

**Action Plan for Geography Fieldwork and Local Learning Project
Royal Geographical Society (with IBG)**

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The value of fieldwork

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It is really, really important that citizens learn to value their environment and to understand the science behind the great ecological dilemmas which face all of us. Never before has there been so much talk of education about sustainability, about biodiversity, and for citizenship.

All these aspirations remain 'pie in the sky' unless every pupil has an entitlement to extend his or her study [...] out of the classroom. It is in the field [...] where acting locally becomes thinking globally.

Professor Lord May of Oxford, Former President of the Royal Society

Professor Lord May's support of fieldwork comes from a Field Studies Council report entitled *Teaching biology outside the classroom: Is it heading for extinction?* The report, published in 2002, recommended that fieldwork should be a compulsory part of the science curriculum (Barker, Slingsby & Tilling, 2002). Writing three years earlier, Smith noted that 'The importance of fieldwork to geographers is beyond question' (1999, p. 181). So what is it about fieldwork that generates such unconditional support among its devotees? Why should we continue to regard it as an essential part of everyone's education? This article examines what we know about the value of fieldwork with a particular focus on students aged 5-19.

The value of fieldwork for students

Stuart Nundy, Hampshire's Outdoor Activities Officer, has summarised research into fieldwork (Nundy, 2001). He highlighted three major benefits:

- a positive impact on long-term memory due to the memorable nature of the fieldwork setting
- affective benefits of the residential experience, such as individual growth and improvements in social skills
- reinforcement between the affective and the cognitive, with each influencing the other and providing a bridge to higher order learning.

Nundy (1998, 1999a and b) looked specifically at residential fieldwork for primary school students. He reported that improvements in the affective domain can lead to improvements in cognitive outcomes. Nundy wrote that:

Residential fieldwork is capable not only of generating positive cognitive and affective learning amongst students, but this may be enhanced significantly compared to that achievable within a classroom environment.
(Nundy, 1999a, p. 190)

Across the Atlantic, McNamara and Fowler (1975) studied different ways of teaching some earth science concepts to US eighth and ninth grade students. They found that a fieldwork approach was more effective than other strategies. Manzanal *et al.* (1999) found that fieldwork (involving sample collection and fieldwork at a freshwater system) aided the conceptual understanding of 14-16 year old Spanish students and ‘intervenes directly in the development of more favorable attitudes towards the defense of the ecosystem’ (p. 431).

Dierking and Falk (1997) found that 96% of a group of 128 children and adults remembered field trips (particularly those to natural sites, nature centres and farms). However, remembering a trip does not necessarily mean that much or indeed any, significant learning took place. Measuring the impact of fieldwork on students is notoriously difficult. Partly for that reason, most studies have tended to stress outcomes in the affective domain (such as attitudes and values) or those that are social/interpersonal (such as communication skills or leadership).

Some writers have stressed the value of fieldwork as a teaching approach (for example, Cooper, 1991). Usually, though, the rationale for using fieldwork is more philosophical, witness Tim Brighouse who once said that ‘One lesson outdoors is worth seven inside’ (Brighouse, quoted in May *et al.*, 1993, p. 2). Other educators point out that fieldwork is essential in the training of some professions (see Lock and Tilling, 2002). Some writers advocate the psychological value of fieldwork arguing that it is a ‘creative form’ of learning (Baker-Graham, 1994).

Despite fears about safety and concerns about the resource implications of fieldwork, the situation in the UK looks quite promising (NFER, 2006). The DfES report *Engaging and Learning with the Outdoors* (Dillon *et al.* 2005), which focused on the use of school grounds, farms and city farms, and field centres, provided evidence across a range of subjects that children’s outdoor learning can include: knowledge and understanding; attitudes and feelings; values and beliefs; actions and behaviours; personal development, and social development.

For many teachers and students engaged in fieldwork, the opportunities for personal and social development are seen as highly significant. In the DfES study, teachers and students noted that fieldwork developed knowledge and understanding of geographical, ecological or food production processes, and

helped the development of values and beliefs about the environment. One teacher in the study commented:

I think the perceived benefits over time are sustained in that [they] give 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.

For students, fieldwork offered the chance for more personal outcomes (increased confidence, improved social skills and a greater belief in personal efficacy). Some students found, sometimes to their surprise, that learning could be fun. As one primary teacher 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 carers and say "I want to go, it's not far".' [Primary school teacher]

The value of fieldwork for teachers

Teachers as well as students benefit from well-planned and delivered fieldwork delivered by experts. In the *Engaging and Learning with the Outdoors* study, participating teachers welcomed the chance that fieldwork gave them to watch experienced outdoor educators who often used different styles of teaching than they themselves employed. Teachers noted that they improved their own subject knowledge and picked up new skills as well as ideas that they could take back to their own classrooms.

Summary

The evidence points to a range of values for fieldwork across the age range and across subjects. To quote from a recent review of outdoor learning (Rickinson et al. 2004, p. 28):

Substantial evidence exists to indicate that fieldwork, properly conceived, adequately planned, well-taught and effectively followed up, offers learners opportunities to develop their knowledge and skills in ways that add value to their everyday experiences in the classroom.

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