Plymouth University

Naturally Healthy
Devon Schools

Final Report

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7/7/2017
**Acknowledgements**

The authors would like to thank:

The project funders, the Campaign to Protect Rural England Devon, Devon Local Nature Partnership, Devon County Council and Plymouth University.

The Project Board, who were much appreciated ‘critical friends’ to the project.

Others who have contributed to the Naturally Healthy Devon Schools project delivery from Plymouth University and Natural England; Jennie Aronsson, Naomi Wright, Ian Blackwell, Rowena Passy, Caroline Emmerson, Jim Burt and Jenny Hanwell.

Natural Connections hub leaders for their dedication to the project and the huge amount of time and energy they put into the project, above and beyond what they were contracted to do. They are: Meg Knowles, Tim Dafforn and Alex Turner from East Devon District Council and Louise Graham and Luke Graham from Natural Learning.

Chris Holland for his Landscape work with pupils.

School staff, volunteers and pupils in all Natural Healthy Devon schools for their enthusiasm and commitment to outdoor learning that made the project such a success. Their invaluable contributions to the evaluation have made this report possible and helped shape future practice. A particular thank you goes to the schools that hosted case study visits and provided such wonderful insight into their work.

All the other organisations and project partners who worked with the project and contributed with generous in-kind support, time, resources and professional input.

Thank you to Meg Knowles and Chris Holland for the use of the photographs in this report.
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1. Executive Summary

Background
The Naturally Healthy Devon Schools (NHDS) project was intended to amplify and build on the findings of the Natural Connections Demonstration Project (NCDP) with a particular emphasis on health and wellbeing outcomes and increasing Devon children’s access to their local natural environment. The major funder for the project was the Campaign to Protect Rural England (CPRE) Devon via a legacy they had received with the aim of strengthening the link between the children of Devon and their local environment. Additional funding was also received from Natural England, Devon County Council, Devon Local Nature Partnership and Plymouth University. The project was delivered by Plymouth University and Natural Connections project staff based in Natural England.

Outdoor learning in Devon’s Landscape

Naturally Healthy Devon Schools shared three project objectives with the original Natural Connections Demonstration Project: to stimulate the demand from schools and teachers for outdoor learning, support them to build outdoor learning into everyday practice and to stimulate the supply of services to enable teachers and schools to do this. It had an additional focus on how learning outside the classroom supports schools to promote healthy outcomes, and so aimed to increase our understanding of both the learning and health benefits of outdoor learning.
Distributed delivery model

- The Naturally Healthy Devon Schools project followed the Natural Connections project distributed model of responsibility, operating at four levels:

  central team ➔ hub leaders ➔ beacon schools ➔ cluster schools.

- The concept, tested during the NCDP, was to build local networks in which the local brokerage agencies ('hub leaders') would first recruit and enhance the work of schools that were already successful in outdoor learning ('beacon schools') and who would, in turn, support other schools ('cluster schools') in developing their outdoor learning practice. The distributed model was successful in recruiting schools to the project, supporting them to deliver outdoor learning, and testing sustainable models of outdoor learning delivery.

- The project was delivered in two areas of areas of Devon identified as having above average levels of childhood obesity – North Devon and Exmouth.

- In total forty-four schools (primary and secondary) took part in the project. It is estimated over 7,600 Devon children have been reached. Twenty primary schools took part in the evaluation by completing at least one survey during the project and an additional 24 engaged with project meetings and CPD. Across the twenty schools responding to evaluation requests, the project engaged with:
  o 240 teachers
  o 260 teaching assistants
  o 3800 children.

- Headteacher support, as in the NCDP, was key to schools successfully engaging with NHDS. Other factors such as Ofsted grading, size and proportion of pupils eligible for Free School Meals were far less important than the enthusiasm and receptiveness to outdoor learning of school staff.

Outdoor learning in schools

- The comprehensive project evaluation allowed us to be confident in conclusions reached in this report and to understand changes in outdoor learning in schools and their impact for project participants.

- School survey respondents reported large increases in the time spent on outdoor learning activity across all school terms.

- Two main models of outdoor learning implementation emerged in project schools; shared responsibility for outdoor learning across all staff or responsibility resting primarily with a few staff. Both models had advantages and challenges associated with them, but most
importantly they were implemented by schools in response to their own needs and resources.

- Outdoor learning was used for and seen as valuable for a wide spread of curriculum areas with science, English, and maths supported through outdoor learning by the highest number of schools. The findings are in broad agreement with the NCDP report and show that schools found outdoor learning useful for curriculum delivery for the core subjects and not just as enrichment and PSHE.

- Forest School was used extensively across the project schools and training in Forest School was reported as an important opportunity for teachers and supportive in enabling outdoor learning in schools. Forest School provided in depth accredited training and theoretical underpinning that enabled teachers to articulate benefits of outdoor learning with respect to many of the foundational aspects of learning.

- Following the NCDP findings closely, the key reported challenges to outdoor learning development in schools: staff lacking confidence in working outside, staff uncertainty about linking outdoor learning to the curriculum and lack of funding all reduced during the project lifetime. By the end of the project, time was the key challenge to schools delivering as much outdoor learning as they wished to do; a clear indication of latent demand. The need for volunteer support however also continued to remain as a reported challenge by schools. One possible explanation is that schools are identifying the need for volunteers to support outdoor learning but do not yet have the resources, expertise or systems in place to enable this. Although the apparent lack of volunteers does not appear to impede increasing outdoor learning completely, it is possible that more volunteers would stimulate even more growth.

- Challenges to outdoor learning were school specific and changed during the course of the project, in line with NCDP findings. This was an ongoing process in which schools addressed immediate challenges and then, as confidence in outdoor learning practice developed, they identified new challenges and worked on those.

**Impact of outdoor learning**

- Schools responding to the March 2017 school survey recognised a range of impacts and benefits of outdoor learning on their pupils. Schools were unanimous about the positive impact of outdoor learning on enjoyment of lessons, engagement with learning, social skills, behaviour, engagement with and understanding of nature, physical health and wellbeing. Furthermore 10 out of 13 responding schools (77 per cent) also reported a positive impact on attainment. There were no reports of negative impact.
• These findings are in broad agreement with previous school surveys at the start of the project and in July 2016. Participating schools were clearly convinced of the wider benefits of outdoor learning.

• Outdoor learning was also seen by schools responding to the surveys as having positive impacts for teachers
  o Teaching practice (100 per cent of schools)
  o Professional development (92 per cent of schools)
  o Job satisfaction (69 per cent of schools)
  o Health and wellbeing (62 per cent of schools)
  o Teaching performance (46 per cent of schools)

Health

• Within the Naturally Healthy Devon Schools project, a small scale study, Mapping and Measuring Healthy Outcomes, compared the use of self-report and teacher questionnaires with pedometers and accelerometers to analyse the quantity and impact on moderate and vigorous physical activity of learning while in different environments. It found that these different measurement techniques were statistically equivalent when comparing sedentary or active behaviour and in line with previous research, that higher levels of physical activity were associated with outdoor lessons.

• A toolkit to support schools Creating Happy and Healthy Schools through Outdoor Learning has been developed. It includes easy to use resources for schools which offer a simple means to monitor pupil health and wellbeing and is freely available online at https://www.plymouth.ac.uk/research/oelres-net.

• Schools were unanimous about the positive impact of outdoor learning on physical health and wellbeing of pupils.
There were universally positive comments on teacher’s health and wellbeing in school surveys and case study interviews. Sixty two per cent of schools reported positive ratings of the impact on staff health and wellbeing in the March 2017 school survey and no negative effects were reported.

