Natural England Commissioned Report NECR215 Annex 1 part 2

Natural Connections Demonstration Project, 2012-2016: Analysis of the key evaluation questions part 2

First published 05 September 2017

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Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties.

Background

The Natural Connections project was intended to:

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

This report is part of Annex 1 of the final project report, NECR215, that was published in 2016 and presented the key findings from the Natural Connections Demonstration Project.

These reports, and other evidence, have been used by Natural England and a wide range of partner organisations to shape the design of the demonstration project.

The project was funded by the Department for the Environment, Food and Rural Affairs (DEFRA), Natural England and Historic England, commissioned by Natural England, and delivered in South West England by Plymouth University.

This report should be cited as: GILCHRIST, M., PASSY, R., WAITE, S., BLACKWELL, I., EDWARDS-JONES, A., LEWIS, J. & HUNT, A 2017*) Natural Connections Demonstration Project, 2012-2016: Analysis of the key evaluation questions* Natural England Commissioned Reports, Number 215 Annex 1. York.

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Key words – nature connection, nature connectedness, national, natural environment, wellbeing, pro-environmental attitudes, behaviours, health, adults, children, visits

Further information
This report can be downloaded from the Natural England Access to Evidence Catalogue: **http://publications.naturalengland.org.uk/** . For information on Natural England publications contact the Natural England Enquiry Service on 0300 060 3900 or e-mail **enquiries@naturalengland.org.uk** or **MENE@naturalengland.org.uk**

ISBN 978-1-78354-445-5

KEQ 1 and 2. What was the baseline LINE activity in project schools and how did this change during the project lifetime?

Project element and objective	**Assumption**
Brokerage: Stimulate demand for LINE activity in schools	There is a latent demand for LINE in schools that the brokerage element of the project can stimulate

KEQ 1 and 2. What was the baseline LINE activity in project schools and how did this change during the project lifetime?

1.1 Types of LINE activity
1.2 Time spent on LINE
1.3 Teacher, TA and volunteer involvement with LINE
1.4 LINE-related CPD
1.5 Working with LINE providers
1.6 Use of green spaces

Data sources

School baseline survey; July 2015 school survey; June 2014 school activity log; May 2015 activity survey

Key points

- Positive changes were achieved in two types of LINE activity: school time, and after-school/ lunchtimes. These were not statistically significant changes.
- There was a statistically significant decrease in the proportion of schools not involved in LINE activities (p-value<0.001)
- For the project as a whole, there was a statistically significant increase in:
  - schools' estimated time spent on LINE (p-values ranged from 0.0032 to 0.0051)
  - the proportion of teachers involved in LINE between the baseline and July 2015 school surveys (p-value<0.001)
  - the proportion of TAs involved in LINE between the baseline and July 2015 school surveys (p-value<0.001)
  - the proportion of volunteers involved in LINE between the baseline and July 2015 school surveys (p-value<0.001)
  - the proportion of schools that undertook LINE-related CPD between the baseline and July 2015 school surveys (p-value=0.05)
  - the proportion of schools which reported that they used their school gardens/ wildlife areas (where available) between the baseline and July 2015 school surveys (p-value=0.005).
  - the proportion of schools which reported that they used other natural space in the school grounds (where available) between the baseline and July 2015 school surveys (p-value=0.007).
- Findings showed a slight decrease in the percentage of schools working with LINE providers (from 59 to 56 per cent), and stability in the percentage of schools reporting community and weekend LINE activity (from 31 to 30 per cent). The former is not a statistically significant decrease.

- Baseline activity in LINE varied between hubs and some achieved substantial increases from lower baselines. Across Cornwall schools, for instance, a 50 percentage point increase in the percentage of teachers involved in LINE (27 to 77 per cent) was reported.

NOTES

The baseline comprises 121 schools. The number of responding schools in the May 2015 (44) and the July 2015 (87) surveys provide a good understanding of the overall picture of change in the project, but the relatively small numbers of schools responding in each hub mean that individual hub patterns should be viewed with caution. In addition it should be noted that time between schools completing the baseline and July 2015 school surveys varied, as schools were recruited gradually throughout the project until March 2015.

1.1 Types of LINE activity

Figure 1.1 shows school-time outdoor curricular activity and other outdoor time in all project schools. It is calculated by dividing the number of responding schools that reported LINE activity by the number of responding schools, then multiplying by 100 to produce the percentage participating in different forms of outdoor activity. The Figure shows that the percentage of curricular LINE activity increased across the project from 91 to 100 per cent during the project lifetime, while after-school and lunch time activity increased from 69 to 82 per cent. Levels of community and weekend activity remained relatively stable at 31 and 30 per cent. Seven per cent of respondents (nine schools) undertook no LINE activity at the time of the baseline survey. There was a statistically significant decrease in the proportion of schools that were not engaged with any LINE activities (p-value<0.001).

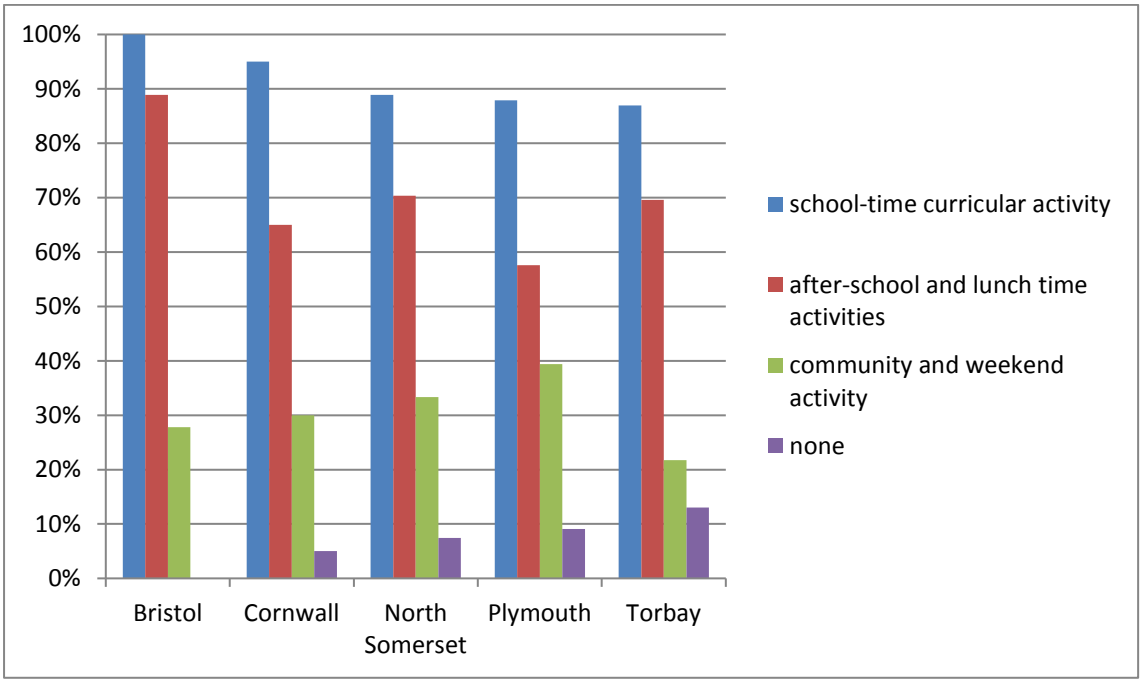
Baseline n=121, May 2015 activity survey n=44

Figure 1.1: Project level school activity (baseline and May 2015 activity surveys)

Figures 1.2 and 1.3 below show the same data broken down at hub level. Figure 1.2 shows that Bristol schools recorded higher levels of after-school activity (89 per cent) than schools in the other hubs in the baseline survey, and schools from this hub were the only ones to report that they all undertook LINE activity. The differences between the remaining four hubs were relatively small. One school from Cornwall, two from North Somerset and three each from Plymouth and Torbay reported that they undertook no LINE activity at the time of the baseline survey.

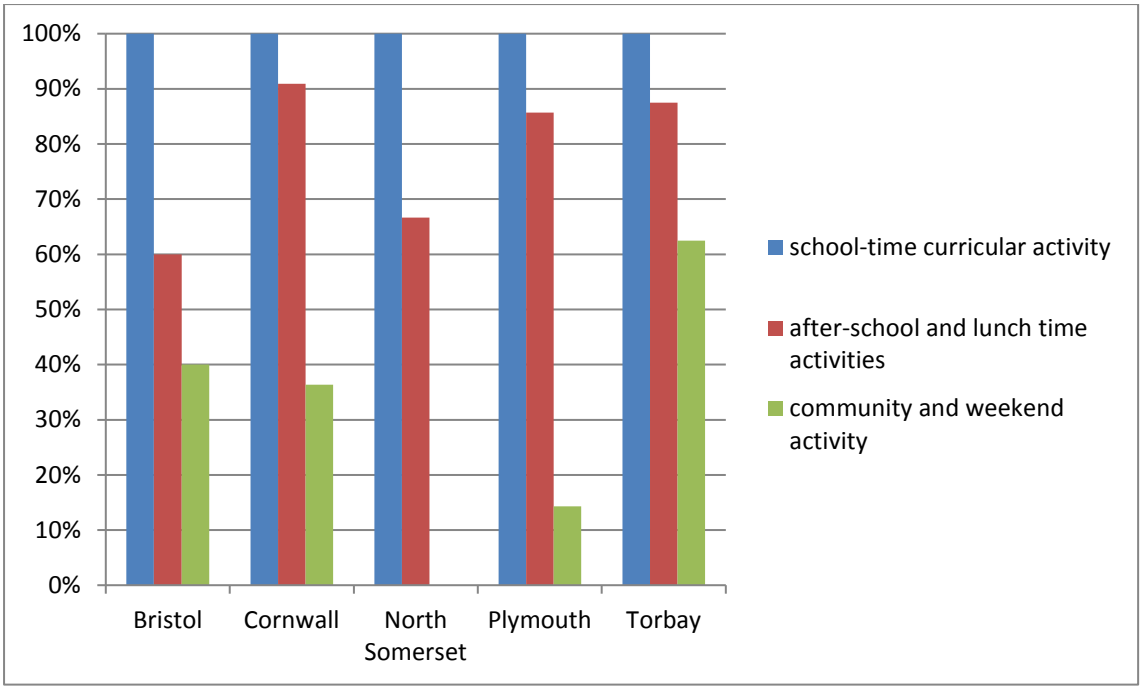
The notable findings from the May 2015 activity survey in Figure 1.3 were that all responding schools reported undertaking curricular LINE activity and all schools reported LINE activity of some kind. Cornwall schools reported the most substantial increase in after-school and lunch time activity (from 65 to 91 per cent), while Bristol schools reported a decrease in this type of activity (from 89 to 60 per cent). North Somerset and Plymouth schools recorded lower community and weekend activity in the May 2015 activity survey compared to the baseline survey (from 33 in the baseline to zero per cent in May 2015 and from 39 to 14 per cent respectively), while Bristol, Cornwall and Torbay showed an increase in this type of activity (from 28 to 40 per cent, 30 to 36 per cent and 22 to 63 per cent respectively). Bristol schools were the only ones to report a decrease in after-school activity.

Further details on the types of LINE activity undertaken by schools is provided in KEQs 6, 7, 11 and 19.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23

Figure 1.2: Hub level schools' baseline LINE activity



May 2015 activity survey n=44: Bristol n=5, Cornwall n=11, North Somerset n=6, Plymouth n=14, Torbay n=8

Figure 1.3: Hub level schools' May 2015 LINE activity

1.2 Time spent on LINE

The time spent on LINE varied between schools depending on how they implemented LINE delivery (see KEQ 12). The following section gives a picture of time spent across project schools illustrated through school estimates and activity logs.

Figure 1.4 below shows a project level estimate of school hours spent undertaking LINE activity, per week, per class. This figure was calculated by

- Using the school estimate of time spent on LINE per term or per week and standardising this figure by dividing termly estimates by the number of weeks in each term to produce a per week estimate for all schools
- 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 24 (the average national class size (across primary and secondary)) to produce a per class estimate.

Time spent on LINE increased across the project in all terms. The termly increases across the two surveys (baseline and May 2015 activity survey) were from 31 minutes to 52 minutes in the autumn term; from 34 to 55 minutes in the spring term; and from 43 to 72 minutes in the summer term. The result is not the amount each child will have spent on LINE but rather provides a measure that can be compared across schools and hubs. All terms show an increase of over 60 per cent between the baseline and May 2015 activity survey.

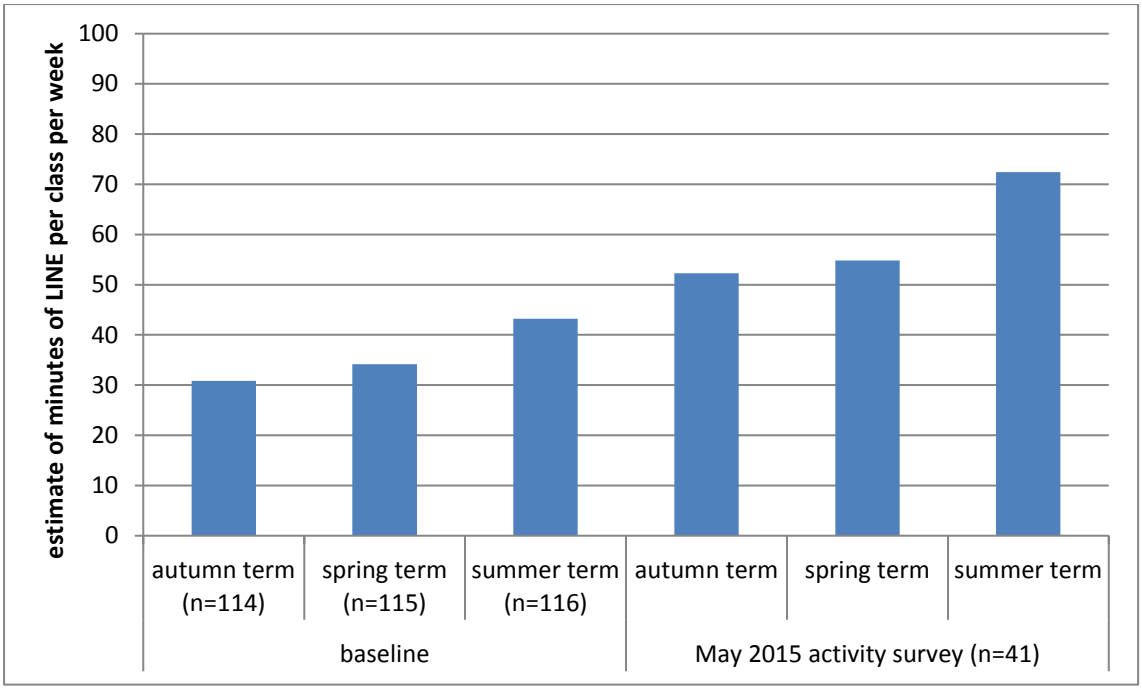


Figure 1.4: Project level estimate of minutes of school LINE activity (per week per class)

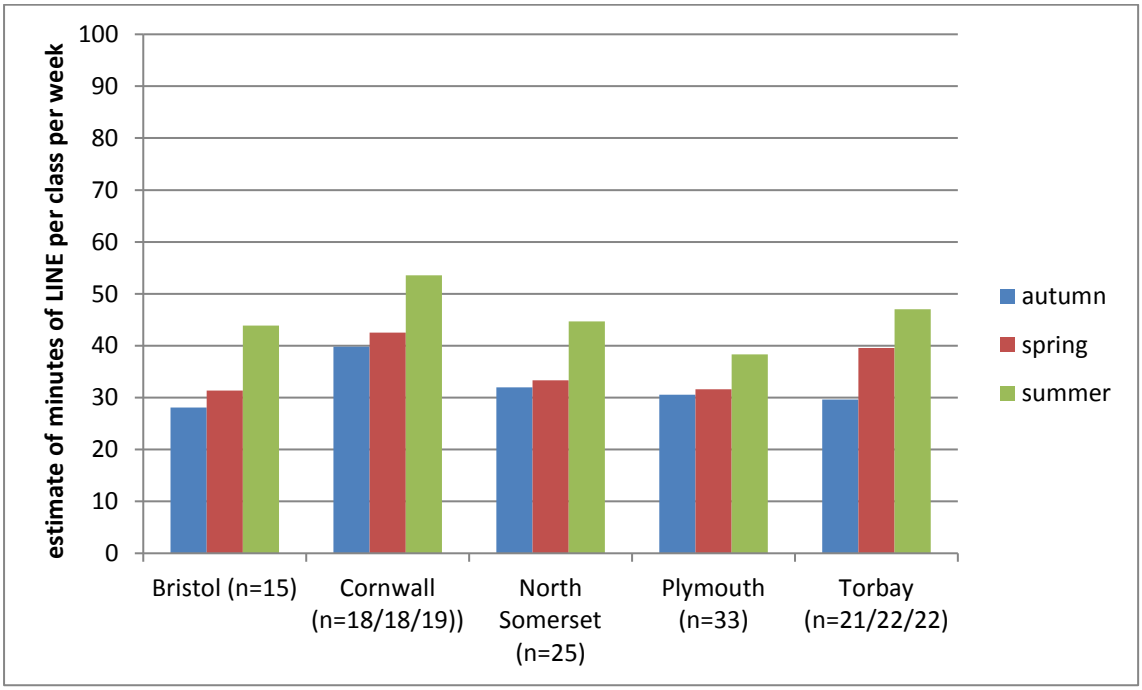
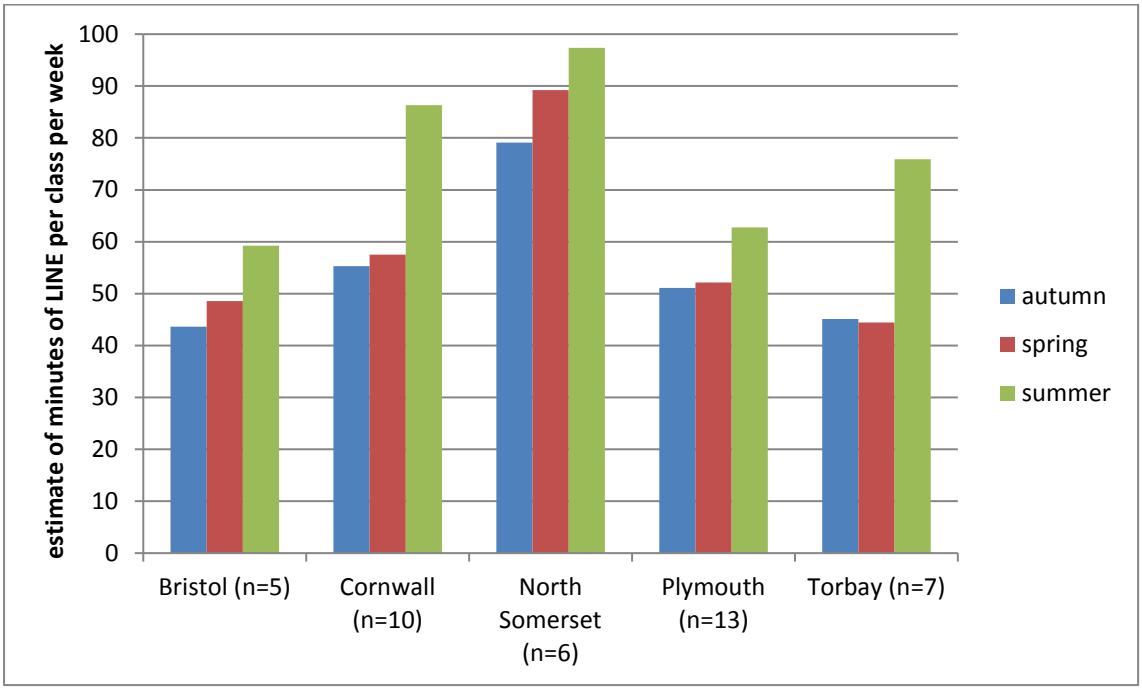


Figure 1.5: Hub level estimate of minutes of school LINE activity (per week per class) from baseline survey

Figure 1.5 above shows the baseline data of time spent on LINE broken down by hub. Estimated hours in all three terms varied little between the hubs, although schools from Cornwall reported the highest estimate of time spent on LINE. All schools reported more activity in the summer term and estimates between hubs varied from 38 to 54 minutes per class, per week in this term.

