National Foundation for Education Research

Engaging and Learning with the Outdoors – The Final Report of the Outdoor Classroom in a Rural Context Action Research Project

Final Report

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April 2005

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Introduction

There is growing concern about declining opportunities for outdoor learning and low levels of understanding about food, farming and sustainability issues amongst young people in this country. The recent Education and Skills Select Committee Enquiry (2005) into *Education Outside the Classroom* as well as OFSTED's (2004) report on *Outdoor Education* are reflections of this trend. Furthermore, the Government's Growing Schools Programme seeks to enable *'schools to make better use of the outdoor classroom as a context for teaching and learning'* (DfES, 2005). Two recent research publications – an NFER/King's review of research on food and farming education (Dillon *et al.*, 2003), and a CEE/Bath evaluation of the Growing Schools Innovation Fund Projects (Scott *et al*., 2004) - have each highlighted the need for stronger empirical and conceptual understandings of learning in the outdoor classroom. This project sought to meet this need.

The research was carried out by a team from the National Foundation for Educational Research (NFER), King's College London and the University of Bath. The aim was to extend research-based understandings of educational activities using the outdoor classroom in a rural context. More specifically, it focused on the processes and impacts and the planning and evaluation of outdoor learning. These issues were explored in three outdoor learning contexts: (i) school grounds and gardens; (ii) farms and city farms; and (iii) field study/nature centres. The study involved identifying case studies of effective practice, observing students and teachers at work in school grounds, on farms and in outdoor study centres across England. Part of the study involved action research with outdoor educators, and focus groups and seminars with leading proponents in their field. The work was undertaken during 2004 and the early part of 2005, and was funded by the Department for Education and Skills, the Countryside Agency, and Farming and Countryside in Education (FACE).

This Executive Summary summarises key findings and recommendations from the research.

The benefits of outdoor learning and experience

The foci of outdoor education can include learning about: nature; society; nature-society interactions and oneself. Outdoor education can involve working with others, developing new skills, undertaking practical conservation and influencing society. The intended outcomes of such experiences can encompass: knowledge and understanding, attitudes and feelings, values and beliefs, activities or behaviours, personal development and social development.

Throughout the course of this study, the research team observed young people engaged in activities that, initially, appeared to have a primary focus on

particular cognitive developments. However, many of the teaching staff subsequently acknowledged that other domains (particularly learning about oneself and learning about working with others) not only emerged but, in some cases, became for them one of the primary benefits of working in the outdoor classroom.

For teachers and students engaged in the outdoor learning experiences, an awareness of such personal and social developments also emerged. There were many descriptions of curriculum-related outcomes in terms of increased knowledge and understanding of geographical, ecological or food production processes and of the development of values and beliefs about the environment. However, young people also referred to the development of more personal skills (increased confidence, improved social skills and a greater belief in personal efficacy) and, for some, to a (sometimes unexpected) understanding that learning could be fun.

Teachers welcomed the opportunity that visits gave them to observe outdoor educators and to learn from their expertise and different styles of teaching. Teachers mentioned that such visits enabled them to learn new subject knowledge and to acquire new skills and ideas that they could apply in their classroom. Teachers recognised the opportunities that outdoor education provided to interact with their students in relaxed, informal environments. They reported benefiting from the break from the normal teacher-pupil relationship.

Teachers and other practitioners, in outlining their outdoor education foci and intended learning outcomes, were often very specific about curriculum content, about the type of activities they planned, or about what they hoped, in general terms, that young people would achieve. Teachers were less specific about identifying the wider social and personal outcomes of their planned activities. Statements made by teachers indicate that they were aware of the broader range of outcomes but did not usually plan activities specifically to meet them or try to evaluate if they were achieved in any systematic way.

Integrating outdoor learning with the school curriculum and its delivery

Staff at all of the outdoor education sites recognised the importance of preparatory work with school teachers. In most cases this involved communication and/or joint planning by school staff and outdoor providers in terms of the focus/content of the visit. Preparation activities by teachers with students in school, however, tended to be limited to practicalities and logistics as opposed to issues of curriculum, pedagogy and evaluation. Exceptions to this were seen in schools that were preparing for longer residential visits or where outdoor educators were funded to undertake outreach work in schools prior to visits.

In terms of follow-up work, staff in all of the case-study schools were able to see and make connections between the outdoor experiences and a range of curriculum subjects such as art, science, history, IT and English and cross-cutting curriculum areas such as PSHE and environmental education. In

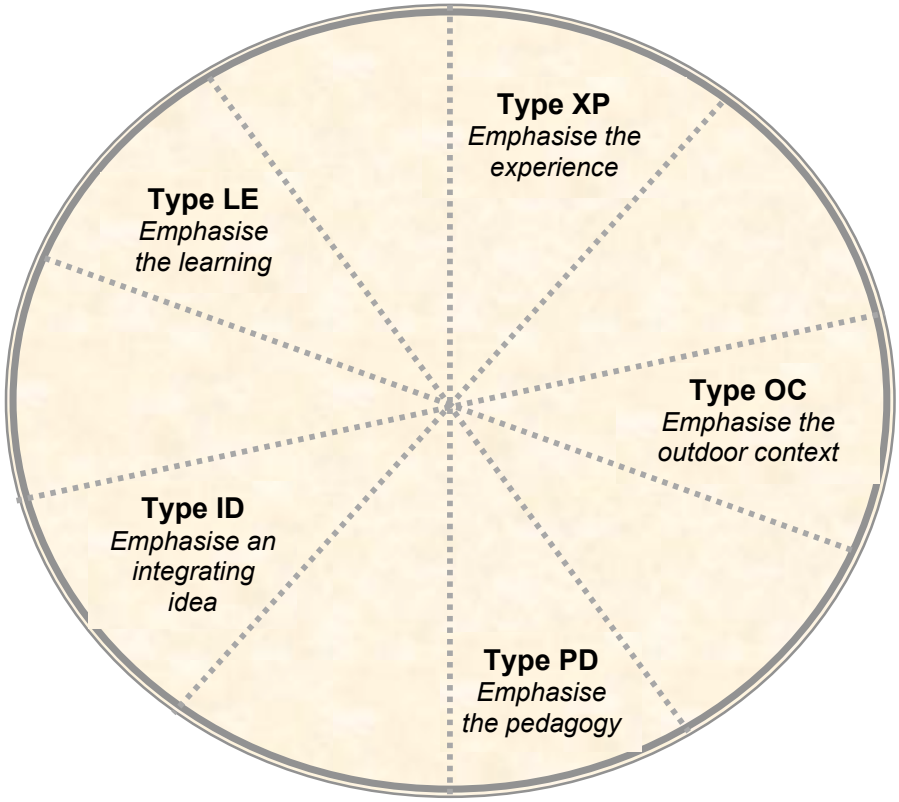
several cases, however, school staff would have liked their follow-up work to be more extensive than was possible.

Further discussion about this issue highlighted a number of challenges for curriculum integration. These included: outdoor visits taking place after (rather than during) a related module of class work; competing curriculum pressures limiting the opportunities for extended follow-up work; students not seeing outdoor visits as connecting with their learning; not all members of a class or a year group being able to take part in an outdoor visit; certain kinds of activities being difficult to repeat in the school environment; outdoor educators having few opportunities to support follow-up work in schools; and teachers wanting students to have a 'special experience' that is different from what usually happens in school.

As to how such challenges might be tackled, this research highlighted a number of areas in need of attention. Most importantly, there is a need for schools, local authorities and outdoor providers to recognise that it is short-sighted to try to increase the amount of time spent in the outdoor classroom without also seeking to maximise the extent to which such work is integrated with other work in schools.

The range and effectiveness of approaches to outdoor education: towards a typology

Five different types of educational emphasis related to outdoor education have been identified: the experience, the outdoor context, pedagogy, an integrating idea, and learning. The types (presented in the diagram below), whilst not necessarily fully discrete, can all make important and distinctive contributions to the totality of the learning experience. These different types remind stakeholders of differing possibilities about both priority and process, and allow them to map these in relation to the productive interaction needed in using the outdoor classroom for learning.



The typology highlights four important features for supporting learning in the outdoor classroom: (i) Contextualisation: acknowledging the realities of the educational setting; (ii) Promoting good learning design: supporting well-informed approaches to the use of outdoor classroom; (iii) Promoting professional learning: enabling individuals or groups to do something new or differently by learning from experience; and (iv) Working with communities of learners and practitioners: supporting learning and change.

We suggest that such considerations will be useful as sources of new ideas or tools for planning, structuring and evaluating outdoor classroom activities, and that further exploration of the issues they raise will prompt thinking and conceptual clarity when planning and evaluating developments to support outdoor learning.

Finally, different theories of learning provide empirically based accounts of the variables, factors and contexts which influence the learning process in the outdoor classroom, and provide explanations of the ways in which that influence occurs. The theories illustrate fundamentally different assumptions about how learning might occur in an outdoor setting, and identify key features and pedagogical approaches associated with each of three perspectives: the associative (strengthening behavioural associations), the constructive (making meaning from experiences), and the situative (engaging in acceptable social practices).

Recommendations

In producing this report we became increasingly aware of the range and diversity of practice that exists throughout the country (and elsewhere) in terms of planning, delivering and evaluating out-of-school learning. There are many examples of independent field study centres, local authority venues, and other institutional arrangements that provide the organisational and policy frameworks to encourage and enable teachers to work out of the classroom with their students. However, in terms of developing outdoor education across the country, we agree with the Select Committee which noted: *'What is needed is a coherent strategy for education outside the classroom that brings together good practice from around the country, rather than a small number of limited, if worthy projects.'* (Select Committee, 2005: 32). To this end, and in connection with the Government's proposed *Manifesto for Education Outside the Classroom*, we recommend the following as priorities for action.

1. The DfES, local authorities and other agencies should aim to further raise school staff awareness and understanding about the range of outdoor learning sites and what the outdoor education opportunities they offer.

2. The DfES, local authorities and other agencies should seek to further develop school teachers' confidence and capacities to work with students in outdoor contexts (both by themselves and with outdoor educators).

3. School governors, headteachers and teachers need to enhance the extent to which outdoor education is embedded into the routine expectations and experiences of the school, so that it becomes an established and normal part of 'what we do here'. Such an initiative would require the status of the full range of personal outcomes of outdoor experience to be raised substantially.

4. All involved in outdoor education should further develop their awareness and understanding of the national [school] curriculum and how outdoor education can contribute at different key stages to realising its goals.

5. Teachers and other outdoor educators should consistently aid students to understand how what they experience in the outdoor classroom connects to, extends, and reinforces their in-school work.

6. Schools, local authorities and outdoor providers need to to optimise the extent to which work out-of-school is integrated with work in school before they try to increase the amount of time spent in the outdoor classroom.

7. All concerned need to be much clearer about how (as well as what) outdoor education can contribute to pupil learning. This should involve a greater conceptual understanding of ways that students can learn in the outdoor classroom.

8. All decisions about the organisation of teaching in the outdoor classroom should take ideas about how students learn into account when considering what they will focus on and the experiences they will have.

9. Government departments and research funders must take seriously the need for a stronger and more accessible evidence base on outdoor learning. The recommendations of the recent Learning Working Group concerning innovative programmes of development and research deserve the attention of practitioners, policy-makers and researchers within the outdoor learning field (see DEMOS, 2005).

1. Introduction

Outdoor learning supports academic achievement, for example through fieldwork projects, as well as the development of 'soft' skills and social skills, particularly in hard to reach children. It can take place on school trips, on visits in the local community or in the school grounds ... Provision by schools is extremely patchy. Although some schools offer an active and well-planned programme of outdoor education, which contributes significantly to teaching and learning, many are deterred by the false perception that a high degree of risk attaches to outdoor education as well as by cumbersome bureaucracy and issues of funding, time and resources. (House of Commons Select Committee on Education and Skills, 2005, p. 3)

This report is published at a significant time in the development of education in schools. Although the majority of teachers and parents might well agree that out-of-school activities are important, there is increasing awareness of the real and imagined risks and costs of such activities. So do benefits outweigh risks? Is there any compelling evidence that, compared with classroom learning, out-of-school learning is different, better, or, as some argue, potentially life changing?

The purpose of this report, then, is to identify effective educational practices and the subsequent learning that can take place in the outdoor classroom, whether the context be school grounds, a local farm, or a remote field centre. We have looked empirically at the wide range of outcomes that both teachers and students experience and have related them to the growing international literature on learning in the outdoors. Evidence suggests that, in the past, practitioners have often been either unaware of the breadth of outcomes that outdoor education makes possible, or uninterested in them.

The Select Committee report referred to above noted that '*like all educational processes, the benefits of education outside the classroom should be rigorously researched, documented and communicated*' (Select Committee, 2005, pp. 8-9). One reason for commissioning the research reported here is a growing concern about whether young people lack an appropriate understanding of food, farming and countryside issues. In connection with

this, the government's Growing Schools programme seeks to enable '*schools to make better use of the outdoor classroom as a context for teaching and learning*' (DfES, 2004). Two relatively recent research publications – an NFER/King's review of research on food and farming education (Dillon *et al*., 2003), and a CEE/Bath evaluation of the Growing Schools Innovation Fund Projects (Scott *et al*., 2004) - have highlighted the need for stronger empirical and conceptual understandings of learning in the outdoor classroom. This project sought to meet this need.

The UK depends heavily on the countryside for food, recreation, tourism and many other purposes. *'Farming is the major land use in England, responsible for the appearance of some 80% of our countryside'* (Countryside Agency, 2002). However, as the Policy Commission on the Future of Food and Farming pointed out, *'farming has become detached from the rest of the economy and the environment'* (2002, p. 6). While media interest in the countryside has rarely been greater, public understanding of many key issues in the field is uneven and often poor (Watt and Sheilham, 1997; Scott, 2001).

The Policy Commission argued that *'the key objective of public policy should be to reconnect our food and farming industry ... to reconnect consumers with what they eat and how it is produced'* (2002, p. 6). Opportunities for educating school students about food, farming and land management exist in the curriculum (Proudlove, 1998), and a wide range of projects and resources are available from government agencies, non-governmental organisations and other third parties (for example, Bladen, 1999; Harlen, 2000; Jeffreys, 2001). The food and farming industries have many sites for visits that enhance teaching and learning across the curriculum, and access to the countryside, to farms (whether in rural areas or in the city) and to the food industry is becoming easier to arrange (the *Access to Farms* scheme, for example). Various attempts are presently being made to offer schools a more structured framework of support including the DfES-funded Growing Schools programme, while the Countryside Agency has organised an accreditation scheme for farms. This research aimed to be complementary to both of these initiatives.

The research was carried out by a team from King's College London, the National Foundation for Educational Research (NFER) and the University of Bath. The study involved identifying case studies of effective practice,

observing students and teachers at work in school grounds, on farms and in outdoor study centres across England. Part of the study involved action research with outdoor educators, and focus groups and seminars with leading proponents in their field. The work was carried out during 2004 and the early part of 2005. This study has been funded by the Department for Education and Skills (Growing Schools), the Countryside Agency and Farming and Countryside in Education (FACE). We are grateful to them for their support throughout the project.

In producing this report we became increasingly aware of the range and diversity of practice that exists throughout the country (and elsewhere) in terms of planning, delivering and evaluating out-of-school learning. There are many examples of independent field study centres, local authority venues, and other institutional arrangements that provide the organisational and policy frameworks to encourage and enable teachers to work out of the classroom with their students. The quality of experience that some students receive, working with highly committed and knowledgeable educators may, at times, be inspirational. However, in terms of developing outdoor education across the country, we agree with the Select Committee which noted: *'What is needed is a coherent strategy for education outside the classroom that brings together good practice from around the country, rather than a small number of limited, if worthy projects.'* (Select Committee, 2005, p. 32).

The report will inform the development of a toolkit that will contain guidance and exemplar material resulting directly from our study. This toolkit will, for example, include strategies for integrating the use of school grounds into the curriculum; new ideas for teaching citizenship during farm visits; suggestions for evaluating the outcomes of residential experience, and, a short summary of some of the reasons why schools' use of the outdoor classroom should be encouraged and developed.

Finally, we agree with the findings of the Education Select Committee that:

> *... education outside the classroom is of significant benefit to students. Academic fieldwork clearly enhances the teaching of science and geography, but other subjects such as history, art and design and citizenship can also be brought to life by high quality educational visits. Group activities, which may include adventurous expeditions, can develop social skills and give self-confidence. Furthermore, outdoor education has a key role to play in the social inclusion*

agenda, offering children who may not otherwise have the opportunity the simple chance to experience the countryside, or other parts of our heritage that many others take for granted. (Select Committee, 2005, p. 7)

2. RESEARCH DESIGN

The aim of the project was to extend our understanding of educational activities that use the outdoor classroom in the rural context. In particular, we were interested in the conceptualisation (visioning), planning, practice, impacts and evaluation of outdoor learning. More specifically, the project sought to explore:

- the academic, social and personal benefits for students
- the barriers to students' learning and strategies for overcoming these
- the effectiveness of different kinds of resources and activities
- how to deliver outdoor experiences economically and effectively
- how to evaluate and research outdoor learning
- how to integrate outdoor learning into the school curriculum[1].

A series of challenges exist with all research of this kind, particularly the extent to which it is possible to know what learning accrues from particular educational activities, given all the other influences that exist. A compounding factor with this research was its short timescale, and the limits that this placed on with whom we could work and the extent of this work. All these factors limited the data available to us, and so our research strategy was to identify the benefits, barriers and effective strategies within three specific contexts, and to draw on the views of teachers, learners and managers in each of these.

In order to produce a range of evidence, the research strategy used a multi-strand approach, which involved three parallel approaches:

- **Strand 1: Case-Study Research**- comprising in-depth qualitative investigations into the processes and impacts of outdoor learning activities at six outdoor learning sites.
- **Strand 2: Action Research**- involving a small group of outdoor educators carrying out small-scale research in their own work settings.
- **Strand 3: Stakeholder Consultation**- involving focus groups and seminars with a range of stakeholders involved in outdoor education.