**Sustainability**

- The project contributes to the growing evidence that a distributed model of independent local brokerage can unlock demand for outdoor learning in schools and support schools to overcome local barriers, adopt and embed low-cost outdoor learning practice, and deliver a range of positive outcomes for teachers and pupils.

- Support for ongoing outdoor learning networking among schools will require continued coordination at a local level. However hub leaders have developed different initiatives to help support ongoing collaboration and outdoor learning activity at a school level. The project has also supported the production of *Creating Happy and Healthy Schools through Outdoor Learning* posted on this website ([https://www.plymouth.ac.uk/research/oelres-net](https://www.plymouth.ac.uk/research/oelres-net)), a resource that can be used by schools wishing to encourage and monitor health and wellbeing in the future, which was informed by the Mapping and Measuring Healthy Outcomes study. This has the potential, alongside the Transforming Outdoor Learning in Schools booklet ([https://www.plymouth.ac.uk/research/oelres-net](https://www.plymouth.ac.uk/research/oelres-net)), to provide other schools with the foundations to develop successful outdoor learning for their pupils.

**Conclusion**

The project has contributed to the growing understanding of how to support the implementation of outdoor learning in schools. It has confirmed many findings from the NCDP and adds weight and detail to the strong evidence that the distributed model of independent brokerage enables schools...
to overcome local barriers and implement low-cost outdoor learning across the curriculum, and deliver a range of positive social, developmental and educational outcomes for teachers and pupils.

In addition the project demonstrated explicitly the value and role that outdoor learning can contribute to the physical health of pupils and confirmed many of the wellbeing benefits reported in the NCDP.

The success of the project was achieved through hub leaders, with experience in education at a local level in supporting schools and working with them to share and develop outdoor learning practice. Despite a diversity of challenges, these were reduced by involvement in the project. The project was successful in the recruitment and retention of schools, and the positive impacts reported by schools indicates the success of the project and to schools’ commitment to outdoor learning. There were increases in the quantity and quality of outdoor learning in participating schools with positive reported impacts on pupil health and wellbeing.

The project also increased participants’ awareness of Devon’s countryside and wider natural environment through increased opportunities for outdoor learning linked to school curricula. It raised the profile of project funders including of CPRE Devon and achieved the aim of bringing over 7,000 children closer to the Devon countryside.
2. Project Context, Principles and Purpose

2.1 Project Context

The Naturally Healthy Devon Schools (NHDS) project was funded by the Campaign to Protect Rural England (CPRE) Devon, Natural England, Devon County Council, Devon Local Nature Partnership (LNP) and Plymouth University. It was managed by Plymouth University and was intended to amplify and build on the findings of the Natural Connections Demonstration Project (NCDP) with a particular emphasis on health and wellbeing outcomes and increasing Devon children’s access to their local natural environment in line with a legacy received by CPRE Devon.

The Natural Connections Demonstration Project was commissioned by Natural England and delivered by Plymouth University from 2012 - 2016. It was funded by the Department for the Environment, Food and Rural Affairs (DEFRA), Natural England and Historic England. The long-term aim of the initiative outlined in The Natural Choice White Paper (June 2011) was to enable all children within England to benefit from learning experiences in their local natural environments. It aimed to develop understanding of what was needed to engage schools with outdoor learning and enable a culture change within schools, with teachers embracing both the concept and the practice of taking curricular learning outside. It was intended that successful methods developed within the demonstration project would be replicated and amplified more widely, and that subsequent phases might have different foci such as outdoor play or health outcomes, according to policy priorities. More information about the lessons derived can be found in the project final report http://tinyurl.com/h8vwznz (July 2016).

Naturally Healthy Devon Schools shared three project objectives with the original Natural Connections Demonstration Project:

- To stimulate the demand from schools and teachers for learning outside the classroom in the local natural environment
- To support schools and teachers to build learning outside the classroom in the local natural environment into their planning and practices
- To stimulate the supply of high quality learning outside the classroom in the natural environment services for schools and teachers.

It had an additional focus on how learning outside the classroom supports healthy schools, and so aimed to increase our understanding of both the learning and health benefits of outdoor learning in relation to two of Devon LNP’s priority themes:

- **Naturally Healthy** vision: Everyone in Devon has the opportunity and the confidence to be ‘naturally active’ in order to improve their health and wellbeing
- **Outdoor learning** vision: People of all ages regularly interact with Devon’s natural environment as an integral part of lifelong learning.

These aims were addressed through:

- building the confidence of and offering more opportunities to school-aged children, teachers and parents to be ‘naturally active’ in order to improve their health and wellbeing
• encouraging school-aged children, teachers and parents to regularly interact with Devon’s natural environment as an integral part of learning
• working with partners to encourage more diverse volunteering opportunities in schools
• connecting school children with the natural environment and, through learning in that environment, to increase their understanding of its importance and value
• increasing awareness of CPRE Devon and to encourage more people, particularly parents, to support the charity and its aims of protecting the countryside.

2.2 Project principles
The following principles underpinned the development of the Naturally Healthy Devon Schools project:

• Targeted – supporting primary and secondary schools in areas of Devon identified as having above average levels of childhood obesity.
• Local – use of green spaces within walking distance of school, including but not limited to school grounds.
• Scope – shaped to meet individual schools’ needs and priorities by providing them with the most effective ways to support inspiring and effective learning in local green spaces, across the curriculum.
• Enabling – independent support for schools to access the full range of existing, quality learning OL opportunities available locally, such as local parks and gardens, farms and nature reserves, local businesses and environmental organisations, informal and formal volunteering infrastructure, other schools, and local people.
• Capacity building – providing schools (and local practitioners/providers) with expert and independent face to face advice to build awareness, understanding and confidence in outdoor learning and to understand issues relating to volunteering in building support for outdoor learning in schools.
• Sustainable change in practice – embedding cultural changes in policy and practice, both in how schools approached outdoor learning and in the nature of the services available to them, to ensure a legacy for those involved beyond the life of the project
• Financially sustainable – working towards financial sustainability.

2.3 Project purpose
The purpose of the NHDS Project was to amplify the NCDP model for engaging schools in learning outside the classroom in the natural environment (also known as outdoor learning) in two new areas of Devon. The NCDP developed and refined a model of independent brokerage and professional support to grow outdoor learning activity and also support networks in participating schools. NHDS was monitored and evaluated using a framework adapted from the larger NCDP evaluation. The process of evaluation throughout the project was central to informing delivery and to capturing project outputs and outcomes.
Outdoor learning was defined as learning that took place outdoors in natural environments either within school grounds or within walking distance from school. Schools were recruited from primary, special and secondary schools (maintained and academy) in areas of Devon identified as having higher than average levels of childhood obesity. The project model was tested over two years from February 2015 to February 2017.
3. Project Delivery Model and Structure
The Naturally Healthy Devon Schools project followed the Natural Connections project distributed model of responsibility, operating at four levels:

central team ➔ hub leaders ➔ beacon schools ➔ cluster schools.

The concept, tested during the NCDP, was to build local networks in which the local brokerage agencies (‘hub leaders’) would first recruit and enhance the work of schools that were already successful in outdoor learning (‘beacon schools’) and who would, in turn, support other schools (‘cluster schools’) in developing their outdoor learning practice.

The vision behind the model was a bottom-up needs-led approach: identifying and supporting outdoor learning that was responsive to local priorities and circumstances; enabling participation and collaboration among schools; and encouraging clusters of schools to become autonomous groups that continued to work together after project funding ceased.

NCDP showed that over time this approach could develop sustainable networks of schools of mutual support that continue to expand:

1. internally within each individual school with more staff delivering outdoor learning
2. externally with more schools joining clusters as more staff grew in confidence and expertise.

