciative Inquiry with Experiential Learning*.
- Rickinson, M., Dillon, J., Teamey, KcAvoorris, M., Choi, M. Y., Sanders, D., et al. (2004). *A Review of Research on Outdoor Learning*. Shrewsbury: NFER/Field Studies Council.
- Shepherd, I. (2007). *Teaching and learning: do we really know what we are doing?* Paper presented at the University of Plymouth, VCs teaching and learning conference. Retrieved 28 June 2007, from <http://intranet.plymouth.ac.uk/>
- Stables, A. (2005). *Semiotic Engagement: A New Theory of Education*. Lewiston, NY: Mellen Press.
- Steiner, R. (1995). *Anthroposophy in everyday life* Hudson, NY: Anthroposophic Press.
- Strauss, C., & Quinn, N. (1997). *A cognitive theory of cultural meaning*. Cambridge: Cambridge University Press.