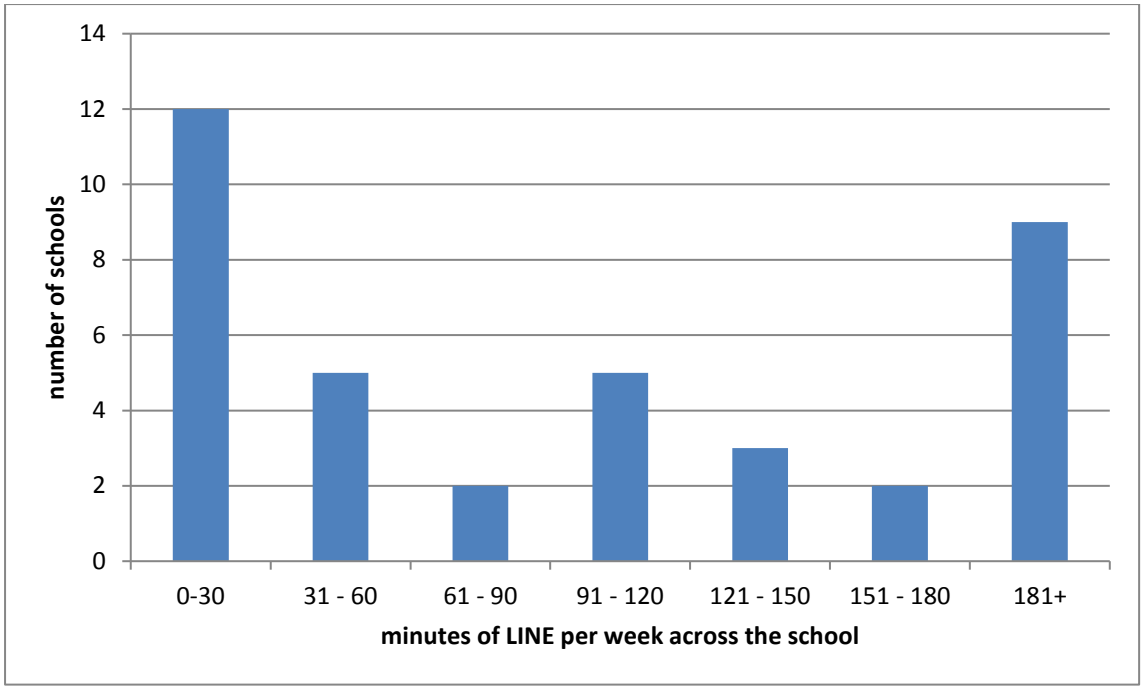
Figure 1.6 below shows an increase in estimated hours of LINE activity from the May 2015 activity survey. As with the baseline, estimates of time spent on LINE were highest in the summer term and varied across hubs from 59 to 97 minutes. Schools from North Somerset returned the highest estimate of time in all three terms.



May 2015 activity survey n=41: Bristol n=5, Cornwall n=10, North Somerset n=6, Plymouth n=13, Torbay n=7

Figure 1.6: Hub level estimate of minutes of school LINE activity (per week per class) from May 2015 activity survey

Figure 1.7 below shows the distribution of the average time spent on LINE per class per week reported by schools in the June 2014 activity log. This varied from less than half an hour (seen in twelve schools) to three and a half hours and more (seen in eight schools). The highest amount of time spent on LINE in one school was an average of 16 hours. It is important to note that these figures are averages, and that individual children's experiences varied within and between year groups.



June 2014 activity log: n=38 schools. Bristol n=4, Cornwall n=6, North Somerset n=8, Plymouth n=14, Torbay n=6

Figure 1.7: Average minutes of school LINE activity (per class, per week) in returning schools from June 2014 activity log.

Further detail on time spent on LINE can be seen in KEQs 5, 11, 19, 25 and 26.

1.3 Teacher, TA and volunteer involvement in LINE

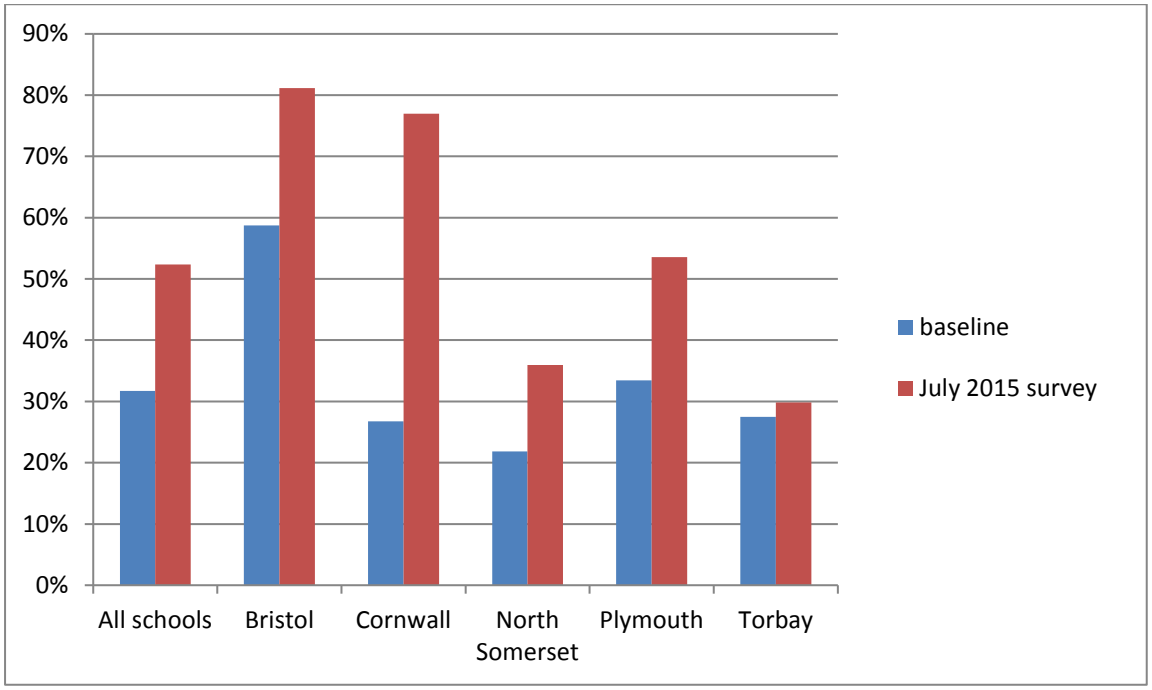
Figure 1.8 below shows the project and hub level teacher involvement with LINE. The figures were calculated by dividing the number of teachers reported by schools as involved in LINE delivery by the total number of teachers working in these schools to produce the percentage of teachers involved in LINE delivery.

At project level, 32 per cent of teachers were reported as involved with LINE, which rose to 52 per cent in the July 2015 school survey. This is a statistically significant increase (p-value<0.001). At hub level, Bristol had the highest levels of teacher involvement in the baseline and July 2015 school surveys (59 and 81 per cent respectively), and schools from Cornwall reported the greatest rise of 50 percentage points (27 to 77 per cent), although the May figures for Cornwall do not include returns from two large secondary schools that completed the baseline survey, which may have the effect of exaggerating the increase. Torbay had the smallest rise (from 27 to 30 per cent), as well as the lowest overall percentage of teacher involvement, while schools from North Somerset reported a rise from 22 per cent to 36.

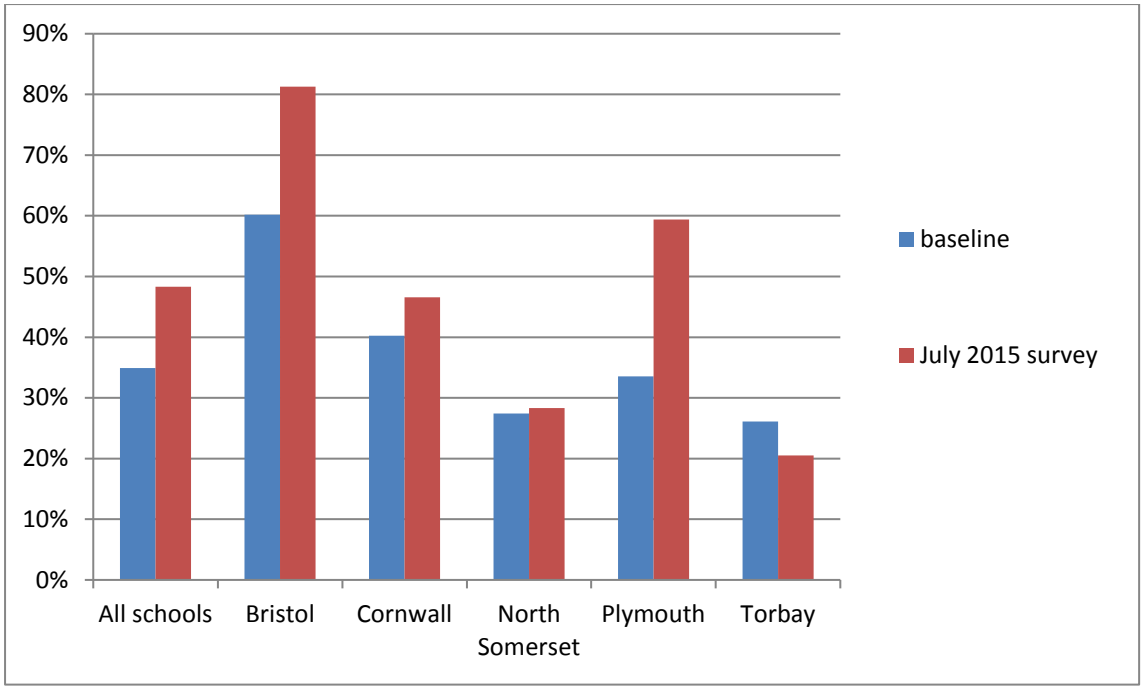
Figure 1.9 below shows the project and hub level involvement of TAs with LINE. The figures were calculated by dividing the number of TAs reported by schools as involved in LINE

delivery by the total number of TAs working in schools to produce the percentage of TAs involved in LINE delivery.

The percentage of TA involvement increased from 35 to 48 per cent across the project, a statistically significant increase (p-value<0.001); at hub level the highest increases were from schools in Bristol (from 60 to 81 per cent) and Plymouth (from 34 to 59 per cent). Collectively, schools from the other hubs reported relatively little change, although Torbay schools reported a slight decrease in TA involvement with LINE from 26 to 21 per cent.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=86: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=17
Figure 1.8: Project and hub level teacher involvement with LINE



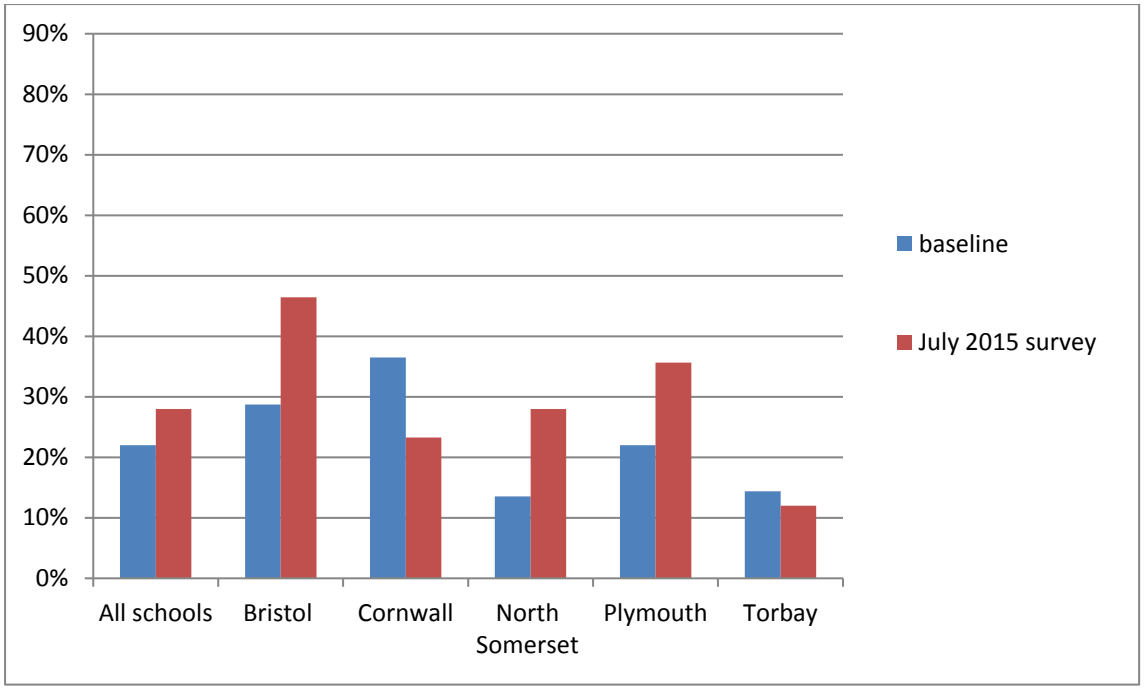
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=86: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=17
Figure 1.9: Project-wide and hub level teaching assistant involvement with LINE

We discuss teacher and TA involvement with LINE further in KEQs 5, 9, 10, 11, 12, 17, 19, 23, 25, 26 and 29.

Figure 1.10 below shows project and hub level volunteer involvement with LINE. The figures were calculated by dividing the number of volunteers reported by schools as involved in LINE delivery by the total number of volunteers reported as working in schools to produce the percentage of volunteers involved in LINE delivery.

Across the project, the percentage of schools reporting volunteer support with LINE rose slightly from 22 to 28 per cent, a statistically significant increase (p-value <0.001). At the hub level, volunteer involvement rose in Bristol (from 29 to 46 per cent), North Somerset (from 14 to 28 per cent) and Plymouth (from 22 to 36 per cent), but fell in Cornwall (from 37 to 23 per cent) and Torbay (from 14 to 12 per cent).

KEQs 44-64 provide detailed exploration of the role of volunteers within the project.



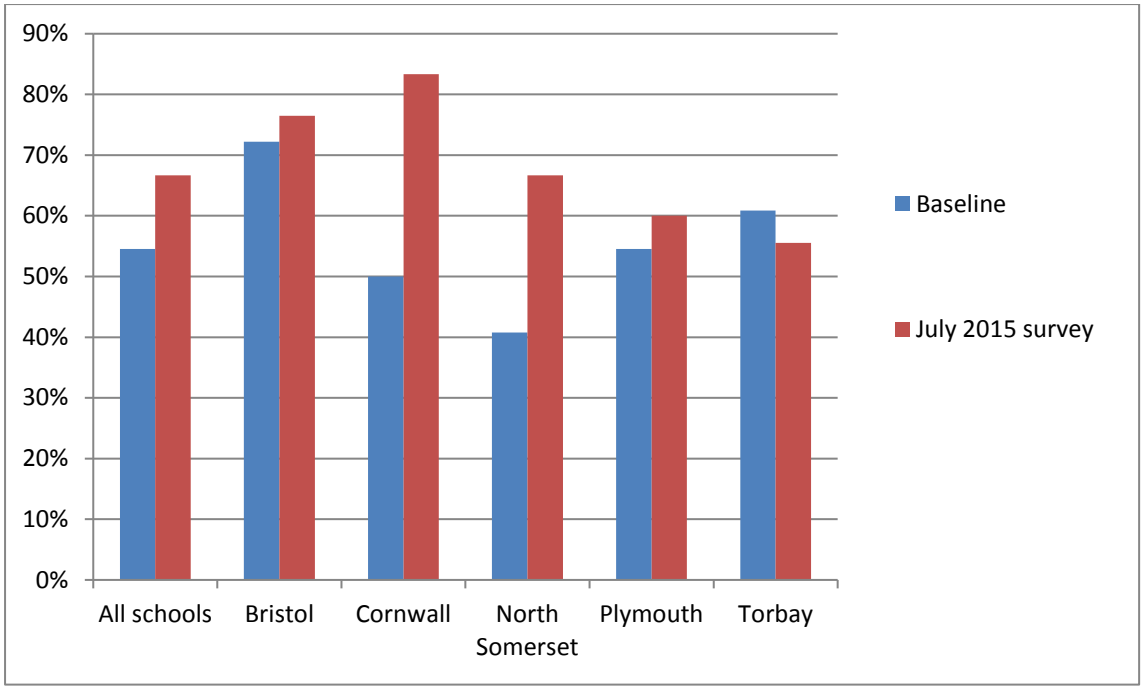
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n= 84: Bristol n=16, Cornwall n=12, North Somerset n=14, Plymouth n=25, Torbay n=17
Figure 1.10: Project and hub level volunteer involvement with LINE

1.4 LINE-related CPD

Figure 1.11 below shows project and hub level school engagement with CPD. Figures were calculated by dividing the number of schools reporting that staff or volunteers had undertaken CPD by the total number of schools answering that question to produce the percentage of schools engaging with LINE CPD.

