Evaluating the impact of Forest Schools:
a collaboration between a university
and a primary school

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The Forest School movement, an important part of
education in Scandinavia, has gained momentum in the
UK in recent years. Within the context of declining
access to, and engagement with, the natural environ-
ment Forest Schools can provide invaluable life
experiences for our children. In 2012 the University of
Northampton investigated opportunities to develop part
of its campus as a forest site for use by schools and to
enhance its students’ learning. A researcher from the
university evaluated the impact of visits made by chil-
dren from the pilot primary school through a series of
pupil, staff and parent interviews. Analysis of the inter-
view data showed that evidence of impact was
anecdotal and it was clear that a systematic approach
was needed. The university and school have collabo-
rated in developing a toolkit for evaluating this impact,
which will act as a starting point to support other
schools visiting the site.

Key words: Forest School, impact, evaluation toolkit,
collaboration, characteristics of effective learning.

Introduction

The Forest School movement began several decades ago in
Scandinavia where it has now become an integral part of
practice in many settings. The concept was developed in the
United Kingdom by a group of staff and students from
Bridgewater College after visiting Denmark in 1995
(Borradale, 2006). Advancements in the UK Forest School
movement were made through a number of local and
national projects and steering groups and a set of principles
began to be formalised. Forest Schools were seen to provide
outdoor education within a forest setting through regular
visits to the site where sessions were taught by trained
Forest School leaders. Here the visits would build on chil-
dren’s innate motivation and attitude to learning so that they
could take risks, make choices and initiate their own learn-
ing while developing an understanding and appreciation of
the natural environment (Davis and Waite, 2005). In recent
years concerns have been raised over the decline in chil-
dren’s access to, and engagement in, outdoor play and the
growing risk of what has been termed ‘nature deficit disor-
der’ within our society (Louv, 2010; Moss, 2012). The
philosophical stance of the Forest School movement in
promoting engagement with woodlands addresses these
cconcerns and serves as one vehicle through which children
can gain regular access to the natural environment. It is from
this perspective that the project reported in this article has
developed.

Evaluating the impact of the
Forest School experience

Alongside a need to address these concerns there is also an
imperative for schools and organisations to evaluate the
impact of outdoor experiences. A number of evaluations
have been carried out with this in mind, including that of
Murray and O’Brien (2005) who found that stakeholders
taking part in their research reported developments in the
following areas:

• confidence characterised by self-confidence and self-
belief stemming from children having the freedom, time and space to learn, grow and demonstrate
independence;
• social skills characterised by an awareness of the con-
sequences of their actions to others and an increased
ability to work co-operatively with others;
• more sophisticated uses of written and oral language
and communication prompted by their visual and
sensory experiences;
• motivation and concentration characterised by a keen-
ness to participate in exploratory learning and play as
well as the ability to focus on specific tasks for
extended periods of time;
• physical stamina and gross motor skills through free
and easy movement around the Forest School site;
developing fine motor skills by making objects and
structures;
• increased knowledge, understanding, interest and
respect for the natural surroundings.

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Murray and O’Brien (2005) also found that Forest Schools offered new perspectives on the part of the practitioners who gained a different viewpoint and understanding of the children they worked with through observation in this setting. Similarly, impact was noticed among parents where interest and attitudes towards Forest Schools changed as a result of their own children’s experiences. This is referred to as the ‘ripple effect beyond Forest Schools’.

Other researchers working in this area have developed a range of evaluative materials. Murray (2003), for example, designed reporting templates focusing on changes observed among individuals in the areas of personal and social development, attitude to learning, the demonstration of ownership and pride in the local environment, improved understanding of the outdoors and improvements in key skills and knowledge. From this starting point of ‘participatory inquiry’ other researchers have refined this approach. Davis and Waite (2005) used participant observation, video and photographic evidence, interviews with parents and children, parent questionnaires, mapping, analysis of children’s drawings and materials from the Effective Early Learning project (Pascal and Bertram, 1997) to evaluate the impact of Forest Schools on a wide range of outcomes including levels and patterns of engagement, the promotion of self-control and learning, self-esteem, language development and interactions between adults and children.