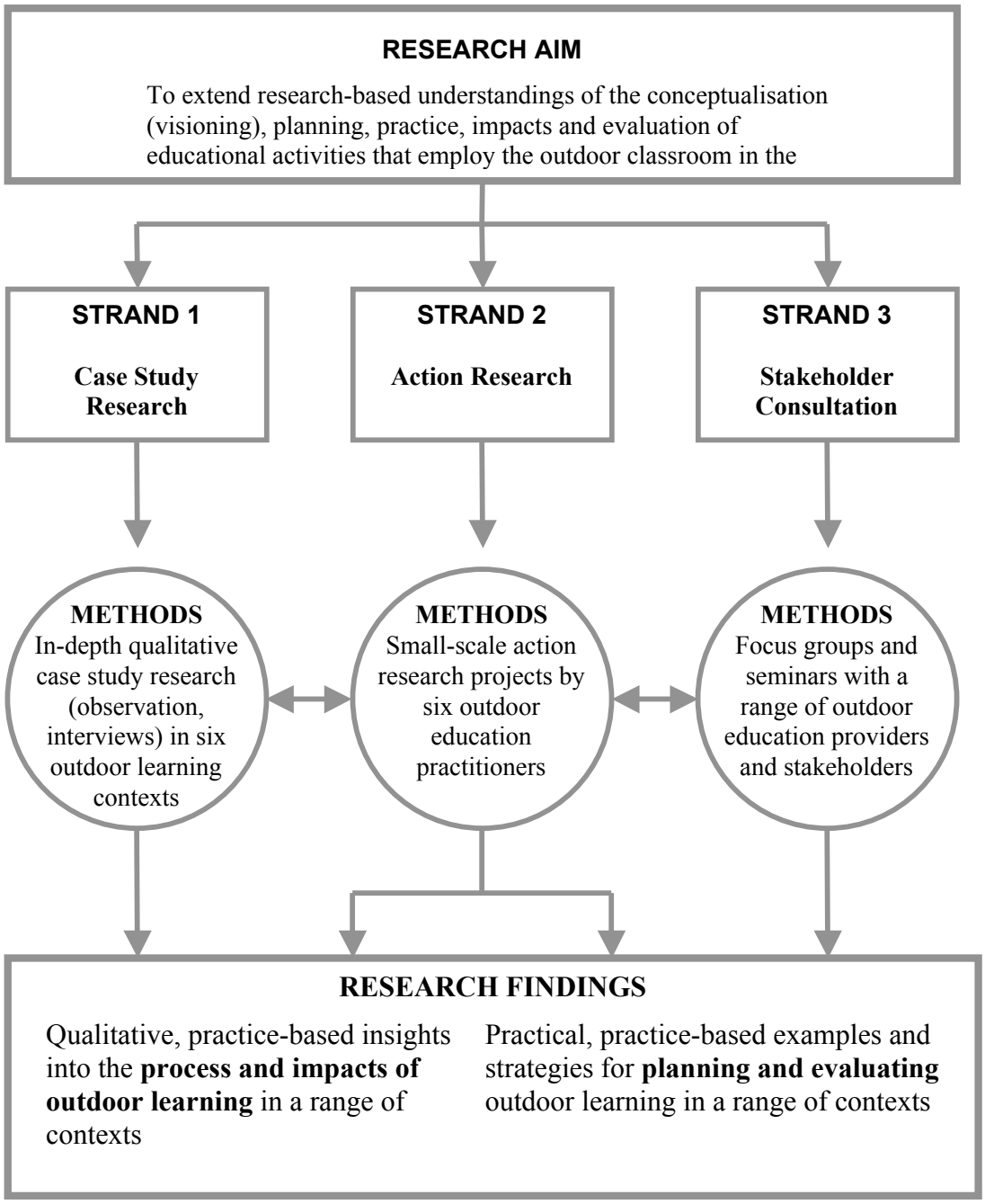
[1] See Appendix A for a more detailed description of the research questions.

Each of these examined three outdoor learning contexts, all of which can be used for specific, wider-curriculum and extra-curricular work:

- **School** contexts**:** for example, school grounds, school gardens and school farms
- **Farm contexts**: for example, farms and city farms
- **Outdoor centre contexts**: for example, field study centres, nature centres and country parks.

A summary of the overall research design is provided in Figure 2.1, and each of the strands are described in further detail below.

Figure 2.1 Overall Research Design



Strand 1: Case-Study Research

This strand involved in-depth qualitative research into the processes and impacts of outdoor learning activities in the three research contexts. The research team worked with students, teachers and other educators, both during and after outdoor learning activities, in order to generate grounded

understandings of the processes and outcomes of outdoor education across a range of age levels.

Six outdoor learning sites were selected as case-studies; two schools undertaking school grounds work, two farms (one rural and one city farm), and two outdoor centres. These were selected on the basis of:

- **diversity of contexts and organisations** – within each of the outdoor learning contexts, two contrasting sites were selected
- **interesting practice** – organisations that were known or recommended (by relevant national bodies) to be involved in interesting and/or innovative practice
- **accessibility** – organisations that were keen to participate.

In order to explore the experiences of students and teachers visiting these outdoor learning sites, two of the schools visiting each of the farms and outdoor centres during the period of the research were also identified. Together, the outdoor learning sites and schools were selected to ensure that, where possible, they represented a mix of:

- **age ranges** (Key Stages 2, 3 and 4)
- **foci of visit** (for example, studying particular curriculum subjects, or cross-curricular themes, or engaging in extra-curricular activities)
- **type of students** (reflecting a range of social class groups, ethnic backgrounds and educational needs, for example).

A profile of the outdoor learning sites and schools involved in this strand is shown in Table 2.1 below. More detailed descriptions are provided in Appendix B.

Table 2.1 Strand 1 Outdoor Learning Sites and Participating Schools

Type of site		Type of school	Age of children
Centres	Day visit centre	Rural, village primary	Years 3/ 4
		Urban primary in Education Action Zone	Years 3/ 4
	Residential centre	Primary, economically disadvantaged area	Year 4
		Rural, village, primary	Year 5
Farms	City Farm	Town, primary	Year 6
		Town, secondary	Year 10
	Farm	Town, EAZ, primary	Year 3/ 5
Schools	Primary school	City, Primary	Years 1-6
	Secondary school	City, Secondary	Years 7-11

The main research visits to the six outdoor learning sites took place between May and July 2004, and involved schools whose teachers and children were visiting farms and outdoor centres. In the case of the rural farm, the research focused on children of different ages that went to the farm from the *same school.* Hence, the total number of visiting schools was seven rather than eight. As the aim of the strand was the in-depth exploration of students' and teachers' experiences of the outdoor classroom, data collection was grounded in actual events in which the students (and teachers) took part. These case-study visits involved the research team observing and photographing activities at the site. The photographs were subsequently used to stimulate discussions during interviews with those involved: 1) the outdoor educators, 2) the teachers, and 3) up to six students from each school (in group interviews).

In all, semi-structured and group interviews were conducted with:

- ten outdoor educators
- twelve school teachers (11 classroom teachers and one headteacher)
- thirty-two students (18 female, 14 male)
- one female pupil on work experience at a farm.

In Autumn 2004, follow-up visits were carried out in six schools that had visited the outdoor learning sites, to explore the nature and extent of follow-up

work undertaken. During these visits, interviews were carried out with seven of the teachers[2] and 24 of the students that had been interviewed previously.

Strand 2: Action Research

This involved two teachers (from a primary school and a secondary school), two field study centre staff (from two centres) and two farm educators (from a farm and a city farm) carrying out small-scale research in their own work settings. With training and support from the research team, the research focused on: (a) trialling and evaluating teaching approaches and evaluation strategies, and (b) exploring ways of including and consolidating outdoor experiences into formal schemes of work.

There was an initial contact stage, followed by an action research workshop drawing on reviews of activities and strategies employed by the participants. The third phase involved research team staff visiting the action researchers in their school, centre or farm. Discussions focused on progress with new strategies, data collection and its analysis. Subsequently, the action researchers carried out a second round of implementation and evaluation, some of which is ongoing.

Strand 3: Stakeholder Consultation

This involved exploring the different perspectives of people from a range of organisations involved in outdoor education on the benefits (academic, social, personal) of outdoor education, on issues related to planning, management and evaluation of provision, and on overcoming constraints and barriers. This entailed:

- Two **focus groups** (six to eight providers and users of farms and outdoor centres) designed to explore the views of providers and stakeholders on the most desirable curriculum benefits of outdoor education and on effective learning experiences.
- Three **user group seminars** (up to 20 practitioners, policy-makers and researchers with an interest in outdoor learning) designed to:
  - enhance the initial design and on-going development of the research
  - assist in the monitoring and formative evaluation of the research
  - help disseminate the research findings.

[2] One of these teachers was interviewed over the telephone, as it was not possible to carry out a follow-up visit within the timescale of the project.

Data analysis

The analysis and synthesis of data drew on the research team's experience in qualitative data analysis. Techniques employed by the research team included content analysis (on the frequency and sequencing of words, phrases and concepts), semantic network analysis (on the relations and meanings among these concepts), and constant comparative methods on thematic topics (to facilitate explanation of the sense attributed to concepts and meanings, in context, in relation to research questions). Analysis was undertaken of the transcription materials from the interviews in strand 1 and from the focus groups, from alongside notes and recommendations from the seminars in strand 3. This analysis was informed by feedback from colleagues through a range of research seminars in which the team participated in during the course of the project. Strand 2 action research findings were analysed in the Action Research workshops, and fed into the research seminars in Strand 3.

Data were initially analysed 'within strand' and then drawn together. Findings were synthesised into three key areas to broadly reflect the research questions[3]

- the benefits of outdoor learning
- integrating outdoor education within the school curriculum
- the range and effectiveness of approaches to outdoor learning.

2.1 Structure of the report

The rest of the report is divided into four chapters. **Chapter 3** focuses on the wide range of possible learning outcomes from outdoor education. This chapter draws on both the wider literature in the field and the research we undertook, and presents the benefits of the use of the outdoor classroom for students, educators, the wider community and other stakeholders.

Chapter 4 examines the modes of curriculum integration that we encountered in case-study schools in terms of the preparation and follow-up work undertaken, and the challenges encountered. Consideration is also given to ways in which outdoor education might be better integrated within the curriculum and with the wider activities of the school.

[3] See Appendix A for a detailed description of the research questions.

Chapter 5 explores the range and effectiveness of approaches to outdoor education. This chapter presents a typology that attempts to make sense of approaches to outdoor education and any learning that accrues from this, generated from analysis of both our research and the wider literature. **Chapter 6** summarises the key findings from the report and presents a series of recommendations for policy makers and practitioners.

3. The Benefits of Outdoor Learning and Experience

This section focuses on the wide range of possible learning outcomes from outdoor education. Examples of outcomes, and of how they can be identified, are drawn both from the literature and from the research we undertook. For simplicity and clarity, we consider the *outdoor classroom* as a setting, *outdoor education* as a process in which educators, students and others take part, and *outdoor learning* as that learning which accrues as a result. We examine the benefits of the use of the outdoor classroom for students, educators, schools, the wider community and other stakeholders.

3.1 What is the outdoor classroom?

We have observed students working in school grounds growing a diverse range of vegetables, comparing farm animal and human needs, climbing a rock face, and sitting in a Celtic roundhouse reflecting on what they have learned about themselves at the end of a week in a residential centre. For the purposes of this report, however, we are defining the setting of the outdoor classroom as *those spaces where students can experience familiar and unfamiliar phenomena beyond the normal confines of the classroom*. We note that this is not an entirely satisfactory definition as much of the learning that we have seen taking place was prepared for, followed up and reinforced *in* the classroom; and not all of it actually took place out of doors.

3.2 What do we know about outdoor learning?

This section examines the range of outcomes that we found empirically, some of which accorded with outcomes previously described in the research literature. We define outdoor learning outcomes as *changes in thinking, feeling and/or behaviour resulting directly or indirectly from outdoor education*. Of course, much of the learning may be indistinguishable from that which happens in school or at home – acquisition of knowledge and understanding, improving skills, changing attitudes and values, and so forth.

What can be different, however, is the nature of the experience and its quality, and both these can affect what is learned. Reading about milking a goat and actually milking one are different though complementary experiences, for example. As one Sheffield student put it: '*It was right good when I got all that muck on my shoes*'.

There are many different conceptions of outdoor education and what its purposes and outcomes might be. This point was well recognised by US researchers in the 1950s who wrote about outdoor education as '*education in, about and for the outdoors*' (Donaldson and Donaldson, 1958, p. 17). In seeking to understand this diversity, it is helpful to draw on an elaboration of differing conceptions of 'environmental learning' developed by Scott and Gough (2003, p. 54). In their book *Sustainable Development and Learning: Framing The Issues*, they set out '*nine categories of interest which capture, albeit in a rather tentative way, a range of different focuses and objectives of those who espouse and promote environmental learning*' (p. 53). Applying this idea to the outdoor context, outdoor education can be seen as a concept and practice with a range of different locations, foci and possible learning outcomes. Table 3.1 shows a number of possible foci for outdoor education set against possible outcomes:

Table 3.1 Foci and possible outcomes for outdoor education

Foci of outdoor education can include	**Intended outcomes of such experiences can include**
• learning about *nature*, for example, in an ecological or horticultural study	• knowledge and understanding of, for example, geographical processes, ecology or food growing techniques
• learning about *society*, for example, in community-based gardening initiatives or conservation projects	• attitudes and feelings towards, for example, intensive stock rearing, access to the countryside or fair trade
• learning about *nature-society interactions*, for example, in visits to outdoor nature centres or areas of outstanding natural beauty	• values and beliefs about, for example, the value of the environment, one's relationship to it, or biodiversity loss
• learning about *oneself*, for example, in personal fulfilment through challenging adventure education or working with animals	• personal development, for example, self-confidence, knowing fact from value, enhancing personal effectiveness

• learning about *working with others*, for example, in small-group fieldwork or residential experience	• activities and behaviours, for example, pro-environment actions, coping strategies or making a personal commitment
• learning *new skills*, for example, through fieldwork or practical activities in school grounds	• skills, for example, identification of species with a key or map-reading
• learning about *practical conservation*, for example, through focused activities in the countryside or on city farms	• skills, for example, in clearing undergrowth or removing invasive alien species
• learning about *influencing society*, for example, by campaigning on controversial issues or working with disadvantaged groups	• social development, for example, working with others, promoting democratic social change or reducing racism
• learning *research skills,* for example, through action research on field or school grounds work	• enhanced capacity to carry out systematic enquiry on one's own or other's work with children

Many of these foci and learning outcomes were represented in the activities the research team saw or were told about during this research. Throughout the course of this study, the research team observed young people engaged in activities that, initially, appeared to have a primary focus on particular cognitive developments (learning about nature, learning about nature-society interactions, learning new skills and practical conservation). However, many of the teaching staff subsequently acknowledged that other domains (particularly learning about oneself and learning about working with others) not only emerged but, in some cases, became for them one of the primary benefits of working in the outdoor classroom: '*Forget everything else, that is enough, the outdoors, that kind of freedom, running down the hill – that is the kind of quality experience which you can't do in the classroom'*.

While not all interviewees were quite so willing to abandon curriculum imperatives (if only in hyperbole), references to changes in perspective (*'it teaches me more about them than I would be able to do in a classroom'*), changes in the locus of control and acceptance of risk ('*It was enjoyable and my style changed too, and I thought 'I will stop them in a minute', but we are outside, so for me it was a development. They need to roll and things, but you feel responsible – because you are responsible for broken legs etc.'*) and changes in pedagogical style (*'seeing them do their work helps you see beyond what you would normally do in schools…it makes you more creative')* were

common. Indeed, many staff based in 'outdoor classroom' settings saw such aspects of teacher development as a key element of their work. As one farm educator commented: '*we're always conscious that we're not just teaching the children here, we're teaching the adults as well*'.

For students engaged in the outdoor learning experiences, an awareness of such personal and social developments also emerged. While there were many descriptions of curriculum-related outcomes in terms of increased knowledge and understanding of geographical, ecological or food production processes and of the development of values and beliefs about the environment, young people also referred to the development of more personal skills (increased confidence, improved social skills and a greater belief in personal efficacy) and, for some, a (sometimes unexpected) understanding that learning could be fun.

So what have been the learning and other outcomes that appear to have taken place at the centres that were the subject of this study and/or that took part in the action research? To what extent do they accord with the opinions expressed during the focus groups and expert seminars? And which (if any) of the gaps identified in the Rickinson *et al.* (2004) literature review have been filled (if only partially)? In order to address these questions, the four-fold breakdown adopted for the literature review has been revisited. This breakdown of learning activities distinguished between:

- cognitive impacts – concerning knowledge, understanding and other academic outcomes
- affective impacts – encompassing attitudes, values, beliefs and self-perceptions
- interpersonal/social impacts – including communication skills, leadership and teamwork
- physical/behavioural impacts – relating to physical fitness, physical skills, personal behaviours and social actions.

In this report we discuss the benefits of outdoor experience under these four headings. It is worth noting that, in practice, distinguishing between some of the categories is not straightforward. Nundy (1999), for example, highlighted the interconnection of, and the difficulties of distinguishing between, cognitive and affective outcomes. Moreover, some of the responses from young people and from their teachers reflect other aspects of learning, including the triggers

(such as specific memories) that might link, for instance, to particular cognitive and affective outcomes at a later date. As one outdoor educator wrote when summing up primary school students' experiences in a national park:

> *Children's memories and learning from the visit were closely related. Strong themes are positive personal and social gains of direct and novel outdoor experiences in big landscapes, appreciation of methods of enquiry into the natural world* (scientific and artistic) *and interest in revisiting the National Park.*

3.3 Cognitive outcomes

Formal evaluation of the outcomes of outdoor experience was not widespread. However, there was a general consensus among outdoor educators and school teachers in the three outdoor learning contexts that there had been some level of pupil learning as a result of the visits. The primary focus of these visits clearly varied, with staff at the field centres and schools appearing to centre more on learning about nature (science topics such as habitats, life cycles, mini-beasts, plants) whilst those in the farms focused more on learning about nature-society interactions (farming practices, food-farm links and animal biology), although this is by no means a hard and fast distinction, as farm educators sought to meet teachers' needs across a range of curriculum foci. However, as some of the interviewed staff emphasised, the value of using the outdoor classroom was often seen as less to do with individual curriculum topics than to do with the ability of the setting or the activity to convey the inter-connectedness of the environment and man's relationship to it. As one primary school teacher reflected:

> *I think the perceived benefits over time are sustained in that it gives the children ... a wider view of the countryside, an informed view. ... They ... have plants pointed out to them, trees, flowers, birds, what's going on around them, why things are happening at a particular time of year. I think it's adding to their general knowledge, their view of the world. That's the biggest benefit. When the project was set up* [the landowner] *was very concerned that children today didn't know about the rural economy and that's what he wanted to achieve and I think that's the biggest thing that's being achieved by this project. I really do think that when children do leave* [the] *school they have a jolly good idea of this works, how complex it is, how one thing depends on another, how things are linked.*

Knowledge and understanding

Both students and their teachers reported increases in knowledge and understanding as a result of experiences in the outdoor classroom. Whenever students were asked about their learning, they were generally able to explain something that they had seen, learned or understood on the visits. One girl at a residential field centre, for example, said that she had '*learnt a ton about nature and different plants'*. Another child on a day visit to a field centre commented that he had '*learnt about some bugs that live in the water and the grassland in the woodlands that I never knew before*.' Children visiting a farm reported that they had learnt about where meat comes from and egg production: '*I learnt that if you haven't got a male chicken then the egg won't hatch*.'