Across the project, schools' reported levels of CPD engagement rose from 55 to 67 per cent, a statistically significant increase from baseline to July 2015 school survey (p-value=0.05). Within the hubs, activity increased in all hubs except Torbay, which decreased from 61 to 56 per cent. Cornwall schools reported the largest increase in CPD activity (50 to 83 per cent) with North Somerset schools reporting the second largest increase (41 to 67 per cent). There was relatively little change reported in schools from Plymouth and Bristol. It is worth noting, however, that Bristol schools reported higher levels of CPD activity in the baseline survey.

The role of CPD within the project is discussed further in KEQs 7, 9, 11, 17, 20, 22, 24, 27 and 29.

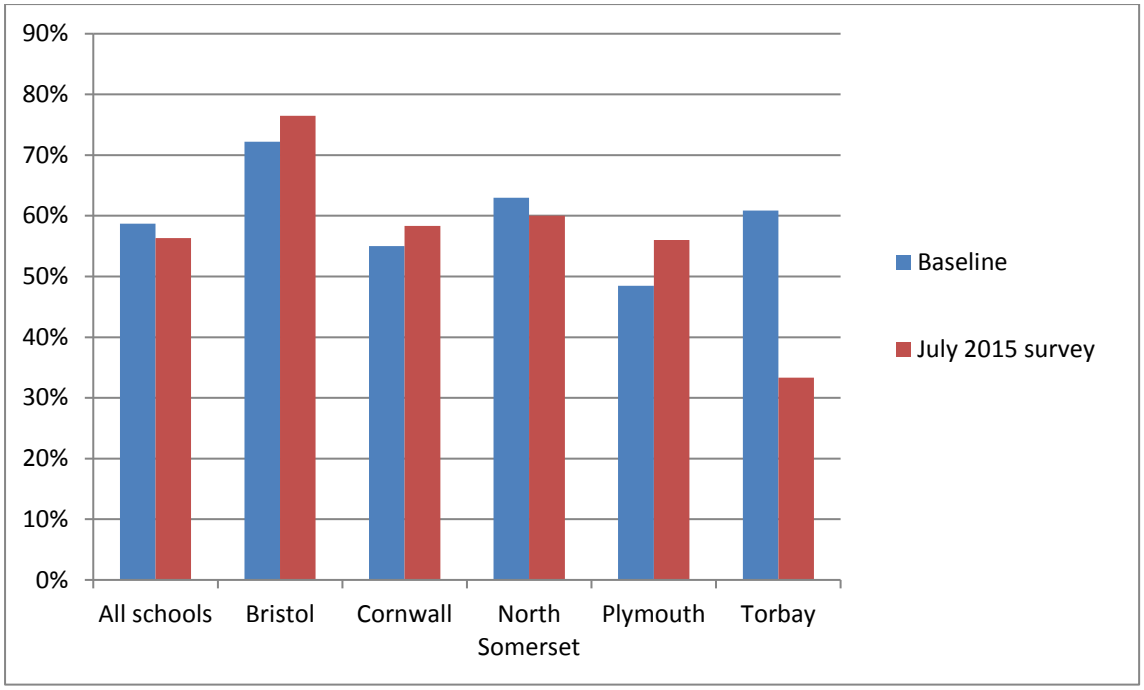


Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 1.11: Project and hub-level school CPD activity

1.5 Working with LINE providers

Figure 1.12 below shows project and hub level LINE provider engagement. Figures were calculated by dividing the number of schools reporting that they had worked with LINE providers by the number of schools answering that question to produce a percentage of schools working with LINE providers.

Across the project, schools reported a slight drop in levels of working with LINE provides from 59 to 56 per cent (this is not a statistically significant decrease); within the hubs, there was relatively little change, although Torbay schools recorded a decrease in working with LINE providers from 61 to 33 per cent. Bristol schools recorded the highest levels of working with LINE providers at baseline (72 per cent) and in July 2015 (76 per cent).



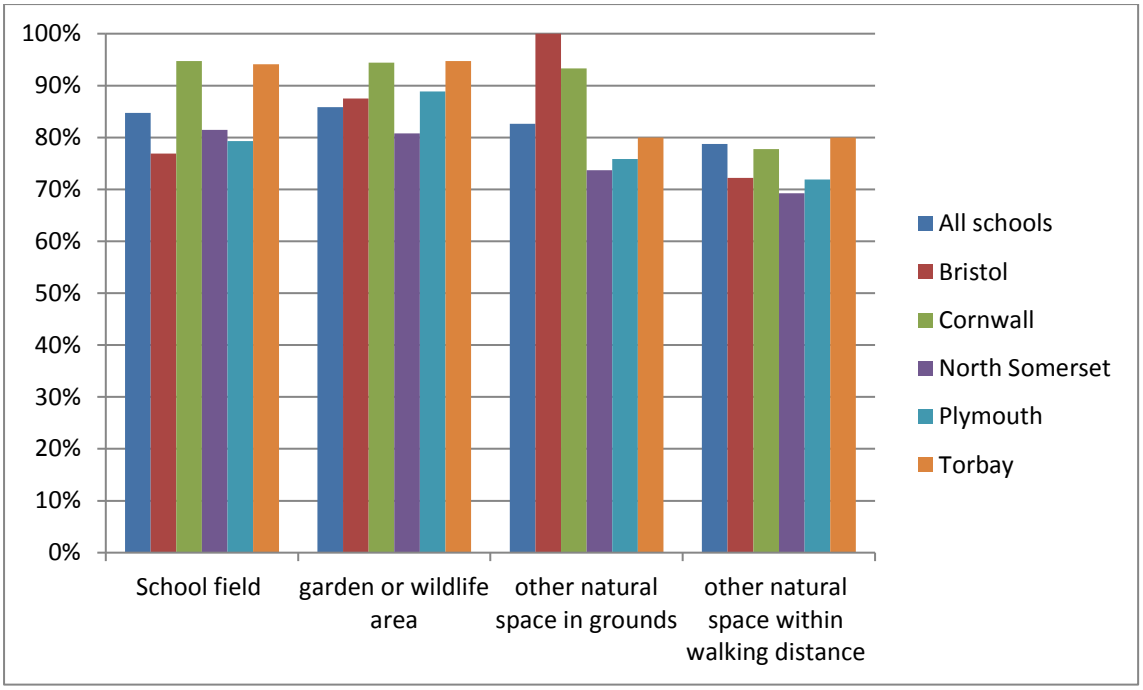
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 1.12: Project and hub level LINE provider engagement

We discuss the role of LINE providers in the project in KEQs 5, 11, 14, 15, 17, 22 and 30-37.

1.6 Use of green spaces

Figure 1.13 below shows the percentage of schools that had access to areas of green space and that used these spaces as reported in the baseline survey. This was calculated by dividing the number of schools that reported using a particular type of space by the number of schools reporting having access to that space.

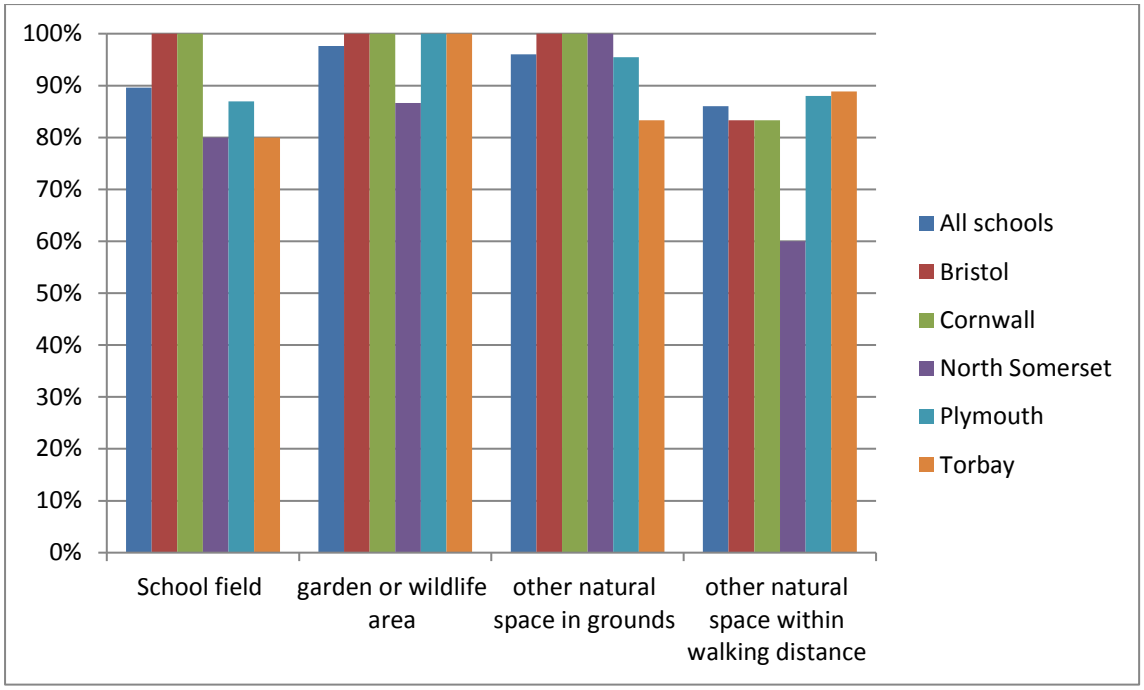
Baseline data from across the project shows that over 80 per cent of schools had access to and used school fields, a garden or wildlife area and other natural spaces within school grounds, and 79 per cent had access to and used other natural spaces within walking distance of the school. Over 90 per cent of Cornwall schools reported that they used all three types of space within school grounds, and over 90 per cent of schools from Torbay reported that they used the school field and the garden or wildlife area. One hundred per cent of Bristol schools reported that they used other natural spaces within school grounds. North Somerset and Plymouth schools generally recorded lower use of all green spaces than those in Bristol, Cornwall or Torbay.



Baseline: n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23

Figure 1.13: Percentage of schools that had access to green spaces and used them (baseline)

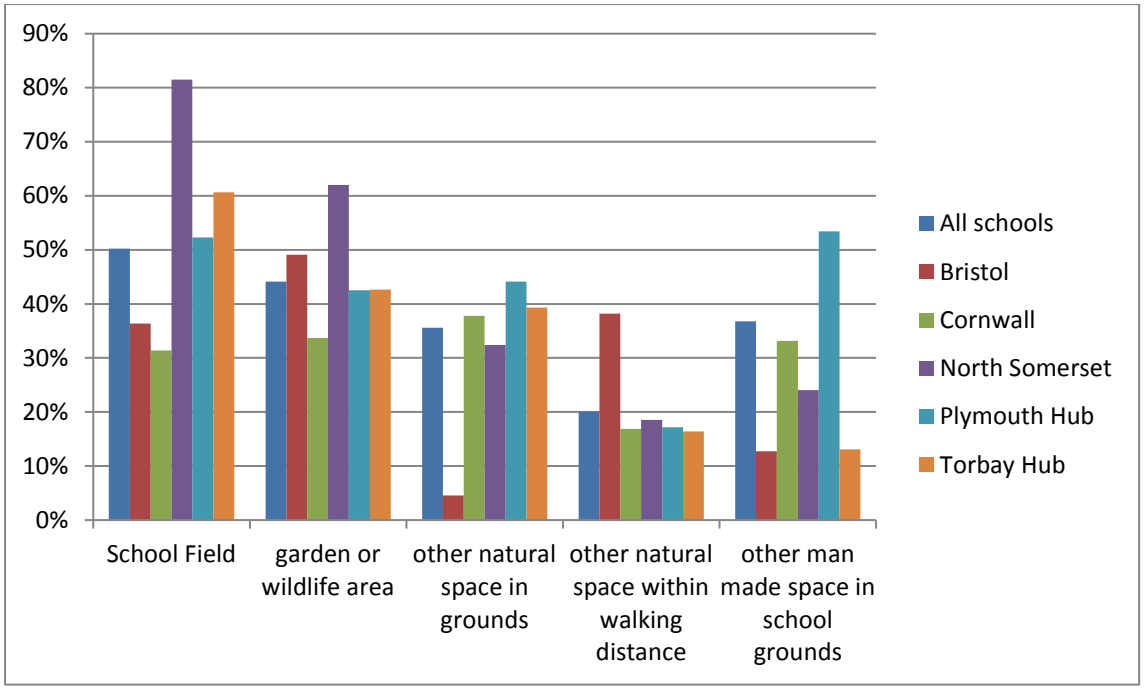
Figure 1.14 below shows the project and hub level percentage change in schools that reported access to and use of these green spaces, drawn from the July 2015 school survey. Across the project, schools' use of the school field increased from 85 to 90 per cent (this is not a statistically significant difference); use of gardens or wildlife areas increased from 86 to 98 per cent (a statistically significant increase (p-value=0.005)); use of other natural spaces increased from 83 to 96 per cent (a statistically significant increase (p-value=0.007)); use of other natural spaces within walking distance of the school increased from 79 to 86 per cent. There was no statistically significant change in schools' use of spaces outside the school grounds. At hub level, schools from Bristol and Cornwall reported 100 per cent use of the school field, garden or wildlife area and other natural space within school grounds. Schools from North Somerset showed an increase in the use of other natural spaces within school grounds (from 74 to 100 per cent), and Plymouth schools showed a steady increase in the use of all areas within school grounds. Use of natural spaces within walking distance increased in schools from all hubs except those from North Somerset, which recorded a decrease from 69 per cent to 60.



July 2015 school survey: n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18

Figure 1.14: Percentage of schools that have access to spaces and use them (July 2015)

Figure 1.15 below shows schools' use of green space during the times recorded in the June 2014 activity log period. This gives a clearer picture of relative use of spaces. Across the project, schools reported the highest use of the school field for LINE activities per week, and the lowest as other natural spaces within walking distance to the school. This pattern is broadly repeated across the hubs, although Bristol schools reported very low levels (5 per cent) of classes using other natural spaces in school grounds. Within the activity log, schools also reported using man-made spaces in school grounds such as tarmac playgrounds, patios and pathways. This use was noticeably higher in Plymouth than in other hubs.



June 2014 activity log n=818 (38 schools): Bristol n=110 (4 schools), Cornwall n=172 (6 schools), North Somerset n=108 (8 schools), Plymouth n=367 (14 schools), Torbay n=61 (6 schools)

Figure 1.15: Hub-level use of green space in June 2014

KEQs 5, 12, 17, 23, 24 and 25 discuss use and changes to green space further.

KEQ 3. What were the key factors in, and the pieces of evidence for, creating a compelling case for schools?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project
KEQ 3. What were the key factors in, and the pieces of evidence for, creating a compelling case for schools? **3.1** What was the context for school recruitment? **3.2** What strategies did hub leaders use to recruit schools, and what were the results of those strategies? What were the enablers and challenges to recruitment in each hub? **3.3** What reasons did schools give for joining the project?	
Data Sources Hub leader interviews; school baseline survey; central team instruments	
Key points • The recruitment strategies of the six hub leaders relied on personal contacts, strong advocacy and an understanding of the nature of the education system in their area. • There seemed to be a pool of 'beacon-ready' schools in most areas. • Cluster school recruitment, among schools who were less convinced by the benefits of LINE, was highly time-consuming. It was sometimes difficult to persuade schools of the benefits of LINE when they were juggling a number of different agendas and priorities.	

3.1 Context for school recruitment

Table 3.1 below provides a context for school recruitment by showing the number of potential project schools in each hub area. The table includes only state-funded schools from the target sectors of primary, secondary and special.

Table 3.1: Number of potential project schools in hub areas[3]

	State funded primary	State funded secondary	State funded special	Total state funded schools
Bristol	104	22	9	135
Cornwall	235	32	4	271
North Somerset	61	11	3	75
Plymouth	68	18	7	93

[3] Source: Department for Education 2015, https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2015

Torbay	30	9	3	42
Total	**498**	**92**	**26**	**616**

Table 3.2 below shows the total number of schools recruited to the project, including the number of beacon and cluster schools within each hub.

Table 3.2: Number of schools recruited (n=125)

	Beacon schools	**Cluster schools**	**Total project schools**
Bristol	7	15	22 (18%)
Cornwall	7	13	20 (16%)
North Somerset	6	21	27 (22%)
Plymouth	7	26	33 (26%)
Torbay	6	17	23 (18%)
Total	**33**	**92**	**125 (100%)**

The initial model for beacon school recruitment was that schools would apply to hub leaders to become a beacon school; agreement would be reached between hub leaders and schools that they would become part of the project; and that schools, hub leaders and the central team would sign a Memorandum of Understanding (MoU) that set out the expectations and responsibilities of each party. Once the beacon schools were recruited, hub leaders would focus on the recruitment of cluster schools. The project target was that each hub would recruit 40 schools as quickly as possible, in order that the evaluation would be able to provide longitudinal data on the impact of LINE on 200 schools. The actual numbers and dates of recruitment were taken from schools' completion of the baseline survey. All schools were recruited from the state sector apart from one fee-paying primary school.

3.2 Strategies for school recruitment

In the following sections we discuss each hub's approach to recruiting beacon and cluster schools, together with the enabling factors and barriers to recruitment in each hub.

Bristol

Bristol hub leaders were the educational consultancy Lighting up Learning (LuL), that was established as a social enterprise in 2009. LuL works with a range of educational organisations (for example schools, universities, charities and national bodies such as Historic England and the British Council) and focuses on three values: Connect, Collaborate, Change(see http://www.lightinguplearning.com/). The company operates through partnerships, commissioning part-time consultants who are often practising teachers to work alongside the Director to ensure that their advice and support is both up to date and practical. The hub leader team initially had two members, the Director of LuL and one main

education consultant, but other LuL consultants were engaged on the project at different times. LuL was appointed as Bristol hub leader in July 2013.

LuL's initial approach was to send a letter to all Bristol schools that invited them to apply to become beacon schools for the project. The aim was to be transparent and equitable in the recruitment process by including all schools in the Bristol area rather than approaching the schools the hub leaders worked with already: *'I was quite aware that I didn't want the project to become a Lighting up Learning thing … it needed to retain its … NCDP identity'.* Hub leaders received over 40 responses, subsequently reduced to *'eleven really good contenders'* who were emailed a set of eleven questions. The answers were scored using an adapted version of a weighted matrix developed by the Plymouth hub; if schools *'were aware of learning outside the classroom as a term'* and *'could actively demonstrate'* that LINE was happening in the school, this was a more influential factor than, for example, healthy schools accreditation. The scoring was then added to contextual information about each school, teachers' attitudes to LINE and the engagement of the headteacher, which were regarded as *'the really important'* aspect of the selection process and gained from personal contact with the schools about the project. Nine beacon schools were selected, with one 'beaconship' shared between three schools in a multi-academy trust, although two later withdrew and one became the sole beacon. Two further schools started working together as a beacon, but later gave up the joint responsibility and acted separately as beacon schools. The final total, by December 2013, was seven beacon schools.

