

Natural Play in the Forest



Forest School evaluation (Families)

A report produced for Natural England (Report 2 of 2)

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Executive Summary

A Government review (DCMS, 2004) reported that parents are concerned that the current generation of children have fewer opportunities for play compared to previous generations, and greater adult constraints are being placed on play. Since the family environment is a key determinant of natural play engagement and opportunities, this project aimed to investigate the use of Forest School to encourage families to participate in outdoor leisure activities using areas of The Mersey Forest for natural play and leisure time activity.

Using questionnaires and interviews with 15 parents, this study found that: a) as children, parents experienced few constraints on their natural play, and they were able to roam away from home; b) safety and heavy traffic were current concerns, and most reported that this had deteriorated since they were children; c) time, finances and weather were barriers to families' natural play; d) families reported greater engagement in natural play at the end of the project, with changes seen in both parents and their children; e) families became more willing to engage in natural play, and appreciated the supporting information in helping them with their leisure time choices; f) families enjoyed interacting through natural play; g) parents reported that their children were sharing knowledge and understanding learnt in Forest School about the natural environment; and h) recommendations for future work included helping families overcome existing barriers to natural play.

Overall, parents reported that both the family engagement project and Forest Schools had a positive impact on their leisure choices, and greater engagement in natural outdoor play opportunities were reported with local green space visits increasing. The findings and recommendations should serve as a useful framework for future projects that encourage and facilitate natural play opportunities to engage families.



Cooking on an open fire



Den building



Exploring



Family activities

Introduction and context

There is increasing concern that children are becoming disengaged from visiting and playing in natural environments as the freedom to play is controlled by risk adverse society. A Government review (DCMS, 2004) reported that parents are concerned that the current generation of children have fewer opportunities for play compared to previous generations, and greater adult constraints are being placed on play. In addition, motorised transport, safety concerns, sedentary leisure activities including television viewing and computer games may also contribute to the reduction in natural play opportunities for children (Strong et al., 2005).

The Youth Physical Activity Promotion Model (YPAPM) is an ecological approach to the promotion of physical activity in youth (Welk, 1999). It characterises a range of influences that can be used to inform programmes and interventions. Although it specifically focuses on physical activity, it can be used to inform this project, as it identifies how the population of interest (in this case, families) can affect the likelihood of engaging in natural play (predisposing factors), the significant others that can reinforce natural play (reinforcing factors), and the aspects of the family environment that allow them to engage in natural play (enabling factors; Welk, 1999) across multiple levels of influence. As such, the family environment is a key determinant of natural play engagement and opportunities (Sallis & Owen, 2002). It is important, therefore, to investigate ways of encouraging children and their families to interact with the natural environment, and use this environment for leisure time activity.

Consequently, there were two main aims of this project. These were:

- To evaluate the impact of the Forest School sessions on children's perceptions and knowledge of natural play and the environment, and identify barriers to natural play
- **To use Forest School to encourage families to participate in outdoor leisure activities using areas of The Mersey Forest for Natural Play and leisure time activity.**

This report (Report 2) will focus on the second aim. Specifically, it will investigate:

- The extent of natural play in families, and identify opportunities for natural play
- Identify barriers to natural play
- Investigate ways of encouraging natural play in family leisure time
- Participation in community events taking place in natural settings.
- Parental perceptions of Forest School

Methods

Participants and Settings

Fifteen families returned written informed consent to participate in the Family centred project. All families had one child (aged 6-7 years) who was participating in Forest School sessions at their primary school (see Report 1). Ethical approval was granted by the University Ethics Committee.

Forest Schools

Forest Schools were initially developed and implemented in Nordic countries in the 1960's, where it was seen as good pedagogical practice to use nature and the outdoor environment with young children. The development of Forest School in Britain in its current form began in the 1990's and was first introduced by Bridgewater College following a visit to Denmark in 1995. It is a scheme that aims to encourage children to access natural woodlands and outdoor spaces. It looks to build independence and self-esteem in young children and has been adapted for all age groups (Forest Education Initiative, 2008). Forest School is introduced through timetabled school sessions ranging from a minimum of 2 hours a week for a minimum of 6 weeks to whole days over a whole school/nursery year depending on the age of the children. During these sessions, children engage in activities such as picture making, den building, and mini beast hunting, for example, and all activities link back to the delivery of the National Curriculum.

For the purpose of this study, the children participated in 12 sessions that were 2 hours in length (24 hours total), and were led by external qualified Forest School co-ordinators. All sessions and activities took place outside within a woodland area located in the school grounds.

The Mersey Forest

The Mersey Forest is the UK's largest community forest covering 465 sq miles across Merseyside and North Cheshire. The aim of the Forest is to create high quality environments for millions of people by revitalising derelict land, providing new opportunities for recreation and cultural activities, enhancing biodiversity, preparing for climate change and supporting education, healthy living and social and economic development. The Forest is made up of a network of green spaces, parks, woodlands, and street trees with a range of habitats.

Through funding provided by Natural England's Natural Connections Project the study set out to investigate whether Forest School could be used as a mechanism to not only reconnect children but to also reconnect their families with areas of the Community Forest as a play and leisure opportunity.