The aim was for a cultural shift in participating schools towards embedding outdoor learning in their policies and embracing outdoor learning as part of their everyday practice.
3.1 Project areas

The project worked with 44 schools and 20 schools across Devon participated in the evaluation illustrated in the two maps below.

Map 1: Devon wide distribution of schools

Map 2: Close up of schools in Exmouth involved in the project
3.2 Hub leader models, successes, challenges

The central team appointed two hub leaders. They were:

- North Devon – Natural Learning: Forest School and outdoor learning training provider
- Exmouth – East Devon District Council Countryside Service

Both hub leaders reported it took longer than they anticipated to recruit schools and that the flexibility of allowing a longer time frame enabled them to identify suitable schools. Reasons given for the longer timeframe included the part-time nature of the role of the hub leader (between 0.1 to 0.2 FTE) and the response times from schools that were involved in arranging visits and meetings.

The hub leaders reported a number of common reasons for schools to join the project:

- The project answered a need for schools around outdoor learning in creating time and space. In particular, it appeared that there is not much time available in schools for discussion, meeting and training with respect to outdoor learning. Examples were given by hub leaders of schools with staff members who wanted to do more outdoor learning but didn’t have a clear idea about how to progress.
- Schools were keen to share their practice around outdoor learning and to receive recognition for this.
- The project reinforced the value of outdoor learning and permission to invest in it. A number of schools with some existing outdoor learning activity and were convinced of the benefits for pupils were receptive, as the project ... is an obvious vehicle to try and do stuff [increase outdoor learning activity] in schools that they didn’t have before. (Exmouth hub leader).
- Personal interest from teachers was reported by hub leaders in some cases being the driving force behind project participation rather than schools joining as a result of management priorities. Staff were reported as recognising the project would be beneficial to them as... ‘The feedback that they are giving is that this is really flying because... for their role it [outdoor learning] has got to happen and suddenly it is pushed up the list of priorities, which is where the other schools are not being able to engage... because the list of priorities is so long and the outdoor learning is... very much further down’ (North Devon hub leader).
- The North Devon hub leader also reported that a number of schools commented on their interest in specifically supporting the English and maths curriculum through outdoor learning.

Challenges to recruitment included

- Headteacher changes (including through federation and academisation) meant that some schools lacked a senior management team to make decisions or support involvement in the project.
- Some schools wanted to participate in the project, but did not want to contribute to the evaluation. One hub leader reported that a school involved in the project did not feel they had to take part in the evaluation as a school with which they were federated had already completed the school survey.
These challenges mirror the NCDP findings that senior management support was crucial and that the evaluation demands were seen as burdensome by some schools.

**Hub Models**

Each hub leader developed their hub model based on their knowledge and experiences of working with schools and of the specific hub area. They coupled this with enhanced understanding of processes gained by the central team, learning from the hub leaders that participated in the original NCDP.

Both hub leaders adopted a consultative approach with schools in deciding how to develop their hub models. They also modified their delivery to the changing needs and priorities of schools and recognised that in order to do this effectively, their approach needed to change during the life of the project. The tables below outline their respective strategies. They contain a number of similarities, which are highlighted in bold.

Over the project’s lifetime, there was a tendency towards holding fewer but larger meetings, but continuing face to face specific school support and targeted CPD and networking, especially in curriculum links and site development. This responsive and developmental approach was widely appreciated in both hubs. One hub also found that some schools naturally took more of a lead as a beacon school to support others in this networking and development work.
### Table 1: North Devon hub model

<table>
<thead>
<tr>
<th>Project Strategy</th>
<th>Support provided for schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up two sub-hubs for geographical reasons around South Molton and Holsworthy. The hub leader also ran a combined Teach Meet as a celebratory start to the project.</td>
<td>The hub leader reported that schools attending project meetings were getting inspiration from other schools but some were continuing to say they couldn’t implement outdoor learning. The hub leader felt that very individual support is needed for many schools ‘...they really need someone to sit down with them one to one and say right this is the plan and this is for your school...’</td>
</tr>
</tbody>
</table>
| Both hubs initially met every half term alternating between a network meeting and a CPD session (with networking time) based upon what schools identified as needed. | The hub leader planned and delivered CPD for many of the sessions. The hub leader felt that the provision of CPD that enabled outdoor learning is not being provided by other providers and that there are consistent training needs for schools which they focused upon. These are:  
  - engaging with the curriculum  
  - developing their site  
  - evidencing learning  although schools may need different things at different times. |
| Both sub-hubs developed as open collaborations with no lead ‘beacon’ school. | The hub leader also shared resources on their website collated from across project schools to support these needs generated through project meetings. |
| By the end of the project, schools were meeting as one larger hub once a term because of time constraints in attending more regular meetings. The expanded catchment meant more likeminded people were able to come together and network. | |
| The hub leader also provided regular 1:1 opportunities for schools and this was seen as a key part of the offer for schools with an emphasis on providing schools with the specific curriculum resources they need. | |
| The hub leader felt that teachers want the network and collaboration around outdoor learning without the requirement of implementing outdoor learning in a specific way in order to respond to pupils needs. This responsiveness was reported as a strength of the project. | |
| The hub leader felt that the network is more important than the CPD and commented that the CPD ‘comes out’ of the network. | |
| She reported that there is not much time available for outdoor learning in schools for discussion / meeting / training, and that the project has filled that gap. | |
**Table 2 Exmouth hub model**

<table>
<thead>
<tr>
<th>Project Strategy</th>
<th>Support provided for schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially the hub leader organised termly meetings for all schools bringing them</td>
<td>One to one support provided on an ongoing basis throughout the project.</td>
</tr>
<tr>
<td>together (at a different host school) during an after-school meeting. This provided</td>
<td>Facilitated schools to overcome challenges through talking them through as a group in network meetings.</td>
</tr>
<tr>
<td>opportunities to share good practice and to network in geographically co-located</td>
<td>Brought in and brokered external CPD providers. Also provided some CPD direct. The hub leader felt their role filled a niche in CPD provision around the ability to link outdoor activity to the curriculum.</td>
</tr>
<tr>
<td>schools.</td>
<td></td>
</tr>
<tr>
<td>By the end of the project regular twice-termly casual twilight sessions were being run. These had a CPD theme that was part of the meeting but the rest of the meeting allowed teachers to discuss and share their work and talk through issues and problems. This opportunity of time together for like-minded teachers was reported as important.</td>
<td></td>
</tr>
<tr>
<td>The hub leader spoke to schools to understand needs and design support which focussed on grounds development and curriculum links.</td>
<td></td>
</tr>
<tr>
<td>At first schools worked as one collaboration without beacon or cluster schools. The hub leader felt however there were two beacon schools that ‘...were outstanding in terms of their outdoor learning offer already, have gone and taken the lead’ in terms of being more forthcoming with hosting twilight sessions and CPD.</td>
<td></td>
</tr>
<tr>
<td>Building the relationship one to one in schools was seen as very important. The hub leader felt that ‘...the only way to keep schools engaged is going in and talking to them on a regular basis rather than relying on them to come [to events and training]’..</td>
<td></td>
</tr>
<tr>
<td>The hub leader reported that the flexibility of project is good as it enables it to change and evolve in order to meet school needs.</td>
<td></td>
</tr>
</tbody>
</table>
4. Evaluation Design and Methods

The project was monitored and evaluated using a framework adapted from the NCDP evaluation and evaluation was central to informing delivery and to capturing project outputs and outcomes. The framework enabled the project to be systematically evaluated against 25 evaluation questions. This report presents a summary of this analysis.