The next stage was to recruit cluster schools. Hub leaders used the same approach as with recruiting beacon schools; all Bristol schools were invited to express an interest, and then to complete an application form. A total of nine schools had expressed interest shortly through signing up to an online MoU before the advertised closing date in March 2014. Hub leaders found that the most effective strategy for recruiting at this stage was to put teachers from beacon schools in direct contact with teachers in other schools whom they already knew. This, together with the time hub leaders spent in different meetings promoting the project, highlighted the need for the time to develop an advocacy strategy plan. By June 15 cluster schools had been recruited, all of which hub leaders believed were committed to the project. Four of these schools did not complete the baseline survey but completed at least two other surveys during the project lifetime, and so have been included in the recruitment numbers.

In November 2014, hub leaders reported that they were *'struggling'* to engage more schools with the project, and at this point decided to focus on supporting those schools already recruited. Hub leaders commented that they believed a target of recruiting 40 schools for a three-year project was unrealistic, and that an ideal approach would have been to have used a *'graduated approach'* in which ten schools were recruited in the first year, ten the following year and the remainder in the third year to ensure schools understood and were committed to the project.

- **Enabling factors for school recruitment:**

- The hub leaders' wide-ranging network of educational contacts across Bristol, and strong reputation for innovative education work.
- Hub leaders' ongoing contact with a large number of Bristol schools through their consultancy work.
- A large number of schools within a relatively small geographical area.
- The Bristol hub leaders were recruited later than those from Plymouth, Torbay and Cornwall, and were able to learn from their early experiences.
- Added value and in kind support in additional staff time

- **Challenges to school recruitment:**
  - The time needed to recruit schools. Hub leaders had limited funding, and commented that they had spent *'a lot'* more time in contacting schools than they had planned – but that *'there was no way of getting round that'.* Hub leaders needed to balance their funding from Natural Connections, which they regarded as a *'contribution towards the work'*, with the demands of the project and their own organisation.
  - Managing the balance between recruiting schools committed to LINE to the project – and therefore ensuring its sustainability – and meeting project targets of swift recruitment of 40 schools.
  - The absence of a clearly-defined project model. Schools wanted a clear idea of the project offer, which was evolving as the hub matured rather than something definitive from the start of the project.
  - The high number of different educational agendas in Bristol, such as a drive to improve maths during the project meant that schools needed energy and capacity to introduce new ways of learning.
  - The high rate of schools converting to academy status. Hub leaders reported that this process takes at least a year, which reduces schools' capacity to introduce another initiative: *'it* [converting to an academy] *literally takes the whole year and all of your attention is in that school. It's not anywhere else, it can't be; every teacher, everybody is so engrossed'.*
  - Schools were *'reluctant to sign the formal commitment'* of the MoU.

Cornwall

Cornwall hub leaders came from The Learning Institute, which is part of Callington Community College. Based in the south-west but operating through the UK and worldwide, the Institute offers a range of education-based services for primary and secondary schools as well as foundation degrees and initial teacher education (ITE) (see http://www.learninginstitute.co.uk/). There were two members in the hub leader team, one of whom was a paid staff member and the other an education consultant. They had support from a Business Manager, Senior Administrator and Fundraising Officer. They were appointed hub leaders in March 2013.

Hub leaders' recruitment strategy was to invite applications for beacon schools by distributing project information in target areas of high deprivation, and then to follow existing relationships in encouraging schools to apply. This resulted in eleven formal applications. The four *'broad principles'* of selection were based on schools':

1. Commitment to using LINE for sustained curriculum development
2. Expertise in developing LINE
3. Proven capacity to develop and lead projects across a group of schools
4. Experience of engaging adults other than teachers to develop learning.

This process was followed by discussion with the applicants around their experience and willingness to take on the responsibility, and seven beacon schools were selected in July 2013. The four schools that were unsuccessful in their application showed no further interest in the project. One small beacon school found it had insufficient capacity to continue in the role, became a cluster, and was replaced in the role by another school; another beacon school disengaged with the project, partly because the LINE lead role, originally taken by a deputy head, was passed to a TA who was perceived by hub leaders to have limited internal influence.

Cornwall hub leaders allowed the beacon schools up to a year in which to gain confidence in their role, arguing that: *'the first thing that we have got to do is to get the beacon schools confident about their role … and therefore to some extent they have got to work within their comfort box … in the first year'.* Hub leaders initiated a gradual recruitment process for cluster schools, believing that as potential cluster schools started to see the benefits of LINE in the beacon schools, so they would want to join the project. The aim was for the beacons to find and recruit their own cluster schools, with each beacon developing its own approach and model of working. Hub leaders' attempts to encourage beacon schools to recruit cluster schools with high levels of pupils eligible for free school meals (FSM) or in Ofsted categories were rejected. This was first, because beacon schools believed they would be more successful recruiting from schools with whom they already had contact and secondly, because beacon schools were reluctant to support schools in lower Ofsted categories; beacon schools believed that attempts to bring in a new initiative would fail because schools would not have the capacity to implement a new initiative at that difficult time. Hub leaders discovered during this process that LINE leads in beacon schools needed strong advocacy skills when they were recruiting, and that the institutional role of the LINE lead was important; a LINE lead who was a TA, for instance, would find it far harder to reach senior leadership in a potential cluster school than a senior leader. They also discovered that *'even experienced'* LINE staff found this new recruitment role challenging. Their response was to enable LINE leads in beacon schools to access CPD and become Specialist Leaders of Education (SLE) with a focus on learning outside. Offering financial incentives to beacon schools for recruitment met with limited success and, as beacon schools had anticipated, successful recruitment was often through existing personal and professional relationships. All beacons recruited one or more cluster schools, and by February 2015 thirteen cluster

schools had been recruited. Although hub leaders expressed hopes that this number would increase, it remained the same.

- **Enabling factors for school recruitment:**
    - The hub leaders' strong network of contacts, both within Cornwall and nationally, together with their 30 years' of educational experience in the area and experience in managing large-scale education contracts.
    - Green and blue spaces are seen as an essential part of the Cornish economy, and there is a considerable amount of interest in LINE within the county; hub leaders believed that this made the beacon school recruitment relatively straightforward.
    - Hub leaders' 'added value': administrative support, office space, staff time and advertising

- **Challenges to school recruitment:**
    - The large area of Cornwall, which made meetings and face-to-face collaboration expensive and time-consuming.
    - School dispersal. A relatively small number of schools in each area within Cornwall meant that, unlike in the more compact hubs, there were fewer potential cluster schools. The choice was further limited by the number of multi-academy trusts and federations, who could be unwilling to allow one or more of their schools to join another network, and feeder primary schools who could be unwilling to be involved in activity unrelated to their secondary school.
    - The average size of school. Cornwall has a high percentage of small schools, which meant that they often lacked capacity to engage with new external initiatives.
    - Managing the balance between recruiting schools committed to LINE to the project – and therefore ensuring its sustainability – and meeting project targets of swift recruitment of 40 schools.
    - Secondary schools found recruitment more difficult than primary, often because of the difficulty of internal coordination over LINE work.
    - The MoU slowed the recruitment process: *'The MoU has caused friction … To schools that are just coming on board,* [it] *seems a pretty heavy document. We've rewritten it and lightened it but they still look a bit anxious about it'.*

North Somerset

The hub leaders for North Somerset were the Forest of Avon Trust (FoAT), a Bristol-based charitable organisation that was established in 2008 following the demise of the Forest of Avon Community Forest. It is an independent body that has expertise in all matters related to woodland, has strong connections to a wide range of LINE providers, and is funded from sponsorship, membership of a 'Friend's' scheme, grants, fees and donations (see http://forestofavontrust.org/). Educational expertise at the time of appointment was focused

on Forest Schools, and exploratory discussions with local educational consultants to support the team with more curriculum-explicit content came to nothing. The hub leader team was a member of staff with some administrative support. FoAT were appointed as hub leaders in July 2013.

The approach to recruit beacon schools was to email all schools in the North Somerset local authority (LA) at the start of the school year with an outline of the project, inviting them to express an interest either in becoming a beacon school or to become involved later as a cluster school; the intention was then to select schools through an application form based on those from Plymouth and Bristol. The North Somerset local authority (LA) and the Learning Exchange (an educational consultancy) also agreed to send out information. At the time of the first evaluation interview in September 2013, the hub leaders commented that there did not seem to be a clear way to access schools effectively in this area. This initial approach resulted in *'strong interest'* from two schools, prompting hub leaders to approach schools individually to promote the project. This personal approach resulted in two more recruits. Hub leaders commented at this time that the beacon/cluster model was not always helpful because of the differences in LINE development within schools, and that recruitment was slowed by some schools' apprehension about becoming a beacon school: *'I think for a lot of them* [schools] *it has been about not wanting the responsibility for other schools'*. Hub leaders' reflection on the attitude in some schools that *'we do it properly or we don't do it at all'* led to a more proactive approach in which hub leaders worked more closely with schools and responded more quickly to their concerns, rather than leaving them to decide on project engagement on their own. These new recruitment strategies, plus support from the central team and working jointly with the Bristol hub, increased the final number of beacon schools to six by April 2014. It was at this point that FoAT were encouraged to recruit beyond the North Somerset local authority area.

Cluster recruitment was shared between the hub leader and the beacon schools, and was an ongoing process from the time of the first beacon schools' recruitment. An early incentive of £500 for beacon schools, received when five cluster schools had completed their baseline, was seen as successful but was withdrawn as hub leaders were unconvinced that this was the best use of limited project funds. Recruitment in one cluster was based around shared interests in the benefits of Forest Schools, with a locally-influential headteacher driving the process. Other beacons recruited cluster schools through local contacts, although some found strong resistance to the idea of engaging with LINE due to other priorities. Small incentives, such as guidance on school grounds development, Forest School training at a discount or copies of LINE resources, seemed to help the process *'a little bit'.* In April 2014 the hub leader decided to encourage schools to complete the baseline *'if you think you are going to join in. This doesn't commit you in any way and it is quite a quick process'*; the aim was to stimulate cluster participation in the project, so that the hub leaders and beacon schools could start working with these schools rather than having a prolonged discussion about joining that may or may not yield results. This approach led to the recruitment of

twenty-one cluster schools, over a wide geographical area that included schools in Wiltshire and Somerset, by the end of December 2014.

- **Enabling factors for school recruitment:**
    - Support from the neighbouring hub of Bristol. FoAT quickly developed a connection with the Bristol hub leaders, complementing LuL's educational expertise with FoAT's knowledge and experience in woodland learning. Over the course of the project, the two organisations worked increasingly closely together, fulfilling the identified need for educational input to the hub leadership.
    - Pro-active recruitment process with the hub leaders personally approaching schools.
    - The hub leader's wider network beyond North Somerset enabled recruitment from schools that participated in Forest Schools.

- **Challenges to school recruitment:**
    - The hub leaders' lack of education networks and contacts. This situation was improved when the North Somerset hub started to work with the Bristol hub.
    - The small size of the hub leader organisation, the time needed to recruit schools and the limited project funding; hub leaders felt that FoAT had *'less staff flexibility'* than larger organisations to donate time to the project.
    - Few remaining LA support structures within North Somerset that enabled easy access to key school staff members, and few existing inter-school relationships for beacon schools to draw on when recruiting. The hub leaders commented that schools in North Somerset did not have a collective identity, and that they *'work very much in their own silos with their own priorities'.*
    - A relatively small number of potential project schools (75 in total) that were dispersed over a large geographic area. This area was extended to boost recruitment.
    - Competing external priorities for hub schools, which meant they were unwilling to implement a new initiative.
    - Schools wanted information on the benefits of LINE, together with a clear idea of the project. This was evolving as the hub developed.
    - Regular change of administrative support personnel within the hub leader organisation meant that project knowledge was vested in one person only. This reduced responsiveness to school queries, needs and contacts.
    - The commitment involved in the MoU was regarded as off-putting.

Plymouth

Plymouth City Council (PCC) initially had a team of seven people working on the Natural Connections project. These included the Stepping Stones to Nature Project Coordinator, Green Infrastructure Team Leader, Outdoor Education Adviser, Play Officer, Greenspace Manager (Parks Operations), Senior Youth Support Worker and Leadership Adviser: Health,

Wellbeing and Citizenship. A member of The Conservation Volunteers team was seconded to work on the project when one original member of the team started a period of extended leave. PCC manages Plymouth's greenspaces and, at the time of appointment to hub leader, had set aside funding to develop these as part of a city-wide policy. The team has a strong infrastructure in terms of IT and press relations, and support from elected council members. The number of people in the team meant that their expertise included education, green space and volunteering and that they had established contacts with LINE providers. They were appointed hub leaders in January 2013.

Plymouth's systematic process for recruiting beacon schools involved developing a model of the qualities / characteristics a beacon school should have; drawing up a long list of schools they believed would be suitable to take on the role; reducing this to a shortlist; and then sending out formal invitations to these schools. This was followed by a meeting with senior leaders from each of the invited schools to discuss their expectations, concerns and plans, and formal acceptance as a beacon school was signified by attending the beacon school induction meeting in July 2013. This careful approach to select the 'right' schools was to ensure project sustainability: *There is no point firing our schools up for a two-year project. We are firing them up for life. That's the notion'.* Eight beacons were recruited by May 2013, but one withdrew, leaving seven beacon schools for the remainder of the project.

Concerned by feedback from these schools that the role of beacon school would be too intimidating and/or time-consuming to manage, hub leaders then decided that beacon schools could have a year in which to build confidence and expertise in their roles before beginning to recruit cluster schools. Beacon schools were in charge of their own recruitment, drawing on hub leader support as and when necessary. Recruitment followed geography, existing networks and school need, with some – for example teaching schools – recruited partly for their strategic importance to the project, although one member of the hub leader team pointed out that there were many existing inter-school relationships within Plymouth and *'we have to be careful that we are not putting a network, on top of a network, on top of a network'.* Beacon schools with a clear offer, such as expertise in skills-based learning, recruited quickly while others recruited more slowly, finding that identifying and approaching appropriate cluster schools required more time, expertise and hub leader support than anticipated. Hub leaders commented: *'We hadn't really anticipated how challenging identifying their cluster schools would be for some of them* [beacon schools]*, particularly for those expressing a slight lack of confidence around beacon status'*, and they reported that a flexible, open approach to cluster recruitment *'could be overwhelming'.* At the same time, the more experienced beacon schools in LINE were reported as *'experiencing the difficulties that we've had over the years in trying to persuade people to do things'*; there was a degree of resistance to developing LINE in some of the cluster schools. One cluster developed spontaneously around a Local Nature Reserve that was undergoing regeneration, and did not follow the beacon/cluster model. Twenty-six cluster schools were recruited by October 2014.

- **Enabling factors for school recruitment:**
    - The wide range of complementary knowledge and skills in a large team that had extensive experience in education, LINE provision, green space regeneration and management, and volunteering.
    - The size of the team. As with the Bristol and Cornwall hub leaders, team members could work on the project alongside their other duties, thereby stretching available project resources.
    - A small geographical area with a relatively large number of schools.
    - Strong inter-school networks – although, as hub leaders pointed out, care needed to be taken with managing these relationships.

- **Challenges to school recruitment:**
    - Balancing the time needed to recruit and support beacon schools with project funding and their own organisational commitments. The team had to justify all the time spent on their project to their line managers as this exceeded the contracted time allowed.
    - Some beacon schools' lack of confidence when recruiting cluster schools. This meant that cluster recruitment took longer than hoped, and took up more hub leader time than anticipated.
    - Schools wanting a clear model of the project that included their time commitment. As was the case with other hubs, the clarity of expectation and offer developed as the project matured.
    - Managing the balance between recruiting schools committed to LINE to the project – and therefore ensuring its sustainability – and meeting project targets of swift recruitment of 40 schools.
    - Schools were reluctant to sign the MoU, saying that the commitment specified was too great.

Torbay

Torbay's first hub leader was the Plymouth-based Real Ideas Organisation (RIO), an independent Community Interest Company. RIO delivered the Creative Partnerships programme in the south west from 2000, became independent and income-generating from 2007, and works with a wide range of customers including government, local authorities, private businesses, universities and schools (see http://www.realideas.org/). The organisation is engaged in multiple complementary projects at any one time, has contacts throughout the south-west, and a comprehensive understanding of social enterprise and income-generation for schools. The hub leader team consisted of a LINE continuing professional development (CPD) specialist (replaced in September 2013 by a staff member with less experience in CPD), a strategic planning and curriculum expert, and support for school liaison and administration. RIO were appointed as hub leaders in January 2013.

RIO initially undertook an audit of LINE-related activity in schools in Torbay and then emailed all schools through the established curriculum network in Torbay to promote the

project and encourage schools to join. No schools responded to this approach, and RIO found that schools with which they already had contact were the only ones to express an interest. RIO then established the LifeLINE CPD network in Torbay, which attracted a membership of around 20 schools, with the intention of recruiting schools as they engaged with the CPD; the aim was to *'build a relationship, identify what is in it* [the project] *for them, what the work is, and then present … the agreement'*. Recruitment of beacon and cluster schools was ongoing almost from the start of the project, as RIO quickly developed the implementation model of *'all of the beacons working with all of the clusters'.* However hub leaders commented early on in their recruitment process that turning ongoing conversations into formal commitment to the project was *'really tricky'* because *'as soon as you start putting it into being a formalised thing … it has time commitments both from … the hub organisation and the schools as organisations'*; they felt schools were unwilling to take on these responsibilities and that this had implications for their own costs in delivering the project.

The hub leader team member responsible for running the LifeLINE network was replaced in September 2013 by a less experienced team member, and the model of recruitment – which had relied up until then on one member of staff who was described as *'the glue that held the relationships together'* – had to be re-thought. This resulted in returning to the beacon-cluster model, in which RIO decided that beacon schools should recruit and then work with cluster schools of their choice. By the end of 2013, three schools had been formally recruited to the project and a number of measures were agreed with the central team to increase the number of project schools. In January 2014 RIO agreed to:

- Have five beacon schools fully signed up for the project by March 2014 (including completion of the baseline survey and MoU).
- Sign up 15 cluster schools fully by March 2014.
- Employ existing school partnerships and networks more effectively, drawing on support from Plymouth University who agreed to promote the project among schools in Torbay that supported the University BEd student teaching experience.
- Recruit in the Devon County Council area to ensure that 40 schools were involved by April 2014.