Recently some Forest School projects such as those evaluated by Norfolk County Council have had a narrower focus, such as the impact on boys’ writing through information and communications technology (ICT) and writing at Key Stage 2 (Butwright et al., 2007). Focus groups of a small number of Year 2 children in one primary school have explored the impact of Forest Schools on natural play and knowledge of the natural world (Ridgers et al., 2012) while Kenny (2010), focusing on the impact of Forest Schools on the social and emotional development of children in a Reception class over a five-week period, has developed a sophisticated instrument drawing on the Leuven Involvement and Wellbeing Scales (Laevers, 1989) and the Strengths and Difficulties Questionnaire (Goodman, 2006). Here levels of involvement and well-being were determined through two timed observations of each child (n = 10) per session and compared to those gathered prior to the project in class. The Strengths and Difficulties Questionnaire (SDQ) was completed by teachers before and just after the project to measure the impact of mental health.

The context of the research

In the summer term of 2012 the University of Northampton investigated the opportunities of developing a part of its campus as a forest site for use by local schools. Staff from the University of Northampton, a trained forest leader working for a local council and a Forest School leader from one local primary school planned the pilot sessions. Children from the Reception and Year 4 classes of the primary school attended in two mixed groups for three sessions each. The motivation for organising mixed-age sessions was to enhance the social development and attitude to learning of the older cohort by giving them opportunities to work with younger children where they would act as good role models and, at the same time, develop their own confidence as they experienced success within the Forest School environment. These experiences would then enhance other aspects of their education. Collaboration between the two groups, therefore, was an important area of impact.

Method

In order to evaluate the impact of this project, semi-structured interviews were conducted with one teacher, two teaching assistants, the family and pastoral support officer and two volunteers to gain the views of staff attending the project. Additionally the headteacher of the school, who did not attend, was interviewed. Seven parents/carers agreed to be interviewed and parental consent and pupil assent were gained in order to interview ten pupils.

Interviews with staff focused on their prior experience of outdoor learning, their understanding of the ethos of Forest School, the main areas of impact noticed during and after the project and the role of the adult in the sessions. As part of the interview the participants were asked to identify personal highlights of the project and areas for future development. The interview questions with parents were designed to tap into their perspectives of Forest School gained through discussions with their children, alongside their own views of the benefits and drawbacks of outdoor opportunities for their own families. The pupil interviews focused on the child’s play preferences and experiences as well as exploring their understanding of the purposes of Forest School. The children were asked to evaluate their experiences by suggesting ways in which another round of visits to Forest School might stay the same or be different. The interview responses were analysed and comparisons were made with the findings of those of Murray and O’Brien (2005).

Findings

Perceptions of the philosophy behind Forest School

A wide range of perceptions of the purpose of the Forest School project were expressed by the staff interviewed. Three participants believed that Forest School gave children the opportunity to learn outdoors in a novel environment while one interviewee emphasised the significance of allowing children freedom and opportunities to be carefree away from the pressures of their everyday lives. The importance of tapping into different learning styles and the development of key skills such as exploration, investigation and problem solving were also highlighted as important. Similarly, the
role of the Forest School in providing curriculum enrichment in a variety of subject areas, particularly in numeracy, ICT, art, literacy and design and technology (DT), was emphasised. The opportunities for children to develop socially through teamwork and emotionally through their experience of ‘awe and wonder’ and interaction with the natural environment were recognised by several members of staff, while the importance of personal development through independence, the feeling of success and the opportunity to challenge oneself were noted. One participant felt that the Forest School provided children with a safe environment in which to take risks with adult support, upholding the commonly held perception among staff that pupils had few safe places to play and explore within their own environments.