The project used NCDP evaluation instruments as its starting point and collected data on the impact on pupils and teachers of learning outdoors, including whether pupils are more physically active during outdoor lessons and how being outside affects their wellbeing. Where possible the evaluation was kept light touch for participants to reduce the work required from them. NCDP data has already shown that learning outdoors can have a positive impact on pupil’s behaviour, social skills and engagement with learning.

Natural Connections findings are used in this report for comparison to illustrate a number of points as its project design was the basis for NHDS and so experiences of schools and the support they received was similar in both projects.

4.1 Evaluation design

The evaluation was designed to:

- Inform ongoing project design and delivery through monitoring progress, successes and challenges in across the project.
- Monitor the scale and scope of the project as it changed over time.
- Evaluate the effectiveness of the structures and processes put in place by project teams in meeting the aims of the project.
- Monitor the impact of the project on participating schools, organisations and individuals.
- Monitor project outputs.
- Monitor and report on the financial sustainability of the project model.
- Capture the project learning in order to contribute to the evidence informing future programmes aimed at improving effective school-based outdoor learning.
- Understand project health-related outcomes. This work included:
  - an evaluation methodology and toolkit to share with others to monitor more easily the impact of outdoor learning on children’s health and wellbeing
  - demonstrate if and how outdoor learning can encourage improved health and wellbeing of participants.

Although on a smaller scale to NCDP, a mixed method approach triangulating data from different project sources was still the most appropriate way to evaluate the project, providing flexibility in answering research questions that sought to understand change in outdoor learning activity at a school level and provide an overarching understanding of project development as a whole.
4.2 Data collection and management

Data collection instruments included:

- Reflective surveys used with Outdoor Learning leads in schools to capture school level information and longitudinal change with respect to outdoor learning, including perception of impact.
- Interviews conducted with:
  - Hub leaders to gain knowledge of hub developments. This included hub leader methods of implementation together with successes and challenges and project adaptations within a fast changing educational environment.
  - School staff (including teachers, TAs and support staff). Interviews with individuals in case-study schools provided information to allow an understanding of outdoor learning implementation in schools, including perceptions of and motivations for outdoor learning activity.
- Accelerometer, pedometer and self-report data on physical activity in two schools participating in the development of an evaluation methodology and toolkit to monitor the impact of outdoor learning on children’s health and wellbeing.

A range of other data sources were consulted and investigated for background information on and insight into participating schools. These included:

- Department for Education performance tables
- School websites
- Public Health Devon Community Baseline Profiles (at Lower Super Output Area)
- National Child Measurement Profile data on child obesity levels in project schools.
5. Results

5.1 Project scale
- The project ran from February 2015 to February 2017
- Twenty schools took part in the evaluation by completing at least one survey during the project.
- In total forty-four schools took part in the project through attending project network meetings and CPD events and sharing directly between schools as evidenced from hub leader interviews. It is estimated over 7,600 Devon children have been reached.
- Over 3800 pupils participated in project schools taking part in the evaluation.
- Over 240 teachers participated in these project schools.
- A range of partners were involved including: CPRE Devon, Devon County Council Landscape Department, Devon Environment Sustainability Working Group, Devon Local Nature Partnership, Devon Public Health, East Devon Countryside Service, Natural England, Natural Learning and Plymouth University.

5.2 Types of outdoor learning activity
By the end of the project all schools reported that they were engaging in curricular outdoor learning. There was a high level of involvement in this by participating schools at the start of the project, so further examination of activity is needed to explain what participation in NHDS has meant for the schools involved (see following sections). One possible effect, suggested by the fact that one fewer school reported both weekend and extracurricular outdoor learning activity, is that the project focused attention on overcoming curriculum-related barriers to increase the amount of outdoor learning that schools could fit within busy timetables and achieve curriculum objectives. It may have shifted their attention from broader aims and intentions for outdoor learning, which are possibly more vulnerable to external time constraints and pressures.

5.3 Time spent on outdoor learning
The time spent on outdoor learning varied between schools depending on how they implemented outdoor learning delivery. Figure 1 shows a project level estimate of time spent undertaking outdoor learning activity, per week, per class. This figure was calculated by
- Using school estimates of time spent on outdoor learning per week reported in the school surveys
- Dividing the per week estimate by the number of pupils in school to provide a measure of activity per week per child
- Multiplying this by 26 (the average national class size across primary) to produce a per class estimate.
A slight decrease in time spent on outdoor learning was recorded in the autumn term, a very slight increase in the spring term and a larger increase in the summer term. Compared to NCDP estimates the project baseline estimates were more than twice as high (NCDP baselines estimates were autumn - 31 minutes, spring - 34 minutes and summer - 43 minutes). One possible explanation for this difference is that awareness of outdoor learning and its potential benefits grew considerably amongst schools adjacent to the Natural Connections project areas. Hub leader interviews from Naturally Healthy Devon Schools project indicated that a number of schools had already started to engage with outdoor learning and viewed the project as a vehicle to add value to and expand existing activity. It is worth noting that the end of project estimates for NHDS were also greater than for NCDP (autumn - 52 minutes, spring - 55 minutes and summer - 72 minutes) and although the increases were not as marked as in the NCDP, they suggest that outdoor learning activity has been successfully stimulated and sustained after an comparatively high starting point.

One insight provided by the North Devon hub leader was that in the North Devon hub, many of the schools had a history of engaging with outdoor learning pre-dating the project. They felt that in some cases this change in levels of OL reported could be attributed to schools engaging with the terminology of outdoor learning and associated approaches such as Forest School. She reported that during the project some schools stopped referring to their Forest School provision under the umbrella term of outdoor learning, and reported only on outdoor learning with a curriculum focus delivered by school class teachers and teaching assistants.
5.4 Teacher, teaching assistant and volunteer involvement in outdoor learning

Figure 2 below shows the proportion of teachers, teaching assistants and volunteers reported by schools as being involved in outdoor learning. All three groups show slight increases in the proportion who are involved in outdoor learning. Total numbers of teachers (88/147 in baseline, 83/137 March 2017) and teaching assistants (34/169 in baseline, 58/162 March 2017) was fairly constant, meaning the proportional increase is a clear reflection of increased teaching staff engagement.

It should be noted that the total number of volunteers reported fell (8/132 in baseline, 14/49 March 2017 reported as involved in outdoor learning). Possible explanations for this decrease in overall volunteer numbers may have been different perceptions of what counted as volunteers or changes in activities at the schools. However, the proportional change indicates a greater emphasis on voluntary support for outdoor learning, which is consistent with NCDP findings, that willingness to take on more volunteers increases as teachers’ confidence in outdoor learning grows. The decrease in the reported total number of volunteers engaged in schools but an increase in the proportion of these engaged with outdoor learning may be attributable to a directed focus towards specific types of volunteers. School case studies in both projects also suggest that school staff changed their ways of thinking about volunteers. Schools have relationships with parents, outdoor learning providers and other organisations that have voluntary elements, but these are not always explicitly recognised as volunteers by the school. As a result there may be an element of inconsistency in how schools reported volunteers between schools, within schools and over time. For example, some case study interviews demonstrated considerable voluntary activity where the schools had reported no volunteers in the surveys.

According to hub leaders, volunteering was not a priority for schools, but school responses in surveys did highlight a need for volunteers as a challenge to outdoor learning. One inference from this data is that schools are identifying the need for volunteers to support outdoor learning but do not yet have the resources, expertise or systems in place to enable this. Nonetheless, the apparent lack of volunteers does not appear to impede increasing outdoor learning completely. However, it is possible that more volunteers would stimulate even more growth.
Baseline (teacher n=147, TA n=169, volunteer n=132)
March 2017 (teacher n=137, TA n=162, volunteer n=49)

Figure 2: proportion of teachers, TAs and volunteers involved with outdoor learning

Staff attitudes towards outdoor learning were positive throughout the project. The one school that reported negative staff attitudes was reported by hub leaders as being in special measures during the project.