Developments in knowledge and understanding appeared to be from across a range of cognitive domains. Some quite young students were able to demonstrate a clear view of the learning they had accrued, using technical terms and relating the factual points to things they had seen and done. One Year 4 pupil, for example, explained what she had learned on a one-day visit to a field centre:

> *We learnt about the wildlife and where they live and lots of habitats and animals. Where they live and what kind of areas they are in. Some of the animals we saw lived in water, some were living in damp woodland.*

Others were able to make the link between a specific learning topic and wider curriculum areas. One such Year 6 student, who was a regular Eco Group member at her primary school explained that she was '*better in geography because* [she had] *learned more about weather and different landscapes*' through her involvement with the club.

For other interviewees the learning focus was more on elements that reflected specific memories of aspects of what, for some of them, were new and alien environments. One of the students who had visited a national park talked about how she had '*learnt something about the quarry – how big it were and how wide and deep and all that rock comes up*', adding:

> *I remember the man at the quarry who had the explosives. He told us he kept them in a magazine. Remember in the room with the dummy? He told us about the old days.*

These memories were sometimes associated with sounds and sight:

> *When we went quiet, we heard birds singing and branches waving from one side to another. It was interesting because it was all different shapes of trees and different shapes of leaves.*

On other occasions they were associated with concrete objects:

> [I have] *still got* [a pebble] *I found at the quarry. I've got it in my jewellery box. I remember* [another pupil] *found a little blue stone with light brown on it on the way to the quarry.*

In each instance, the individual memory (of events, feelings, images) had the potential to be linked to a specific learning outcome linked to the development of knowledge and understanding. The recollection of a sorting exercise following an activity related to sustainable food resources and production, for example, provided evidence of learning about practical conservation:

> *I remember the lunch. We put fruit in the compost and yoghurt pots in the re-cycle to take back to school. The waste one was quite empty.*

The memory of a tractor ride during a visit to a farm provoked other memories relating to an understanding of food growing techniques. During their visit to a Somerset farm, children were taken in a trailer towed by a tractor along country lanes to a wheat field. Both the journey and destination proved memorable. When being asked to talk about '*what you remember about that visit*', one child said '*Going on the tractor rid*e' and the others nodded. On being asked to elaborate, they said:

> *We saw four fields. One of them was growing really well – well there were two growing really well and one that wasn't very well because the ground was too hot and it had cracks in it. ... It was too dry. ... We had to compare them, saying what was not growing. And we walked through the corn and we weren't allowed to pick it because it wasn't going to be very good. ... There were two out of four, a couple that were yellow and a couple that were a greeny brown colour.*

For some students, the factual details learned on location were as strong a memory as the visit itself. Primary children in North Somerset recalled that cockerels were needed if chicks were to be produced. On being told: 'Just talk about what you remember about that visit', one Year 4 girl said:

> *When we were at the chickens, I remember* [the farm educator] *said that the female chicken can have eggs and we can eat them, but if the female chicken mates with the male chicken they can make a baby, an egg with a baby in it.'*

The children had visited the farm several months previously and had each held a hen and seen inside a hut holding around 8,000 birds. They could remember these experiences, and the information about chickens, even though they had quite recently re-visited the farm for a visit with a completely different focus. Interviewees, across all three outdoor contexts, reflected on similar findings, saying that outdoor learning gave students direct experience of the subjects they were studying. As one teacher visiting a residential field centre commented, '*It's putting learning into context rather than just seeing things in an academic sense in the classroom'*. One of the farm educators offered another perspective on this when he stated that outdoor learning '*makes the curriculum come alive…it's a different experience to the classroom so it's a more powerful teaching resource because I think it will be more memorable as a learning experience for them'*.

However, for every child who could identify a specific learning outcome (be it fact or skill related), there were others who found it difficult to identify any such outcome. In many cases, this lack of ability to identify specific outcomes seemed to be partly a result of equating learning with something 'dull', while experiences in the outdoor classroom were seen as 'fun' and so, *ipso facto,* 'not learning'. These views were particularly evident at primary level. One boy, for example, stated that '*it was fun but I didn't really learn'*, while another added that he '*didn't really learn much…it's more like playing and that, exciting stuff*'.

This view of learning as something that must inevitably be dull, while anything that was fun must surely not be learning, was not shared by all of the young interviewees. However, it does provide a challenge for teachers as they seek to enable young people to capitalise on their experiences and build on them during future work in school. In many cases, this appeared to be a comment on pedagogy as much as on content or context. One primary pupil, who had recently visited a residential field centre, commented on the experience: '*It was a fun way of learning ... at school they just show you things*…' A pupil from another primary school who was described by teachers as 'disaffected', commented:

> *... school is boring because you have to sit down and learn the boring way, but if you go outside school all the time it would be when we went to* [the field centre] *then it would be really fun and yet we are learning things and doing things as well not just sitting down and actually doing it and finding things out instead of being told it.*

Another student who attended a field centre had a similar view: '*I find it easier to learn here than at school because you don't just listen…here you can do it*'.

3.4 Affective outcomes

As we noted above, Nundy's (1999) study, which explored the relationship between the affective and cognitive domains amongst a group of 10-11 year-old students participating in a residential fieldwork course in the south of England, concluded that gains in one dimension reinforced gains in the other. Certainly, the evidence from this current study would suggest that links do exist, with some young people, for example, clearly making the connection between experiences, knowledge and values:

> *I learnt to respect nature because nature is you. When mucking about with nature, we found lots of things but put* [them] *back because an animal might not find* [them] *again.* (Primary school pupil)

In setting up the outdoor classroom experiences, teachers referred variously to a desire to achieve '*awe and wonder'*, to institute '*a kind of life-enriching outing*', and to providing opportunities for young people to take part in activities that, while traditionally seen as part of childhood, were nonetheless out with the experience of many of their students:

> *Just the pure fact of - I don't know what box you would put this in - but … children rolling down the hill. Some of them have never actually done that before, and actually for some of them it's fantastic because, possibly out of their whole primary career they have had here* [it] *is the one thing they remember. They were allowed to race down the hill. So you know, it might not be a bit of paper to show, but for the child to say that is what the child remembers, then that for me is evidence.*

Amongst the young people, some of this excitement was clearly evident in their responses to interviewers, even when they were describing what might appear to others to be mundane activities. One Year 4 pupil described what she enjoyed about her visit to a residential field centre:

> *Fun because you can feel, you can see, you can touch and you can smell and you can take a packed lunch and stay there all day. And you can make things and look at things and play games. One of my favourite bits was when we were having lunch, because it's well, not because I was hungry, because it's just fun.*

The excitement of being outside and of taking part in novel activities can have a lasting impact on students:

> *I remember coming out of the farm and down a steep path to the river - it were scary.*

Another student explained why and when she developed a greater empathy with insects:

> *I learnt how it feels walking like a bug on a tree, how different it was - right to the end* [of the branch] *and felt I was falling off.*

These various experiences were thought to have contributed to learning in a number of domains, including enhancing personal development and encouraging the development of values and beliefs related to the environment. As one teacher at a primary school said:

> *It's just being somewhere where the children have headspace without the constraints, I think it is being somewhere where they are unfamiliar, it can be unnerving but exciting as well. Being out in an environment like that is like giving gifts to children for just being there and also it encourages* [them] *and they will go home full of it to their parent and careers and say 'I want to go, it's not far'. So you know it's the same thing as an allergy* (sic) *with food or fruit - we try to encourage them with the curriculum to try some different foods because some of them have not even seen or tried an olive or a pineapple. So we do that here, so that when they go home, they can say 'I want an apple' or 'I want this'. You cannot dictate to the parents what to do when they go home, but if the children are enjoying it, then they demand it.*

3.5 Social/interpersonal outcomes

One of the main benefits of outdoor activities, identified during focus groups of outdoor educators, and in interviews with teachers and students, appeared to be the development of social and interpersonal skills. Interviewees highlighted the general lack of outdoor experience amongst many of the young

people they encountered; some children were not used to being outside or going for a walk in woodland, for instance, whilst others had only seen pigs and chickens on television. Being in an unfamiliar environment was acknowledged as challenging for some students, but interviewees also felt that these new experiences were enriching and were helping to broaden students' horizons. These novel experiences, in addition to the freedom and encouragement that children were given to try new activities, were also thought to be helping to increase students' confidence and self-esteem. Moreover, one teacher emphasised that such enhanced self-esteem could have knock-on effects on students' academic performance, as he felt that when students were happy and confident, they became more effective learners.

However, the development of greater social and interpersonal skills was not only the result of engaging in unfamiliar activities: Educators reported that such activities gave students an opportunity to meet new people, with different teaching styles, and also involved activities which required co-operation and teamwork.

Examples of the development of social skills

In Nundy's study of students during residential fieldwork in Hampshire, it was noted that the collaborative tasks in which the 10 to 11-year-old students engaged had a positive impact on their co-operation skills, leadership qualities, perseverance, reliability, initiative and motivation. Similar outcomes were noted in this study, with teachers noting the social benefits for young people taking part in activities:

> *The shared experience, it's not only for us and the children. I saw some children talking to each other that would not normally talk to each other, it's not a big deal but it bonds children together as a class, a kind of community feel about it. We are all going on a coach, we are all going to walk up a hill. It contributes to the gelling of the school. This is why we go in November time, so it's a nice beginning and end.*

In some cases, teachers and outdoor educators identified improvements in students' behaviour, particularly among older students. One farm educator, for example, who was working with disaffected Year 10 students, reported that their behaviour and attendance (at least on site, if not back in school) had improved since they had been involved in a programme at the farm.

> *There was this lad, digging away like mad, working really hard and the teacher says to me, 'You should have seen him yesterday…he was throwing chairs at me in the classroom'.*

In his view, the farm environment and the practical work that was involved was more appropriate than classroom-based activities for some students and often engaged students who were disruptive in school. Of course, this is hardly a new insight – as countless ex-rural studies teachers could confirm. It may, however, be one that needs to be re-discovered.

The development of interpersonal skills

A pilot evaluation of two Welsh Forest Schools reported that the children involved in the initiative demonstrated increased self-confidence, self-esteem and team working skills (NEF, 2004, p. 5). While there was only limited evidence of such development in the current study, teaching staff nonetheless identified the development of interpersonal skills. One primary school teacher in Sheffield, for instance, said that she wanted to '*give kids as many experiences as possible - creative arts or environment - to help them be well-rounded children*.' Most of these children, she added, '*hadn't been to the countryside before, and it made such a difference to their development as individuals*.' In terms of the impact of the outdoor work that the children were involved in, she commented: '*when I got the class, I was told they were difficult. Now they are responsive and look after each other*'.

3.6 Physical/behavioural outcomes

Under this heading we include outcomes involving individuals or groups taking actions during, or more often, after an outdoor learning experience. Such activities included those which suggested that young people had learnt something about the ways to influence society and to promote positive environmental action. Primary children in Sheffield reported that, following a trip to a national park:

> *We got all the rubbish out of the school play yard.* [We] *Got litter pickers and went round picking it all up.* [We have] *still got them and we still keep the playground tidy.*

They also indicated an increased awareness of, and engagement with, the environment. In the words of one young primary school pupil whose visit to an outdoor learning centre had prompted a repeat family visit:

> *I've been back with my dad and brother. We went in the car to the same place. We all had Wellingtons and my dad got stuck in the mud and we helped pull him out. And we went up the rocks as well.*

The initial visit here seems to have triggered a desire to return, but had also led to some learning about nature-society interactions (taking appropriate clothing), learning about nature (physical conditions) and learning about oneself (the confidence to climb the rocks).

3.7 The benefits of outdoor learning to educators, and institutions

The benefits of the outdoor classroom are clearly not confined to students. Teachers noted improved relationships with students, personal development in their teaching and curriculum benefits.

Relationships with students

Teachers felt they benefited from being able to observe their students while they were being taught by the outdoor educators, as they were able to learn more about the children – how they reacted and interacted and how much knowledge they had acquired. This was summed up by one teacher attending a field centre:

> *It was nice for somebody else to do the activity, and for me to look because I am up here* [at the front of the class] *all the time so it is difficult to see how the children are responding. So it is a good opportunity for me to do some assessing actually. 'Is* he *listening? Because* he *doesn't listen in a classroom here.' That sort of thing, so I can take a step back while somebody else is running the show. And it teaches me more about them than I would be able to do in the classroom.*

Interviewees felt that teachers also benefited from being able to interact with the children in a more relaxed, informal environment and to have a break from the normal teacher-pupil relationship. This enabled the teachers to see their

students in a different way, and vice versa, and this helped to improve the relationship between them:

> *... as a teacher you don't get the chance to chat with them so that gave us some space to do that. We were talking about what we were looking at, their vocabulary was much wider than I had imagined ...*

Teacher development

For their part, teachers particularly welcomed the opportunity the visits gave them to observe outdoor educators and to learn from their expertise and different styles of teaching. Teachers mentioned that these visits enabled them to learn new subject knowledge and to pick up new skills and teaching tips that they could apply in their classroom. One teacher attending a residential field centre, for example, felt that she had learnt from the outdoor educators' more informal and fun approaches with the children: '*seeing them do their work helps you see beyond what you would normally do at schools…it makes you more creative.*' Another teacher added that outdoor learning experiences encouraged her to think outside QCA schemes of work and the National Curriculum, and she emphasised the difference between teaching in the indoor and the outdoor classroom:

> *You do tend to get squashed by the classroom, not being as creative because you are constrained by your environment. Whereas here, there is much more that you can do. You are not so tied into a mapped out day.*

The teacher responsible for much of the outdoor education at a primary school reported that her involvement in environmentally-related education had resulted in her learning:

- the importance of thinking through ideas very thoroughly, involving as many people as possible, and communicating the opportunities and importance of involvement
- keeping a strong sense of purpose
- being as democratic as possible
- keeping focused
- gaining support wherever possible.

Curriculum benefits

The reasons why teachers wanted to take children out of the classroom varied widely. One teacher reported that her visit to a national park had a clear geography curriculum link and welcomed the visit as a positive experience for learning. She was due to teach about quarries to her Year 4 class, something that she had done before using pictures. The children, however, could not understand what the activity was trying to achieve. However, once the students had visited a quarry, the teacher noted: '*they could relate to it. Parents and children loved it. Decked out in hard hats.*' The experience reinforced her idea that for significant parts of the curriculum, schools should '*not* [be] *trying to teach them something they have no concept of. They need to see it for themselves*.'

The same teacher did not have any particular environmental interest at the start of the project but picked up on the sustainable lunch activity and engaged the class in a paper recycling project in the school. Children wrote letters to the other classes and collected their waste paper, weighed it and the teacher took it to the recycling point in her car. The children became very interested in recycling and would tell a teacher, '*No don't bin it, recycle it*.' The teacher linked this into geography, literacy and maths with the weighing and science, sorting waste using rubber gloves. This teacher said that the recycling project '*gave children a wider understanding*' and reported that they became 'more socially aware'. '*The use of blue* (recycling) *bins in school links into their use of blue bins at home*', said the teacher, which in turn led to curriculum changes:

> *We are now modernising our curriculum away from QCA* [schemes of work] *and making it* [more] *relevant to the children we teach. We are starting linking subjects via a topic.*

3.8 Summary

As this chapter has discussed, the intended outcomes of outdoor experiences can encompass gains in knowledge and understanding, attitudes and feelings, values and beliefs, activities or behaviours and personal and social development. Although the outdoor activities observed through the course of this study initially appeared to have a primary focus on cognitive developments, many teachers subsequently acknowledged that the personal

and social development of young people not only emerged but, in some cases, become one of the primary benefits of working in the outdoor classroom. The benefits of the outdoor classroom were clearly not confined to students. Teachers noted improved relationships with students, personal development in their teaching and curriculum benefits.

This broad overview of the observed learning outcomes resulting from outdoor education can only go a little way towards a deeper understanding of the nature of learning in outdoor settings. However, it has highlighted one of the significant challenges facing outdoor educators. Teachers and other practitioners, in outlining their foci of outdoor education and their intended learning outcomes, were often very specific about curriculum content, or about the type of activities they planned and where these would take place, or what they hoped that young people would achieve. It would seem, however, that they were generally less specific about the range or potential interaction of their intended foci for learning and the broader domain of learning outcomes beyond those related to learning about nature or learning about nature-society interactions, for example. Some of the statements made suggested an intuitive understanding of this, but highlighted a lack of clarity as to what might be achieved or how it might be achieved:

> *I want the children to have the opportunity of seeing the countryside, having fresh air and experiencing it for themselves. Get the class to see nature and to appreciate it and look after it.*

Drawing on observed practice, on the action research studies and on the discussions with subject experts and practitioners, as well as on previous research, the following chapter of this report seeks to examine the ways in which better integration of outdoor learning and the school curriculum could be achieved. Chapter 5 then posits a typology which outlines the main strategies in use linking the nature of outdoor learning and the nature of the outdoor classroom.

4. Integrating outdoor learning with the school curriculum and its delivery

The importance of helping learners to build meaningful connections between different aspects of their educational experiences is widely recognised. This issue is particularly pertinent in the context of outdoor education, where a lack of connection with what happens in the school is a potential problem, not only for the achievement of longer-term educational benefits, but also for maximising the impacts of outdoor experiences themselves. This chapter reports on the modes of curriculum integration that we encountered in case-study schools in terms of the preparation and follow-up work undertaken, and the challenges encountered. Consideration is also given to ways in which outdoor education might be better integrated within the curriculum and with the wider activities of the school.

It is important to acknowledge that integrating outdoor learning opportunities with the classroom-based curriculum can involve connections of a curricular, cross-curricular and/or extra-curricular nature. This is well illustrated by the recent statement from the House of Commons Education and Skills Select Committee:

> *Outdoor education contributes to learning in a range of areas, including: science and geography fieldwork; physical education; learning through outdoor play, particularly in the early years; history and citizenship, through visits to museums and heritage sites; art and design, through visits to galleries and experiences of the built environment; environmental and countryside education, and education for sustainable development; practical or vocational skills that cannot be practised in a classroom environment; group activities that build self-confidence and social skills; and the use of the environment as a tool to enrich the curriculum across subject areas.* (House of Commons Education and Skills Committee, 2005, p.6)

4.1 Curriculum integration in the case-study schools

There is strong evidence from previous research of the importance of preparatory and follow-up work in enhancing the effectiveness of outdoor education (e.g., Ballantyne and Packer, 2002; Farmer and Wott, 1995; Orion

and Hofstein, 1994). In their study of nature-based excursions in Queensland, Ballantyne and Packer (2002) found significant differences between school students who had done pre-visit activities and those who had not. The former both looked forward to, and enjoyed, their visits more than the latter. Farmer and Wott (1995), meanwhile, studied primary school children's learning in public gardens and found evidence that follow-up activities reinforced concepts presented during the trip. This was echoed and endorsed, in the context of residential experience, by a recent OFSTED research report into outdoor education in England and Wales:

> *Residential experiences are most effective where there are good links between schools and outdoor centres so that the contribution to the curriculum of residential experiences is clear and evaluated to guide future planning. Too often, however, such coordination is absent and this challenging environment is only recognised as a 'one-off' activity.* (OFSTED, 2004, p. 13)

The nature and extent of the preparation and follow-up work in the case-study schools before and after visits to the outdoor sites was therefore an important focus for investigation in this study.