While there were many similarities between these perceptions and the philosophy of the Forest School movement it is interesting to note that the key skills mentioned by the staff as being an important feature of the children’s learning through Forest School visits do not appear overtly in the list compiled by Murray and O’Brien (2005). Conversely, no specific mention was made by staff of the development of knowledge, understanding, interest and respect for the natural surroundings and of the enhancement of linguistic and physical skills which are central to the Forest School philosophy. Parents, however, did focus on the importance of environmental education at Forest School, mentioning that their children had learnt about animals and trees. Two parents felt that group work and social interaction were important aspects of the visits in line with staff perceptions.

All the children taking part in the interviews were able to recall at least one memorable experience from their visits. The most popular activities were den making, playing a form of hide and seek and hunting for ‘minibeasts’. A range of other experiences were mentioned including working as a team, using tools and making necklaces. The Year 4 pupils were able to give detailed explanations of how particular structures were built and games were played. Two children reflected that the least enjoyable aspects of the project linked to their own fears. One child did not like having to search on the ground for insects and the other was scared of trying out the swing that the group had made.

The impact of Forest School on the pupils

While the staff had very different perceptions of the philosophy underpinning Forest School there was more agreement over the areas of greatest impact. Four participants described observing higher levels of social interaction within the forest context, where children would draw others into their activities and where groups would form naturally. Children who would not normally work together in school were observed collaborating and it was the perception of one interviewee that children appeared to set aside differences that they may have had in school. While two members of staff mentioned the impact the project had on self-esteem it was difficult for this to be quantified. Indeed, the evidence of the impact on the children within the study was very much anecdotal and it is clear that a more objective means of evaluating the impact of Forest School was needed.

In terms of relationships, three staff mentioned the importance of having the opportunity for shared enjoyment and for the children to see the adults having fun, too. There was agreement that everyone learnt something new about children in their classes. One member of staff, for example, noted her surprise at the high levels of concentration shown by the younger children during adult demonstrations in a very busy and exciting environment, while another member of staff commented on the motivation shown by some of the older children who would normally find it hard to focus in class. These areas of impact align well with those of the Forest School movement.

During the interviews staff named several individual pupils and key groups for whom they felt the impact had been significant. The effect on boys and on children with special educational needs was apparent from the interview data, specifically in terms of their levels of engagement, social interaction and confidence. The impact on shy children or those who were normally socially isolated was also remarked upon and, interestingly, it was noted by one interviewee that these children were allowed to stand back, watch and learn from others rather than be encouraged to join in as would happen in the classroom. These children were also given licence to go off into the forest and pursue activities alone without being grouped and organised.

Differences of opinion were expressed regarding the impact of the grouping arrangement for the visits, where half the Reception class were accompanied by half the Year 4 class. One clearly articulated expectation of the project was for the older children to support the younger children but, interestingly, two staff attending the visits felt there was little interaction between the two year groups beyond support at the start of each session to put on waterproof suits. Another noted that the older boys tended to separate themselves from the rest of the larger group while the majority of the Reception-aged children tended to stay together as a unit. One interviewee had a very different perspective and felt that it was important to have older children attending with the Reception class to lead the exploration and guide the younger learners. So while there may have been little evidence of direct interaction she believed the presence of the older children influenced the activities of the younger ones. Interestingly, the ‘split-class’ arrangement reduced the potential for the teachers to carry out follow-up work. It was hard to consolidate and extend learning at the end of the first set of visits as only half the class had attended and by the time all children had visited the impetus of the first group was lost. There was a strong view that children should attend as separate classes in order to facilitate this valuable follow-up work, embed the learning and have a greater impact on the academic achievement of the pupils.
Parents’ and pupils’ perspectives

Two parents felt that the visits reinforced what they already did as families in terms of exploring woodlands and climbing trees, acknowledging that it was good for their children to have those experiences without parents being present. One mother noted a significant impact on her child’s play after the Forest School visits as he had gained an understanding of the concept of a ‘den’ and was much more interested in making this kind of structure. Several parents noted that their children had learnt something about the environment of the woodland, including the names of trees and insects. They reported a wide range of activities that the children had enjoyed including finding bugs, building dens, making picture frames, playing hide and seek and being with their friends. A parent of a child with special educational needs noted a marked reduction in her child’s levels of anxiety and stress when he was outdoors and revealed that on the days he was to attend Forest School he was much more motivated to come to school. She felt that the freedom from the physical constriction of a building and being able to move in his own way without imposing on others’ space had benefited him. One parent reported that her child had become less frightened of certain insects and was beginning to show more of an interest in observing them, while another felt her child had generally gained in confidence within the Forest School environment.