Intervention

The family engagement project intervention consisted of three parts: a) A presentation of Forest School to parents; b) An invitation to natural play family activities organised by The Mersey Forest Team; and c) Information packs and ideas of activities to do to encourage self-led family visits to green spaces in the local area and within The Mersey Forest. Families were informed of organised family activities and signposted to various green spaces to facilitate the visits. All activities took place between March and July 2009. The organised activities took place outside of school time, and included events during weekends and holidays. Table 1 highlights the activities that were participated in during the organised family activities, and the number of families who attended each session. To facilitate family visits to green spaces and to encourage families to engage in outdoor leisure activities, funding was provided for families to cover associated costs, including transport and food.

Table 1: Organised family activities and numbers of families in attendance

	Den Building	Forest School Parent Session	Gardening for Families
Families attending	9	8	3

Procedures

Prior to the start of the Forest School sessions in school, The Mersey Forest Team visited the school to outline the content of the initiative and the associated research project to the children and their parents. Parents were also informed of the family initiative at this time, and were invited to participate in the project. All families who expressed an interest in the family engagement project and provided returned informed written consent were recruited in to the initiative. At baseline (March 2009), one parent per family was asked to complete a questionnaire and a short interview at a mutually convenient time. After this, families were provided with information concerning the organised family activities and were signposted via a range of local leaflets promoting woodlands, parks, green spaces and website contacts to green spaces for self-led family visits by The Mersey Forest Team.

Following the completion of the family visits (July 2009) one parent per family was re-interviewed.

Measures

Questionnaires: One parent per family was asked to complete a short 21-item questionnaire at the start of the family engagement project. Questionnaires were sent to the families in self-addressed envelopes, completed during their leisure time, and posted to the research team. The questionnaire was developed for use in this project, and asked parents a range of questions that linked in to their perceptions of the local area for natural play, the activities that they engaged in both now and during childhood, and to examine whether there were differences in their perceptions of issues surrounding children's play compared to their childhood. Barriers to natural play were also examined. They were also asked to record their knowledge of natural play spaces within their local area, climate change, and wildlife issues. The majority of answers asked closed questions, though some open-ended questions were asked to for the parents to provide more information in relation to whether they played differently to their child, and how areas or facilities could be developed to encourage more families to use them during leisure time. Frequency analyses were conducted on the quantitative responses to detail their perceptions of the local environment for natural play, identify potential barriers to play, and how they perceive play has changed over time.

Interviews: Individual or small focus groups (2 people) were conducted before and after the family engagement project. All initial parent interviews were conducted at a mutually convenient time for parents and researchers, and were conducted at their children's school. Follow-up parental interviews were conducted 1 to 1 over the telephone. The parents were asked to discuss their perceptions of children's play and natural play, identify concerns that they felt would impact on their children's play and leisure activities, examine how these differed to when they were children, and highlight factors that influence their decisions concerning leisure time activities. All focus groups were conducted by the same Mersey Forest researchers, were recorded using a digital recorder, and were transcribed verbatim for further analysis.

Results

Questionnaires were received from 14 parents (12 mothers, 2 fathers; 93% response rate) at baseline and included in the analyses. In addition, 10 parents (9 mothers, 1 father; 67% response rate) were interviewed at baseline, and 9 parents (8 mothers, 1 father, 60% response rate) were interviewed after the project concluded. All collected interview data were used in the analyses.

Attendance at organised events

Table 2 highlights the frequency of families who attended the organised events and reported undertaking self-led activities. Three families (20%) did not attend any of the organised sessions, and, of these three families, one family completed three self-led visits to green spaces. **Eleven families did not report to the research team that they had undertaken self-led family activities, though anecdotal evidence from discussions with the participants suggested that families were not reporting visits to different places rather than not visiting at all.** This may be due to a lack of understanding what they needed to do, or a lack of awareness that some visits to natural environments would contribute to the reporting of self-led visits.

Table 2: Frequency of families attending organised & self-led sessions

	3 visits	2 visits	1 visit	0 visits
Number of families – organised event	2	4	6	3
Number of families – self-led	4	0	2	11

Questionnaires

Some sample information from the questionnaire responses in relation to safety and local natural knowledge are shown in Table 3.

Table 3: Sample information from baseline questionnaires

	All parents (n = 14)		
	Mean	Range	Possible range
Neighbourhood safety	3.7 ± 0.9	2-5	1 (very unsafe) - 5 (very safe)
Awareness of climate change	3.5 ± 0.5	3-4	1 (very unaware) - 5 (very aware)
Awareness of wildlife issues	3.2 ± 0.8	2-4	1 (very unaware) - 5 (very aware)
Awareness of local green spaces	3.6 ± 0.8	2-5	1 (very unaware) - 5 (very aware)

Table 3 indicates that the parents, in general, perceived that they felt they had an average awareness (based on the scale reported in Table 3) of climate change, wildlife issues and local green spaces. In addition, they were more inclined to report that they felt that their neighbourhood was safe compared to their children, but perceived a lower awareness of wildlife issues (Figure 1). This initial point is an interesting finding, as children reported that one of the main barriers to natural play and general play was their parents' safety fears. It suggests that **parents should be encouraged to consider safety concerns about their children's play in different settings, and identify how these concerns may be managed to benefit the family as a whole.**