Preparation before visits

Staff at all of the outdoor education sites in this study were aware of the importance of planning the kind of work to undertake during school visits. The preparation took a variety of forms across the field centres and farms. At the non-residential centre, initial communication with visiting schools was via a booking form on which teachers outlined their wishes in terms of the topic(s) to be covered and the extent to which issues were to be explored (for example, introduction, consolidation or extension). This form also provided information about the number and age of participating children, how many adults would accompany them, and whether the children had worked at the centre before. As well as the booking form, schools were also provided with a sheet offering advice on getting the most out of the day.

In the case of residential visits, school staff visited the centre beforehand for a planning afternoon to agree the main theme and activities of the week in the light of the work being undertaken at school. At one of the farms, there was an intermediary organisation that took requests from individual schools and then matched these with particular local farms and farmers. In several cases,

the links between the outdoor education providers and the visiting schools were of long standing.

Preparatory work carried out with the children appeared to be fairly limited in the schools that took part in this study. When students were asked about whether they had done any work connected to the visit at school beforehand, their responses usually focused on practical matters such as parental consent letters: '*I first heard about it about 3 weeks before probably when we got a letter',* and/or preparations for the journey on the actual day:

> *'We just went in with all our bags and our wellingtons and teacher did the register and we sat there while she spoke to us and she put us in to groups'.*

There were cases, however, where more substantial preparatory work had been undertaken. Primary school students who had been to the city farm, for example, described how they had carried out some school-based work with one of the farm staff before their visit:

> *She came to the school and gave us some booklets and she drew some pictures of these two boxes there and she said to us 'Draw some pictures and write the names of what foods you want planting – flowers and that – and do the design you want, putting a pattern in wherever – and we'll have a look at them and consider doing some of your ideas, like putting* [in] *string beans'.*

Furthermore, children from one of the primary schools visiting the residential field centre had undertaken some class work with their teacher prior to the visit. This involved looking at the centre's website and maps of how to get there, and talking in circle time about what they would be doing at the centre and any fears the children might have. In this case, there was also a meeting with parents to talk through practical details and also to give them an idea of some of the activities that the students would be doing at the centre. One of the teachers explained that:

> *It is an important part of the partnership, to make sure that parents are confident first of all, but also that they are aware of what the children are doing, rather than them getting home and the parents just asking what the food was like.*

At a school with a long-standing relationship with a local farm, where each year group goes to the farm twice each year, planning for forthcoming visits is facilitated because the farmer is funded through the *Farmlink scheme* (http://www.envolve.co.uk/projects/farmlink.html) to spend time in the school working with both groups of children and with individual learners.

Overall, though, the preparation practices seen in this research tended to focus on practicalities and logistics as opposed to issues of curriculum, pedagogy and evaluation. In other words it was more common to see the first one or two items on the list below rather than all of them:

- talking about logistics – arrival/leaving times, lunch arrangements, preparing for adverse weather
- talking about practical content – what goes on during the visit, choices of activities, health and safety
- talking about academic content – how what goes on fits into the curriculum, reinforces/extends existing work
- talking about pedagogies – discussing how to teach and how to share teaching responsibilities
- talking about how assessment/evaluation – how data are gathered/used/shared and fed into follow-up lesson planning.

Follow-up work

During interviews it was clear that most teachers and outdoor educators recognised the need for follow-up work. When one centre-based educator was asked what she felt the children had learnt during their day at her centre, she said:

> *a lot will depend on follow-up back at school… What we give them is a fantastic experience with lots of threads that the teacher could pick up on e.g. predator/prey relations, food webs and food chains.*

A visiting teacher voiced similar feelings: '*Our learning, it doesn't stop with that day. For me it is a building block, so the learning that will happen today could be learnt next week or on subsequent days*'.

When school staff were asked about their plans for follow-up work, a number of issues were mentioned. One primary school teacher saw great value in the way that their day at a field centre had given her class a common experience

that she could draw upon in subsequent literacy work in class. As she explained:

> *We are building from a common base, we have all done this and with this group we can say you have done this and what did you hear and we can take them to other subjects and that will fire off the imagination of the children that find it difficult to write. You know it gives them something and I can support them in that. Rather than go in cold which we do so most of the time.*

This same teacher also saw potential for repeating the kind of listening activity that her class had done in the woods during their centre visit:

> *I would probably use it mainly for literacy… a stimulator for writing, role play that sort of thing. So using different senses like hearing was a way to fire off … I will take that experience and I will develop it.*

Other interviewees talked about possible links to future curriculum work, such as:

- Science - 'We're now on Materials, so it can link to different kinds of materials'
- History - 'We are doing Tudors at the moment and it's [i.e. the topic is] like in the countryside so I might use it for that'
- Art and poetry - 'We can do a lot of art with it, we brought back those little strips and again art can then feed into poetry'
- Cross-curricular work - 'Recycling and reusing – PSHE does a lot on this (we're an Eco School with a Green Flag)'.

In several cases, teachers stressed how the outdoor learning experience represented *'a conglomeration'* of lots of subjects, and so had potential to link with many areas of the curriculum. It was also felt that day and residential visits helped to *'follow up on things that we have started and filter back into things that we will do'*.

In addition, almost all school staff talked about children writing thank-you letters to centres/farms in connection with a contribution to IT and literacy. Also, in the case of schools returning from residential visits, there were plans to carry out mini-projects looking at various historical, geographical and environmental topics, and to do a show-and-tell assembly with songs, using objects from the centre.

From the follow-up research visits to schools some three to four months after the original outdoor experiences, it was clear that most teachers had been able to carry out some kind of follow-up work along the lines described above. There was a sense, however, in several interviewees' responses that they would have liked this to have been more extensive than it was:

> *I did a little bit of poetry work with them which again was good, but I would liked to have taken it further.*
>
> *It would be lovely to come back and say 'Right let's follow up the farm visit for as long as it takes' but it's just not possible.*

This raises the question of the kinds of factors that can hinder follow-up work and effective curriculum integration.

4.2 What are the challenges to curriculum integration?

It was clear from the interviews with staff and students at the case-study schools that building connections between outdoor learning experiences and school-based curriculum was not without its difficulties. The following were commonly-mentioned challenges:

- **the visit taking place after (rather than during) a related module of class work** – As one teacher commented, *'The only trouble with the timing is trying to get the teaching and the planning to coincide with the visit'*. Unfortunately, this was not the case with her class' one-day visit to a local centre: *'We had already finished how plants grow, you see, and we had started light and shadows so we were going back to a subject that they had finished'*. There were even one or two primary school children who were aware of this very same issue. One Year 3 child, for example, explained that *'The only problem is some schools, when they go on an outing day learning about stuff, sometimes they forget about habitats and they stop in English and they go onto something else and that's what happens'*.
- **competing curriculum pressures limiting the opportunities for extended follow-up work –** At least one of the case-study teachers explained how extended follow-up can be curtailed by *'time and the pressures of the primary curriculum in other areas'*. The consequence of this is that (in the words of one interviewee) outdoor visits are *'used'* but not really *'followed up'*. In other words, *'we link it with other subjects and refer to it and write about it through other subjects'*. One deputy headteacher said simply, *'The demands of an overloaded curriculum didn't allow for follow-up work in school'*.

- **students not seeing outdoor visits as connecting with their learning** – It became clear from interviews with students that there were some children who did not perceive their centre/farm visits as learning experiences. Their views were that *'It was fun but I didn't really learn'* or *'It was more like a play day out'*. This, it might be argued, presents another significant challenge to making productive connections between the outdoor experience and learning back at school – one which a thorough preparation might help address.
- **not all members of a class or a year group being able to take part in an outdoor visit** – This was mentioned by staff from the schools that were involved with the residential field centre, and the farm. A teacher explained that the fact that there were significant numbers of children from the two classes who weren't able to take part in the week at the centre *'reduces some of the scope for doing follow-up work'*. Seen from another perspective, however, the fact that not all class members are able to take part in a visit could represent a strong argument for follow-up work in order to help those that were not present.
- **certain kinds of activities being difficult to repeat in the school environment** – School staff highlighted various ways in which certain activities such as pond dipping would be difficult to carry out in the school setting even where they had suitable facilities on or near to the school site. Key concerns here were availability of support staff to ensure adequate supervision, time constraints and concerns about health and safety.
- **outdoor educators having few opportunities to support follow-up work in schools** – One centre-based educator, for example, said she had *'no idea and no time to find out'* about what follow up work the visiting schools might be doing. A member of staff at a city farm shared a similar reflection: *'A weak link might be that we don't know what happens once they leave here'*. Exceptions to this situation were where outdoor providers (i) had outreach workers who were working in and with schools, which made structured follow-up work a possibility, or (ii) had a long-standing regular programme of work with a particular school which involved frequent repeat visits over a period of time.

There are some circumstances where, whilst learning is an important focus, curriculum integration is not, as noted here:

- **teachers wanting students to have a 'special experience' that is different from the usual school curriculum** – Curriculum integration is not a high priority where staff are seeing outdoor experiences as an opportunity for children to experience something quite different. As noted above, this was the case in one case-study school where staff wanted their students' residential stay at a centre to be a *'special experience'* that enabled them *'to step away from the curriculum for a while'*, whilst retaining a focus on learning. In a similar way, some schools use a residential experience that involves sampling a range of topics across the

curriculum as a means of bringing children together (for example, a new Year 7 group).

4.3 How can curriculum integration be enhanced?

As well as identifying challenges, this research has also highlighted a variety of ways in which curriculum integration can be enhanced. These can be summarised in terms of five main issues for consideration, each illustrated with an example and a number of possible strategies from the case study settings in this research (see Table 4.1 below).

Table 4.1 Issues and Strategies for Enhancing Curriculum Integration

Issues to consider	Case-study example	Strategies for enhancing curriculum integration
1. School staff awareness and understanding about the outdoor learning sites and their provision	One primary school teacher's vision of good practice in delivering outdoor learning included: *'good organisation, so you are not just going, but know why you are going and what you are going to do when you get here. And you have a rough idea of how to use it afterwards, so that you don't think 'Oh God I could have done that, or I missed that. So it's not a missed chance'*.	• the provision of clear information to schools through printed guidelines or online web-based materials • telephone or face-to-face discussion between teachers and outdoor educators about learning aims and objectives • in service training (INSET) sessions for local teachers who may wish to bring pupil groups to outdoor sites • clear mechanisms for informing new staff within school about the typical structure and processes of outdoor visits • reflection and discussion about the similarities, differences and potential connections between outdoor and school-based learning
2. Outdoor educators' awareness and understanding about the school-based curriculum	In a similar way, staff at a city farm stressed the importance of: *'working directly with teachers* [in terms of] *going into the staff room, talking to teachers and asking what bits they might like to do, and looking at the QCA documents and planning how you can fit stuff in*.'	• out-reach work with local schools • use of intermediary organisations responsible for networking schools and outdoor learning providers • reflection and discussion about the similarities, differences and potential connections between outdoor and school-based learning • telephone or face-to-face discussion between teachers and outdoor educators about learning aims and objectives • in service training (INSET) sessions for local teachers who may wish to bring pupil groups to outdoor sites

3. Helping students to see outdoor visits as learning experiences connected to their school work	There were certain students within the groups that were interviewed who did not experience their centre/farm visits as learning experiences. Their views were that: *'It was fun but I didn't really learn'* or *'It was more like a play day out'* A similar issue was highlighted by OFSTED (2004, p. 2) who reported that: *'Weaker teaching* [in outdoor settings] *focuses on the activity itself with insufficient attention given to the way the activity contributes to students' learning'*.	• undertaking curriculum-focused preparatory work before an outdoor experience • scheduling outdoor visits during a series of lessons about a particular topic, rather than some time afterwards • providing children with products (such as hens' eggs) or objects (such as things they have made) to take back home or to school after their visit • including formative assessment exercises during and after the outdoor experience • undertaking follow-up activities (such as classroom work, assemblies or displays) soon after the outdoor experience • use of digital images from outdoor visits to stimulate follow-up work in the classroom
4. School teachers' confidence and capacity to teach in outdoor contexts (both by themselves and with outdoor educators)	The outdoor visits observed in this research followed a similar pattern to those observed by OFSTED: *'In the majority of cases where school teachers have a long-standing relationship with the centre, they play a supporting role in lessons, often helping individual students. In some cases, however, school teachers keep to general supervisory duties and do not exploit the opportunities to use their skills and to develop them further when working with specialist outdoor education teachers'* (OFSTED, 2004, p. 9)	• the provision of clear information to schools about expected role of school staff and support staff during visits • joint planning between school and centre/farm staff including the sharing of teaching and learning responsibilities • recognition of the potential benefits of sharing pedagogical skills and contextual and technical knowledge between school staff and outdoor educators • consideration of how teachers and support staff can be helped to develop their skills and knowledge during visits and as part of pre- and in-service training

5. The extent to which outdoor education is embedded in the routine expectations of a school year	One case-study school provided convincing evidence that its outdoor education provision (centred around, but not restricted to, regular farm visits across year groups) was, after seven years of development, now sufficiently embedded to be resistant to financial and other crises. Evidence included testimony from the headteacher about its value, its long-standing nature as a core part of the school, the wide range of teachers involved, the support of, and active participation by parents and the local coordinator.	• ensuring that governors, senior management, and all staff understand the value of outdoor education for students, and support ('own') outdoor education being seen as an integral part of the experience of the school (providing both curriculum and social benefits) • moving from a position where the discussion in the school is about *what* to do and *where* to go, rather than *whether* to do / go • ensuring that the contribution of outdoor education is so understood that it can withstand a change to a sceptical headteacher and/or financial difficulties

Teachers' and outdoor educators' responses to the above issues need to be informed by clear thinking about the nature and purposes of integration. In particular, we would suggest that answers to the following types of questions ought to influence the approach adopted for enhancing curriculum integration:

- What is the **desired focus** for integration? What will it achieve? For example, is it to support learning in particular curriculum subjects, in a non-subject area such as literacy, in a cross-curricular theme such as environmental education, and/or in an extra-curricular area such as inclusion?
- Where is the integration **directed towards**? For example, is it to create connections with work at school, life at home and/or activities in the community?
- To what extent can integration be **planned**? In other words, to what extent are the links known and planned beforehand as opposed to being responsive and emerging from what happens during a trip?
- What is the **purpose** of outdoor learning? In particular, is outdoor learning seen as complementary or supplementary to within-classroom learning? Is the purpose of outdoor experience to reinforce school-based learning, or to extend it?

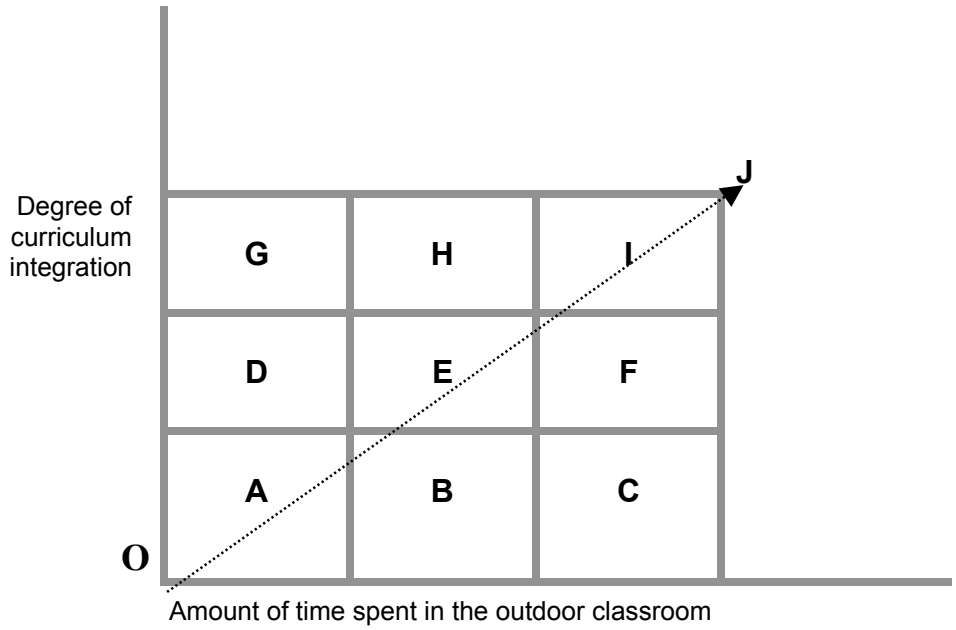
4.4 Towards stronger integration and more effective use of the outdoor classroom

The central argument running through this chapter is that a lack of connection with what happens in the school can limit the benefits of outdoor education. As the House of Commons Education and Skills Committee (2005, p. 6) has argued, '*Outdoor learning works best where it is well integrated into school structures, in relation to both curriculum and logistics*'. This requires measures such as making outdoor experiences a regular structured part of the annual curriculum for all year groups; engendering strong support for outdoor education from senior managers, governors, teachers, and parents; developing meaningful roles for teachers to work alongside specialist outdoor educators during educational visits; fostering ongoing commitment to staff induction and training in relation to effective use of the outdoor classroom; and creative thinking about the range and progression of outdoor learning sites within the grounds, the local area and more distant locales.

Furthermore, it requires a recognition of the fact that efforts aimed at increasing the amount of time spent in the outdoor classroom need to be

matched by efforts aimed at maximising the extent to which such work is integrated with other work in the school. This can be represented diagramatically in the form of a grid (see below).

Different Uses of the Outdoor Classroom



In this grid, the two fixed points of O and J represent two extremes not usually found in UK schools: **O** is where no time is spent using the outdoor classroom (no integration), while **J** is where all the time is spent in the outdoor classroom (full integration). Looking at the squares, though, these can be seen to represent different degrees of use of the outdoor classroom. For example, **Square A** represents minimal or tokenistic use of the outdoor classroom where there is little or no integration with class work. **Square I**, however, represents a situation where considerable purposeful time is spent in the outdoor classroom and this work is optimally integrated with class work.