In February 2014 it was agreed that RIO would expand school recruitment to the project into the Devon County Council area. In April 2014 hub leaders reported that six beacon schools had been recruited and given funding to work with three further schools, with the aim of recruiting a total of 18 cluster schools. By the end of July a total of seven cluster schools had been recruited. In October RIO withdrew from the hub leader agreement as, amongst other reasons (see KEQ20 for full details) they felt under too much pressure to recruit more schools. In their exit interview RIO commented that:

- Their model of recruitment had relied heavily on the CPD specialist and that, when she left, RIO were unable to replace her with the available finances.
- The two-hour round trip between Plymouth and Torbay meant that there was less face-to-face contact with schools than the hub leaders would have liked.

- Schools were put off joining the project by the demands of *'over-long and complicated'* evaluation surveys; RIO felt schools could see little benefit from contributing to the research, and there was insufficient *'carrot or stick'* to convince them that they should.
- RIO felt that there was *'constant pressure from the central team*' to recruit more schools, and that the target of 40 schools was unrealistic; the funding would have been better spent focusing on a smaller number of schools and creating an *'unshakeable hub where you show how you can use LINE right across the curriculum'.* They believed this would have been a more effective model both for recruitment and participation in the evaluation.

In November 2014 Mel Easter, a newly-retired headteacher from one of the beacon schools, agreed to become hub leader. Her immediate priority was to *'pull existing project schools together and recruit cluster schools'* by developing stronger links between project schools, articulating a vision for the project and approaching headteachers personally. She recruited ten further cluster schools by the end of March 2015, bringing the project total to 17. At the time of her exit interview in November 2015, seven further schools had either joined or expressed interest in joining hub activities, bringing the total to 30 schools that were engaged with LINE *'to a greater or lesser extent'.* Part of her recruitment strategy was to complete the baseline evaluation with schools, and she commented that *'it became a really, really worthwhile quarter of an hour, 20 minutes'* in which any issues raised by the evaluation questions were discussed. She commented that the key factors in school recruitment were access to headteachers and/or senior leaders, a persistent and personal approach, and linking schools together so they could support each other in different ways, and she observed that headteachers needed *'to experience the impact of LINE for themselves'* if they were to be convinced of its benefits. She recognised that her position as a well-respected ex-headteacher in this area was helpful, and commented that senior leaders' reaction had been: *'if Mel's taken this on, it must be worth doing'.* She also commented that, by the time she took over as hub leader, the *'building blocks'* of schools engaged in LINE and *'good people to work with'* were already established.

- **Enabling factors for school recruitment:**
    - RIO: a team with knowledge and expertise in the area of CPD, and (initially) one staff member who was a recognised specialist in LINE within the area.
    - Mel Easter: a hub leader that was a former headteacher with a deep belief in the value of LINE and high levels of influence in the area through her own success.
    - Mel Easter: Willingness to give additional time at no cost to the project in order to ensure recruitment, school support and sustainability of the project. She visited all schools *'several times'*, commented on the important of *'good intelligence'* within the hub and continued working on the project *pro bono* for six months after the end date of her contract.

- A small LA with a number of established inter-school networks and relationships.

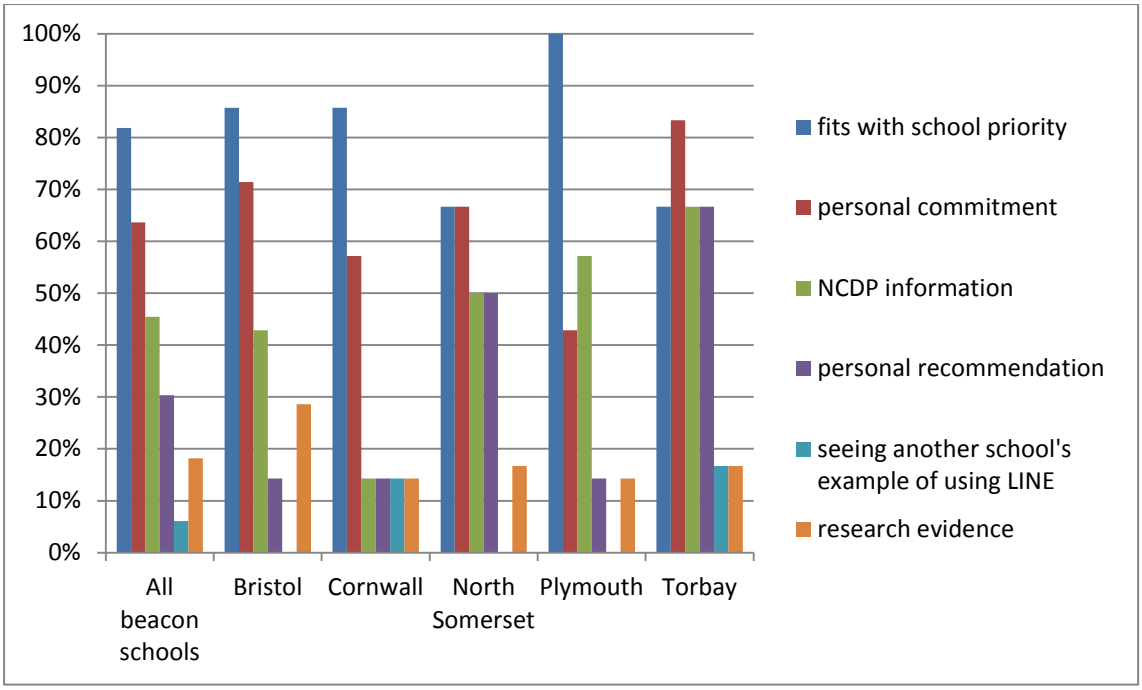
- **Challenges to school recruitment:**
  - RIO: balancing the limited project funding with the demands of the project and their own organisation.
  - RIO: managing the balance between recruiting schools committed to LINE to the project – and therefore ensuring its sustainability – and meeting project targets of swift recruitment of 40 schools.
  - The distance between Plymouth (RIO's base) and Torbay which, given funding constraints, limited the number of face-to-face meetings.
  - An initial limited pool of potential project schools, although it was negotiated that RIO would expand recruitment to Devon from February 2014. No schools were recruited by RIO from this area.
  - RIO believed the evaluation requirements were off-putting to potential schools.

3.3 Schools' reasons for joining the project

All schools were asked their reasons for joining Natural Connections in the baseline survey. Figure 3.1 below shows the reasons beacon schools gave for joining the project at both project and hub level.

Across the project, the two most frequently-cited reasons for joining the project were that it fitted in with school priorities (82 per cent) and personal commitment from staff (64 per cent). When combined with the relatively low responses for other people's personal recommendation (30 per cent), research evidence (18 per cent) and another school's example (six per cent), these findings suggest that the beacon schools were sufficiently engaged with LINE to be aware of the benefits it could bring, and that they saw joining the project as a way of developing and extending practice within the school and more widely. This also confirms hub leaders' approach of engaging schools that were committed to LINE as beacons.

At hub level, schools from Bristol, Cornwall and Plymouth reported the highest levels of LINE fitting in with school priorities (86, 86 and 100 per cent respectively) while schools from Bristol and Torbay reported the highest levels of personal commitment (71 and 83 per cent respectively). Torbay schools reported the highest percentage of beacon schools joining the project because of project information and personal recommendation (both 67 per cent) which suggests that the project model was clear to them when they formally signed up.

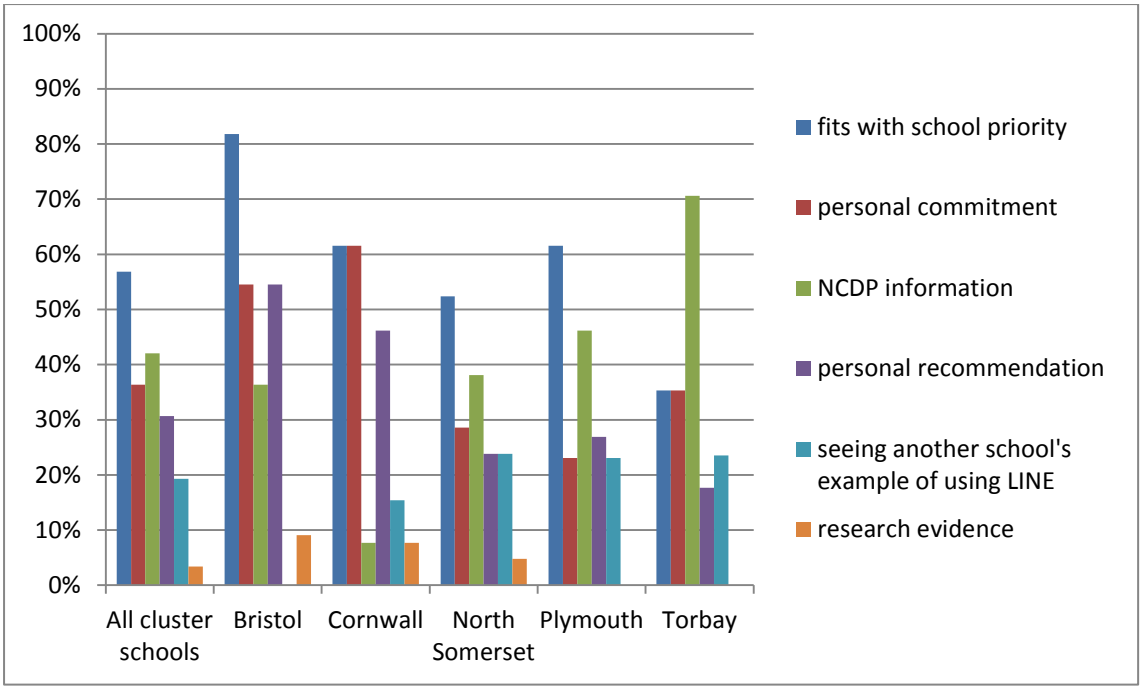


n=33: Bristol n=7, Cornwall n=7, North Somerset n=6, Plymouth n=7, Torbay n=6. Schools could select more than one option.

Figure 3.1: Beacon schools' reasons for joining the NCDP

Figure 3.2 below shows the responses to the same question from the 88 cluster schools, at both project and hub level. At project level, once again the reason cited most often for joining the project was that it fitted in with school priorities, although to a lesser extent; while the response rate from beacon schools was 82 per cent, cluster schools' was 54 per cent. A noticeable difference between beacon and cluster schools' responses is the decrease in the percentage of schools that joined because of staff personal commitment, falling from the beacon school response of 64 per cent to 36 per cent in cluster schools. This could suggest that cluster schools' senior leadership joined the project because of the benefits to LINE that they saw in beacon schools and elsewhere, demonstrating the importance of local networks.

Within the hubs, Bristol schools' response from 82 per cent of schools that the project fitted in with school priorities suggests their recruitment strategy of engaging with schools committed to LINE was effective; if LINE fits in with school priorities, it is far more likely to be part of schools' everyday practice. The high percentage of responding Torbay schools reporting that project information was a reason for joining suggests that the new hub leader was clear in her approach about the project offer; ten schools out of 17 joined the project after her appointment/. However it is worth noting that the hub leader also had considerable influence as an ex-headteacher of a successful LINE school. Together these factors mean that the hub leader was able to articulate the aims and methods of the project clearly, and that the senior leaders she spoke to were prepared to trust her message. Cornwall schools reported high levels of joining the project because it fitted in with school priorities and personal commitment (both 62 per cent).



n=88: Bristol n=11, Cornwall n=13, North Somerset n=21, Plymouth n=26, Torbay n=17

Figure 3.2: Cluster schools' reasons for joining NCDP

KEQ 4. What were the ongoing educational impacts of LINE on teaching and learning in schools?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to retain schools in the project

KEQ 4. What were the ongoing educational impacts of LINE on teaching and learning in schools?

4.1 What educational impacts did schools report from LINE in the surveys?

4.2 What educational impacts on pupils did schools report from LINE in the case studies?

4.3 What impacts on teachers did schools report from LINE in the case studies?

4.4 What were pupil views?

Data sources

July 2015 school survey; school case studies

Key points

- LINE consistently enthused and motivated children to engage with their learning.
- The proportion of schools that indicated a positive impact on attainment compared to those indicating a non-positive impact was statistically significant (p-value<0.001).
- The proportion of schools that indicated a positive impact compared to those that indicated a non-positive impact was statistically significant (p-value<0.001) for all other areas of pupil impact. These were pupils' enjoyment of learning, engagement with and understanding of nature, social skills, engagement with learning, health and wellbeing, and behaviour. This finding comes with the warning that there were not enough non-positive indications to make a truly valid comparison.
- The proportion of schools that indicated positive impacts of LINE for teachers compared to those that indicated a non-positive impact was statistically significant (p-value<.001). This comes with the warning that there were not enough non-positive indications to make a truly valid comparison.
- LINE delivered foundational factors for pupil attainment such as enjoyment and engagement with learning, confidence, improved behaviour and greater social skills.
- Teachers reported that LINE could stimulate higher quality work and deepen conceptual understanding, particularly in English and maths.
- Case-study schools reported numerous examples of higher quality work that could be linked to LINE.
- Two case-study schools that had been engaged with LINE for several years were confident that LINE contributed to higher examination scores. Others made the point that it can take time for the higher quality seen in pupils' LINE-related work to translate into standard assessment tests (SATs) results; only Year 6 take these exams and, until LINE has become embedded in school practice and a regular part of each cohort's experience, the impact on results can be variable.

- LINE can be a powerful vehicle for developing teachers' practice and increasing their satisfaction with their working life.

NOTES

In this KEQ we have shown the findings from the July 2015 school survey because the results were broadly the same as in the July 2014 survey. Project evidence shows that teachers who experienced LINE were relatively quickly convinced of its benefits. Survey comments are 'in quotation marks' and interview quotations are *'in italics and quotation marks'.*

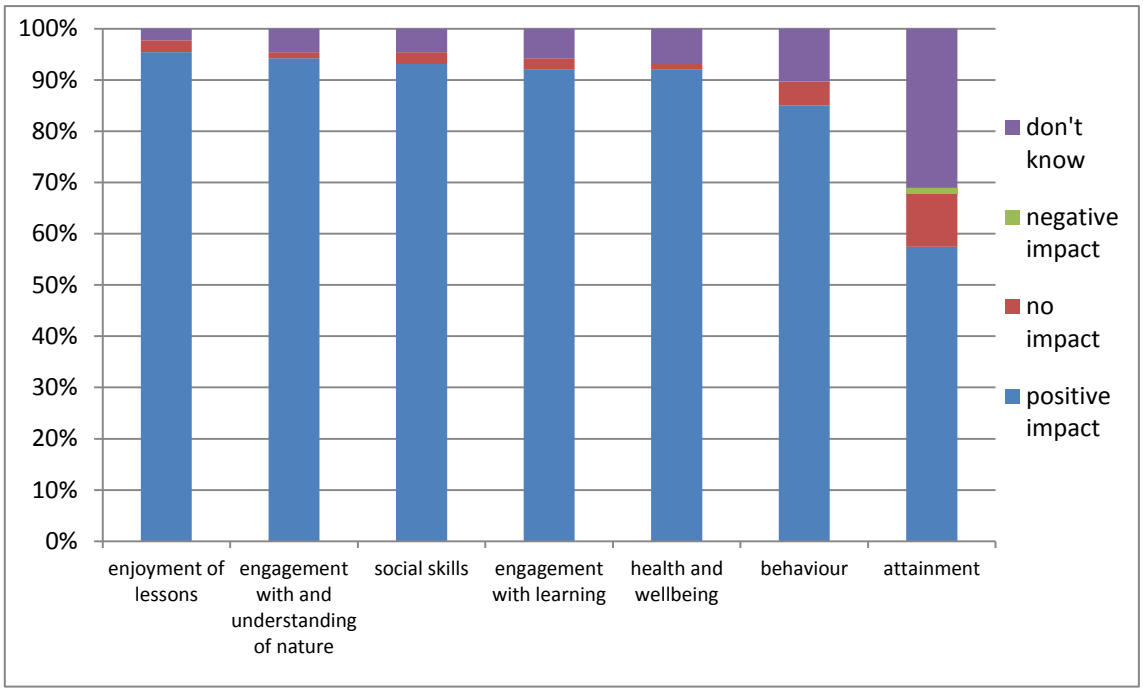
4.1 What educational impacts did schools report from LINE in the surveys?

- **Impact on pupils**

In Figure 4.1 below we show schools' assessment of LINE's impact on pupils, taken from responses to the July 2015 school survey.

For pupil impact, the number of survey responses indicating negative impact were too small to make a valid comparison, apart from in the category that referred to pupil attainment. Conducting a test to compare the proportion of schools in which LINE had a positive impact on pupils' attainment and the proportion of schools in which LINE had no impact on pupils' attainment, we found that there was a statistically significant difference in the two proportions; the proportion of schools in which the impact was positive was significantly higher than the proportion of schools indicating no or negative impact (p-value<0.001).

Even though we were unable (formally) to conduct any tests, the numerical difference in the number of schools that indicated positive impact in all other categories was striking. If we ignore the low number of non-positive responses and compare the proportions, the conclusion for all categories is that the proportion of schools that indicated a positive impact was significantly higher than the proportion of schools in which no or negative impact was indicated (all p-values are equal to zero in three decimal places), suggesting very significant results.



July 2015 school survey: n=87

Figure 4.1: School assessment of LINE's impact on pupils

In the comments section of the survey, one respondent commented that LINE had 'a positive impact on everything', while one reported that LINE had 'no impact as we have just got started'. Altogether eight responding schools (nine per cent) reported in their comments that their LINE implementation was in its early stages, and this may help to explain some of the 'no impact' or 'don't know' responses to the survey questions. There were no negative comments about the impact of LINE on pupils.

Figure 4.1 shows that 95 per cent of respondents believed that LINE impacted positively on pupils' enjoyment of lessons and that 92 per cent of respondents thought that LINE had a positive impact on pupils' engagement with learning. The four survey comments below show how engagement with learning took a variety of different forms, from developing skills in a particular subject to providing a facilitating environment for learning:

- 'Self-initiated learning through use of Free Writing'
- 'Awe and wonder. Organisational skills'.
- 'Fresh air and increasing ability to concentrate'.
- 'Attitudes towards where learning can take place'.

Ninety-three per cent of respondents believed that LINE had a positive impact on pupils' social skills. Five comments reported that LINE built children's confidence and/or self-esteem, and one described how confidence and learning are related:

- 'Forest School sessions improved the children's confidence greatly, children ask on a daily basis when it's their turn again. They learn to play, take turns, have fun and these new experiences seem to be unforgettable for many who ask for new opportunities to access the forest again after their sessions have finished'.