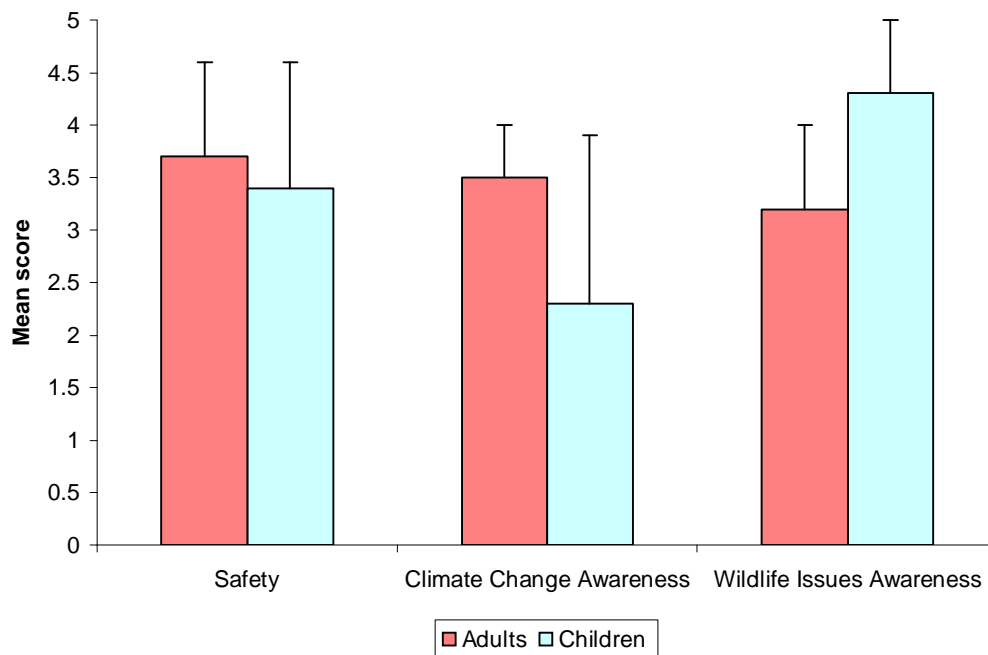


Figure 1: Comparing children and adults' perceptions of their awareness of climate change, wildlife issues and neighbourhood safety.

N.B. Awareness of local green spaces was not measured in the children's questionnaire.

Table 4: Parental concerns about children playing in local area & comparisons to own childhood (baseline)

Issues	Concerned		Compared to own childhood		
	Yes	No	Improved	Same	Got worse
Safety	14	0	0	5	9
Heavy traffic	13	1	0	1	13
Stranger danger	12	2	0	3	11
Gangs	10	4	0	5	9
Lack of facilities	9	5	7	4	3
Cover/shade	6	8	1	11	2
Presence of other children	6	8	1	10	3
Presence of other adults	5	9	1	9	4
Litter/rubbish	5	9	1	6	7
Street lighting	3	11	4	9	1

Table 4 identifies parental concerns related to allowing their children to play in the local area, and their perceptions of how this has changed in comparison to their own childhood. The table shows that **the most pressing concerns of the parents were safety, traffic, stranger danger and gangs, and these were perceived as the issues that have become worse compared to their own childhood.** Interestingly, the lack of facilities was also identified as a parental concern, yet half the parents stated that this had improved compared

to their own childhood. The finding about changes in safety somewhat contrasts the finding in Table 3, where parents generally reported that they felt their neighbourhood was safe. It is possible that more specific measures of safety are needed to identify what barriers may need to be overcome to encourage children and their families to play in their local environment, as safety initially may have been considered as a collective term to cover all aspects of the neighbourhood.



Gardening for families



Family days



Younger siblings involved

Interviews

Interviews were conducted with the parents to determine their understanding and knowledge of play and natural play, and to ascertain the extent of natural play they engage in as families both prior to and following the project. The interviews also investigated the parents' own natural play as children, and compared restrictions on their play compared to their children's play. Lastly, the interviews examined the impact of the Forest School and family engagement project on their families play.

To analyse the interviews, the same researcher read all the transcriptions. Quotes from the parents' interviews have been grouped together under a number of headings to help with the interpretation of the data. They are presented and discussed below¹.

Parents' natural play as children

At baseline, the parents reported a number of diverse settings that they used to visit and play in as children. Interestingly, a number of these settings are those in which the children reported they were not allowed to play (see Report 1, page 11), indicating that opportunities to play in different settings had changed over time.

There used to be some wasteland near where I lived, and I suppose I spent most of my time on that, so it probably would be my favourite place really... And it had, like, high grass and things and mounds that you can ride bikes on, it was everything really. [Parent 1]

We spent a lot of time just playing in the garden... we had a tree so we climbed and we tried to parachute out of trees. [Parent 4]

Perhaps from being about 6 onwards we used to play in the woods in dens and there was a stream, I remember there was a stream, that we always used to sit on a bridge and in the stream there were lots of broken ceramics and we used to sit for hours, no idea, no idea but we used to sit for hours trying to

¹ All names mentioned in the interviews have been changed.

piece back all these ceramics... I remember it perhaps wasn't very nice because there was like a big outlet pipe that was surrounded by a cage. [Parent 7]

At home in the garden. In the streets around where I lived. The park, woods. [Parent 8]

I just played on the road and in the park. I was riding me [sic] bike up and down on the street. [Parent 2]

It was also notable that the majority of **parents reported greater freedom in their play opportunities** and in the distance that they roamed from home, though they often stated that they were lucky to have this freedom. In some cases, the **parents lamented how different their play was to their children's and the impact that restrictions on children may have**. The adults' freedom in their play opportunities as children indicates that they were enabled to engage in natural play and that this was reinforced by their parents (Welk, 1999).