Taking the example of a school in Square A that wishes to improve its use of the outdoor classroom, there are at least three different strategies that it could pursue. These include:

1) **Increasing the amount of outdoor education** – This would involve the school trying to move from A to C. Without integration, this is not cost effective in the medium to long-term.
2) **Increasing the integration of outdoor education** – This would see the school seeking to move from A to G. Although this is more difficult than simply increasing frequency, the learning outcomes that accrue outweigh

the costs. Furthermore, once some integration is in place, further integration may well be enabled.

3) **Increasing the amount of integrated outdoor education –** This would be characterised by the school striving to move from G to I. The advantage here is that once integration is in place, moving to greater frequency yields dividends in terms of learning outcomes.

On the basis of this research, we would suggest that schools, local authorities and outdoor providers need to be placing as much if not more emphasis on enhancing the integration as they do on maximising the amount of outdoor education. This would seem a key principle for inclusion within the Government's planned *Manifesto for Education Outside the Classroom*.

4.5 Summary

Staff at all of the outdoor education sites recognised the importance of preparatory work with schools. In most cases this involved communication and/or joint planning by school staff and outdoor providers in terms of the focus/content of the visit. Preparation activities with students in school, however, tended to be limited to the practicalities and logistics as opposed to issues of curriculum, pedagogy and evaluation. Exceptions to this were seen in schools that were preparing for longer residential visits or where outdoor educators were funded to undertake outreach work in schools prior to visits.

In terms of follow-up work, staff in all of the case-study schools were able to see and make connections between the outdoor experiences and a range of curriculum subjects such as art, science, history, IT and English and cross-curricular areas such as PSHE and environmental education. In several cases, however, school staff would have liked their follow-up work to have been more extensive that it had been.

Further discussion about this issue highlighted a number of challenges for curriculum integration. These included: outdoor visits taking place after (rather than during) a related module of class work; competing curriculum pressures limiting the opportunities for extended follow-up work; students not seeing outdoor visits as connecting with their learning; not all members of a class or a year group being able to take part in an outdoor visit; certain kinds of activities being difficult to repeat in the school environment; outdoor

educators having few opportunities to support follow-up work in schools; and teachers wanting students to have a 'special experience' that is different from the usual school.

As to how such challenges might be tackled, this research suggests that there are a number of areas in need of attention:

- improving school staff awareness and understanding about outdoor learning sites and their provision
- increasing outdoor educators' awareness and understanding about the school-based curriculum
- helping students to see outdoor visits as learning experiences connected to their school work
- building school teachers' confidence and capacity to teach in outdoor contexts (both by themselves and with outdoor educators)
- enhancing the extent to which outdoor education is embedded in the routine expectations of the school year
- being clear about the purpose of outdoor education in relation to within-classroom learning.

Most importantly, though, schools, local authorities and outdoor providers need to recognise that it is short-sighted to try to increase the amount of time spent in the outdoor classroom without also seeking to maximise the extent to which such work is integrated with other work in schools.

5. The range and effectiveness of approaches to outdoor education: towards a typology

This Chapter aims to hone understandings of the range and effectiveness of opportunities for learning in the outdoor classroom. It is written with those new to the outdoor classroom in mind, to help them find their bearings amongst widely different ways of thinking about outdoor education; and to assist experienced practitioners and policy makers in exploring further possible practice. The Chapter presents a typology that attempts to make sense of approaches to outdoor education and learning, generated from analysis and synthesis of our own research and that documented elsewhere. The typology concerns different educational purposes given to outdoor education and how these could affect what might be learned. A second way of thinking about these issues, the nine categories of interest (adapted from Scott & Gough, 2003), has already been discussed in Chapter 3. At the end of the Chapter, we raise a number of forward-looking issues for the field, while Appendix C sets out different ways of conceptualising the learning aspects of the outdoor classroom at greater depth.

5.1 Why do approaches to outdoor education vary so much?

This study confirms existing findings that learning in the outdoor classroom can vary immensely in relation to purposes, how far it is integrated with school-based activity, where it takes place, who gets involved, and its duration (see Rickinson *et al.*, 2004). It also confirms that such variations can reflect fundamental differences about:

- *what* learning is, how it occurs, and how it can be supported
- *what* (and *where*) the 'outdoor classroom' is
- *how* (and *why*) learning and the outdoor classroom can be associated, and hence
- *what* kinds of teaching activities (and desired learning outcomes), might be given priority, *in* the outdoor classroom.

Further, depending on how each of these is viewed, there are implications for the assessment of learning, and the evaluation of activities.

All this makes an overview of this field of practice of outdoor education difficult – all the more so because there are many ways in which work in the outdoor classroom fits with practitioner needs and the available contexts for outdoor education. This is as true for the settings investigated here (school grounds, field centres and farms) as for other locations. Moreover, contexts, needs and practices are themselves dynamic, reflecting responses to the factors noted in this study and, in particular, to:

- the curriculum and funding of educational provision at national and local levels
- educators' experiences and professional development (in schools and outdoor learning centres and other contexts)
- the availability of appropriate, affordable and accessible outdoor settings, and
- the shifting political and social climate related to taking children out of school for fieldwork, educational visits, and all other forms of experiential education.

5.2 The importance of evaluating practices rather than approaches: towards a typology

The typology presented in this Chapter focuses on the relationship between experiences in the outdoor classroom, the learning that occurs, and the processes that enable such learning. It sets out different emphases that are possible within outdoor education, and how these affect what might be learned. It illustrates a range of characteristics of effective teaching and learning in the outdoor classroom. It draws on the current study, in relation to working with resources, individuals and groups, and on wider issues in both outdoor education, and in education more generally. But before we present and discuss the typology, we raise the importance of focusing evaluation on practices rather than approaches.

This is because the typology is not a 'how to' guide; our work and findings support the view that there can be no 'magic bullet' solutions, as it is clear that effective support for practitioners to develop and design appropriate

approaches to the outdoor classroom has to take different forms, in response to varying patterns of need, interest and context. Thus, the typology is designed to contribute to the process of making value judgements about the worthwhileness of particular activities and programmes. For example, stakeholders involved in using the outdoor classroom may need to make judgements for quite different reasons; for example:

- funders may wish to see some evidence of costs and benefits
- managers might be concerned with the effective organisation of experience
- teachers might be concerned with evidence of learning and overall educational value
- headteachers may need to be concerned about the added value of any experience, and
- policy-makers might be concerned with judgements about the worth of existing and new forms of practice, and whether these might be further encouraged.

Each group will have its own priorities, each will find some forms of evidence and argument more persuasive than others, and each will attribute a different level of importance to the evaluative process of judgement making. Thus, given the nature of this project, the typology relates to a) and b) only, when evaluation refers to a), b) and c):

a) making judgements about:
    - the educational value of work in the outdoor classroom, or the teaching and learning processes, techniques and resources available or in use
    - the overall worth of particular activities, outcomes and approaches.
b) non-judgemental, descriptive and explanatory processes that explore a topic or practice, in order to develop understanding;
c) quality-related processes such as audit or monitoring.

Moreover, it is clear that the notional worth of a particular type of outdoor experience is usually much less important than *how* the experience is related to on-going and subsequent activities (see Chapter 4), how it is organised and managed, and how opportunities are taken 'on the day' to maximise benefits. For example, guided tours should not be judged as necessarily inevitably inferior to experimentation or empirical data gathering; what will matter is how each kind of experience is set up, run and de-briefed, and integrated with in-school work. However, whatever the context, pedagogy or resource used,

thinking critically about the features raised by such a typology can aid successful development, implementation, reflection and hence learning.

5.3 The context for developing the typology of learning in the outdoor classroom

As noted in Chapter 1, the immediate context for this report is: (i) the reaffirmation (for example, DfES, 2004; OFSTED, 2004; House of Commons Select Committee on Education and Skills, 2005) of the important contribution that learning in the outdoor classroom can make to academic and other achievement; and (ii) the re-confirmation of the difficulties of persuading some schools that countering negative perceptions of risk and bureaucratic hurdles can bring academic and wider social benefits.

These recent developments need to be set in the context of a decline in fieldwork of all kinds (Fisher, 2001; Rickinson *et al*., 2004) since the time of the introduction of the national curriculum. Curriculum changes in subject matter, organisation, values and goals, have each contributed to a dramatically changed 'educational landscape' within which learning in the outdoor classroom can take place. Another factor is the long-standing concern about whether young people have an appropriate understanding of food, farming and countryside issues, and how these might be better developed through outdoor education.

In this study's focus groups, the particularly significant factors influencing the provision and take up of learning opportunities in the outdoor classroom were identified as:

- centralisation of educational planning, assessment, and curriculum development (for example, Literacy and Numeracy Hours, OFSTED inspections, introduction of Citizenship and Education for Sustainable Development into the National Curriculum)
- whether funding is available to the non-formal education sector (for example, through Defra's Environmental Action Fund)
- new means of teaching and learning (for example, through information and communication technologies)
- shifts in employment structures and the workforce (for example, threshold payments, teacher training and early retirements)

- new movements in the theory, investigation and evaluation of learning, particularly with the world outside the classroom in mind (for example, regarding the role of significant life experiences in shaping learner's experiences, the 'gaps' between environmental knowledge, attitudes and behaviours, and the importance of formative assessment for developing and enhancing teaching and learning).

We also note that many outdoor educators have been members of schools, outdoor learning centres, professional bodies, unions, and so on, throughout this period of change, and that their thinking and practice has inevitably been influenced by their experiences. Thus, although approaches and pedagogies have changed, there has also been resistance. For instance, we have found that some outdoor educators want to continue to use practices that are now, because of changed contexts, perceived as risky, and some of these practices continue where sufficient changes can be made to satisfy the increasing demands of regulators.

Given all this, we also note that for teaching and learning in the outdoor classroom to make sense, it requires some continuity with its past, and hence the origins and concerns of outdoor learning over the years. An important question, then, is how can there be appropriate continuity in outdoor education in the face of pedagogical and societal change, other than through simple repetition? Further questions of this kind include:

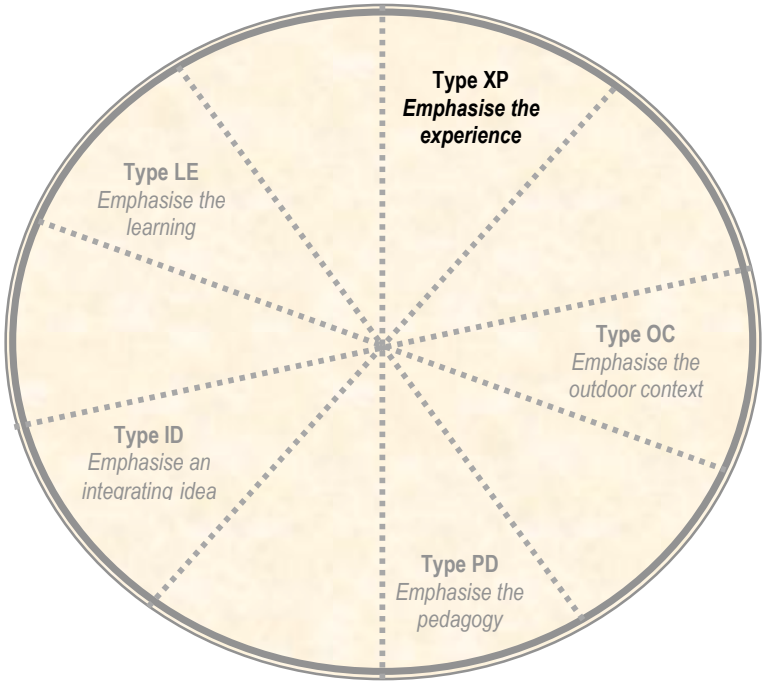
- What is the significance of changes in the context of the outdoor classroom, especially in the context for learning?
- What is the importance of learning in the outdoor classroom for a proper appreciation and response to the changing context of learning in the indoor classroom?
- Might it be that effective learning in the outdoor classroom enables a creative way of coping with pressures on indoor schooling in the 21st century?

The rest of this Chapter addresses such issues, focusing on opportunities and constraints relating to learning through a discussion of how a typology enables an evaluation of approaches to and outcomes of outdoor education. The Chapter concludes with a summary of key points raised by the typology for the field.

5.4 The typology: Balancing the outdoors with learning?

Questions such as those outlined above are inextricably linked with questions about the nature of learning and about both the nature of the outdoor classroom and how educators might make best use of it. All the empirical examples in this study (and the wider literature) have to deal with this linkage, and in this typology, we note the main emphases. As noted above, a more in-depth conceptualisation of approaches to, and outcomes of, learning in the outdoor classroom can be found in Appendix C.

We start our attempt to make sense of this area with a simple heuristic: imagining a wheel punctured by five different emphases. These range from a focus on the experience of being in the outdoor classroom, to a focus on the learning accruing from being there. We represent this pictorially in this manner, and have highlighted the type that is currently being discussed.



Type XP: places emphasis on the experience *per se,* and typically replicates conventional pedagogical practices in the outdoor setting. There is little or no recognition of the significance of other pedagogical perspectives or of recent developments in the outdoor context, and factors impinging on this. The key emphasis here is on the *experience itself,* and on *familiar*, *tried* and *trusted* approaches to teaching and learning. As a rule of thumb, the more novel the

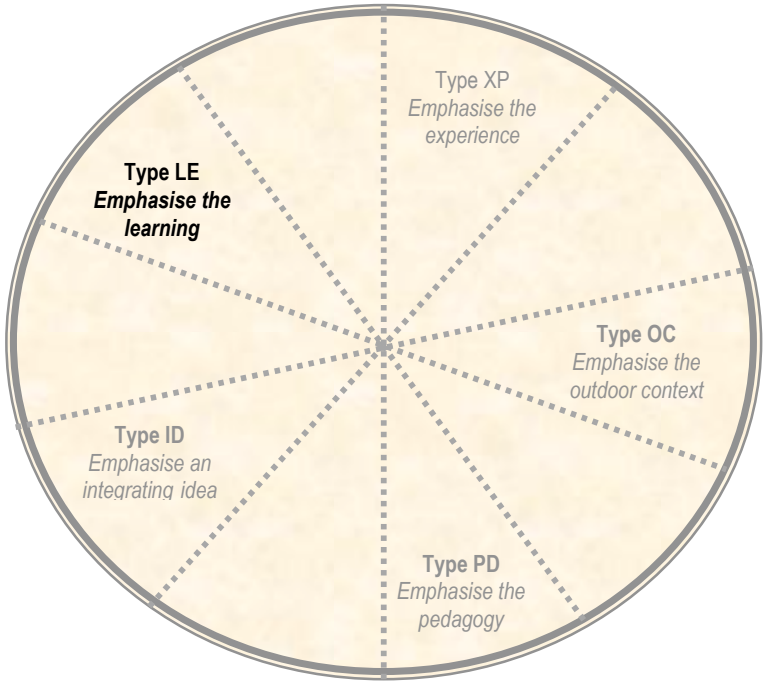
context, the more the experience itself is likely to be emphasised over other factors, where context might refer to the place (for example, a city farm or a field centre), the location (for example, an inner city or an area of outstanding natural beauty), or what is done *in* the place (the lesson or activity). The example of the child milking the goat (Chapter 3) is a case in point; in this instance, it was the milking that mattered – the contact between child and animal – the out-of-the-routine, vivid experience. There may have been no thoughts in anyone's mind about *learning* how to milk the animal, or how to care for it, or even of the child taking up caring for goats as a vocational option.

In such an example, and in our discussions with teachers, other educators and children, the point was made a number of times that sometimes it is the experience in the outdoor classroom that matters most. Being in a hen house with 8000 hens, some of which immediately surround you, or being inside a dimly-lit pig farrowing unit where quiet is essential, are concrete examples from our research of Type XP (and both these experiences are enhanced by a powerful ammoniacal smell – an experience in itself). Other examples in this category are children handling and caring for chicks during an incubator project at a city farm, primary school children cultivating allotments and enjoying the fruits of their labour through tasting and cooking activities, and residential week experiences at farms where young people learn to participate in the day-to-day management of livestock. Such experiences are not only memorable in themselves, but may also help young people turn information into knowledge.

Where particular experience is valued, as in these examples, the argument for retaining them in an educational programme is strong, although there was evidence in our research that sometimes opportunity costs arose from the pre-eminence of the experience. One aspect of this was seen when farm educators, preparing for the arrival of a school party, determined the programme for the day by selecting which parts of the farm the children would visit. Here, the issue was which of these experiences should be selected in order to illustrate the pre-determined theme of the day (in this case: life-cycles). In their selection of foci, there was little consideration of pedagogy; instead the educators focused on context and experience in order to illustrate [deliver] content.

Furthermore, a fixture for all visits to this particular farm was the tractor ride which was occasionally a means of transporting children to another teaching location, but sometimes was just an experience that afforded the opportunity for a few teachable moments and teaching points along the way. Either way, this was an aspect of visits to this location that children (and adults) anticipated positively. Interviewing (disappointed) children following a visit where this experience had not been possible showed just how much that experience mattered to them.

Finally, in introducing Type XP, as we noted at the outset of Chapter 3, an experience which is valued could take place almost anywhere outwith a classroom. When a teacher says: '*Forget everything else, ..., the outdoors, that kind of freedom, running down the hill – that is the kind of quality experience which you can't do in the classroom',* this has little to do with settings like farms, field centres, or school grounds, or what these as institutions or contexts might contribute directly to learning. It is about experience afforded by outdoor learning, and what this can offer to learners might be quite open-ended.

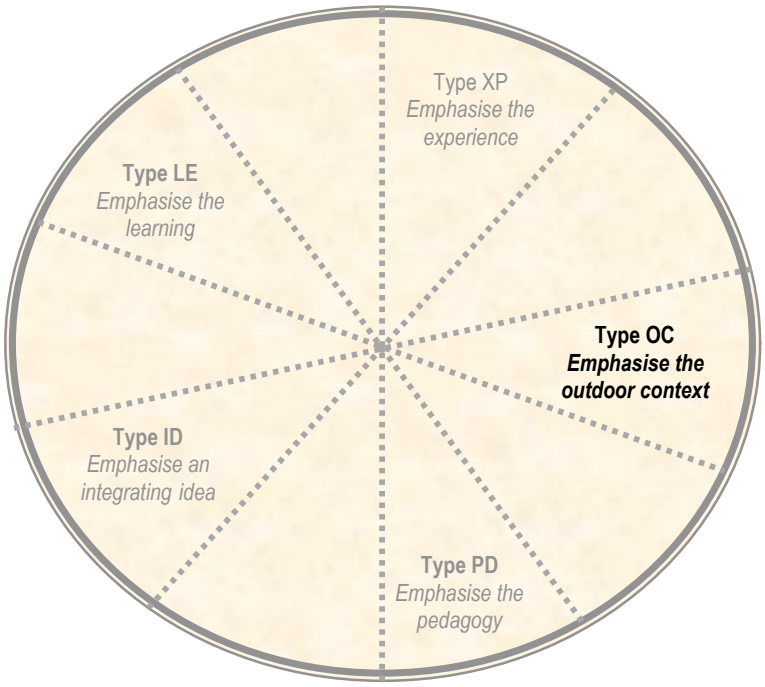


Type LE, on the other hand, gives complete priority to *learning*; an outdoor education experience is only worthwhile if it enables identifiable learning outcomes, and is *really* only worth doing if the learning that is enabled cannot be gained or substituted for elsewhere. Here, the added value provided by the

outdoor classroom is key. In this case, while some outdoor education practices may be worthwhile, the evaluation is always made according to learning criteria which are external to outdoor education and which, in a sense, claim superiority to it. In some ways, this is the reverse of Type XP where new developments in learning can be marginalised. In Type LE, however, it is the context and dynamics of the outdoor classroom that are marginalised because they are only a means to an end. For instance, if the point of bringing the child and the goat together *had* been to learn how to milk the animal, then a visit to a farm (or wherever the goat was) would be fully justified in relation to this Type.