In terms of the ‘ripple effect beyond the school’ (Murray and O’Brien, 2005) one parent felt there was no impact on his child’s play after the visits as the family were not able to access a forest environment to observe any changes. He, along with another parent, felt that their children’s everyday outdoor experiences were restricted by the area they lived in, both in terms of access to garden space and safe communal areas in which to play.

Some of the older children were able to articulate some understanding of the purpose of the visits and the ideas behind Forest School. Three children, for example, focused on the importance of safety, of playing within the boundaries and staying with an adult, while one mentioned he had learnt not to hurt animals. One child felt she had learnt more about the forest and the names of different insects. The younger children, in general, found it harder to explain what they had learnt and why their teacher had taken them to Forest School. One Year 4 pupil reflected that the visits had been organised because lots of children had never been to a forest while another noted that Forest School was about ‘learning and having fun at the same time’.

Adult roles

One area of importance highlighted by Murray and O’Brien (2005) is that of the impact on staff. It was clear from the staff interview data that the majority recognised the importance of standing back and allowing children the freedom to explore, be independent and lead their own learning. Staff, however, had differing views about health and safety on site. One teaching assistant felt she needed to be very aware of danger and ‘the unexpected’ on behalf of the children and spent a lot of time reinforcing rules and boundaries, while another felt the environment was safe enough for the children to be given the opportunity to climb and explore freely. Interestingly, some of the activities such as making, and then playing on, a swing and a see-saw caused some consternation for one adult in terms of safety.

Discussion

Areas identified for future development

The majority of parents and some of the staff interviewed felt that the children would have gained greater benefit from attending more sessions in one block or a small number of sessions at different times of the year in order to build on skills and to tap into seasonal opportunities. The lack of follow-up work was mentioned as a drawback to the project by three members of staff. They felt that it was important to capitalise on the learning experiences of Forest School back in the classroom and embed the learning. Similarly, two members of staff felt that the Forest School activities should relate directly to work already being undertaken in class, so that Forest School could act as a means for curriculum enrichment and an opportunity to practise skills in a real-life problem-solving context. These points need careful reflection, however, as it was clear from the interview data that tensions existed between the maintenance of Forest School principles in terms of freedom, independence and child-led learning, on the one hand, and the need to impact on the academic achievement of the pupils, on the other.

One key feature emerging from the interviews was that of parental involvement. Some parents were not really aware of what the Forest School project entailed and very much relied on their own children for their information. It was the view of a number of staff that the ripple effect beyond school could only be achieved by greater parental involvement – through an open session for parents and children or opportunities for families to attend some after-school sessions in addition to the school-led visits, a view echoed by a number of parents.

There was some disagreement over the level of structure needed during the Forest School sessions. While it is apparent from the literature that the Forest School ethos is one where there are clear boundaries and structures within which children can follow their own interests and lead their own learning, two members of staff saw the environment as being without structure. One viewed this as being of benefit to the children in allowing them total freedom to explore while the other felt that more progression and guidance were needed in order to move the older children forward in their skills development and motivation in later sessions. Here,
there was a view that closer links between the class teacher and the Forest School leader during the planning of the project would have been beneficial.

While all children had expressed very positive views of Forest School, two children said that they would have liked more open space to play in, with fewer trees. The overhanging branches had been of concern to another child who thought they should be cut back so they did not pull people’s hair or touch their faces. One child felt the site should be zoned so that different activities could take place in specified areas, such as an art area, a place for games and a ‘calm’ space. The Year 4 pupils all liked being in the forest with the younger children, although there was little agreement about the levels of involvement between the two groups.