We used to go on bike rides for miles and so, yeah, we'd be a good hour away from home. If we were walking, we'd be a good hour... As long as we were altogether, we were allowed to pretty much go anywhere. [Parent 5]

I don't remember being told that [I couldn't play anywhere], I think it was just that you weren't supposed to go too far away or anywhere where my mum didn't know the area or locality, she wouldn't have liked us going but generally we had quite a lot of freedom. [Parent 10]

It was totally different, I mean maybe when I was, not even 7 or 8 I used to walk around to my friend's road, I wouldn't dream of letting Hayley do that now - isn't it strange [laughs] and she's got friends that live just around the corner, yet I wouldn't let her walk there - but my mum would. [Parent 9]

I would say at Claire's age that I was playing on my own; I think outside, I'm sure I was... I wouldn't even dream of letting them out on their own now. [Parent 3]

Oh dear... you see it's awful isn't it, how it's changed... because we don't give them the chance to do it ...you're not... you're too scared to give them the chance aren't you? [Parent 9]

Building Up and Breaking Down Barriers

The messages that children are exposed to in relation to different environments and settings can determine future behaviour within these settings (Titman, 1994). This can include parental perspectives and reactions to different contexts (e.g. stopping children from climbing trees because it is not safe), which can restrict opportunities for play. The restriction of play opportunities can impact on the acquisition of lifelong skills that are developed when children are free to explore and manipulate the physical and social world in which they live (Bateson & Martin, 1999). It can be seen from the parents' discussions that, at baseline, they do place restrictions on their children's play, and this takes a number of forms. **There was also recognition of the negative cycle that some parents had entered in relation to restricting play opportunities, where parents were concerned that their children were not street wise yet were not afforded the opportunities to become street wise.** A few parents noted how their own behaviour even now was influenced by the behaviour exhibited by their own parents.

Because we cosset them a bit more, then they haven't got the street sense or whatever that maybe people of their age when I was young lad. So it's a bit of a vicious circle, if you don't let them out they don't get it. [Parent 1]

My Mum's the one who has influenced me in like when you say, like, "Oh no you don't go out if it is raining" and as my husband says "But you don't melt"! [Parent 6]

Then it was, it seemed really safe, now it's like, "God, you just wouldn't let your kids go". You used to just roam. No, "Text me when you're on your way back". (Laughs). "I'm off, mum, see you." [Parent 8]

I don't allow him out anywhere. Which is a shame because, and I know I do because he's got ... two of his friends from his class do play in the street on their bikes and I won't allow him out. And I feel bad about that... [Parent 11]

My parents would never worry about taking us anywhere, it was never hassle, you were never made to feel like it was a hassle. And I think that was a massive part about how we played, it was, like, "Great, do that, that's not beyond the realms of..." and they would, and they'd be as daggy as we were, so it was great, it was just a fun time, so we [my husband and I] tried to probably do that as well. [Parent 5]

Couldn't cross the road on my own. I can remember that from a young age. Mum had to be there... Well Natalie's not allowed out of my sight. I don't even let her go, we live in a cul de sac and I don't even let her go in the cul de sac without me being there. [Parent 2]

It was also notable that **time, weather and finances were barriers to families playing together**, and these were particularly emphasised at baseline.

We go out every Saturday and Sunday and make sure she goes somewhere you know, unless its pouring down with rain obviously. [Parent 2]

The weather, the amount of time we have, and if we can all agree on what people want to do! [Parent 1]

If there's time... depending on what the time is, this influences where we go. [Parent 6]

... depending on the weather, what it's like. What kind of mood we are all in. [Parent 8]

Yeah, price probably, price and weather, and a big one for us is time, how much time we've got you know because you can think of all these fabulous things to do and at the end of the day I know I'm harping back to my husband again but with him working so hard in the week, he wants lie ins. [Parent 7]

It's a time issue as well, you know there's always something going on in life at the moment. [Parent 4]

Probably finances. It's very difficult to find anything that's for free. [Parent 5]

Interestingly, the parents noted a contrast between themselves and their children in relation to the number of children they used to interact and play with. Parents noted that while they used to often play in large groups, their children's play is often in small groups, as **children now play less on the street they no longer meet children within their locality**, especially where there are busy roads and the children would not roam outside their garden.

No in the olden days it was like, ...it was all right to play outside and like your friends used to call around. I would say at her age that I was playing on my own I think outside, I'm sure I was [Parent 2]

I was riding my bike up and down on the street. [Parent 3]

I wouldn't even dream of letting them out on their own now. [Parent 2]

I can remember calling for my friends who lived around the corner. I had to cross the main road but my mum watched me cross main road and let me go around the corner, [yeah] and probably not at 6 and 7 but perhaps a little bit older maybe 10. [Parent 3]

All my friends were like either next door, over the road, round the corner or down the road and everybody knew everybody. [Parent 2]

One of the main problems parents experienced in trying to reinforce their children's play **was trying to fit opportunities around their other commitments.**

I mean she has a lot of play because I make sure she does, we go out every Saturday and Sunday and make sure she goes somewhere you know, unless it's pouring down with rain obviously, and we try and get together with some of the other mums so that she's got other kids to play with because she's on her own. You know just one on her own. But I like her to be outside running about. [Parent 3]

(Kids) do more adult things now [yeah] than we were as children, I think, I never went shopping, ... we're not going out to have fun... we've just got to go over to the shop to do our weekly shop but weekends were just all about fun weren't they? [Parent 9]

At post-test, there was evidence to suggest that the **some of the parents had begun to reflect on the barriers that were identified at baseline, and there had been an attempt to change their behaviour.** While this process is likely to take time, it is interesting to see that the process had been initiated during the course of the project.