Another comment focused on LINE's role in developing 'skills for life' that can be transferred to the classroom, arguing that this supports pupils' capacity to learn and function well at home:

- 'LINE had helped our learners in personal development and to develop skills for life that for some learners has then been transferred from the outdoors into the classroom environment as well as at home'.

Development of children's confidence, social skills and engagement with learning could also be contributors to the view of 92 per cent of respondents that LINE had a positive impact on children's health and wellbeing. However, the only comment relating to this survey question was that:

- 'I believe that there is a positive impact in terms of attainment and health/wellbeing but it's a bit too early to track'.

Eighty-five per cent of respondents indicated that LINE had a positive impact on pupils' behaviour, with five per cent recording 'no impact' and ten per cent responding 'don't know'. A possible reason for these slightly lower positive response rates can be seen in the comment below, which explained how it can take time for children to become accustomed to learning outside, and that behaviour can sometimes deteriorate before it improves:

- 'As a staff we feel that expectations of behaviour need to be very high, until the children understand the fact that we are using the outdoors to learn and not mess around. The more we use the outdoors the quicker the behaviour will improve'.

Schools were least sure about the links between LINE and attainment, with 57 per cent indicating that LINE had a positive impact in this area. Only one respondent believed that LINE had a negative impact, but this could possibly be explained by the comment at the end of the survey: 'I have answered the best I could. I have only just taken over the Line Project two weeks ago'. Six survey comments related to attainment, and these showed either a belief in LINE's positive impact in this area:

- 'Fantastic project which has enabled low attaining boys to make progress in literacy and has boosted their self-esteem'.
- 'It has been a great project for raising awareness and attainment for the children'.
- 'It's hard to gauge the effects on things like behaviour and attainment in other classes, but for some students I know there has been a direct effect (positive)'.

or an uncommitted view in the absence of formal evaluation of attainment:

- 'I cannot say about attainment as this has not been monitored'.

One comment encapsulated a view that was widely echoed in the case-study interviews; a belief that LINE would have positive impacts on attainment, but that generating evidence to support this assertion was a difficult process in institutions that have a number of different and concurrent initiatives that have attainment as their primary or long-term goal:

- ‘It is too early to tell if there has been an impact on attainment, also this is difficult to isolate as an impact’.

Finally, Figure 4.1 shows that 94 per cent of schools indicated that LINE had a positive impact on children’s engagement with and understanding of nature. This highly encouraging response reflected the funders’ remit of reconnecting children and young people with nature even though environmental education was not a central focus for the project.

Taken together, the survey results and the comments showed a high level of teacher confidence that LINE had a positive impact on pupils in a variety of areas. The survey comments indicate the complex interplay between confidence, social skills, health and wellbeing, enjoyment of and engagement with learning as foundations for attainment, and we discuss these issues further in Section 4.2 below.

- **Impact on teachers**

Figure 4.2 below shows schools’ assessment of LINE on teachers’ work. Findings were taken from the July 2015 school survey which asked schools to respond to the questions, ‘Do you feel that LINE has had an impact on teachers’ teaching practice, health and wellbeing, professional development, job satisfaction and teaching performance?’ The options were to select from ‘positive impact’, ‘no impact’, ‘negative impact’ and ‘don’t know’. Project participants were therefore able to use their own definition of these terms in their responses.

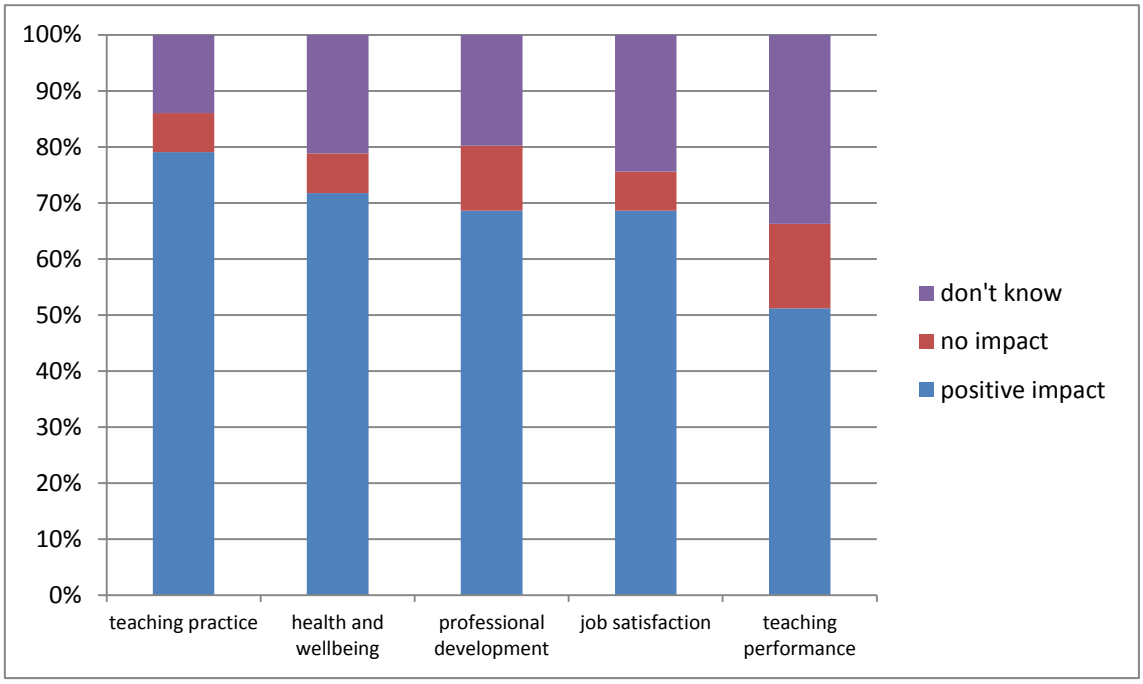
The Figure shows that 79 per cent of respondents believed that LINE had a positive impact on teaching practice, and 72 per cent of responding schools felt that it had a positive impact on teachers’ health and wellbeing. A substantial proportion (69 per cent) felt that teachers’ professional development and job satisfaction were improved through LINE. Respondents’ uncertainty around ‘teaching performance’ (51 per cent of schools indicated a positive impact; 34 per cent didn’t know; 15 per cent indicated no impact) may have been linked to their uncertainty around the links between LINE and pupil attainment, as teaching performance in schools is generally measured by the levels of pupil progress.

As with pupil impact, if we ignore the low number of non-positive responses, and compare the proportion of schools that indicated a positive impact on staff with the proportion of schools that indicated no impact, in all cases the proportion of schools that indicated positive impact was statistically significantly higher than the proportion of schools that indicated no impact (the p-value for each of the tests is <0.001, suggesting a highly significant result).

Survey comments focused on the areas of job satisfaction, teaching practice and health and wellbeing, with one noting that: 'I am a qualified teacher, but am employed as a Forest School leader. Since giving up indoor teaching I have seen a positive impact in all the areas above'. Five respondents commented that it was too early in their engagement with the project to comment on the impact of LINE on teachers' work. As was the case with the survey comments on the impact of LINE on pupils, there were no negative comments about the impact of LINE on teachers' work.

The three comments on teaching practice showed that teachers were learning about their pupils' abilities, and that they were becoming more experimental and inclusive in their practice:

- 'Teachers are becoming more aware of the skills pupils are learning through LINE lessons and are seeing the benefits where the learners have transferred skills learnt in the lessons outside to lessons inside i.e. literacy skills through outdoor learning diaries'.
- 'More exciting resources and ideas. Motivates learners, which is what teachers aspire to. Teachers are excited/braver to experiment with ideas'.
- 'Ways to include all children in a positive way'.



July 2015 school survey: n=86

Figure 4.2: School assessment of LINE's impact on teachers' work

Five positive comments related to job satisfaction. One was optimistic: 'I would hope they feel better about job satisfaction but have no evidence'. The remainder related to the project's support in enabling teachers to raise the profile of LINE within their schools, and to provide advice and inspiration for their everyday practice, summed up by the two comments below:

- ‘It has enabled me to keep outdoor learning a high profile initiative throughout the school. The senior management have been supportive along with all the staff. Thank you for the opportunity this project has given me to enhance and embed outdoor learning in [my school]’.
- ‘We have really valued the Natural Connections cluster sessions - thank you! They are inspiring with new ideas! A great group to be a part of. I like the strong collaboration and support with other local schools - it helps to make LINE happen!’

Sixty-nine per cent of responses indicated that LINE had a positive impact on teachers’ professional development, and the two comments above also provide an illustration of ways in which this was achieved.

The final category of comments related to health and wellbeing. Comments responding to this question gave some indication of the pressure that teachers and pupils can feel when at school, and how LINE can help to mitigate those pressures:

- ‘Thank you all! LINE has kept us sane in an increasingly mad, mad educational world’.
- ‘The spaces that LINE activities engage all in allow stress/anxieties to be more manageable for both staff and children’.

In summary, the majority of schools indicated that LINE had a positive impact on teachers working life, with the highest number (79 per cent) indicating a positive impact on their teaching practice and 69 per cent indicating that it improved their job satisfaction. These are exciting and important findings in the context of continuing pressures to raise children’s attainment levels and a large proportion of teachers either leaving or intending to leave the profession[4].

4.2 What educational impacts on pupils did schools report from LINE in the case studies?

The case-study visits to schools included asking all adult interviewees a general question about the impact of LINE on pupils; they were not asked if LINE had particular named impacts, as in the surveys. We discuss the different impacts identified in the case studies first, in relation to attainment and then as far as possible according to Gutman and Schoon’s (2013) literature review that examines the impact of non-cognitive skills[5] on learning. We end this section by examining the impacts on children’s health and wellbeing.

[4]Scott, S. (2016) Highest teacher leaving rate in a decade, *SchoolsWeek*, 30 June, http://schoolsweek.co.uk/highest-teacher-leaving-rate-in-a-decade-and-6-other-things-we-learned-about-the-school-workforce/.

[5] Gutman, L & Schoon, I. (2013) *The impact of non-cognitive skills on outcomes for young people: Literature review*, Education Endowment Foundation. Available at: https://educationendowmentfoundation.org.uk/uploads/pdf/Non-cognitive_skills_literature_review_2.pdf.

- **Attainment**

Teachers in case-study interviews seemed to have more confidence that LINE contributed to attainment than in the surveys. Two schools specifically reported that the rise in their children's attainment had been measured and was attributed to LINE activities:

  - In one special school, 30 per cent of children were in the upper attainment quartile when measured against national datasets for equivalent schools. Following the introduction of LINE, this percentage rose to 78 per cent. School staff believed that LINE played a significant part in this improvement, together with special needs training and a new school behaviour policy which included managing behaviour outside.
  - In a primary school, a member of the senior leadership team commented that the school historically had issues with low writing levels and that: *'part of our journey with that has been to develop experiences for the children to write about, and a large number of those experiences are based in the outdoors … Our writing results are now slightly above national average whereas they were well below before'*.

Interviewees from most schools reported better conceptual understanding and/or higher quality work from pupils in English and maths that was illustrated by the comment: *'You get a real purpose and therefore you get a higher quality literacy and numeracy out of the work that you are doing'.*

  - Conceptual understanding. Many interviewees argued that practical mathematical or scientific tasks outside provided a context that supported the development of conceptual learning, seen in the example below:
    - *'I see them* [pupils] *learning things sometimes that they don't perhaps make sense of quite so quickly indoors like … this morning with the numeracy. I know a lot of children would have really struggled with grasping the concept of perimeters, but being able to walk it out … made a lot more sense to them'.*
  - Higher quality work. One primary teacher summed up a widely reported view :
    - *'I will do a lot of stories based in the woodland, using artefacts and natural objects… And we are always searching for a great hook for our learning experiences to try to get them* [pupils] *enthused … I've seen a real improvement in children's writing'.*

The link between outdoor experiences, particularly the sensory nature of those experiences, and an increase in children's vocabulary was noted by the majority of case-study schools.

One reason for teachers' reluctance to make direct links between LINE and attainment was, as the survey comments pointed out, the absence of direct evidence and the difficulty of disentangling the different factors that lead to higher attainment. However interviewed staff also spoke of the difference between higher quality of children's work that they could link with LINE (as above) and the *'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' LINE-related work to translate into SATs results; only Year 6 take these exams and, until LINE has become embedded in school practice and a regular part of each cohort's experience, the impact can be variable as it depends on how much LINE different classes have done during their primary education. The implication is that it might take some time before schools can effectively measure the impact of LINE on children's attainment levels, and it is notable that the two schools which reported confidently on LINE's contribution to their attainment results had been engaged with LINE for several years.

Schools also reported that they engaged with LINE for a number of reasons that were not necessarily directly related to attainment, and that they understood that many of the impacts from LINE learning were not measurable, illustrated in the comments below:

- *'Are we hoping that for some of our children it has an impact on the things that we are measured in? Yes we are, but that is not why we are necessarily doing it'.*
- *'There is a lot of learning that happens outside that goes back into the classroom that you can't measure'.*

The final approach seen in the case-study interviews towards the impact of LINE on children's learning was that in which higher engagement with learning was seen to lead to higher attainment:

- *'We have got pressures for attainment but actually if we can achieve that* [engagement]*, we can increase attainment because we get the children on board because they're interested'*.

This interviewee's approach can be seen as a pathway to raised attainment,in which LINE stimulates pupil interest, which leads to greater engagement with the subject, greater application to studying, and thus greater success in terms of learning more, and more deeply, about a subject. This, in turn, leads to growing confidence in the pupil's own ability and thus to higher attainment. A number of interviewees, generally headteachers, had this view of LINE's contribution to learning, although a few reported that this was not always, or necessarily, the case with every learner. This approach highlights the role of the affective in learning, starting with the idea that children should be interested and stimulated by their learning if they are to achieve as learners. In the following sections we discuss these different non-cognitive aspects to learning to which this model refers.

- **Confidence and self-esteem**

We have used Gutman and Schoon's categories of 'self-concept of ability' which, 'broadly defined, can be thought of as an individual's self-perception of their ability formed through experiences and interactions with the environment' (2013, p.9) and 'self-efficacy', defined as 'an individual's belief that they have the capability to succeed at a particular task in the future' (p.10), to relate to interview respondents' references to children and young people's confidence and self-esteem. Interviewees from all case-study schools spoke of the impact of

LINE on these two characteristics, and they related to two broad affordances of LINE: offering children a wider range of learning opportunities, and changing the nature of classroom relationships.

- Offering a wider range of learning opportunities. These included:
  - The opportunity to take and learn to manage risks: *'It is actually about children taking risks and actually being able to manage those risks and assess them'.*
  - Learning new skills such a riding a bicycle; a *'rite of passage'* that gives children *'confidence and independence'.*
  - Enabling different types of learning from those that are predominant in the classroom: *'From an educational perspective it* [LINE] *can be really valuable… because often the nature of outdoor learning is very practical, it's very kinaesthetic and so for a lot of children that is really useful and that can… secure learning and understanding that something more paper based, more oral or visual … might not work for them'.*
  - Enabling a range of (learning) experiences so that all children can succeed in some way: *'I think there has been a levelling of self-esteem. Those children that are less academic have certainly been able to achieve* [outdoors]!'
  - Removing perceived classroom pressures: *'A lot of the children who are very anxious when they are asked to do a task in the classroom, ask them to do the same task outside …* [and] *they seem more relaxed and more able to engage with it'.*

- Changing relationships. Examples included:
  - Giving teachers the space to engage in conversation with children, get to know them and change their perceptions of the child's capabilities, which improves the teacher/pupil relationship: *'When we spoke to the students about the benefits* [of LINE] … *they talked about how the felt so much closer to the teacher …* [it was] *a much more relaxed environment'.* This suggests, as seen in the point above, that being more relaxed can improve pupils' capacity to learn.
  - Developing skills in, for example, conflict resolution so they can manage relationships more effectively within the classroom: *'Teachers can then say to them* [children] *in the classroom, 'Do you remember those skills you learned when you had to sort out the den?''*
  - Developing positive peer group relationships: *'Now* [the students] *have a lot more confidence; they can work together, they have a sense of achievement, and that's brilliant for them'.*

Gutman and Schoon (p.11) argue that confidence and self-esteem 'appear to be an essential precursor to enhancing other non-cognitive skills' or, in other words, that children tend to be 'reluctant' to try learning new skills unless they believe they can succeed. The case-study interviewees' emphasis on the role of confidence in learning suggests that they would agree with this view through their references to the idea that 'success breed success', that can be summed up as: outdoor experiences led children to have greater confidence in their own abilities, so that they felt able to try different challenges within and outside the classroom.

- **Motivation**

In this sub-section we have taken children and young people's reported engagement with learning as a proxy for motivation, which we define as 'motivation to learn'. Interviewees from all schools reported that LINE resulted in children's greater engagement with learning, for the following reasons:

  - LINE fosters a love of learning. *'One* [benefit] *that applies to most … children would be a love of learning, and enrichment of our curriculum and engaging them with the things we are learning about … Yes, it diversifies different ways of learning; yes, their behaviour is better outside. But it's just seeing the smiles on their faces … that love and enjoyment of being at school'*.
  - LINE encourages pupils to enjoy the learning process: *'Our attendance rate is amazing … And part of that is because kids like coming to school. I mean, children should be allowed to enjoy their school, shouldn't they?'*
  - LINE offers a different way of learning that is perceived as fun: *'When you take it* [learning] *outside, children … just think … 'This is fun!' … and they don't see it necessarily as learning. And so they are not restricted by thinking 'Someone is marking me' and 'Someone is telling me that I am right or wrong'.*
  - LINE gives purpose to learning: *'I think it [LINE] gives real opportunities…* [In] *one of my maths groups … I asked them* [pupils] *to draw a scale drawing of it* [a proposed donkey shelter]*, work out what size shelter we would need. And* [we] *e-mailed and accessed different companies and arranged site meetings, and followed it up with budgets … You get a real purpose and therefore you get a higher quality literacy and numeracy out of the work that you are doing'.*
  - LINE brings a wow! factor to learning: *'One of the key bits of the science curriculum is the wonderment of science. I think it is hard to bring in the wonderment of science stuck in a science lab for the whole year, whereas if you get outside you can give some people a real, 'Oh my gosh!'"*

Gutman and Schoon's relevant findings on intrinsic motivation show that context can play an important part in attitude towards specific activities; that teachers can help to shape pupils' motivation through their methods and classroom context (2013, p.15). School staff interview reports of higher engagement during LINE activities for many pupils would substantiate these findings. However Gutman and Schoon also found that the effect of motivating

students for one particular task may not be applicable over the long term or to other types of tasks. This suggests that, in order to maintain pupils' higher engagement with learning, LINE sessions should be continued over the long term in a way that continues to stimulate interest and enjoyment in different ways.