In a similar way, several of the examples of the learning foci outlined in Chapter 3 have little if anything directly to do with the knowledge or skills particularly associated with the countryside, city-farms, or school grounds. Good examples are: (i) learning about social capital through community-based growing clubs, where the horticultural setting promotes both social understanding, and capability, alongside practical skills; (ii) learning about oneself through adventure-activity where, for example, the ability to abseil might be the least valuable thing which is taken away; and (iii) learning about working with others through practical or problem-solving activities, for example, in reconditioning discarded bicycles at an outdoors centre. In all of these cases, we found that the outdoor context is used heuristically and the purpose is beyond the context, although, of course, some context-related learning might accrue simply because the activity took place *in* that context. In a related way, though a course or educational programme might have a particular purpose in mind (for example, examining particular issues relating to the state and dynamics of the rural economy), what is actually learned might be something quite different. In such cases, the memory of the context and experience might be more significant than any learning that was meant to (or did) take place, and hence is judged differently according to each Type outlined thus far.

Clearly, the emphases within Types XP and LE are appropriate to outdoor education; equally, obviously, there must be other perspectives. Drawing on the data collected for this study (both field-based and opinions), and on previous research studies, we argue that there are three of these, and each will be discussed in turn, moving - as it were - from Type XP through to Type LE.



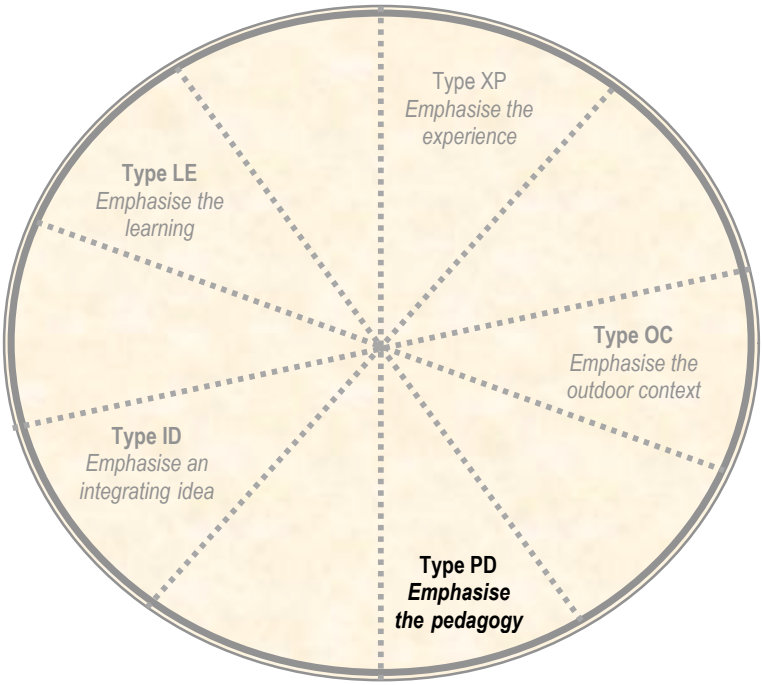
Type OC, in giving priority to the self-description of the outdoor learning community, emphasises that the nature and identity of the outdoor education context is most important, and that other considerations need to be construed in relation to this. Like Type XP, it is being there that matters, not what you do/experience/learn – although what is focused on might enhance or detract from the experience *of* being there. Yet unlike Type XP, it also entails that outdoor education itself be continually rethought in a quest for legitimacy and acceptance by the mainstream, for example, with due reference and attention to school subject teaching, National Curriculum, schemes of work, inspection, Health and Safety, and so on.

The farm educator focus group considered these issues. Observation notes from the meeting recorded that:

> *Some outdoor educators refute the terms of the National Curriculum and develop a separate framework, perhaps drawing on ideas from beyond the educational mainstream, e.g. environmental and ecological ideas and values, like earth education, environmental education, deep ecology, environmental ethics, and so on, in explaining the value and purposes of outdoor learning. Presented to teachers in preparing a visit or during a visit to a site itself, this vision may be acceptable, refreshing and desirable to some working with the national curriculum. To others, it is irrelevant, or ripe for hybridisation with current teaching and learning approaches in exactly the same situation.*

Although the farm education experiences we observed in the study were in large part concerned with content and experience (what was supposed to be learned and the place where this was supposed to happen), there was also always some emphasis on an integrated (and integrating) rural/countryside/agricultural context, which was undoubtedly helped by the fact that FACE (with its emphasis on farming *and* countryside) was a prominent partner in the activities. Throughout there were reminders of the role of the countryside in the economy and life of the country. Nor was this a particularly 'farm/city-farm focus', as we saw in Chapter 3, where a teacher is quoted as saying: '*I want the children to have the opportunity of seeing the countryside, having fresh air and experiencing it for themselves ... see nature and appreciate it* ***and look after it***.' (our emphasis). Here, the ulterior motivation is clear; in this case, the protection of the context. A teacher visiting a field centre said much the same thing: '*if ... it comes to someone in the future who is going to concrete over an area like this then they will remember that it should be there for other people. To give them a taste of their local environment in the hope that it will make them want to look after it.'*

An additional observation on Type OC requires recognising the argument for working with as authentic an organisation as possible. Farms that are no longer 'working', that have traded agricultural for educational activity, risk compromising authenticity to the detriment of the context for learning. Likewise, the Growing Schools evaluation project (Scott *et al.*, 2003), for example, argued that it was important to engage with working rather than 'show' farms as the purpose of the latter seemed to be to demonstrate the very thing that was no longer happening; the equivalent, perhaps, of first-nation peoples getting government jobs explaining to (eco) tourists what life used to be like – how they used to live.



Type PD represents a shift towards Type LE and away from Type XP, but does not form the final type within this spectrum of approaches. Its distinctive emphasis is the focus on those pedagogies that bring conventional outdoor education practices and goals into dialogue with contemporary educational priorities, and attempt to blend the two in a variety of ways. Unlike aforementioned Types, there is no claim here for any overarching integration of 'outdoor' with 'indoor' education. Nor would its proponents seek to subsume indoor learning within outdoor educational terms, or exhaustively present learning in the outdoor classroom in specifically 'indoor classroom' terms, like with Type LE. As a distinct Type though, it can, however, take the form of matching National Curriculum priorities with opportunities for learning in the outdoor classroom where outdoor education shapes outdoor learning practices and approaches *in dialogue with* current educational practices and priorities.

This extract from notes from a city farm visit illustrates these issues:

> *Staff use the outdoors for work around citizenship, literacy, scientific investigation, art, etc., whilst using the languages and grammars of these subjects to inform curriculum planning and stressing some 'value-added' to the enterprise through engaging in outdoor learning.*

Moreover, the teachers from schools that visited a field centre said that the activities that worked best for them were the ones that were most structured and focused: '*…it needs to be structured. There were times when they were just allowed to go and investigate, but then they were brought back together – in fact, a bit like a lesson: 10 minutes introduction, 20 minutes on their own and then 10 minutes bringing it back. This is important.'* Another said: '[it was helped by] *the fact that it was a simple focused task with clear rules*'.

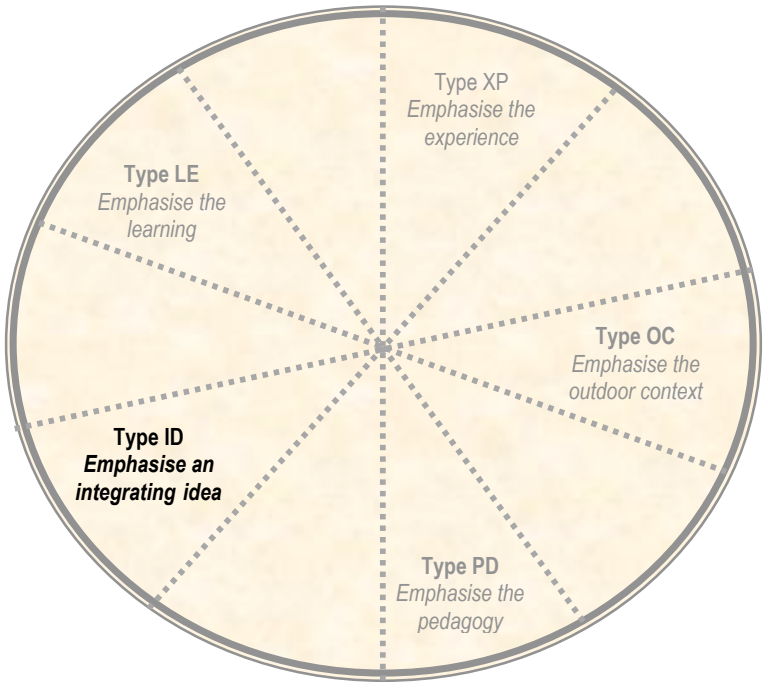
Throughout, we have found recognition for the role of the outdoor educator in mediating experience and facilitating learning during visits to farms and field centres. The importance of asking questions was one aspect of this role, and is indicative of this Type. One teacher said: '*students need prompting and questioning. They need probing questions, and to be led to certain aspects',* and approved of the way that '*the instructors responded to the children's questions and ideas'*. The importance of this was also recognised by the outdoor educators themselves: *'This was helped by asking questions to make children think about what they've got e.g., "Is it the same as?" "How is it moving?" "How many legs has it got?"'*.

Students themselves appreciated the knowledge that outdoor educators shared with them during visits. Speaking about what they enjoyed about their work at a city farm, one aspect a group of Year 6 children highlighted was: '*The staff that's there … They help you out if you get stuck and you don't know what to do. They will come and give you a job to do*'. These children also commented on the way *'the teachers know the names of things'* and how *'we don't just get shown broccoli and cabbages, all we knew, but we're shown* [different] *strawberry flavours'*.

Associated with asking questions was pointing out and explaining particular aspects of the countryside or environment. One of the teachers interviewed, for example, valued the way that *'the instructor focused on little things that make it memorable – like the tadpole in the tray and blowing off the 'goat's beard' plant'*. From the perspective of one of the farm educators, this was seen in terms of being *'flexible enough to go down that road and say 'I might want to take a look at this''*. Unlike other Types though, in doing this, it was also important for outdoor educators to recognise that *'sometimes we're so removed from their* [the students'] *environment that you can lose them'*. The following example came from a farm educator:

Like I would say, 'If you look outside the gate you'll see a stile and that's a public right of way which you would normally use', and then the teacher said to me, 'They won't know what a stile is'. So on the way out you stop and explain why the stile is there, what it's there for, etc.

Finally in commenting on this Type, we note that one of the ironies of work on the farm was that the people who knew most about pedagogy – getting the most learning out of experience (the teachers) – were the ones looking after pastoral/discipline issues, whilst those who knew much less about teaching approaches were responsible for planning activities and working with children. Here, it was *content/context knowledge* rather than *pedagogical content knowledge* that was valued; that is, subject matter and the best context for its exploration took precedence over thoughts as how best to teach and learn, in large part because of teachers' unfamiliarity and lack of confidence in the farm *milieu*. It is probably in the unique environments (farms, wild areas, etc) that this separation most readily occurs; the issue is much less likely to occur in school grounds or locality, as these are places where both teachers and children are likely to have content/context knowledge which will be broadly complementary if not near identical.



The final category to be presented, **Type ID**, foregrounds one or more integrating features: for example, the emphasis is on an issue/problem, theory/idea or conception, as a way of integrating work in the outdoor classroom with an understanding of education. This is different from both

Types PD and LE in that advocates of this approach see it as doing justice to both learning outdoors *and* education more generally. A productive way of achieving this is to (re)interpret outdoor education in terms of a contemporary interest or concern; for example, sustainability themes in relation to environmental or social justice issues; the reintegration of students or voluntary work in relation to wider formal educational provision tackling issues related to inclusion; or constructivist learning approaches in relation to school science related pedagogies in the field. We consider one such integrating feature in more depth here, given its relevance to wider trends in education at present: the intention to educate the whole person through links that outdoor education can make to Personal, Social and Health Education (PSHE) and Citizenship.

During the research, and in particular in the focus group discussions, it was rarely the case that an activity was discussed solely in terms of academic learning. Much was being made of personal and social benefits, such as learning to understand, nurture and care for the world around us, understanding the rural-country relationship, or appreciating ethical issues associated with animal rearing. In this sense, education in the outdoor context was often cited as the (literal and metaphoric) ground for a transformative experience where new relationships (e.g. teacher-student, student-student, student-environment, student-community) might form, and old patterns of behaviour be discarded. In many cases, outdoor settings were viewed as ideal(ised) learning environments for students to make progress in terms of personal and social achievements. By contrast, (i) the indoor classroom was sometimes viewed as a place where relationships and role models (often, teacher-student, student-student, student-adult, student-wider world) tended to remain static and (become) difficult, and consequently, as (ii) a situation that a visit to the outdoor classroom might remediate. Examples from the project data of such personal benefits that might accrue from outdoor education are categorised in terms of their focus (and examples) in Table 5.1.

Table 5.1 Personal and social benefits of purposeful educational activity in the outdoor classroom

A.	**Developing understanding of transactions between people and environment:**
	• 'Treating animals with care and sensitivity, caring for animals, giving them food water, and keeping them clean' • 'Learning to respect the natural world' • 'Feeling a sense of belonging in the countryside and that this is a place they can return too' • 'Being part of various groups and communities, urban and rural' • 'Understanding how whole communities work and the link between urban and rural within their own community' • 'Providing new role models for children (for example, the male farmer helping to birth lambs)'
B.	**Encouraging personal responsibility; engendering confidence**
	• 'Learning to have a go' • 'Building confidence and self esteem' • 'Taking pride in what you have done' • 'Being able to organise themselves' • 'Children who are often difficult in the classroom find new ways to shine'
C.	**Facilitating self-discovery**
	• 'Being taken outside the comfort zone' • 'Learning about themselves and who they are' • 'Enjoying something they didn't think they would enjoy' • 'Fuzzy science – (learning about) a world which is not black and white' • 'Learning to touch living creatures; overcoming fear' • 'Overcoming their fear of wilderness'
D.	**Developing interpersonal skills; challenging stereotypes**
	• 'Working together as a team' • 'Working with others on a problem' • 'Arguing things out' • 'Appreciating other perspectives' • 'Learning to live together' • 'Changing power relations with their peers' • 'Learning that different environments can alter the balance of power and show different sides to people' • 'Breaking down stereotypes about people living and working in the countryside'.

It is clear that many of these benefits can be directly related to attainment targets in the PSHE and Citizenship Orders. However, it is equally clear that outdoor educators feel a conflict between their perception of what schools want (viewed as academic objectives) - and what they feel best able to provide, typically thought of in terms of the opportunities and outcomes listed in Table 5.2. For example, one outdoor education provider spoke about the need that they felt to: '*Fit the national curriculum into everything',* and this sentiment was echoed or tacitly agreed to by many in the outdoor educator focus group.

While relevance to curriculum orders was seen to be important in justifying participation in outdoor education, in the focus groups and in the case studies it was generally regarded as restricting the kinds of outdoor experiences (and hence learning) that could take place. Many research participants saw the PSHE and Citizenship Orders as a way around this conflict, and the introduction and valuing of these subject areas by teachers and schools was thought to help legitimise and channel the efforts of outdoor educators. In such perspectives, participants also expressed a view of the indoor classroom as a place where, generally, less PSHE-related learning could take place, owing, to a perception (rightly or wrongly) of an over-riding need to focus on content-related areas in teaching and learning. There is a dilemma here: whilst the outdoor classroom is eminently well-suited to bring about learning relevant to PHSE/Citizenship, schools tend to justify outdoor education in relation to the subject curriculum. It is probably just another way of saying that schools explicitly value (or find that it is in their interests to value) the subject curriculum over PHSE/Citizenship, but where does this leave the providers of outdoor education?

5.5 Across the types

We are aware, of course, that typologies, however constructed, are too neat – in this example, the Types are not necessarily fully discrete, and more than one emphasis can be pursued at any time. However, developing a typology does allow us to consider how those interested in learning through outdoor education can have differing assumptions about purpose, priority and process. It also helps map the main possibilities in relation to the core issue in all outdoor learning: *the productive interaction needed in using the outdoor*

classroom for learning. Further, it may well be that whatever one's preferred (or formally espoused) 'Type', the quality of an individual's or institution's outdoor educational practices remains linked with those who might seek to categorise their work differently: for example, an outdoor education centre, by definition, may be involved in education focusing on Types OC [outdoor context] and PD [pedagogy], while intellectually and pragmatically, staff members may be participating in all five to ensure a plurality of activities, funding streams, and audiences for its work. Similarly, teachers may justify their involvement and that of their students in terms of Type PD, while they value and evaluate the outcomes of the outdoor education experience in terms of Type OC. Further, as we noted above, all are important, each complements the others, and all contribute to the totality of the learning experience.

This leads to a final observation on the typology, namely, that many of the deepest differences about important matters – and even whole ways of approaching and thinking about outdoor education – cut right across the Types; for example, in terms of:

- matters relating to the role of lesson planning
- conceptions of the 'outdoors', including the continuing importance and special significance of the natural environment, the rural and the countryside
- the remit of outdoor education and how it integrates with – and influences – indoor education
- pedagogical relationships between students and staff in outdoor settings (including matters of personal and pedagogical authority, integrity and controversy with different user groups, like young children, youth services, and young offenders), and
- the conditioning, criticism and development of outdoor learning by its shifting contexts and interests (political, social, economic, and so forth).

These issues are further explored in Appendix C through discussing ideas around how people learn (and might learn) in outdoor settings, but further commentary is also needed here before concluding this Chapter.