Like even when the weather's bad as I said, now if the weather's bad, you don't worry about whether it's bad or not, because you know you can go out and do things anyway. [Parent 6]

I've just eased off a bit, get more relaxed with what she wants to do. [Parent 3]

I realised that I just got to you know let the barriers down and trust him. [Parent 7]

Their children's natural play

It has been shown in Report 1 that the children's experience of natural play developed as a result of both Forest School and the family engagement project. **Their engagement with the project enabled them to be active, and parents and children began to develop their competence of using the natural environment for leisure time.** This was reported at length by their parents, who provided further examples of the types of activities the children were engaging in the natural environment. The information presented below demonstrates the variety in the activities observed, and the overall impact it has had on both the children and their parents.

She's been rock-pooling on the beach and everything and she had a really good time. [Parent 6]

She's more interested in bugs and things and picking them up and bringing them in the house. She's more into, you know when you're going for walks we're picking up snails to rescue them and having a look at trees. [Parent 3]

Paddling in the river, do Pooh sticks which is the stuff that ... so I suppose in a way I have tried to include them to do things like that more. We have done a few more park type places. [Parent 8]

We've been four times before and they've never even walked much across that grass and been over the hill... but they were up the hill, they were rolling down it, Richard came back with little acorns and acorn cups and yes, I think he has, I think he's changed a lot. [Parent 11]

I thought... when we went to Formby Squirrels she wanted to bring several snails home. [Parent 12]

I mean they've played out, they've been on the trampoline in the rain, they've made mud pies, they haven't done any gardening as such but they've played with frogs and toads and whatever's going on in the garden they've found it, anything alive [yeah] they've had to bring it in. We've had toads and frogs and caterpillars and butterflies... when these bloody frogs and toads and things come into the kitchen you've got to say 'oh, yeah, that's lovely, now take it back outside' (laughing). [Parent 4]

She's very much more, she's very interested in it all and when she gets the chance and she's spends a lot of time in the garden as well collecting stuff, very interested in some of the bugs and snails and slugs and all that, that I wouldn't necessarily thought she would have been previously so it's been good. [Parent 1]

She had got a bucket at the beginning of, I don't know, maybe the end of May ...and she put in it grass, water, leaves and she goes 'that's where the frogs will come in' and I thought 'oh we won't get any frogs in that, we have no frogs around here'. Anyway about three weeks ago Dave was in the garden and went, 'quick, quick, come and look you know at that bucket' and I went 'oh my God there's a frog in it.' [Parent 8]

Natural play as a family

Titman (1992) noted that children often need adults to provide them with play opportunities so that they can learn through playing, discovering and exploring. An interesting element that emerged from the data was that parents often reported that they had a good knowledge of natural play, yet few parents reported that they engaged in as a family prior to the project starting. In contrast, **at post-test, parents reported a change in behaviour and a there was evidence of a more concerted effort to use the natural environment for leisure time activities.** At post-test, parents were attempting to reinforce natural play for their children.

I think it's changed us in the way that we try and play with them and there's things that we do. So instead of ... before if we played as a family it was, "Get a board game out and play", or "Let's do Lego together", "Let's play with the train sets", now it's, "Let's go to the park for an hour", or, "Let's go down to the beach". And we've been to where we did the den-building, we've been there a couple of times and as a family we can play hide and seek and things like that now that we'd never done before. [Parent 11]

I've been walking the dog on the beach, they've been playing in the sand dunes, they've loved that. [Parent 4]

They've been back a million times to their den. [Int: Is it still there?] Yeah. They just keep building it up, it's brilliant... they've made dens in the trees in the garden and Geoff has made a mini den for a ladybird the other week. [Parent 5]

I think it's just been a reminder really that there's a lot of natural settings you can go... We've done some more den building... just been visiting a lot more outdoor really. [Parent 10]

Yes, we have, since Forest School started, yes, we have [done more outdoor activities]. Well, now I will look for more things to do in the area as well, because I have looked for things for them to do in the area rather than like, or not go out at all. [Parent 6]

We went to that Worden Park which was absolutely brilliant. We only went for the afternoon, but we did the maze, the playground and they were playing on

the fields, but, like, if I could find the way to get there again **one of those places that now you've found it you've love to go again.** [Parent 3]

Interestingly, **some parents noted that they had re-engaged with activities that they used to do** and that they had previously enjoyed. The gardening session was one example of a previously enjoyed activity that the parents enjoyed engaging in with their children.