5.5 CPD activity

Figure 3 below shows CPD activity in the thirteen schools that responded to both baseline and March 2017 survey. Slightly different questions were asked in the two surveys. In the baseline survey, schools were asked if they had been able to access the outdoor learning CPD needed in the twelve months prior to the survey and in the March 2017 survey, they were asked if any staff or volunteers had undertaken CPD related to outdoor learning in the current academic year. There was an increase in the proportion of schools undertaking / accessing the CPD they needed (from 62 to 85 per cent). This level of engagement indicates that the project was successful in stimulating and meeting latent demand for support in teaching outside.
CPD was seen by hub leaders as central to enabling and supporting staff to effect change in their school; not least because it gave staff the skills and confidence to articulate the benefits that outdoor learning could have and make links to the curriculum and existing school initiatives. Hub leaders reported providing CPD most commonly for maths and science. A focus on core curriculum subjects mirrors findings from NCDP.

Figure 3: proportion of schools being able to access CPD needed / undertaking outdoor learning CPD

5.6 School documentation

Figure 4 below shows increases in the proportion of schools with outdoor learning and health and wellbeing referenced in school documents and plans. Specifically there were increases in the proportion of schools with:

- An outdoor learning policy or outdoor learning referenced in strategic documents
- A Health & Wellbeing policy or Health & Wellbeing referenced in strategic documents
This increase suggests that outdoor learning and healthy schools practices were becoming embedded in schools. The presence of a separate policy or the inclusion of particular themes in school documentation is a proxy for our assessment of levels of strategic school engagement in those themes; senior leaders are involved in policy document development, and these themes would not be included without their approval. The data from the surveys suggests therefore that both health and wellbeing and outdoor learning have gained increased prominence and recognition across a higher proportion of schools involved in the project. This is a significant advance as inclusion in policy documents indicates a greater whole school commitment and leads to more sustained practice in outdoor learning and health and wellbeing directed activity.

n=13

Figure 4: proportion of schools with outdoor learning and health and wellbeing in specific policies or as part of strategic documents

5.7 Curricular areas

Figure 5 below shows the number of schools that reported different curriculum areas in the top five areas for which outdoor learning was used. This shows that schools see outdoor learning as valuable for a wide spread of curriculum areas and further confirms that English, science and maths are the subjects supported through outdoor learning by highest number of schools.
Figure 5: number of schools reporting whether different curriculum areas were in the top five areas that outdoor learning was used for (March 2017 school survey).

These findings are in broad agreement with the Natural Connections report that show that schools found outdoor learning useful for curriculum delivery for the core subjects and not just as enrichment and PSHE.

School case studies and hub leader interviews confirm the principal areas of the curriculum supported through outdoor learning and insight into how outdoor learning was used to do this. One headteacher in a case study school felt that staff understanding of outdoor learning developed over time through providing outdoor learning more regularly ‘[staff] know now... how to deploy themselves more meaningfully, when working outside’ and are linking outdoor learning to the curriculum and are learning ‘to adapt their lesson planning’.

This meant that teachers used different pedagogies and provided a greater range of learning opportunities for pupils. ‘[Outside] you can just kind of step back a bit and listen to what they are saying and walk along where the children are actually working whereas in class...it is more about taking turns... [outside] they have got that freedom to be able to just talk... when they want to talk.’ (teacher). Teaching was contingent to children’s learning and encouraged pupil engagement and collaborative working.

As with the Natural Connections project, teachers were using outdoor learning to support the curriculum through using local natural environments for:

- **Inspiration** for subjects such as literacy and art
- Providing a **practical context** for learning e.g. a purpose for measuring in art or real examples of adaptation in science.
5.8 Characteristics of schools engaging in the project and characteristics of successful implementation

Areas of Devon having above average levels of childhood obesity were identified for project inclusion. All age phases and special schools could have participated, but in the event all schools taking part in the evaluation were primary schools; although within them, there was a variety of school sizes and circumstances.

There were no indications from school information or from hub leader interviews and the two case studies that schools in certain circumstances or with particular intakes of pupils were more or less likely to be receptive to joining the project. In line with the insight research findings, there was no strong observable impact of Ofsted grading on likelihood to join the project. However, some common characteristics within a school made it likely that they would participate in the project and would continue to engage with outdoor learning. These included:

- Schools with headteacher and leadership support for outdoor learning. Both hub leaders reported that headteacher support for outdoor learning was essential for it to be incorporated successfully in schools.
- Schools that already recognised the benefits of outdoor learning for their pupils and may have already started to undertake work with outdoor learning.
- Schools with staff receptive to outdoor learning in which school leaders and staff were open-minded in their approach to teaching and learning, and were prepared to try new ways of working.

5.9 Models of outdoor learning implementation

Hub leader reports along with the case-study visits showed that schools adopted different models of outdoor learning implementation, with varying numbers of staff involved directly with outdoor learning. Implementation appeared to be dynamic, changing as staff developed and broadened their practice discovering new ways of motivating children to learn through outdoor learning over time. In many schools this resulted in the long-term aim of ensuring that outdoor learning was practised by the majority of staff.

The two different models that emerged were broadly:

- **Shared responsibility for outdoor learning across all staff.** In this model, all staff engaged with a range of outdoor learning activities and experienced the benefits of outdoor learning for children’s learning for themselves, encouraging them to embed outdoor learning further into the school’s culture. One hub leader reported that one school trains all staff in Forest School as an integral element of the school’s role in teacher training. They plan to expand the scope of this accredited training to focus on outdoor learning with developed links to the curriculum rather than exclusively Forest School.

- **Responsibility resting primarily with a few staff (often Higher Level TAs).** Outdoor learning was provided regularly but mainly by these designated members of staff allowing them to develop expertise and confidence in working outside. It also accustomed children to working
outside. The HLTA role would then act as the ‘link’ between outdoor activities and the classroom by informing the teacher of children’s achievements, new skills and new knowledge. They would often plan with teachers so that outdoor activities fitted with the curriculum.

Hub leaders reported that Forest School was used extensively across the project schools and both case study schools provided Forest School opportunities for pupils throughout the school year. Training in Forest School was reported by hub leaders as an important opportunity for teachers and important in enabling a curriculum-led outdoor learning approach in schools. The reasons for this included:

- There was no other in-depth, accredited training available to teachers.
- Hub leaders reported that newly qualified FS trained teachers felt that having done FS training they were now clearer about what they were doing, how they were doing it and able to justify it clearly. FS training provided the theoretical underpinning and enables teachers to articulate why they are outside with respect to character development and teachers were adapting FS to large class situations. One hub leader reported ‘They [teachers] are saying this is a three step process – we are going outside, we are building character and that will lead to more effective classroom outcomes’.

This process reflects the pathway to impact suggested by NCDP findings. It is, however, worth considering how the curriculum subject focus aligns with the current dominance of Forest School training. It may be that the particular NHDS health and wellbeing focus could be addressed more directly by its child-led activities.

### 5.10 Challenges to outdoor learning

Figure 6 below shows the proportion of schools reporting challenges to outdoor learning from a list of options in the baseline and March 2017 school surveys. Schools could choose up to five specific challenges. The proportion of schools describing the four most frequently reported challenges (linking outdoor learning to the curriculum; confidence in working outdoors; time; and funding) fell during the project lifetime. The only challenge that was reported by an increased proportion of schools was the need for volunteers to support outdoor learning (see section 5.3 for more discussion around volunteer engagement in outdoor learning).