The school’s response to the research findings

In order to address concerns over pupils from two different year groups attending together it was decided that single year groups would visit for longer blocks of time. This decision was taken in order that high-quality follow-up work could be undertaken in school and took account of the reports of staff and pupils that little collaboration actually took place on site between the younger and older children. Two year groups were selected to attend for blocks of five sessions each to coincide with specific topics. The first group to attend planned and delivered an assembly about Forest School during their block in order to embed their learning and share their experiences with the school community.

As there were clear differences of opinion among staff regarding the purposes of the Forest School visits and the level of structure needed on site, two staff meetings took place. The first meeting in school focused on the ethos of the Forest School movement and the ways in which visits could enable development in four key areas: motivation, engagement, creative and critical thinking and social, personal and emotional development. The first three areas were taken from the ‘Characteristics of Effective Learning’ (Early Education, 2012) while the fourth was added to take account of the fact that little reference is made to social interaction within the characteristics and yet part of the Forest School ethos is to develop social skills (see Figure 1). While the characteristics were developed for Early Years Foundation Stage it was felt by school staff that these would apply equally to children in all year groups within the school and would be highly appropriate to the Forest School context.

This meeting was followed up with a visit to the university site by all staff to gain an understanding of how a typical Forest School session would be structured. Staff had the opportunity to take part in some activities to develop their understanding of the roles of ‘scaffolder’ and ‘explorer’. It was decided that only staff attending the on-site training would accompany the children on visits this year to ensure a consistency of approach.

In order to have a greater impact on parents it was decided to invite them to accompany their children to the last Forest School session of each block so that they could take part in activities and have the chance to share in the experiences with their children. Depending on outcomes from the next wave of evaluations this may be developed further in order to support parents in utilising a more accessible site in the locality of the school.

It was clear from anecdotal evidence of interviews that the Forest School visits had particular impact on certain groups, including boys, children with special educational needs, children who find it hard to engage with learning within the classroom and the shy and socially isolated pupils. With this in mind a researcher from the university is attending all visits made by the pupils in order to gather data regarding the impact on specific pupils and groups.

The way forward from the perspective of the university

The University of Northampton has made a commitment to provide opportunities for more schools and settings to use the site and to enable students on courses within the School of Education to undertake placement or volunteering opportunities while studying at the institution. Additionally, students are able to take part in a Forest School taster session to provide an enriched course experience, and a continuing professional development (CPD) module on ‘Learning Outside the Classroom’ has been developed for staff in local schools to develop their skills and expertise.

In terms of developing a research profile in this area to build upon existing undergraduate and postgraduate dissertations it is clear that a systematic approach to evaluation of future visits is now needed. With this in mind a researcher from the university is working closely with the pilot school to develop evaluative materials around the ‘Characteristics of Effective Learning’ described above in order to measure outcomes in the four key areas. Once trialled, these, alongside other data collection techniques, can be used by schools in the future to measure the impact of their visits. Data from the evaluations will then be shared with the university and it is anticipated that these small-scale research projects will add to the growing evidence base of the impact of Forest School experiences.

Conclusions

Both university and school staff recognise the importance of evaluating the impact of the Forest School visits on pupils’ development and in order to facilitate this there needs to be further collaboration between the university and the schools using the site. The development of an evaluation toolkit for
teachers will provide an invaluable resource both for the schools and for the university. It will enable schools to carry out small-scale research projects following areas of their own particular interests as well as adding to a larger body of evidence being gathered by university students and staff. While evaluation is currently focused on the impact of the Forest School experience on the ‘Characteristics of Effective Learning’, as described above this is seen as a starting point. As more schools become involved in the project it is envisaged that they will shape the nature of the evaluation depending on their own goals. This will strengthen the collaboration between the organisations to the benefit of the pupils visiting the site as well as the wider research community.

References


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