The children had a great time. It was also good to see my dad joining in with them -. I think it has also prompted him to think about restarting a vegetable plot at home (at least 20 years since he last had one)... All 3 have lined up their pots and rummaged in the shed for old pots to paint 'later' ... for their other seeds. [Parent 11]

The kids have had a fantastic time –they have already planted the carrot seeds and Tom has even been sufficiently inspired to plant the grass seed that has been waiting to be sown for 6 months! [Parent 4]

Sharing knowledge and understanding

Outdoor play experiences can be effective in stimulating children's development (Barbour, 1999). The sharing of knowledge plays an important part of a child's social and cognitive development, as they begin to understand the world around them. **At baseline, there was some evidence that parents had been interested in and had learnt about nature and wildlife as youngsters, but had not passed this knowledge on, possibly as they perceived it as a bit boring.**

I used to know a lot more about wildlife when I was younger than I do now, I should really share it. Especially birds, we had hundreds of books on birds. Yes, isn't it strange I've not passed it on? [Parent 9]

I learnt about it in Guides about plants and birds and natural areas so all my knowledge comes from that. [Parent 10].

We go to the coast... but we're not avid nature watchers or anything. [Parent 1]

Following both Forest School and the family engagement project, there is evidence that both the children and parents had begun to share their knowledge with each other about the natural world, and while the parents often reported that this was child initiated, there was an emphasis on learning and sharing.

When we made the den, we were very much made it... we sat everybody down and said, "This is Geoff teaching us, okay", and they were brilliant, and he was saying, "Go and get this and get that, and I need that and I need this", and it, but I was saying to my friends, the hilarious thing was that I realised (laughs) with all of them, how they're going to be as they're older, because Jim was very practical, and, "Let's get everything together and let's pile it neatly and logically", Barry was just like, "Right, okay, what are we doing, right, I'm going to graft and I'm going to get everybody" (laughs) Geoff was just like, "Yeah, we need to just have all the materialistic stuff (laughs) I need seats, I need ferns for carpets, I need your scarf, Mummy, to make a curtain." [Parent 5]

And I got in to trouble when we re-potted them, because I just shoveled the soil straight from the bag into the pot... Emma said, "No, no, no, you've got to (s/l stick it) with your hands and crumble it" (Laughs) [Parent 11]

We did things as a family and that's still ongoing because, I mean, the first thing they did this morning when they got up was out seeing the peas and the beans growing. [Parent 12]

[We] just went [back to the den] because we wanted to show some of the girls that didn't go on it... we took them. [Parent 6]

Kathy's said 'Look mummy, that's this caterpillar or that's this butterfly and this is that and ...', yeah, she's picked up a lot of interest and information. [Parent 4]

Now it's different that Geoff would say this is how you make a den or this is how you make a camp fire or if you do this or if you do that which then as adults then we can sort of say oh yeah well, you could also do this and that leads on to other adventures. [Parent 5]

The social element of children playing while parents also socialise can also facilitate the swapping of information about places to go. **In several cases, a personal recommendation of a natural visit (or any other leisure visit) to another parent encouraged them to undertake a visit to a natural play space**, even though, in some cases, these areas were not local to them. Lastly, children's friendships often mirrored the parents' friendships, and some parents discussed the possibility of engaging in natural visits together to enable children to play together and be active in the natural environment.

Well like this weekend we're going to a Play Farm. There's lots of animals to see, there's a big outdoor play area, there's a big indoor play area if it's raining. I got a years pass last year and split it with another friend and I think it was, worked out 30 quid each and we just used to swap pass around and she'd have one for somewhere else and just pay half of each one. [Parent 3]

But were thinking of getting a National Trust membership, which at the moment I think it was £62 pounds. Have you ever been to Tatton Park? See that's Manchester Way isn't it. There a National Trust thing and we haven't got a National Trust thing but we've been into the gardens there and they're fantastic, just brilliant to walk around there and if you take a picnic the play areas great. They can run around have a great time, its nice there. [Parent 2]

I could go when Jen is at school and it's just me and Cathy, I could go perhaps with you and your little one. [Parent 3]

Interestingly, there were mixed responses when the parents themselves were asked whether their knowledge of natural play and the local environment had changed as a result of both projects. **Some parents reported that they had seen some improvements in their knowledge, whilst for other parents it served as a reminder of what leisure activities they can do in the natural environment.** The change in the interactions between parents and children was noted as a positive change from the project.

[I'm] not sure my knowledge has changed that much apart from like as a parent because I already think I knew, I used to do a lot of it myself [yeah] but as far as interacting with my daughter and son, it's improved... I do know that my daughter is a lot more aware and knows a lot more, it's surprising the things that she comes out with. [Parent 1]

So it's just been a reminder, I mean, I always knew ... I sort of did that in my old childhood. [Parent 10]

Probably because of Emma it is probably better. I have got more ideas and maybe it has made you realise the things that you did as a child yourself. [Parent 8]

Oh (pause) quite a lot. Yeah, because there's lots, you don't realise how much they can do, do you know what I mean. [Parent 6]

It's probably about the same I think... [realised] how important it is getting out there and showing Laura one thing and another. [Parent 12]

We've spent more time in the garden; the kids have been far better able to entertain themselves in the garden. Now whether that is a, a direct result of the project or whether it's an age thing, definitely we've spent less money on trips out than we did last year. [Parent 4]

I think it made me more aware of what was around because even though I think we go to a lot of places I didn't realise there was so much on the doorstep. [Parent 5]

Changing awareness

Parents commented on the impact that the project had on their awareness of both the natural world around them and leisure opportunities in and around The Mersey Forest area. The signposting was well received by parents, as it provided them with information to encourage them to initiate activities in their own time, and it acted as a catalyst to find more natural play opportunities for their families. The support provided that increased their awareness of local spaces was valuable, though some parents thought that a little more directed support could also be made available.