The average number of challenges reported per school was 3.4 in the baseline survey and fell to 2.2 per school in the March 2017 survey indicating that as well as particular challenges reducing over the project lifetime, the overall challenge burden was less for schools as the project enabled schools to address them successfully.
Challenges reported by schools in the school survey were confirmed by hub leaders who highlighted the following area as important:

- **Staff confidence** was reported by hub leaders as a key challenge and priority for action by schools, particularly in teaching core curriculum areas such as Maths and English.

- Both hub leaders felt **time** was the major challenge that covered a range of different issues; from finding time to read emails about project meetings and attend CPD, freeing the necessary time to overcome other challenges, against the backdrop of competing school priorities. Losing classroom time in order to attend training and the potential effect on pupils of changes in teachers as a result was one example of pressured time to achieve performance standards. Furthermore, both hub leaders felt the workload on teachers is such that many will not teach outside the classroom unless they are told to by their headteacher. ‘...it is possible to implement outdoor learning but they don’t have to... [one teacher] she is saying I really want to do this but, but, but... all of the ‘buts’ can be overcome but she hasn’t got to do it and her headteacher isn’t making her do it and it’s just not going to happen’.

- **Need for volunteers.** A high proportion of schools reported the need for volunteers to support outdoor learning in the school surveys but this was not highlighted as a significant challenge by the two schools visited as case-studies or during hub leader interviews. This reported need in the surveys may be indicative of existing developed outdoor learning practice. In Natural Connections project schools the need for volunteers developed as schools developed their practice and needed support in expanding outdoor learning opportunities.
• **Money and resourcing** for all aspects of developing outdoor learning from grounds development, ongoing maintenance and supply costs.

• **School priorities.** One hub leader reported that headteachers felt Ofsted want them to focus on core subjects and that outdoor learning would be time taken from these. Not all heads understand how outdoor learning can support the delivery of these. ‘*Teachers who have Ofsted [or mock Ofsted’s] coming up or have SATS on the horizon are just saying there is no opportunity to do outdoor learning now, it is off the ticket*.’ (hub leader)

The two school case-study visits also highlighted the challenge of **recording pupil progress** in outdoor environments, where children are not writing in books, assessment of learning can be more difficult; support for new methods of assessment suited to outdoor learning would be helpful and the North Devon hub leader has shared resources on their website for participating schools to support this. A range of other challenges were reported during the case studies and hub leader interviews. These helped to confirm the trustworthiness of the survey data and also reinforced the locally determined nature of challenges in relation to the individual needs of each school in developing their outdoor learning.

### 5.11 Impact of outdoor learning on pupils and teachers

**School views of impact of outdoor learning on pupils**

Figure 7 below shows that schools responding to the March 2017 school survey recognised a range of impacts and benefits of outdoor learning on their pupils. Schools were unanimous about the positive impact of outdoor learning on enjoyment of lessons, engagement with learning, social skills, behaviour, engagement with and understanding of nature, physical health and wellbeing. Furthermore 10 out of 13 responding schools (77 per cent) also reported a positive impact on attainment. There were no reports of negative impact.

These findings are in broad agreement with previous school surveys at the start of the project and in July 2016. Participating schools were clearly convinced of the wider benefits of outdoor learning. Interestingly the majority of school comments in the July 2016 survey highlighted wellbeing as a positive impact of outdoor learning. For example,

• ‘Without a doubt we as a school are confident that learning in the natural environment has a positive impact on pupils’ wellbeing. We do need to manage the pressures of the curriculum with what our pupils MUST do and what they need’.

• ‘It allows some pupils to come out of their shells - just the enjoyment of being outdoors and allows others to shine outside of the classroom. They are enthusiastic and enjoy themselves which has to have a positive impact on their emotional wellbeing’.

• ‘As a result of the space that learning outside offers students they seem to be more relaxed in their learning’.
The two case study schools reported benefits that tallied with both the project survey results and previous reviews and reports across a range of areas including:

- **Engagement with learning**
  - ‘If children are engaged and they are interested and excited by their learning [through outdoor learning activities], they are going to attain better … That has happened’

- **Behaviour, social skills and team work**
  - Staff felt that being outside had benefits for the pupil and teacher relationship and helped enable discussion and communication. Outdoors the children ‘…are calmer, they converse more, it is a natural conversation when you are out, it is more inquisitive when you are out and they are not afraid to ask you or tell you anything’
  - In addition, behaviour in one school was reported as having ‘vastly’ improved through the contribution made by outdoor learning and school behaviour had been rated by Ofsted as ‘outstanding’. One interviewee commented that ‘outdoor learning has definitely played a massive part in improving their [pupils’] behaviour.’

- **Attainment**
  - Staff reported that children draw on outdoors experiences in the classroom which has a benefit as ‘...any opportunity to enrich their language [is important]... If you are not touching it, feeling it, smelling it, you are not really engaging’. The expansion of children’s language was felt to be ‘...really good for their literacy development’.
  - ‘I have had children that ... in the classroom seem to get a little bit bored and you get them out there and they come alive ... Some of them ... excel out here and unless you get out there, you are not going to see their ability’

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**Figure 7: school views of the impact of outdoor learning on pupils, March 2017 school survey**

Graph showing the percentage of schools with different impacts on various aspects of education. The aspects include:

- Enjoyment of lessons
- Engagement with learning
- Attainment
- Social skills
- Behaviour
- Engagement with nature
- Physical health
- Wellbeing

The percentages are spread across a range of values, indicating various levels of impact from negative to positive.
• Health and wellbeing
  o Staff spoke of the physical benefits that arose from increased levels of exercise, together with the development of fine motor skills. They also reported that being outside helps to encourage children to be calm, particularly those with Special Educational Needs. This could be because outside ‘they have the space to move around and they can be louder ... For me [teacher] it feels calmer.’

• Skills development
  o Forest School was felt to be particularly helpful for skills development: ‘... learning to start a fire, to go forward and then do your marshmallows and then get a hot chocolate because you have boiled the kettle is such an achievement in itself ...It comes more naturally [outside] because they can see what is going to come next much faster than in the classroom’.

• Self-esteem, confidence and resilience
  o Outdoors can provide opportunities for children to succeed in different ways. Learning to light a fire during a Forest School session, for instance, gives a ‘real sense of confidence’ that can take longer to develop in the classroom.
  o Outdoor learning ‘raises their [pupils’] own self-esteem ... It gives them the confidence to talk to each other, the confidence to talk to us [staff] because we’re all muddy ... and then they take that back into the classroom’.