5.6 Categorising approaches to outdoor education – and learning

As the examples throughout this report show, there is no adequate substitute for practitioners engaging with real world issues, where the selection and shaping of outdoor teaching and learning content – alongside the intensive grappling with the above cross-cutting questions – swallow up formal and abstract concerns about the mapping of Types.

Nevertheless, returning to the key terms that are used in this report, outdoor education (i.e., that which gives rise to learning in the outdoor classroom) describes the use of the outdoor setting to support, facilitate and enhance learning practices effectively and efficiently. Yet it is important to ask what, in all possible worlds, can be meant by such terms? 'Theories of learning' provide empirically-based accounts of the variables, factors and contexts which influence the learning process, and provide explanations of the ways in which that influence occurs. Thus, they offer grounds for evaluating the learning that occurs outdoors, and broadening and reviewing our perspectives on what works, and might work. For example:

- from some perspectives, it will be important to ask: *does outdoor education foster engagement in learning processes, support the development of learners' skills, motivations and knowledge, and promote further learning*?
- from others: *is the delivery of information efficient? and*
- in others: *how are the needs of learners and intended learning outcomes taken into account in using this learning environment*?

Pedagogical frameworks describe the broad principles through which a theory can be applied to learning and teaching practice, and models of 'outdoor learning' can then describe where the outdoor setting plays a specific role in supporting learning. These can be described both at the level of pedagogical principles *and* at the level of detailed practice in implementing those principles. An additional typology in this context would do well then to propose a mapping of learning theories (see Appendix C), pedagogical frameworks, and models of outdoor education.

Having said that, we are firmly of the view that the sector should not be seeking the identification of models of outdoor education *per se* – only

applications of existing models of learning to education in the outdoor context. That is to say, pragmatically and strategically, it is important to conceive of *outdoor education as principally about using the outdoor classroom to achieve better learning outcomes, or a more effective vehicle for such outcomes, or a more cost-effective way of using a learning environment with learners*. Another way of viewing this is set out in Table 5.2:

Table 5.2 Reasons to use the outdoor classroom

Purpose	Example
• adding value to teaching that could be reasonably effective *in* the classroom	*Using a key to identify organisms brought into the classroom*
• extending / developing / completing work begun in the classroom	*An empirical ecological investigation in an authentic setting; e.g. a rocky shore*
• teaching that is more effectively done outside the classroom than in	*Growing vegetables on an allotment or in the school grounds*
• teaching using experiences that could not occur inside the school	*Experiencing and studying in a working farm.*

Thus, it is all the more important, when implementing outdoor education approaches, to be clear about underlying pedagogical assumptions. As we noted at the end of Section 4.3, is outdoor learning seen as complementary or supplementary to within-classroom learning? Is the purpose of outdoor experience to reinforce school-based learning, or to extend it? And, as we illustrated in relation to the typology, any way of thinking about outdoor education needs to demonstrate on what pedagogic principles the added value of the 'outdoor classroom' is operating.

For example, there is a genuine example of added value where the 'outdoor classroom' allows learners to interact with the outdoors and each other, and with representations of the subject matter, in ways that could not be achieved *in* the classroom. However, the role of the 'outdoor classroom' here is primarily to get learners into a position (again, literally and metaphorically) to learn at least as favourably as they do in an indoor setting, rather than offering what amounts to a new teaching method. In such a case any enhancement can

be regarded as pragmatic rather than pedagogic, achieving effective access to learning – rather than necessarily a new way to achieve deep understanding of an outdoor learning-related concept, skill, experience, and so on. Even something that looks like a new mode of achieving learning outcomes, like an extended residential visit at an outdoor education centre, for example, may represent only a small incremental advance in pedagogic terms – though its educational value (academic and wider achievements) may be enormous if it could be exploited through an educational infrastructure which integrated its use with other quality assured methods. It is important, therefore, not to take either too narrow (or broad) a view of what constitutes outdoor education, or of where its main value might lie.

Finally, it seems reasonable to expect that teachers and outdoor/farm educators might have different views on the importance of different models of learning. For example, from the focus groups and case studies we have some evidence that farmers and farm educators emphasise context (after all, farms are distinctive places) and experience (the uniqueness of being on a farm), and there is evidence of some field centre staff, with their more extensive educational background, particularly from the action research, emphasising pedagogy (and curriculum) and being able to use an integrating idea to focus educational activity. We have made the point that each of these perspectives has much to offer; the challenge is to find approaches that will capitalise on the strengths of each whilst foregrounding considerations of learning.

This need for a fuller focus on learning is explored in Appendix C.

5.7 Key issues raised by the typology

The typology highlights the following four important features for supporting learning in the outdoor classroom:

- **Contextualisation**: acknowledging the realities of the educational setting; tackling pertinent, real life issues; addressing relevance to the [national] curriculum and wider learning goals; encouraging indoor and outdoor education practitioners to create, adapt, re-use their own resources
- **Promoting good learning design**: supporting well-informed approaches to the use of outdoor classroom; taking account of the language, values, culture and priorities of a particular audience

- **Promoting professional learning**: enabling individuals or groups to do something new or differently by learning from experience, action taking, and peers/others, through reflection, problem-solving, etc on the learning accruing from work in the outdoor classroom
- **Working with communities of learners and practitioners**: supporting learning and change in those communities by addressing the dynamics of contexts, needs and practices in terms of their effects on:
  - the curriculum and funding of educational provision at national and local levels
  - educators' professional experiences and development in schools, and outdoor learning centres and other contexts
  - the availability of appropriate, affordable and accessible outdoor settings, and
  - the shifting political and social climate concerning taking children out of school for fieldwork, educational visits, and all other forms of experiential education.

The typology was developed from reflection on the experience of this study and a larger body of work and evidence, and serves to illustrate the relevance of these four features through a range of ways that practitioners might access ideas about learning in the outdoor classroom, in order to aid decision-making and action-taking in that setting. As well as providing different viewpoints on the work of this project, we hope readers find the typology (and Appendix C) useful as sources of new ideas or as tools for planning, structuring and evaluating outdoor classroom activities, and that further exploration of the issues they raise will prompt thinking and conceptual clarity when planning and evaluating developments to support outdoor learning.

For example, a school or outdoor education provider might review the typology in terms of which Types are currently used, which Types they would prefer to use, and how change in Types might be brought about. This might be augmented by discussion of enabling factors and barriers for good practice; or levels of consensus about shared aims in relation to Types, and how they compare or contrast with perceptions and/or evidence of other stakeholders in outdoor education, including other 'users' of outdoor learning activities (teachers, students, community members, parents, funders, and so on). A third option might be to consider how the outcomes of the review might help in the planning of sessions, staff training or continuing professional development for new or experienced staff at schools and outdoor settings. Finally, discussing and evaluating the impact of the four features outlined above on expected and actual practice, in terms of examples and processes of the planning, structuring

and evaluating outdoor classroom activities should also bring closer engagement and attention to the issues raised by the typology and the Types themselves.

5.8 Summary

The typology presented in this chapter attempts to make sense of different approaches to outdoor education and expand understandings of the opportunities that the outdoor classroom provides. They concern: (i) different educational purposes that outdoor education can have and how these could affect what might be learned; and (ii) different ways of thinking about how learning occurs, the assumptions that these rest on, and how such thinking can inform outdoor education. The typology is designed to contribute to the process of making value judgements about the worthwhileness of particular activities and programmes.

Five different types of emphasis are represented in the typology: the *experience*, the *outdoor context, pedagogy*, an *integrating idea*, and *learning*. The Types are not necessarily fully discrete, but whatever one's preferred 'Type', all make important contributions to the totality of the learning experience. Furthermore, many of the deepest ways of thinking about outdoor education cut across the above types. However, their differences do allow stakeholders to consider how there can be differing assumptions about both priority and process, and to map the main possibilities in relation to *the productive interaction needed in using the outdoor classroom for learning.*

The typology highlights four important features for supporting learning in the outdoor classroom:

- *Contextualisation*: acknowledging the realities of the educational setting;
- *Promoting good learning design*: supporting well-informed approaches to the use of outdoor classroom;
- *Promoting professional learning*: enabling individuals or groups to do something new or differently by learning from experience;
- *Working with communities of learners and practitioners*: supporting learning and change.

We hope the typology will be useful as sources of new ideas or as tools for planning, structuring and evaluating outdoor classroom activities, and that further exploration of the issues they raise will prompt thinking and conceptual clarity when planning and evaluating developments to support outdoor learning.

6. Recommendations

6.1 Introduction

This research was commissioned at a time when there was growing concern in many quarters about the impact of the negative perceptions of both the potential risk and the bureaucracy required in taking school pupils in to the countryside. Several bodies have reaffirmed the important contribution that learning in the outdoor classroom can make to academic and other achievement (for example, DfES, 2004; OFSTED, 2004; House of Commons Select Committee on Education and Skills, 2005). Another factor taken into account in commissioning the research was the continuing concern about young people's understanding of food, farming and countryside issues, and how these might be better developed through outdoor education (Dillon *et al.*, 2003).

These recommendations, which are based on our research and on our review of the relevant literature, do not assume that we are starting with a blank slate. There are a range of effective programmes, initiatives and strategies already in existence. We see much potential for this good practice to become more widespread. A case in point is the Growing Schools Programme which has, so far, involved more than 15,000 schools participating in activities as well as requesting resources and advice on the 'outdoor classroom'. The scope of the programme includes farming and the countryside, science fieldwork and growing fruit and vegetables in school grounds.

In terms of developing outdoor education across the country, we agree with the House of Commons Select Committee on Education and Skills which noted: *'What is needed is a coherent strategy for education outside the classroom that brings together good practice from around the country, rather than a small number of limited, if worthy projects.'* (Select Committee, 2005, p. 32). To this end, and in connection with the Government's proposed *Manifesto for Education Outside the Classroom*, we have made a series of recommendations.

6.2 Recommendations

1. The DfES, local authorities and other agencies should aim to further raise school staff awareness and understanding about the range of outdoor learning sites and the outdoor education opportunities they offer.

2. The DfES, local authorities and other agencies should seek to further develop school teachers' confidence and capacities to work with students in outdoor contexts (both by themselves and with outdoor educators). Such an initiative would require the status of the full range of personal outcomes of outdoor experience to be raised substantially.

3. School governors, headteachers and teachers need to enhance the extent to which outdoor education is embedded into the routine expectations and experiences of the school, so that it becomes an established and normal part of 'what we do here'.

4. All involved in outdoor education should further develop their awareness and understanding of the national [school] curriculum and how outdoor education can contribute at different key stages to realising its goals.

5. Teachers and other outdoor educators should consistently aid students to understand how what they experience in the outdoor classroom connects to, extends, and reinforces their in-school work.

6. Schools, local authorities and outdoor providers need to optimise the extent to which work out-of-school is integrated with work in school before they try to increase the amount of time spent in the outdoor classroom.

7. All concerned need to be much clearer about how (as well as what) outdoor education can contribute to pupil learning. This should involve a greater conceptual understanding of ways that students can learn in the outdoor classroom.

8. All decisions about the organisation of teaching in the outdoor classroom should take ideas about how students learn into account when considering what they will focus on and the experiences they will have.

9. Government departments and research funders must take seriously the need for a stronger and more accessible evidence base on outdoor learning. The recommendations of the recent Learning Working Group concerning innovative programmes of development and research deserve the attention of practitioners, policy-makers and researchers within the outdoor learning field (see DEMOS, 2005).

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APPENDIX A. Research Design

The research design addressed the overall aim by grouping the research questions (RQs) set out in the invitation to tender in relation to two aspects of outdoor learning: a) the process and impacts of outdoor learning; and b) its planning and evaluation, as follows[4]:

a) The process and impacts of outdoor learning

RQ1. What are the academic, social and personal benefits of a *purposeful educational* visit to a countryside venue?

RQ2. What *strategies are successful in surmounting* the barriers that prevent or impede pupil learning in these contexts?

RQ3. What *successful* learning experiences within and beyond the curriculum are taking place?

RQ4. How effective are the different resources and activities used to *facilitate learning* in outdoor contexts?

b) The planning and evaluation of outdoor learning

RQ5. How best can *such* learning experiences be delivered both economically and effectively?

RQ6. Which *research*/evaluation tools most effectively provide the evidence that food, farming and rural contexts enhance pupil achievement and progression (particularly for groups of students such as the disaffected, ethnic minorities and those with special educational needs)? What are the best ways to collect evidence for other educational/behavioural benefits?

RQ7. How can schools be assisted to identify *the most appropriate learning experiences, and include them* into their curriculum plans?

The research strategy utilised a multi-strand approach, and each of the strands focused on different research questions, as described in further detail below.

Strand 1: Case-Study Research

This strand focused particularly on research questions 1, 2, and 3, and involved in-depth qualitative investigations into the processes and impacts of outdoor learning activities in the three research contexts (school grounds and gardens, farms and city farms, field study/nature centres and parks). Six

[4] The research team's additions to the questions set out in the invitation to tender, compiled by the Countryside Agency, DfES and FACE, are indicated in italics.

outdoor learning sites were selected (two schools, one farm and one city farm, and two outdoor centres), on the basis of:

- **diversity of contexts and organisations** – within each of the outdoor learning contexts (school, farm and centre), two contrasting sites were selected (for example, city farm and rural farm)
- **interesting practice** – organisations that were known or recommended (by relevant national bodies) to be involved in interesting and innovative practice
- **accessibility** – organisations that were keen to participate and geographically accessible to the research team.

In order to explore the experiences of students and teachers visiting these outdoor learning sites, two schools visiting each of the farms and outdoor centres were also identified. Together, the outdoor learning sites and schools were selected to ensure that, where possible, they represented a mix of:

- **outdoor learning contexts** (school grounds, farms, centres)
- **age ranges** (Key stage 2, 3 and 4)
- **curricular foci** (for example, curriculum subjects, cross-curricular themes, extra-curricular activities)
- **type of students** (for example, social class, ethnic backgrounds, educational needs).

A profile of the outdoor learning sites and schools involved in this strand is shown in Table 1.

Table A1. Strand 1 Outdoor Learning Sites and Participating Schools

Type of site		Type of school	Age of children
Centres	Day visit centre	Rural, village primary	Years 3/ 4
		City, EAZ, primary	Years 3/ 4
	Residential centre	Primary, economically disadvantaged area	Year 4
		Rural, village, primary	Year 4
Farms	City Farm	Town, primary	Year 6
		Town, secondary	Year 10
	Farm	Town, EAZ, primary	Year 3
		Town, EAZ, primary	Year 5
Schools	Primary school	City, Primary	Years 1-6
	Secondary school	City, Secondary	Years 7-11

Research visits were carried out to the six outdoor learning sites between May and July 2004 - these visits involved seven schools that were attending the farms and outdoor centres. In the case of the farm, the research focused on children of different ages that went to the farm from the *same school.* Hence, the total number of visiting schools was seven rather than eight. Interviews were carried out with the outdoor educators from each of the sites and with school teachers present at the visit. Group interviews with up to six students from each school took place either on the same day as the visit or one or two days after, at the school.

The interviews, based on an agreed proforma of questions, explored the range of teaching and evaluation strategies being used at the outdoor learning sites, the school's aims for these visits, and the extent of preparation and planned follow-up work relating to the visits. They also explored interviewees' views on the activities they had been involved in, the factors which facilitate or hinder learning, and the benefits of the visit for students and staff.

Follow-up visits were undertaken in autumn 2004 to six schools to investigate students' and teachers' *post-hoc* evaluations of the visits to outdoor education sites and to explore the nature and extent of follow-up work undertaken.

All interviews were either audio taped and transcribed in full, or notes were taken by the interviewer according to the key research questions.

Strand 2: Action Research

Strand 2 focused on all the research questions. It involved a small group of teachers, field study centre staff and farm educators carrying out small-scale investigations in their own outdoor settings. It involved six outdoor learning sites (two schools, a farm and a city farm and two centres). The **six outdoor learning sites and the action researchers** were selected on the basis of:

- **diversity of contexts and organisations** – within each of the outdoor learning contexts (school, farm and centre), two contrasting sites were selected (for example, city farm and rural farm)
- **interesting practice** – people and organisations that are known or recommended (by relevant national bodies) to be involved in interesting and innovative practice
- **accessibility** – people and organisations that are keen to participate and geographically accessible to the research team.

Overall, the aim was to ensure a mix of:

- **outdoor learning contexts** (farm/city farms, centres, school grounds; urban, suburban, rural)
- **age ranges** (Key Stage 2, 3 and 4)
- **curricular foci** (for example, curriculum subjects, cross-curricular themes, extra-curricular activities)
- **type of students** (for example, social class, ethnic backgrounds, educational needs, etc.)
- **female and male staff**, with a range of experience and backgrounds in 2-3 subject disciplines and sectors.

In particular, the research team has tried to ensure that people and organisations were selected who were eager and prepared to work with the team, and involved in outdoor learning practice that the team, and the other action researchers, could learn from. The strand involved an initial contact stage, followed by action research workshops drawing on reviews of activities and strategies employed by the participants. The focus of the action research undertaken at each of the outdoor learning sites is outlined in Table 2.

Table A2. Strand 2 Outdoor Learning Sites and Action Research Undertaken

Type of site		Focus of Action Research	Evaluation strategies used
Centres	Residential centre	Improving and using evaluation data from residential visits	Interviews with children exploring the most important thing they learned on their visit. Different strategies for undertaking these interviews have been explored (e.g. change of location)
	Day visit centre	Evaluation of a project aimed at inspiring students to take action for their environment in their own schools and communities	Semi-structured interviews with teachers/ focus groups with young people, exploring the impact of the project
Farms	City Farm	Teaching Citizenship (animal and human rights) to Year 4 students	Trying out different teaching strategies for delivering activities related to Citizenship
	Farm	Teacher training and subsequent school visit by primary children	Discussions with teachers about their needs and about the success of the visits

Schools	Primary school	Evaluation of Growing Clubs initiative	Survey of teachers, exploring the benefits of outdoor activities for children, and teachers' reasons for making use of school grounds
	Secondary school	Evaluation of pupil learning after the creation of a sustainable garden	Questionnaire to all students involved one year after taking part

The initial phase of this strand, **identifying action researchers** (by phone, email, etc.), involved consultation and recommendations from the sponsors and wider contacts, followed by initial visits to meet staff, followed by discussion of the project (including Strand 1), observation of practices, and clarification of the range of their activities, alongside preliminary data collection, such as the collation of relevant documentation.

The second phase was an **Action Research Workshop**. Action researchers discussed, with members of the research team, common problems faced in using the outdoor classroom, and successful strategies for tackling them. This was followed by initial try-outs on site of new strategies for teaching in the outdoor classroom during the Summer Term 2004.

The third phase, during the summer and autumn of 2004, involved research team staff visiting the action researchers in their school, centre or farm. Discussions focused on progress with new strategies, data collection and its analysis. Subsequently, the action researchers carried out a second round of implementation and evaluation.