I don't think so to be honest, unless there was, like, the leaflets that come through tell me about stuff because my husband and I are a bit clueless on what to do over the weekends and they don't come naturally... we don't really know what to do. [Parent 3]

I tried to look under The Mersey Forest, and I got lost, so I thought if they did day outs, day activities or something see if I could find anything. [Parent 3]

I have got more ideas and maybe it has made you realise the things that you did as a child yourself. So it is a bit of a memory jolt to go "oh God, yeah we did that and that was really good and we had great fun doing that." So it has probably brought back a lot of things that I did as a child that I never thought about doing and also made me be more aware of places around me that can do those sort of things as well. [Parent 8]

There are lots, you don't realise how much they can do, do you know what I mean? [Parent 6]

I've never been to any of the places that you've listed in the past so I'm inquisitive about that so I suppose it's shown me that there's other places to go. [Parent 1]

I think reminding you to look further a field as well, not just to stay around this area, you know when you sent us the pack and the ideas of travelling further a field so it's just been good to see what's around locally really. [Parent 10]

Anything that was offered was good as far as I was concerned because it was something that I wouldn't have done. [Parent 5]

I did look at the leaflets because I mean we've never been out to Delamere Forest or anything like that. We do know it's there but we've never been. We went to Fairy Glen at Parbold... we'd been meaning to go for ages and it sort of finally prompted us to do it. [Parent 12]

We tried that Worden Park ... you see I would never even have thought of going there, I didn't even know it existed. [Parent 8]

Enjoyment

There was a general consensus from the parents interviewed that they enjoyed the opportunity to engage in natural play through the project. **Most of the parents noted that it had provided them with an opportunity to interact with their children in their leisure time, and that they continued the activities after the project.** In addition, some of the parents noted that they enjoyed the family sessions and the social element of these sessions. This helps predispose natural play, as parents recognise that they are able to engage in natural play and it is worth investing time in to such play opportunities.

It was quite good to see how people get on together socially and things and to see how much, as I say, all the children enjoyed it. [Parent 1]

It was just nice to see parents enjoying time with their children... I think that in day and age that rarely happens in some families so anything like this that encourages, because some parents have just forgotten how to play, it was that long ago that they did it. [Parent 5]



Parent-child play



New skills



Enjoying nature

All these activities are available and you've got parents just acting like big kids. [Parent 8]

We all participated, something we could do together and we all enjoyed it and it was quite simple to do, and there were lots of other families there doing the same kind of thing... it was quite nice to take part. [Parent 10]

The family den building I thought was really good... to have the fathers there as well involved was great. [Parent 6]

In addition, the parents reported that the children enjoyed Forest School, and that there was a sense of disappointment among them that the sessions had finished. It was also interesting to see that some of the children's siblings were keen to take part in Forest School, and that both the parents and the children hoped that the sessions would continue.

She'd really like the chance to continue to do that... I haven't heard one negative comment from parents or children participating so I just think it's really good if the resources are there that it's rolled out really. [Parent 1]

Oh yeah, she really enjoyed it. And she's most put out that the rest of the school will be doing it next year and she won't. [Parent 12]

Oh, she's absolutely loved it. And my other daughter starts school on Monday she's desperate to do Forest School as well. [Parent 3]

I think if they don't get out into the forest when she starts on Monday they're going to have trouble on their hands... she's desperate to get out there. [Parent 11]

It was the most fantastic thing that happened to her last year. She loved it and if she could do it again this year ... I don't know what the plans are this year but she will be there with bells on, she thoroughly enjoyed it. [Parent 4]

Engaging Children (Forest School)

There is evidence from the interviews that **parents did see changes in their children across the project as a result of engaging children in the outdoor environment.** The changes noted ranged from a change in their confidence to a developing knowledge of natural play. This adds to the findings reported in the Child Report (Report 1).

They gave her a booklet for the school holidays and they had to find things on the paths, identifying three different trees, they had to say when they'd found them and she was... my friend's children, she was... she was definitely a lot more confident at knowing where and she was telling them about things as well. She seemed a lot more confident with doing it and more competent at what she was doing. [Parent 12]

[The den building was] was lovely and I knew they were confident and knew what they were doing. [Parent 1]

Whereas before he would have been a little bit oh no, its scary or oh I don't want to... he would have held back a lot more whereas now he's saying we could make a den here and we could camp out. [Parent 5]

What I do know is that my daughter is a lot more aware and knows a lot more, it's surprising the things that she comes out with. [Parent 1]

She's more into, you know when you're going for walks... we're picking up snails to rescue them having a look at trees and saying this, that and the other. [Parent 3]

It was nice to do things with Ella like talk about ... when she would come home she would talk about Forest School. [Parent 8]

Well, with going out more, as I say, like, because you're going out more and seeing things, like she likes more ... she's more in to looking and doing her mini beasts and things because, she says, "You can't ... oh, no, you can't kill that because that's a living creature". [Parent 6]

And Emma's, she's got these ... she bought some little (s/l fairy seeds) for the roses so that the plants could be lifted and get air to the roots, and I thought, "Oh, she's learning", so (laughs). [Parent 11]

Recommendations

Interesting elements from the parents' interviews were the recommendations that were put forward. These included more information at the start about the content of the project, both at school and the family engagement project, the timing of events, and the notice that families had for the events. **The Forest School session in which the parents participated was welcomed as it helped the parents to understand and observe the changes they had noted in their children's play.** Looking at the comments made, the den building was the most popular activity, and could have been offered again to engage those who missed it and re-engage those who took part.