• Engagement with nature
  o One of the stated aims of the project was to engage pupils with the Devon Landscape. Teachers reported positive impacts on pupil’s engagement with nature through the project. This was also achieved by the Landscape Characterisation Project which was delivered in 4 project schools (2 in each hub). This training was given to hub leaders and teachers on the purpose and use of the Devon County Council Landscape Character Assessment [LCA] information and a range of activities were designed to engage school-children with local landscape. The activities helped children to articulate what a landscape is, and what makes a landscape special and distinctive from another ‘I thought this landscape stuff was going to be boring but now I realise how much fun you can have in nature’ (pupil).
  o Teachers also reported a ‘greater sense of custodianship and stewardship of the landscape’. This element of the project was delivered by an educational consultant between May 2015 and February 2016. The project report can be found at: http://www.wholeland.org.uk/lcp2015/

As in the NCDP, fewer schools reported positive impacts on attainment in surveys in comparison to the pathways to impact on attainment that were articulated during interviews. Possible reasons discussed in the Natural Connections project were:

• The main reason for teachers’ reluctance to make direct links between [outdoor learning] and attainment was their understanding of the difficulty of disentangling the different factors that lead to higher attainment. Interviewed staff spoke of the difference between higher quality of children’s work that they could link with [outdoor learning] and the

1 Learning outside the Classroom in Natural Environments (widely known as outdoor learning)
'measurable' attainment that was recorded in external examinations such as Year 6 SATs in primary schools. Their point was that it can take time for the higher quality seen in pupils’ [outdoor learning]-related work to translate into externally reported SATs results; in primary schools only Year 6 pupils take these exams and, until [outdoor learning] has become a regular part of each cohort’s experience, the impact can be variable as it depends on how much [outdoor learning] different classes have undertaken. This means that it might take some time before schools can measure the impact of [outdoor learning] on children’s attainment levels. (Natural Connections Demonstration Project: Final Report; p80)

One hub leader reported that schools engaging strongly in outdoor learning recognise the value in OL for their current pupils’ achievement and they ‘...talk a lot about the value for the pupils and they are very focussed on this is right for our pupils and they see that link between curriculum and academic achievement...’

School views of impact of outdoor learning on teachers
Figure 8 below shows school views of the impact of outdoor learning on teachers. Like attainment in pupil impact, the area of greatest uncertainty of impact on teachers is on teacher performance. This is likely to be because teaching performance in school is generally measured by the levels of pupil progress. As with pupil impact, no negative impacts were reported.

![Bar chart showing school views of the impact of outdoor learning on teachers](image)

**Figure 8: school views of the impact of outdoor learning on teachers, March 2017 school survey**

The contribution that outdoor learning can make to all aspects of teaching and job satisfaction and wellbeing in particular was articulated in the following comments from school surveys and case studies:
• ‘Everyone loves teaching outside when they can, and this has been said many times across the school’. (survey comment, March 2017)

• *Working outdoors ‘gives teachers more enjoyment and more confidence. And I think that is the number one thing that is going to help those children; the teachers, the way they are teaching’* (member of staff, school case study).

• ‘It has helped inspire myself, the school and our children to get out of the classroom setting. We hope that OFSTED will see the benefits that this has had on our teaching and the pupils’ learning progress’. (survey comment, March 2017)

5.12 Outdoor learning and health

**Pupil health and wellbeing**

During the project both hub leaders reported that the emphasis of schools was on delivering the curriculum and… *‘The health and wellbeing aspect…that hasn’t been a big part of what they are doing’*. This is likely to be because schools do not see wider health and wellbeing as a current priority within their remit, given the pressures they face in terms of raising pupil attainment.

This apparent lack of emphasis on health and wellbeing is likely to be due to recognition of the principal drivers for schools. Yet in spite of this the project has evidenced schools increasingly value health and wellbeing pupil outcomes through integration of both outdoor learning and health and wellbeing into school documentation (see Figure 5), through their assessment of the positive impact of outdoor learning on wellbeing and physical health (See Figure 9 below) and from survey comments, such as ‘Without a doubt we as a school are confident that learning in the natural environment has a positive impact on pupils’ wellbeing...’ (school survey comment). In addition, a range of activity related to health and wellbeing was reported by both hub leaders and during the case-study visits. This included healthy eating and participation in the Food for Life scheme and awards. What this serves to emphasise therefore is that curriculum-focused outdoor learning continues to be a highly relevant and productive way in which to enable schools to achieve other positive student outcomes.

The project hoped to be able to use health data in the project areas to understand in detail the impact that NHDS could have on participating schools. This was not possible for the following reasons:

• Data available on health from Public Health Devon was available at a lower super output area level and it was not possible to map this against schools taking part in the Naturally Healthy Devon Schools project as we did not have sufficient detail on pupil location to enable this.

• Public Health Devon made data available on BMI at a school level but it was not possible to draw conclusions about the impact of the project on these because each school implemented outdoor learning in very different ways. In addition data is only collected in reception and year 6 pupils and so it was not possible to draw conclusions from a project that did not support cohorts of children all the way through their primary school career.
• The Schools Health Education Unit survey run in Devon schools was only completed by two project schools and so again triangulation with project level activity was not possible.

Baseline n=20, July 2016 n=15, March 2017 n=13

Figure 9: percentage of schools reporting positive impact of outdoor learning on pupil health and wellbeing

Pupil physical health and outdoor learning

National Health Service guidelines on Physical Activity for Primary aged children are ‘To maintain a basic level of health, children and young people aged 5 to 18 need to do: at least 60 minutes of physical activity every day – this should range from moderate activity, such as cycling and playground activities, to vigorous activity, such as running and tennis’.

Figure 1 shows that schools that took part in Naturally Healthy Devon Schools increased the amount of time spent on outdoor learning during the project.

Past studies have shown the impact that outdoor learning can have on moderate to vigorous physical activity (MVPA)\(^2\) with the time spent in MVPA significantly higher during outdoor lessons than during indoor lessons. Outdoor learning clearly then contributes to enabling children to meet these targets.

The evidence on the link between natural environments and physical activity is well documented\(^3\). The mechanism by which outdoor learning stimulates physical activity is the increase in opportunities it offers for increased movement and enjoyment through collaborative and team work amongst other ways of working. The Natural Connections Demonstration project\(^4\) also highlights increased opportunities that outdoor learning provides: [outdoor learning] ‘offered a chance to escape the pressures of the classroom, the space to reflect, and the space and time to be physically active’. (Natural Connections Demonstration Project report, p 86)

These findings from previous studies were supported by observations and reports from Naturally Healthy Devon Schools case study visits. In one school, staff spoke of the physical benefits that arose from increased levels of exercise, together with the development of fine motor skills.

Within the Naturally Healthy Devon Schools project, a small scale study, Mapping and Measuring Healthy Outcomes (2015-16), compared the use of self-report and teacher questionnaires with pedometers and accelerometers to analyse the quantity and impact on moderate and vigorous physical activity of learning while in different environments. It found that these different measurement techniques were statistically equivalent when comparing sedentary or active behaviour and in line with previous research, that higher levels of physical activity were associated with outdoor lessons (Wright, Aronsson, Graham, Waite and Waite, 2016; Waite and Waite, 2016). The significant equivalence of different measures is an important finding as it allows schools to assess MVPA for pupils without the need for expensive and time intensive use of accelerometry. A toolkit to support schools *Creating Happy and Healthy Schools through Outdoor Learning* is in development. It includes easy to use resources for schools which offer a simple means to monitor or take snapshots of health and wellbeing.

The toolkit has potential for use by a number of organisations such as Academy trusts, local authorities or the newly emerging outdoor learning research and practice hubs supported by the Institute of Outdoor Learning / Council for Learning Outside the Classroom and Natural England. Findings could be aggregated to provide comparative averages and monitor school-based health improvement strategies.

**Pupil wellbeing and outdoor learning**

As with physical health, evidence about the link between the natural environment and mental health is well documented\(^5\) and is also discussed in the Natural Connections Demonstration Project final report.

NHDS Project schools reported examples of the benefits of outdoor learning for wellbeing, including

- One case study school reported that outdoor learning was seen to encourage children to be calm, particularly those with Special Educational Needs. They felt the space that outdoor


places provided along with the fact that children could talk and discuss without disturbing other pupils meant the mood of children was calmer.