Strand 3: Stakeholder Consultation

Research activities in Strand 3 were designed to explore individuals' and organisations' different perspectives on the benefits (academic, social or personal), planning, management and evaluation of purposeful and/or successful outdoor learning provision in relation to curriculum requirements, alongside other possible constraints and barriers. Strand 3 focused on all of the research questions, but in particular, questions 1, 5 and 6.

By way of background, initially, the research team considered the use of a Delphi study, in which a range of key informants would be mailed a series of

questionnaires and, over time, come to a consensus about an issue in the research questions. However, we judged that this process, though elegant and of proven effectiveness in other contexts, would need to extend beyond the timescale of this project. Instead, with the help of the project sponsors, key individuals and organisations were invited to take part in focus groups and research seminars about those research questions focused on in this strand, where membership of these activities was broadly representative of the field and its interests and expertise. Such individuals have included field study centre staff, farmers, HMI, teachers, NGO staff, LEA officers and academics. Further details about each research activity are provided below.

Focus groups

For the purposes of framing the whole study, the participants in the focus groups were asked to:

1. identify the knowledge and skills seen as the most desirable outcomes from outdoor visits made by students at different key stages. (In an earlier review of the literature, Dillon *et al.* (2003) found that there was no consensus in terms of what outcomes would enhance students' understanding of food, farming and rural environments.)
2. explore all of the project's research questions, particularly those concerned with the delivery of economic and effective learning experiences and the identification by schools of appropriate learning experiences in their curriculum plans.

Focus groups of 90-120 minutes were initiated in Spring 2004 with groups of six to eight people at a time. The research design team considered organising the focus groups geographically (rural, suburban and urban or N, S, E and W) or by sector (field study centre, farms, etc.) or by age group (KS2, KS3 and KS4). The final choice of strategy was made in consultation with the sponsors: focus groups were organised by the three main outdoor learning contexts in order to concentrate particular expertise as a provider or user of an outdoor learning centre in each discussion. The field study/outdoor centre focus group was held at NFER, Slough, while the farm focus group was held in Bath. Unfortunately, due to pressures on school staff, it was not possible to organise a school focus group within the timescale of the research.

Participants were invited to the focus groups to represent different age groups and levels of engagement with outdoor learning. Data were recorded (video, audio and notes) and transcribed, where appropriate, regarding:

A. the **outdoor classroom and the curriculum**, in terms of views, experiences and reflections on the most desirable curriculum benefits for a purposeful use of the outdoor classroom for teaching and learning (via a card pooling and discussion activity)
B. **effective learning**, in terms of views, experiences and reflections on the best ways of bringing about effective learning in the outdoor classroom (via a brainstorming and discussion activity)
C. **planning for, and obstacles to, including outdoor learning in curriculum plans**, in terms of views, experiences and reflections on their evaluations of contributions of possible activities that schools can undertake in preparing for work in the outdoor classroom (via a planning matrix and discussion activity).

Data were also collected regarding participants' roles in relation to the outdoor classroom, their perceived effectiveness within these roles, and their responsibilities and preferences in outdoor learning.

User group research seminars

The research team arranged three half-day user group seminars, held towards the beginning, middle and end of the research, in London. Overall, there were two key aims for the seminars:

- To allow the research team to draw on a wide range of experience from practitioners, policy-makers and researchers from across the field all having an interest in outdoor learning and countryside issues.
- To encourage the active involvement of a broad range of people in the design, evaluation and dissemination of the project findings, increasing the likelihood of the final report having maximum impact (as per the purposes of the strand).

We considered this approach to be superior to simply producing a report and organising a dissemination conference in order to engage research, user and policy-making audiences with the project processes and findings. The first seminar discussed issues pertinent to the project design, data analysis and conclusions, while the second provided an opportunity to share interim findings from the project's three strands, and considered emerging issues for the remainder of the project. The third research seminar took place shortly after the presentation of the final draft of the report to sponsors. Its purposes were to consider, and take feedback on, the report's findings with

stakeholders, and to aid its dissemination. Following this consultation, this final definitive version of the report was written.

Data analysis

The analysis and synthesis of data drew on the research team's experience in qualitative data analysis. Techniques employed by the research teams include content analysis (on the frequency and sequencing of words, phrases and concepts), semantic network analysis (on the relations and meanings among said concepts), and constant comparative methods on thematic topics (to facilitate explanation of the sense attributed to concepts and meanings in context in relation to research questions). Analysis of the transcription materials from the interviews in strand 1, and the focus groups alongside notes and recommendations from the seminars in strand 3, was informed by feedback from colleagues through a range of research seminars that the team participated in during the course of the project. Some of these seminars were convened via the FERN Research Network, of which the research team are core members,[5] and included relevant researchers, policy-makers and resource-providers. Other seminars and presentations took place at the Universities of Bath and London, and at BERA (Annual conference, Manchester 2004). These occasions provided an opportunity for the team to present, and gain critical feedback on, the project and its emerging findings. Strand 2 action research findings have been analysed in the Action Research workshops, and fed into the research seminars in Strand 3.

[5] The Environmental Education Research Network (FERN) was established in 1995 and was initially part-funded (for one year only) as part of the Economic and Social Research Council (ESRC) 'Global Environmental Change Programme'. It involves researchers, policy-makers and practitioners working in Environmental Education (EE) and Education for Sustainable Development (ESD). The National Foundation for Educational Research (NFER) hosted, funded and coordinated the network.

APPENDIX B. Case-study Outdoor Learning Sites and Schools

This Appendix presents descriptions of the six case-study outdoor learning sites and the seven schools that visited them during the research.

Outdoor Centres:

Residential Outdoor Centre:

This residential centre offers accommodation for 30 primary age children. It is situated in the New Forest and occupies a prime site for the study of a wide range of habitats in an area of outstanding natural beauty. The ethos at the Centre is to promote respect for all living things and to encourage children to work together.

The centre grounds have been developed to provide a number of unique features. These include an extensive organic vegetable and herb garden, miz-maze, willow tunnel, ponds, astronomical circle, armillary and a Celtic roundhouse.

Diverse learning experiences are provided by the two qualified teachers on-site. These range from lunar modelling, animating, collecting eggs and spinning wool to organic gardening and making compost heaps.

The two case-study schools that visited this centre are described below.

School A:

This rural primary school situated in Hampshire has a strong tradition of environmental work. As well as running a gardening club for children, students and parents have been restoring an acre of woodland glade, which is being used for teaching students about plant life and animal habitats.

The school has been visiting the residential centre for about three years. This experience is focused on Year 5 students, and 30 of the students are able to attend the centre each year. The topics explored during the school's visit to the centre included habitats and light and shade.

School B:

This rural primary school in Hampshire has been visiting the residential centre for the last 12 years, and the visit has a high profile in the school. There used to be a four-week period in the summer term when each year group went to the centre, but now it is just for Year 4 students. The topics explored during the school's visit to the centre included habitats and mini-beasts.

Day-visit Outdoor Centre:

This centre is based in South Oxfordshire and manages an estate of 300 hectares, including a nature reserve, a conservation farm and a woodland dedicated to forestry research.

The centre's programmes for schools are carefully structured to encourage each child to reach their full potential and give them new experiences out of doors. Staff plan and prepare a day within the framework of the national curriculum suited to meet the needs of the school and the children. However, they also have an ethos that it is just as important for young people simply to be outdoors, enjoying the fresh air and the beautiful surroundings.

A diverse range of topics are covered during visits to the centre, including habitats and mini-beasts, survival and iron-age living.

The two case-study schools that visited this centre are described below.

School C:

This rural primary school, situated in Oxfordshire, undertakes day-visits to the centre for the whole school twice a year. At the time of the research team's visit to the centre, 22 Year 3 and Year 4 students were present, and the visit was focused on habitats.

School D:

Students at this urban primary school in Oxfordshire visit the centre for a day twice a year. The visit observed during this research involved students from Years 3 and 4, and it focused on plant life.

Farms:

Farm:

This farm, situated near Bristol, gives children hands-on experience on a real working farm and allows them to find out about farming and how food is produced. The farm is part of an education initiative which involves working in partnership with the local council, and the Mendip Hills Countryside Service to encourage schools to visit the farm.
The farm offers a diverse range of topics for the schools to choose their activities from, and these activities are structured to fit in with school curriculum requirements.

The school that visited this farm is described below.

School E:

Students from this North Somerset primary school visit the farm twice a year in each year of their school experience. The two visits observed during this research involved students from Years 3 and 5, and focused on life cycles and Food production.

City Farm:

This city farm near Leeds occupies 14 acres, and contains a range of features including an organic market garden, ponds, a stream, a bird hide, rare breed animals, and an ecological visitor centre.
The farm provides an escape route for inner-city children where they can benefit from a rural experience within their city. Participative educational projects enable young people to develop an awareness and concern for their environment. The farm offers a wide range of environmental projects and guided tours for schools, and the education team helps school children to experience the natural environment through practical hands-on activities, from pond dipping to mini-beast hunts.
The farm also runs a programme aimed at engaging young people who have been referred from schools and social services. The young people work in small groups at the farm one day a week for three months. The aim is to give participants a practical experience in the fresh air, at the end of which they see the fruits of their labour.

The two schools that visited this city farm are described below.

School F:

The farm visit observed during the research involved Year 6 students from this urban primary school. The visit involved students participating in an allotment project, which focused on planning, growing and harvesting plants and vegetables.

School G:

Year 10 students from this urban secondary school were involved in an education initiative at the farm aimed at giving young people work experience and motivating and re-engaging them. This programme focused on farm maintenance and the growing of organic foods.

School grounds:

Primary School:

The grounds of this school, based in London, contain a range of features including an extensive wildlife area, composting facilities, attractive playgrounds, a planting area, and a large play area covered in bark chippings and old tyres and other interesting features.

The school is committed to environmental work. It was involved in the *Growing Schools* programme and used the money from that project to fund school grounds improvements. It is also involved in *Eco-schools* and *Healthy Schools* programmes, and runs a gardening club for the children. The school volunteered to take part in the *Growing Clubs* project, funded by the Department of Health and managed by Learning through Landscapes in London and the Federation of City Farms and Community Gardens. The major focus of the environmental work has been on improving the school grounds, and the children have been involved in the design of improved areas.

Secondary School:

In this girls' school, Year 7 students have been studying sustainability in their geography lessons. This has included learning about recycling, and visiting outdoor centres and projects around London. The students have also designed and created a sustainable school garden on a two hectare site. The project is managed by the Geography department within the school, working with parents. The school also aims to introduce organic food both into the garden and their canteen.

Appendix C. Three perspectives on learning

As an addition to Chapter 5, this Appendix draws on two recent, well-established accounts of major perspectives on learning (JISC, 2004; Greeno *et al.,*1996) that illustrate fundamentally different assumptions about how learning occurs, and might occur. These are given various titles and arranged differently by a range of authors; in this Appendix we focus on three prominent examples: the *associative*, the *constructive* and the *situative*, as shown in Table C.1, to identify key features and pedagogical approaches associated with each perspective. Read in conjunction with Chapter 5, the Appendix explores how theories of learning augment empirically-based accounts of the variables, factors and contexts which influence the learning process in the outdoor classroom, and yield explanations of the ways in which that influence occurs. For example, classifying theories and models as illustrating one of three perspectives can help provide greater conceptual clarity by illustrating both: (i) what might be meant by 'learning' in the outdoor classroom – for example, whether this be about strengthening behavioural associations (typical of the **associative**), making meaning from experiences (typical of the **constructive**), or engaging in acceptable social practices (typical of the **situative**), and also (ii) what is possible and legitimate in terms of learning activities in such settings, notwithstanding the pressures against their operationalisation previously mentioned in Chapter 5. It is important to note though, as in Chapter 5, that it is the 'how' not the 'what' that is crucial to this analysis of activities – groupwork, guided tours, individual inquiries and so on, can all have different pedagogical purposes, and hence the assumptions and associated pedagogies may configure these approaches very differently in practice, alongside other factors identified in Chapter 5. In short, as we have previously argued, in this context, it is the uses to which an activity is put, rather than the activity *per se*, that forms the grounds for determining its value.

Supporting material for Table C.1 is provided in Table C.2, which summarises a review by Greeno, Collins and Resnick (1996) on the key characteristics of these three learning perspectives in relation to a learner's participation in practices of teaching and learning that align with named theories of learning, and then how they relate to other dimensions closely

associated with the three perspectives identified in Table C.1. The authors note: '*All ... have contributed, and continue to contribute, important insights to fundamental scientific knowledge and understanding of cognition and learning and have influenced educational practices significantly. While each perspective is valuable, they frame theoretical and practical issues in distinctive and complementary ways…*' (p. 16). The table then, illustrates how the perspectives may be applied to learning situations (most typically, **associative** and **constructive** with formal settings, and **situative** with both informal and non-formal settings), and how they inform the design, motivation, assessment and structure of learning activities. Short examples of practice are included in Table C.2, and are kept to a minimum for the sake of clarity about their key point.

Table C.1 Defining approaches to learning

Perspective	Assumptions	Associated pedagogies
Associative	Learning as *acquiring competence* where learners: • acquire knowledge by building associations between different concepts • gain skills by building progressively complex actions from component skills.	• Focus on competences • Routines of organised activity • Progressive difficulty • Clear goals and feedback • Individualised pathways matched to the individual's prior performance.
Constructive (Individual focus) (Social focus)	Learning as *achieving understanding* where learners actively construct new ideas: • by building and testing hypotheses. • through collaborative activities and/or through dialogue.	• Interactive environments for knowledge building • Activities that encourage experimentation and discovery of principles • Support for reflection and evaluation • Interactive environments for knowledge building • Activities that encourage collaboration and shared expression of ideas • Support for reflection, peer review and evaluation.
Situative	Learning as *social practice* where learners: • develop their identity through participation in and with specific communities and practices.	• Participation in social practices of enquiry and learning • Support for development of learning skills • Dialogue to facilitate the development of learning relationships.

(Adapted from JISC 2004:13)

Table C.2 Three perspectives on forms of learner participation in outdoor education scenarios

Example of a learning theory often associated with a perspective: 1 – Behaviourist, 2 – Cognitive, 3 - Social learning

PERSPECTIVE	ASSOCIATIVE [1]	CONSTRUCTIVE [2]	SITUATIVE [3]
Knowing as focused on:	• making associations between concepts and / or experiences • affecting behaviour *for example, knowing how to grow organic vegetables*	• conceptual development • cognitive abilities • personal meaningfulness *for example, understanding and critiquing the impacts of agricultural policy from a range of perspectives*	• participating in that which is distributed and embodied through a community's ongoing and historical practices *for example, taking part in a local agricultural show*
Example of what learning is:	• an organised accumulation of associations and components of skills *for example, applying an identification key to a pond ecosystem*	• developing understanding of concepts and theories in different subject matter domains and general cognitive abilities *for example, planning and conducting an investigation of environmental impact of changes in rural land use*	• becoming more adept at participating in a community's way(s) of knowing • focusing on engagement that maintains the person's interpersonal relations and identity in communities in which the person participates *for example, creating and maintaining a community garden in the school grounds with local residents*
Designing learning environments will often require:	• routines of activity for effective transmission of knowledge • clear goals, feedback, and reinforcement • individualisation with appropriate technologies *for example, primary school students circulate among 'activity stations' at a city farm to develop and test observational skills*	• interactive environments for construction of understanding • dialogical and discursive pedagogies *for example, secondary school students develop, present and discuss a mural about the sustainability of the school grounds with school governors and parents at a school's open evening*	• environments that enable participation in social practices and highlight inquiry and learning • support for development of positive epistemic identities [for example, students' identities as self-regulating learners] • *for example, 'at risk' students work with mentors on 'outward bound' courses to provide leadership to other 'at risk' students*
Example of how curricula may be formulated, i.e. in terms of:	• sequences of component-to-composite skills *for example, learning how to prepare and manage an allotment at a city farm*	• sequences of conceptual development • explicit attention to generality • for example, examining case studies of agro-business to understand how habitat disruption may reduce ecosystem resilience	• practices of formulating and solving realistic problems within and for a community • development of discipline-based practices in terms of a subject area's discourse and its representation *for example, a coppicing project's focus identified and developed by students through consultation and negotiation with community participants*

Learning outcomes focus on:	• participation in socially-acceptable behaviours *for example, can demonstrate respect for the Countryside Code*	• participation in one's own learning process • concept of metacognition, as the 'capacity to reflect upon one's own thinking, and thereby to monitor and manage it' … 'self-conscious management of one's own learning and thinking processes' (p.19) • 'beliefs and understanding of themselves as knowing agents' (p.19) *for example, understands how and why principles of animal husbandry link to ethical, moral and environmental issues*	• participation in practices of communities • *collective knowing* (groups are composed of individuals and consider knowing as abilities of groups in their practice) • *individual knowing* (considers the knowing of individuals as their ability to participate in those practices) • participation in social practices is needed for learning and knowing (apprenticeship learning) • participation & identity linked *for example, farming competence displayed throughout members of a mixed ability group involved in planning and evaluating, participation in a week-long teamwork project assisting site staff in managing day-to-day farmyard activities*
Motivation for active participation in outdoor learning:	**Extrinsic motivation:** 'Engagement in activities can … be considered as a decision based on expected utilities of outcomes of the engagement, which depend on the individual's subjective probabilities and utilities regarding outcomes of alternative participation in different ways in learning activities.' (p.24) *for example, via positive and negative reinforcement in completing national curriculum-related worksheets during a pond-dipping exercise*	**Intrinsic motivation:** 'Engagement is often considered to be a person's intrinsic interest in a domain of cognitive activities…' (p.25) Elements of intrinsic motivations might be: challenge, fantasy, curiosity *for example, via problem-solving during a challenge activity at an outdoors centre*	**Engaged participation** and **Legitimation**: 'Students can become engaged in learning by participating in communities where learning is valued.' (p.26) *for example, being part of allotment project working with members of the local community in discovering past and current eating habits using local produce* Developing one's identity is viewed as critical to engagement in learning activities. In other words, 'the motivation to learn the values and practices of the community of learners is tied up with establishing their identities as community members' (p.26) *for example, informal and formal learning in such projects with local experts, community leaders, families and support services*
Assessment goals focusing on:	• assessment of knowledge components *for example, recall of plant types*	• assessment of extended performance by self, peers and experts • crediting varieties of excellence *for example, submission of individual A level geographical inquiry projects*	• assessing participation in inquiry and social practices of learning • student participation in, and design of assessment systems *for example, hosting and reviewing a local harvest celebration by learners and community following a horticultural project*
Focus of Accountability:	External *for example, teachers and examinations*	Individual *for example, self and peers*	Community *for example, stakeholders in the outdoors and outdoor learning*