Whenever you do this or if you do I think the thing is to get parents because I think if you have got parents on board and they can see how much the children love it I do think as a parent it does spur you on and it does make you think about the things that you did, that you enjoyed. [Parent 8]

I don't know how much notice you actually give but I felt like I didn't have enough time... I was really disappointed and I couldn't do things because one of them I was working. [Parent 9]

I think it would have been nice maybe at the parents' session that you did... perhaps do something at the beginning of Forest School as well as the end just to show parents what you're actually going to be doing... perhaps that would spoil it for the kids, I don't know, but it was a bit of mystery at first as to what it was all going to entail, so but it was exciting for the children though. [Parent 10]

You know if you do, the family things, do still invite us along if that's okay, because if we can make it, we will come. Because as I say, like, I was disappointed that we couldn't make the gardening one. [Parent 6]

More notice would have been nice. [Parent 12]

I enjoyed coming into school and seeing the children in that (Forest School) environment I have to say. [Parent 8]

The forest at the back of the school, you forgot that was there, so it's been nice to get out and just, like, we enjoyed doing the fire and toasting the marshmallows and all that. It's just really just a reminder, I suppose, that there's a lot to outside and forest wise a lot to discover... (It would be good to) .do something at the beginning of Forest School as well as the end just to show parents what you're actually going to be doing. [Parent 10]

Synthesis of Results

The restriction of play opportunities can impact on the acquisition of lifelong skills that are developed when children are free to explore and manipulate the physical and social world in which they live (Bateson & Martin, 1999). The opportunity to interact with their physical and social environment helps children to determine acceptable and unacceptable behaviours in specific settings (Giles-Corti et al., 2005), and regular encounters with different environments lead to consistent patterns of behaviour (Barker, 1968). As parents play an important role in enabling and reinforcing children's natural play, this project aimed to determine whether families could be encouraged to participate in outdoor leisure activities using areas of The Mersey Forest for Natural Play and leisure time activity.

The results suggest that many parents experienced freedom in their own childhood to engage in leisure activities in the local environment, yet many restricted their children's natural play. This supports previous research that has documented that there are increasingly greater adult constraints being placed on children's play to minimise safety risks (DCMS, 2004; Strong et al., 2005). Interestingly, some parents had begun to reflect on the restrictions that they place on their children, and while a lot of natural play was still supervised, there was evidence to suggest a greater willingness to visit the local area and to engage in natural leisure activities. Importantly, the information supplied by The Mersey Forest served as both a reminder and a prompt to parents, indicating that such approaches could be used to encourage parents to engage in more natural play leisure activities in the future. The signposted opportunities could ultimately predispose families to engage in natural play, as they remember that they are able to use the natural environment for natural play and the associated benefits are worth it (Welk, 1999).

Titman (1994) reported that children prefer and value natural environments more highly than urban environments due to the associated feelings of adventure, challenge and risk. Parents noted that their children thoroughly enjoyed the sessions provided at school, and also commented on the challenge that some activities provided for the parents too. It was clear that the children were engaging with the natural environment, and they were starting to explore and discover things for themselves. It was also positive

that parents were willing to foster and reinforce these experiences, though at times there was a sense of resignation about the natural world being brought in to the house. It is notable that both parents and children were aware that they were able to engage in natural play and it had a worth, particularly as it was an enjoyable experience (Welk, 1999). Titman (1994) notes that these opportunities for thinking and discovery are valued by children, and there is evidence here that the parents valued this too.

Some recommendations were raised by the parents, which should be noted for future work that focuses on family interventions. These closely linked to the barriers to natural play that the parents reported at baseline, and generally focused on time constraints. It should be noted that a few of the parents, particularly those that attended none or only one of the organised family events, were interested in being informed of future events. It suggests that the interest in the events was there, and that the little engagement seen was down to external influences rather than an unwillingness to get involved. Overcoming these barriers may enable greater engagement with such activities in future projects. In addition, it may be that more activities are offered or popular events are repeated to sustain interest and enable natural play opportunities (Welk, 1999).

In summary, the evidence from this project suggests that parents saw a change in their children's interest in natural play, confidence in their environment, and they enjoyed the experience. These are all examples of predisposing factors to natural play. Moreover, parents had begun to use the information provided to them to visit areas in The Mersey Forest and their local community, and, in some cases, parents had begun to revise the restrictions they placed on their children's play opportunities. While parents did not necessarily increase their knowledge of natural play, their knowledge of places to visit certainly increased (an example of an enabling factor) and the information provided by The Mersey Forest Team was appreciated. Overall, this project provides a framework for future interventions, and highlights how enabling parents to engage in natural play with their families (Welk, 1999), and showing them the importance of these opportunities to the family as a whole (predisposing factors; Welk, 1999), can encourage greater engagement with the natural environment.

Final Thought

I like the way you guys did it because you've kept it really simplistic in terms of that it's really child based and you've given families the chance to embrace it in the way they want to embrace, it's not kind of like do this, do that, do that and it's so regimented but you've kind of given everybody enough information and then off they went... I think the best way to do it is to be involved in your kid's world and just know how they play and see their boundaries and constantly be just moving them a little bit all the time.

[Parent 5]

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