- In another school one teacher reported ‘They [pupils] just love that freedom of being out of the classroom...they are in the classroom most of the day and any chance they get to go out is loved’.
- Being outdoors was also felt to help calm children if they are upset by providing a practical distraction which gives the children purpose. One staff member felt that for many children just being outside and watering the plants in the garden and watching the water flow helped calm children down.
- Pupils also reported the impact of outdoor learning on wellbeing and comments from the two case study visits on why they enjoyed outdoor learning included:
  - The fresh air, which was a contrast to a ‘stuffy classroom’
  - ‘We see the sun shine’
  - ‘We get to play’
  - The different seasons. Pupils said that they liked the snow, rain and sun.
  - One child reported that, when he was told he was going outside for a lesson, ‘I feel really happy because I love outside!’

Hub leaders felt that engaging teachers in the direct link between improving health and wellbeing of pupils by doing outdoor learning was a slow process. The Exmouth hub leader reported that ‘My schools didn’t naturally make that link between outdoor learning and health’. Hub leaders felt schools had misconceptions and conflated the issues of healthy eating and health and wellbeing and that outdoor learning to directly support pupil wellbeing was often only considered in relation to challenging students. Nevertheless, it was recognised as a benefit in the survey; perhaps it was considered as a fortunate side effect of the main learning focus and as a building block towards that end.

**Teacher health and wellbeing and outdoor learning**

Figure 10 below shows school views of the impact on outdoor learning for teachers. Despite universally positive comments on teacher’s health and wellbeing from school surveys and case studies the data shows reduced positive ratings on staff health and wellbeing over time. Possible explanations may be due to the position of the person completing the survey; hub leaders reported that staff without a whole school overview e.g. staff with the responsibility for outdoor learning completed the survey for a number of schools may not have been confident in colleagues’ views and have limited time to discuss this with colleagues. It could also be related to the timing of the survey so that the summer survey and end of year resulted in more positive self-reported ratings than mid-year. A related explanation may be that it represents feelings of health and wellbeing overall within the teaching profession and is related to the pressures that teachers face in general.
5.13 CPRE Devon: Raising profile and member recruitment

The project had a target of helping CPRE Devon in the recruitment of 40 new members during the course of the project. This was not achieved, however the project worked with hub leaders and schools in the following ways to raise the profile of CPRE Devon and promote the work they undertake:

- Use of the CPRE Devon logo on all information, publicity and promotional material produced in connection to the NHDS project and used with schools, providers and other audiences.
- Promotion of the CPRE Devon’s involvement in the project in any press releases and media coverage the project attracted, including the project launch.
- Briefing of the hub leaders by CPRE Devon, which enabled them to understand more about the work of CPRE Devon and the benefits of membership. HIs were then able to share these messages as appropriate through their work on the project.
- Providing opportunities for CPRE Devon to meet with and talk to schools, teachers, pupils, outdoor learning providers and the general public through events, meetings and CPD sessions.
- CPRE Devon was provided with assistance for the ‘My outdoors’ competition in order to redesign it, make it fit with the curriculum and school needs, promote it and celebrate it.
- Material for the CPRE Devon website regarding the project and suggestions for alternative ways to support the membership recruitment drive and increase volunteers for CPRE Devon were also put forward by the team.
The North Devon hub leader reported that schools ‘...are aware there is a link with CPRE and whenever funding is handed over to schools they are made aware that is coming from CPRE’. The hub leader reported that there is not detailed discussion with schools about what CPRE do, although they felt that schools awareness of CPRE Devon is increasing. She gave the example that she had made a number of schools aware of other CPRE Devon work such as ‘best kept village’ during the course of her conversations with them.

This raised awareness of CPRE Devon that the project has enabled is an important part of any charity recruitment strategy and is a building block in any member recruitment strategy.
6. Sustainability of Hub Delivery and Legacy

Exmouth hub

The hub leader felt strongly that sustainability of outdoor learning in schools and a commitment to an outdoor learning network required the active participation of the headteacher.

She also advised that the collaboration between schools would not continue in its current state without continued support of a hub leader for outdoor learning; those schools with a supportive head would continue to collaborate but those where outdoor learning was not a school-wide priority would reduce their participation.

As part of a potential project legacy, the hub leader is developing a learning outdoors numeracy pack in response to requests from project schools. She reported that traditionally maths is taught in the classroom and that headteachers who require improved maths levels have been less willing for teachers to spend time outside as they don’t want numeracy levels to drop. Her rationale for developing the pack was; ‘so if we can offer them a package...saying look you can go outdoors and you can cover a particularly difficult aspect...’ then that would provide a valuable impetus for continued outdoor learning activity.

North Devon hub

The hub leader here also felt that without the continued support of a hub leader to enable and facilitate collaboration, activity between schools would drop off with time. This is in line with NCDP findings that schools struggle to find the additional time needed for the organisation of networking and sharing of information and practice. Seasonal networking meetings will continue over the coming year led by the hub leader, Natural Learning.

The hub leader, however, reported that the training undertaken by schools enabled a level of sustainability, particularly accredited training such as Forest School Leadership.

The hub leader is working with schools to provide Forest School training to adapt what they are able to offer and link Forest School activities directly to the curriculum, working with larger groups and tracking and assessing progress outdoors. This has the purpose of making it more relevant to everyday school practice. This might enable more embedded and sustainable practice in the longer term.

In response to the end of the project, the hub leader worked with a group of teachers from the project schools to develop an outdoor learning magazine for teachers ‘Making Learning Stick’ (which is planned to be published three times initially) to provide resources and ideas explicitly linked to the curriculum for project schools. If it is successful and teachers subscribe to it, publication will continue beyond this. Editions of the magazine will link with national initiatives (the first edition linked with British Science week). The first theme was ‘Transform’ and included a six week pack of
activities that linked to all curriculum areas. The second issue was about Movement and included the work on the MMHO project. She felt that this would be ‘a really exciting legacy to the project. At the very least it will bring together the activities that we talked about at training’.
7. Conclusion

The project has contributed to the growing understanding of how to support the implementation of outdoor learning in schools. It has confirmed many findings from the NCDP and adds weight and detail to the strong evidence that the distributed model of independent brokerage enables schools to overcome local barriers and implement low-cost outdoor learning across the curriculum, and deliver a range of positive social, developmental and educational outcomes for teachers and pupils.

In addition the project demonstrated explicitly the value and role that outdoor learning can contribute to the physical health of pupils and confirmed many of the wellbeing benefits reported in the NCDP. The project supported the development of a toolkit of pupil and teacher assessment which can be used more widely by teachers and other professionals to assess the levels of physical activity taking place during outdoor learning sessions. This toolkit, *Creating Happy and Healthy Schools through Outdoor Learning* has the potential, alongside the *Transforming Outdoor Learning in Schools* booklet to provide other schools with the foundations to develop successful outdoor learning for their pupils.

The success of the project was achieved through hub leaders, with experience in education at a local level in supporting schools and working with them to share and develop outdoor learning practice. Good relationships with hub leaders helped to identify challenges, which varied between schools, and put in place appropriate forms of support. Despite a diversity of challenges, these were reduced by involvement in the project and the principal barrier as in the NCDP became time to facilitate as much outdoor learning as schools wished to do. An important element of the project was school autonomy in choosing how they engage with outdoor learning to enable them to integrate outdoor learning within curriculum subjects and other school priorities for its long term sustainability.

The project was successful in the recruitment and retention of schools, and the positive impacts reported by schools indicates the success of the project and to schools’ commitment to outdoor learning. There were increases in the quantity and quality of outdoor learning in participating schools with positive reported impacts on pupil health and wellbeing.

The project also increased participants’ awareness of Devon’s countryside and wider natural environment through increased opportunities for outdoor learning linked to school curricula. It helped to raise the profile of the project funders including CPRE Devon and achieved the aim of bringing over 7,000 children closer to the Devon countryside. We are hugely grateful to our funders that made this possible.