- **Perseverance**

In this sub-section we have selected to focus on 'perseverance' which, according to Gutman and Schoon, is 'steadfastness on mastering a skill or completing a task' (p.18). We have not addressed the issue of 'grit' because they regard this as a trait that has long-term features that should be:

> measured at multiple time points in a person's life to determine whether it changes or remains constant across time. As with other facets of perseverance, grit is likely to be influenced by multiple factors, including development as well as the situational context (Gutman and Schoon, 2013, p.19).

Case-study interviewees referred to perseverance in the context of problem-solving or completing a task over a prolonged period. Examples of pupils' problem-solving include developing and managing a grassy area in the school grounds; calculating the dimensions when rigging a roof for a tarpaulin shelter; building an ox-bow lake in the school grounds. Examples of undertaking tasks over the longer term included learning to look after chickens and animals kept at the school; collecting materials, such as logs, for different constructions; repairing a length of boardwalk over the school's marshy areas, in which 86 planks had been vandalised; tidying, clearing and maintaining pond areas; clearing paths and relaying woodchip paths; monitoring bird boxes; new and maintenance work involved in growing food and other plants. Teachers spoke of children's pleasure in accomplishment, and noted the growth in both their confidence and inter-personal skills arising from completing difficult or time-consuming tasks, and how they learned to *'stick at a particular task'.* However, as with motivation, Gutman and Schoon suggest that perseverance may be the 'outcome of a situational context rather than a characteristic of the individual', and recommend that school-wide interventions may be the 'most successful avenue' for fostering pupil perseverance (p.18). School-wide LINE activities, undertaken over the long term, appear able to make an important contribution in this area.

- **Self-control and behaviour**

In this sub-section, following Gutman and Schoon's definition of self-control as 'exerting self-control over behaviours, feelings, and thoughts in order to conform to rules, plans, promises, ideals, and other standards' (p.20), we have taken interviewee references to behaviour as corresponding to 'self-control'. Interviewees from all case-study schools spoke of the positive impact of LINE on children's behaviour, but a minority confirmed the findings of the school surveys that it could take time for pupils to learn to work purposefully outside. This was illustrated by one teacher's comments that behaviour had been *'a real issue'* with one group of boys when they first started learning outside, but by the time of the researchers' visit, *'they*

follow their own lines of enquiry or create something of their own, but it is always purposeful and there aren't any issues with behaviour with them now'. However improvement in behaviour could also be seen across the school. Another case-study school reported that behaviour in the school had *'vastly'* improved over the last few years and had recently been rated by Ofsted as 'outstanding'; one interviewee commented that *'outdoor learning has definitely played a massive part in improving their* [pupils'] *behaviour.'*

Interviewees reported six reasons behind improved behaviour:

- The classroom can be a difficult environment for some pupils, and LINE offers them a different way of learning that could suit them better: *'If actually you're not very good in the classroom, to have it shoved down your throat five days a week must be purgatory, I think …* [LINE] *just varies their diet, doesn't it?'*
- LINE links with the 'real world' in which pupils learn different types of appropriate behaviour in different contexts, and therefore learn to manage their behaviour better. One special school reported: *'We put a lot of effort into helping them* [students] *develop age-appropriate behaviour. And we use the outdoors a lot for that.'*
- LINE provides a supportive environment: during LINE lessons the children are *'more willing to let others take turns …* [they are] *showing that role model behaviour that they perhaps wouldn't necessarily be showing all of the time in the classroom, or find it more difficult to sustain'.*
- Children tend to be calmer outside, with the result that behaviour improves: *'LINE does seem to help* [children with] *behavioural problems: … as soon as you get them in a natural environment, they thrive'.* Staff from a number of schools commented that pupils were more settled indoors after regular use of the school garden.
- LINE offers children the chance to be trusted to *'keep themselves safe'* and work without direct supervision: *'I feel that I can let them* [pupils] *go; I don't have to have them within my sight every moment* [because] *I think they are learning to be responsible in their own right'.*
- Giving children space in which to control their feelings: *'I'd say the biggest impact it's had on them* [students] *is their behaviour. For* [one student] … *it's been therapeutic … because I think, fresh air, when you're angry … it's physical, it burns off energy. For* [two students] … *it's kind of dealing with those emotional and social difficulties to get them ready for learning. And when they come back inside, they are ready to learn'.*

Teachers also reported that the different relationships between staff and pupils facilitated through LINE enabled a greater understanding of individual pupils, and that this could be helpful if a pupil's behaviour was an issue back in the classroom.

Gutman and Schoon report that 'correlational evidence suggests that childhood self-control predicts achievement and adjustment outcomes, even in adulthood'. They also report that

learning self-control can become more difficult after the age of ten, and that context can influence behaviours (2013, p.21). Once again this points to the importance of LINE for providing a range of different environments in which children can learn appropriate behaviour, and from which they can be supported in transferring this newfound ability into settings that they find less congenial.

- **Social skills**

Following Gutman and Schoon, we have taken social skills to include 'a range of pro-social behaviours such as cooperation, sharing, helping, communication, expressing empathy, providing verbal support or encouragement, and general friendliness or kindness (2013, p.25). Interviewees from all case-study schools reported that children's social skills were improved through LINE, with one respondent arguing that this area was the foundation of a successful school: *'Unless you get this bit right, you don't get anything right in schools because ultimately it's about people'.*

LINE was seen to support the development of social skills chiefly because LINE provides space for children and young people to move around and work together on practical projects. Specifically, LINE was seen to have a positive impact on:

- Communication. Interviewees reported that children communicated better because of the *'greater amount of space and freer environment'*; they had more space in which to experiment with different tasks without an adult *'looking over their shoulder'*, and were not told to keep noise levels low. Other reported contributors to improved communication were that: *'Children talk more naturally outside, I think'* and that: *'Working together encourages talking'.* Teachers reported that these benefits were often carried over into the classroom.
- Teamwork. LINE was seen to provide opportunities for social interaction and team working '*in a way that is not easy to replicate inside'*, for instance in making a den or lighting a fire *'.* The need to share resources such as tools outside was seen to encourage cooperation.
- Being kind. For example: *'The juniors do tend to nurture the infants … They are at a better level and their understanding is better … so they will explain certain stuff to the infants'.*
- Leadership. *'Children who wouldn't necessarily be seen as leaders here* [in school] *become leaders there* [at Forest School] *because they are a bit more daring than other children. They might not be as academic but they are prepared to do things and so therefore people are more likely to follow them'.*
- Encouraging new friendships. Changes in children's behaviour, the discovery of new skills and a different environment were seen to encourage children to work and play with others outside their usual friendship groups.

The last point illustrates again the interaction of different aspects of learning; a few interviewees reported that children who have previously found peer relationships difficult

have widened their friendship groups through changing their behaviour outside and that this, in turn, has increased their confidence and self-esteem within other parts of school life. Gutman and Schoon argue that there is a need for more longitudinal research that investigates how social skills can be fostered in places such as schools (2013, p.26), and this aspect of LINE is likely to be a useful avenue to pursue.

- **Resilience and coping**

Resilience is defined in Gutman and Schoon's publication as 'positive adaptation despite the presence of risk, which may include poverty, parental bereavement, parental mental illness, and/or abuse', whereas coping 'refers to a wide set of skills and purposeful responses to stress' (2013, p.27). Much of this is beyond the scope of this evaluation, but the case-studies provided a few examples of how LINE supported particular children in ways that were unavailable in other aspects of school life. These could relate to particular circumstances or to more general coping when life became difficult. Examples included:

  - One child with sensory difficulties overcame his initial hatred of rain and mud through LINE: *'That was a really valuable experience for him; to overcome those big barriers in terms of his learning with sensory issues … we'd continued to explore the environment with him* [and] *built up his resilience'.*
  - Another student at a special school had a history of being restrained in a previous school. In this school, where students were regularly taken outside, the teacher commented that this happens rarely now, *'and I think it's partly having the space to go outside … It helps* [name] *feel so much more relaxed … in a non-threatening environment'.* Working close to animals, such as rabbits, was reported to help the process.
  - Fostering a love of the school grounds was seen to support pupils in a way that *'brings them resilience that helps them through the bits of school life that they struggle with'.*
  - Regular LINE sessions were reported as encouraging pupils to stay in the classroom and cope with the day rather than try to leave: pupils *'are staying in school … Before they just used to take themselves off* [and leave school premises]*'.*
  - Trips that involved camping overnight, such as in the school grounds or the Ten Tors challenge, were seen to develop children and young people's coping skills.
  - One primary school reported a number of learning forums where they teach lifelong learning skills such as resilience and overcoming difficulties. These often took place outside because the greater amount of space enables the session to be child-led and *'provides a better opportunity'* for discussion.

The circumstances relating to children with extreme amount of stress in their lives such as poverty, bereavement or abuse are highly sensitive, and are not subjects that would be broached in the course of this type of school visit; our research was primarily concerned with exploring schools' use of and views on LINE in general, and the extent of the schedule

precluded investigating detailed individual examples. Nonetheless, the evidence above suggests that LINE can help children and young people to cope with difficulties experienced during their school life, chiefly through staff recognising their needs and changing the system to suit them (such as introducing more LINE for children who were *'taking themselves off*'). More generalised strategies, such as overnight camping, were aimed at all pupils and repeated regularly where possible.

- **Health and wellbeing**

As we suggested at the beginning of this section, there was an implicit understanding in all case-study schools that children's health and wellbeing was improved through LINE; around half of them mentioned it directly. The reported reasons behind a positive impact on children's health and wellbeing centred, again, on the physical and mental space that learning outside provided. Specifically, LINE was seen to:

  - Give the space to reflect and consider that can be difficult to achieve in the classroom. One headteacher reported that being outside provides *'an ambience that allows the mind to wander … and staves off crises'.*
  - Allow children to escape the pressures of the classroom: *'I think children are put under a lot of pressure to conform in the classroom, to conform to how a classroom should be, and there are no conformities outside'.*
  - Allow children the time and space to be active. This was reported as having both physical and wellbeing benefits; physical through the capacity to *'let off steam'* and *'use up energy',* and wellbeing through the sense of *'freedom of not being sat at a desk'.*

Once again it is worth considering the complex interaction of these different impacts on children; earlier we noted that teachers reported that children were more settled after regular sessions outside, which, taken with the evidence above, suggests that they are more mentally and physically – to use a phrase employed in the interviews – *'ready to learn'*. Teachers believed that the learning successes that children experienced outside had a positive impact on their classroom learning behaviours and that this, in turn, was likely to have an impact on their engagement and subsequent attainment. When these factors are taken together, they provide an understanding of our interviewees' enthusiasm for, and deep belief in, LINE as an important educational tool for pupils. In the next section, we briefly investigate the impact of LINE on teachers.

4.3 What impacts on teachers did schools report from LINE in the case studies?

While the interviews' main focus was on the details of LINE implementation and the impact for pupils, some staff spoke about the positive impact on their working lives. No teachers indicated a negative impact in this area. LINE was reported by teachers as having the following effects:

- Allowing freedom, creativity and flexibility in teaching. LINE offers: *'a bigger palette to choose from … it frees up your planning and your teaching'.*
- Encouraging different pedagogies. LINE *'allows me to use different skills in a different environment to the classroom. It has helped me gain confidence in a range of teaching methods and styles for example; delivery in the classroom is very methodical. Outside you can step back and relax, give them* [pupils] *the resources and the methods to use and they can explore more than just us delivering to them all the time'.*
- Encouraging new kinds of planning. *'I think you have to put a little bit more thought into it and actually think about making sure you are getting quality* [work] *out of it'*
- Watching children enjoy their learning. *'I think the enjoyment, for me, is seeing my class succeed outside, and seeing their self-esteem, and seeing the enjoyment that they're getting'.*
- Bringing personal pleasure: *'I get a lot of personal satisfaction from it* [LINE] *but I think that is from seeing the engagement, the enjoyment … Just the joy of being outside in the fresh air, engaged with nature, watching the seasons change, all the things I think are disappearing with children sat in front of televisions and x-boxes'.*
- LINE *'feeds the soul'* through engaging with nature, children and learning in different ways.

These findings help to explain the reasons behind teachers' responses to the school survey, and suggest that LINE can become an important part of teachers' everyday practice for a number of reasons but that chiefly relate to job satisfaction, professional development and personal pleasure. The views on staff development were echoed in interviews with three hub leaders, in which they discussed the positive impact of LINE CPD in enthusing teachers and raising the quality of the curriculum offered to pupils.

In the next section, we report on the impacts of LINE reported by pupils.

4.4 What did pupils say?

Children and young people interviewed in the course of the case-study visits were generally as enthusiastic as their teachers about LINE, although a minority said that they did not enjoy the wet and/or cold weather. The reported reasons for their enjoyment are shown below:

- LINE encourages success for all in a way that: *'You go home feeling quite good about yourself!'*
- Learning is easier outside: *'it's the best bit of the week, because you do fun stuff.'*
- LINE involves sensory experiences: *''I like all the sounds … you can hear outside. But you can't much hear in the classroom.'*
- LINE gives the ability to get away from the constraints of the classroom: *'Indoors you can feel slightly cooped up and it is like, harder to work … It is noisy and there's some distractions, where outside it feels just a bit more open'.*

- Space: LINE *'makes me feel like I am free.'*
- LINE makes the abstract more easily understandable: *'I enjoyed doing the orienteering because … it was a fun way of doing maths, which I think a lot of people enjoyed.'*
- The wonder of nature: it is *'fun when you are just sitting there doing a piece of work and you get this random bug on your clipboard … or a butterfly comes and lands on you … And it just feels really special that we have got all the opportunity to do all this'.*
- Practical tasks: *'We were learning how to use axes and saws and mallets … it was very good.'*
- LINE gives you energy: *'My favourite thing would probably be … the learning outdoors because I really like it. And sometimes maybe PE outdoors, I really like that as well … It's really fun. Because it gives you energy'.*

KEQ 5. Did schools consider that investment in LINE was time and money well spent?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to retain schools in the project

KEQ 5. Did schools consider that investment in LINE was time and money well spent?

5.1 To what extent did schools invest time and money in LINE in terms of

- teacher involvement?
- teaching assistant (TA) involvement?
- LINE CPD attendance?
- LINE documentation?
- funding spent on LINE?
- structural changes to school grounds?

5.2 What were the changes in levels of investment?

5.3 Did schools value LINE?

Data sources

School baseline survey, July 2014 school survey, July 2015 school survey, hub leader interviews

Key points

- The data show statistically significant increases in the proportion of
  - teachers and TAs involved in LINE
  - school staff undertaking LINE-related CPD
  - schools including LINE in their school documentation.
- Understanding levels of investment in LINE at a whole-school level is highly complex.
- 64 per cent of schools reported spending budgetary funds on LINE in 2015.
- 44 per cent of schools reported making structural changes to their grounds in 2015.
- There was variation both within and between hubs in schools' indicated investment in LINE, with Bristol schools reporting the overall highest levels of investment and North Somerset the overall lowest.

In this KEQ we examine the evidence that relates to schools valuing LINE in terms of spending time and money on LINE and how this changes across and within the project. In the final section we briefly discuss schools' indicated strategic engagement with LINE as a means of assessing the extent to which they valued LINE.

5.1 To what extent did schools invest time and money in LINE?

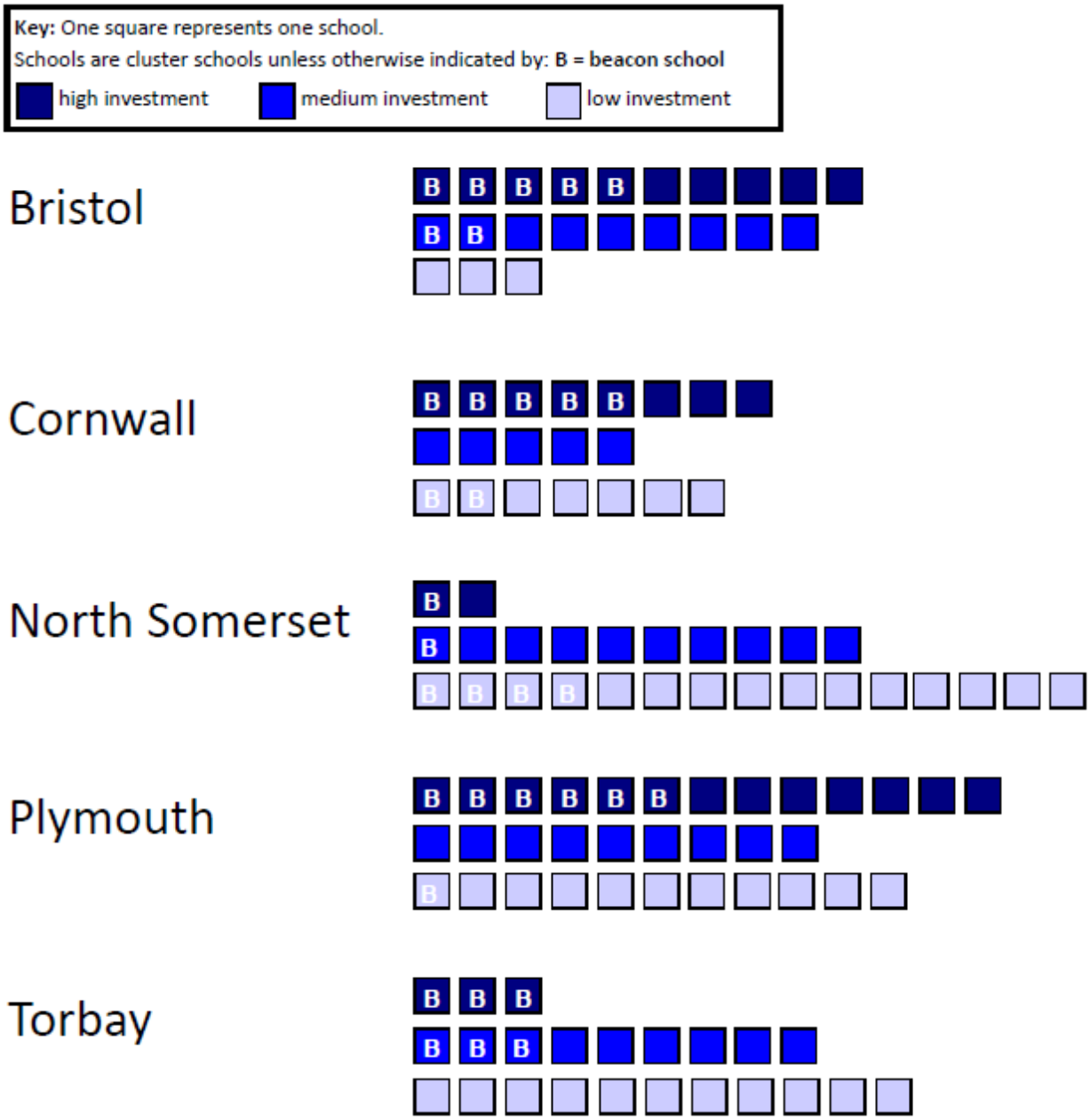


Figure 5.1: Representation of school investment in LINE by hub and school type (n=125)

In Figure 5.1 above we have drawn on data from the baseline, July 2014 and July 2015 school surveys to estimate schools' investment in LINE. We used six criteria as a proxy to measure this investment: teacher involvement with LINE (schools reporting over half in the school involved in LINE); teaching assistant (TA) involvement (school reporting over half involved in LINE); staff attendance at CPD sessions; LINE documentation; budget spent on LINE; and structural changes to school grounds. Schools reporting zero, one or two of these criteria were judged as making low investment; those reporting three or four as making medium investment; and those reporting five or six as making high investment in LINE. We included data from all schools that responded to at least one survey, and used the relevant

information from the most recent survey completed. The overall picture is thus one of schools' indicated investment in LINE over the time in which they were involved in the project.

Understanding school investment in LINE is highly complex because of the different hub recruitment strategies, schools' varying initial levels of engagement with LINE and schools' further capacity and willingness to engage with LINE. The criteria selected to help represent school LINE investment in Figure 5.1 cover LINE action (e.g. staff time), strategic investment (e.g. school development plan (SDP)) and ongoing commitment (e.g. CPD). The visual representation in Figure 5.1 assists in understanding the levels of investment in project schools and within and between hubs.

Bristol schools showed the highest project levels of investment in LINE, with 19 of 23 indicating high or medium investment, possibly reflecting the hub leaders' recruitment of schools that were already fairly committed to LINE and/or the hub leaders' regular reappraisal of ways to engage schools effectively with LINE. Cornwall schools showed a lower overall level of investment with just over half (13 of 20) indicating high or medium investment in LINE. The seven schools indicating low investment may reflect the large geographical hub area, in which project participants found it difficult to organise the face-to-face support they valued or different recruitment of schools. Two beacon schools in Cornwall effectively withdrew from the project during the second year, one in response to an unfavourable Ofsted inspection and the other through competing school priorities. North Somerset had the largest proportion of schools with low investment, including four beacon schools, which again may reflect the large geographical area of the hub and difficulties in providing sufficient face to face support. It may also be partially attributed to the hub leaders' recruitment strategy of encouraging schools to complete surveys without committing to engaging with LINE, made in response to pressure from the central team to recruit. With continuing support, schools with an initial low level of LINE activity might begin to engage, but need time to develop their LINE practice. Plymouth schools' levels of investment illustrate the hub leaders' comment that one-third of schools were highly engaged with LINE, one-third less so, and one third had used school funds for other priorities during the time of the project; the large number of schools involved, however, also meant hub leaders' resources were stretched further. Plymouth schools show similar levels of investment to schools in Cornwall, but with a larger number. Torbay schools' pattern of investment highlights the original hub leaders' focus on a few schools, and the relatively large numbers of schools recruited by the second hub leader after her appointment in December 2014 (see KEQ 3 for recruitment and KEQ 20 for hub models).

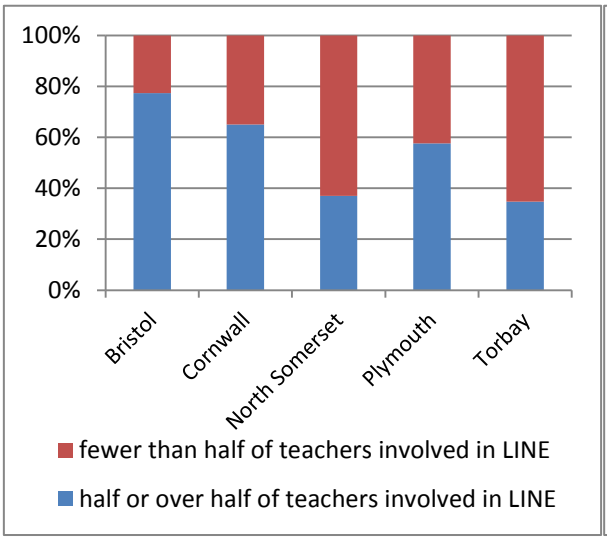


Figure 5.2: Teachers involvement in LINE

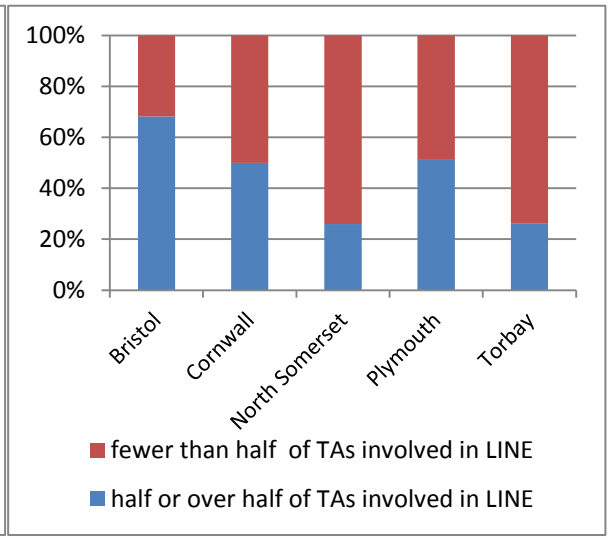


Figure 5.3: TAs involvement in LINE

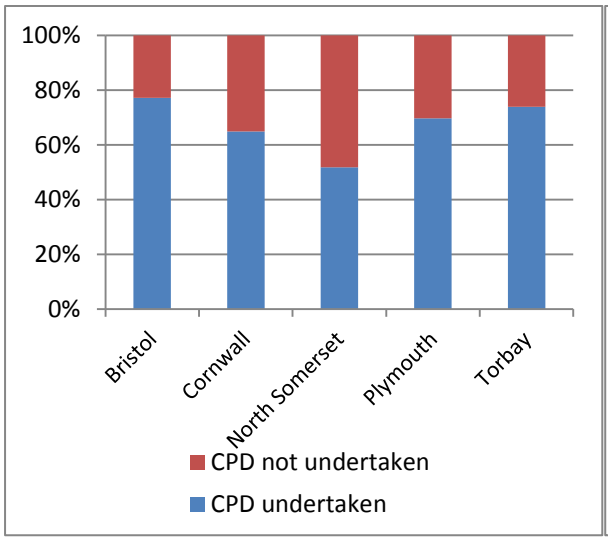


Figure 5.4: CPD attendance

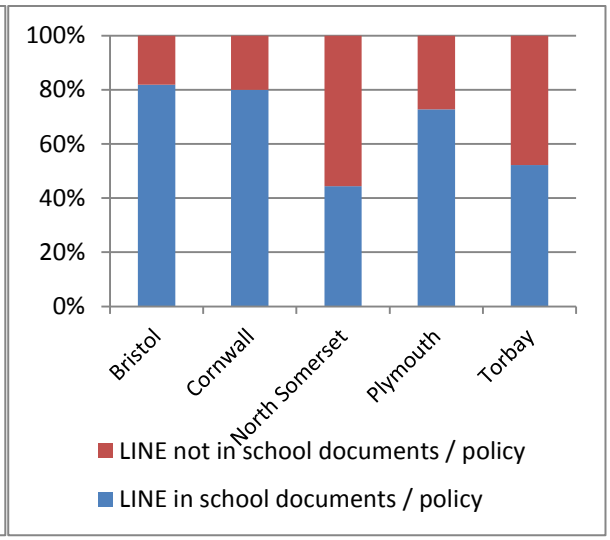


Figure 5.5: School documentation

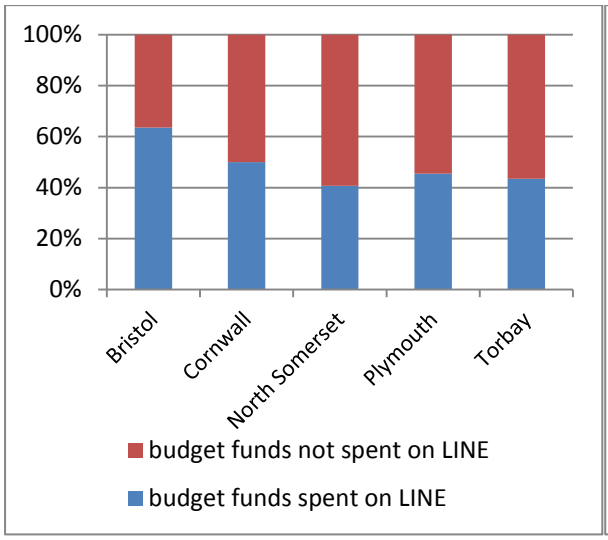


Figure 5.6: School budget

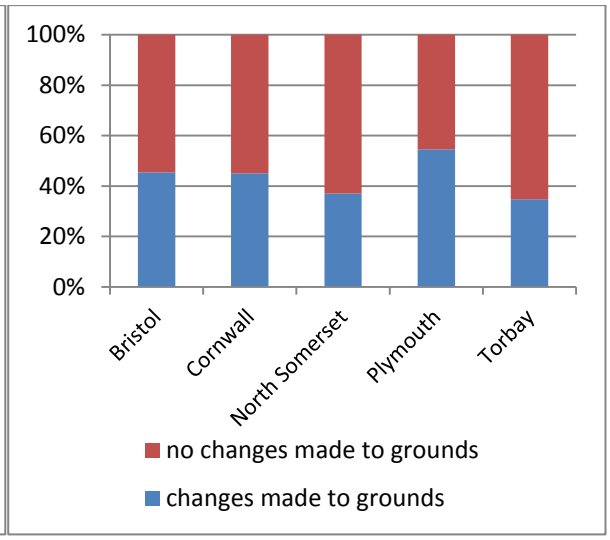


Figure 5.7: School grounds development

Figures 5.1 – 5.7 inclusive n=125: Bristol 22, Cornwall 20, North Somerset 27, Plymouth 33, Torbay 23

Figures 5.2 - 5.7 above show hub-level data for each of the six criteria we used to measure school investment in LINE. Bristol schools indicated high levels of investment, ranging from 82 per cent of schools reporting the inclusion of LINE in their documentation to 45 per cent reporting structural changes to their grounds. Cornwall schools showed consistent levels of investment, with between 45 and 65 per cent of schools reporting investment in all measures apart from school documentation (80 per cent). Plymouth schools also indicated generally high levels of investment, with 73 per cent reporting inclusion of LINE in their school documentation, and 70 per cent reporting that staff attended CPD. Plymouth schools reported the highest levels of school grounds development (55 per cent), which may reflect the early work that the Devon Wildlife Trust undertook in agreement with hub leaders to support schools and the use of Natural Connections grant money for beacon schools for this purpose. Torbay schools showed high investment in CPD (74 per cent) but low investment in terms of TA involvement in LINE (26 per cent of schools reported that over half of their TAs were involved), with the remaining measures between 35 and 52 per cent. North Somerset schools indicated the lowest overall levels of investment, ranging from 26 per cent of schools reporting that half or more of their TAs were involved in LINE to 52 per cent reporting staff attendance at CPD sessions.

High levels of investment across the hubs can be seen in in LINE-related CPD, with between 52 (North Somerset) and 77 (Bristol) per cent of schools reporting investment in this area, and school documentation, with between 44 (North Somerset) and 82 (Bristol) per cent of schools reporting the inclusion of LINE in their SDP or a LINE policy. Investment in teacher involvement (between 35 and 77 per cent of schools reported that half or more of their teachers were involved with LINE) and TA involvement (between 26 and 68 per cent of schools reported that half or more of their TAs were involved with LINE) was less consistent, reflecting the project picture of teachers' gradual engagement with LINE within a school. Schools' reported spending from their budget on LINE was similar across the hubs, ranging from 43 (Torbay) to 64 (Bristol) per cent, as was their investment in school grounds where the figures were 35 (Torbay) to 55 (Plymouth) per cent.

5.2 What were the changes in levels of investment?

In this section, using the baseline and the July 2015 school survey data, we focus on the change in levels of investment, both across the project and at hub level.

- **Teacher and TA involvement in LINE**

Table 5.1 below shows the increase across the project in the proportion of both teacher and TA involvement in LINE between the baseline and July 2015 school surveys. Tests showed this increase was statistically significant (p-value<0.001 for the teacher calculation, p-value<0.001 for the TA calculation).

It is important to look at both groups of staff as LINE delivery models varied in schools; some relied on teachers, others on both teachers and TAs, and yet others almost exclusively on TAs.

Table 5.1: Teacher and TA involvement in LINE

	Baseline survey (n=121 schools)	July 2015 school survey (n=85 schools)
No. of teachers in responding schools	2,301	1,491
Proportion of teachers involved with LINE	**32% (730)**	**52% (778)**
No. of TAs in responding schools	2,138	1,493
Proportion of TAs involved with LINE	**35% (746)**	**48% (718)**

Hub leaders all reported that the process of involving school staff in LINE was incremental. One commented that schools and teachers could be persuaded *'intellectually'* to try LINE, but that they had to experience the benefits for themselves before the school would adopt LINE practices more whole-heartedly; interviewees spoke of beacon schools engaging *'on a philosophical level … than on a practice level',* saying that the 'philosophical' engagement did not translate into wider practice until the second year of the project. It was at this point that these hub leaders observed that school staff were developing a deeper understanding and common language around LINE within the hub. Another hub leader commented that developing school grounds could be part of a *'natural stepping stone'* towards developing LINE practice; schools needed somewhere structurally sound in the school grounds where teachers could take small risks and develop their confidence before beginning to teach regularly outside. The point from all the hub leaders was that engaging greater numbers of teachers was not a process that could be hurried because of the time and commitment needed first to engage teachers with the idea of LINE, and then to support them in developing their practice. All noted that any shift towards a school culture in which LINE played an important part could be disrupted as schools adapted to other agendas/priorities, such as the conversion to academy status which becomes schools' focus for a year; while one hub leader reported that a school placed in the Ofsted category 'inadequate' had used LINE as an integral part of their improvement strategy, the more usual reaction was to draw back from LINE activities with the intention of teaching core subjects inside.

The hub leaders' picture of schools' gradual engagement with LINE was reflected in the case studies. These showed that the process of changing schools' learning culture was one in which skilled, authoritative and respected individuals worked with colleagues to *'spread the word'.* These individuals needed to be supported by senior leadership, financially by adequate resources and practically through the implementation of policies and procedures that directly encouraged LINE. It was only as staff began to understand and experience the benefits for themselves that they would actively embrace the idea of teaching and learning outside.

Figure 5.8 below shows the reported proportion of teacher involvement in LINE by hub. In Cornwall the percentage of schools that reported that half or more of their teachers were involved in LINE increased from 27 to 77 per cent, representing nearly a threefold increase in the proportion of teachers that participated. Bristol and Plymouth schools also reported high levels of increase in teacher involvement, with schools reporting half or more of their teachers involved with LINE rising from 59 to 81 per cent in Bristol and 33 to 54 per cent in Plymouth. North Somerset (from 22 to 36 per cent) and Torbay (27 to 30 per cent) schools also reported increases, although smaller than in the other hubs.

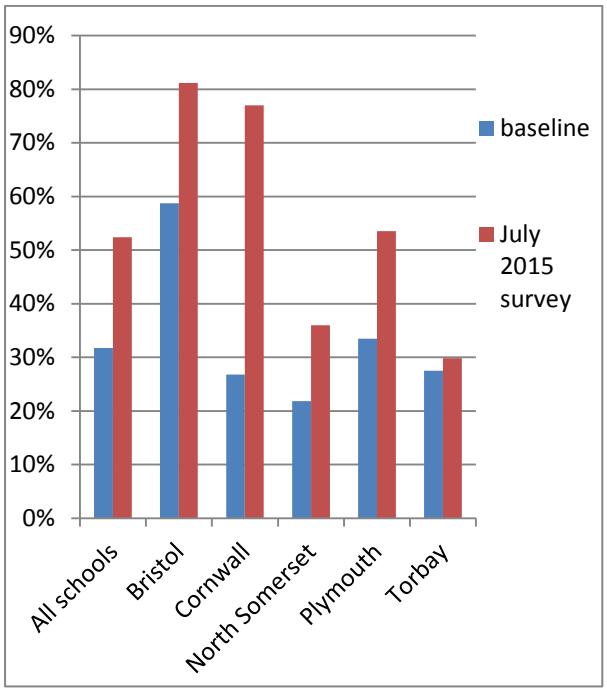


Figure 5.8: Change in teacher involvement

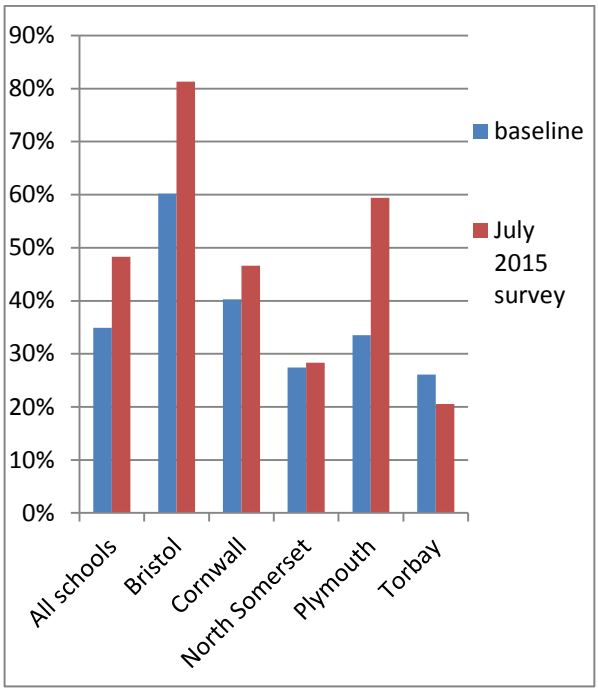


Figure 5.9: Change in TA involvement

Figures 5.8 and 5.9:
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=86: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=17

Figure 5.9 above shows the reported proportion of TA involvement in LINE by hub. In this case schools from Plymouth and Bristol saw the highest levels of increase across the hubs, with Plymouth schools reporting an increase in schools with half or more of their TAs involved with LINE of 25 percentage points (from 34 to 59 per cent) and Bristol an increase of 21 percentage points (from 60 to 81 per cent). North Somerset and Torbay schools reported a stable proportion of TAs involved in LINE, while Cornwall saw a small increase of seven percentage points (from 40 to 47 per cent).

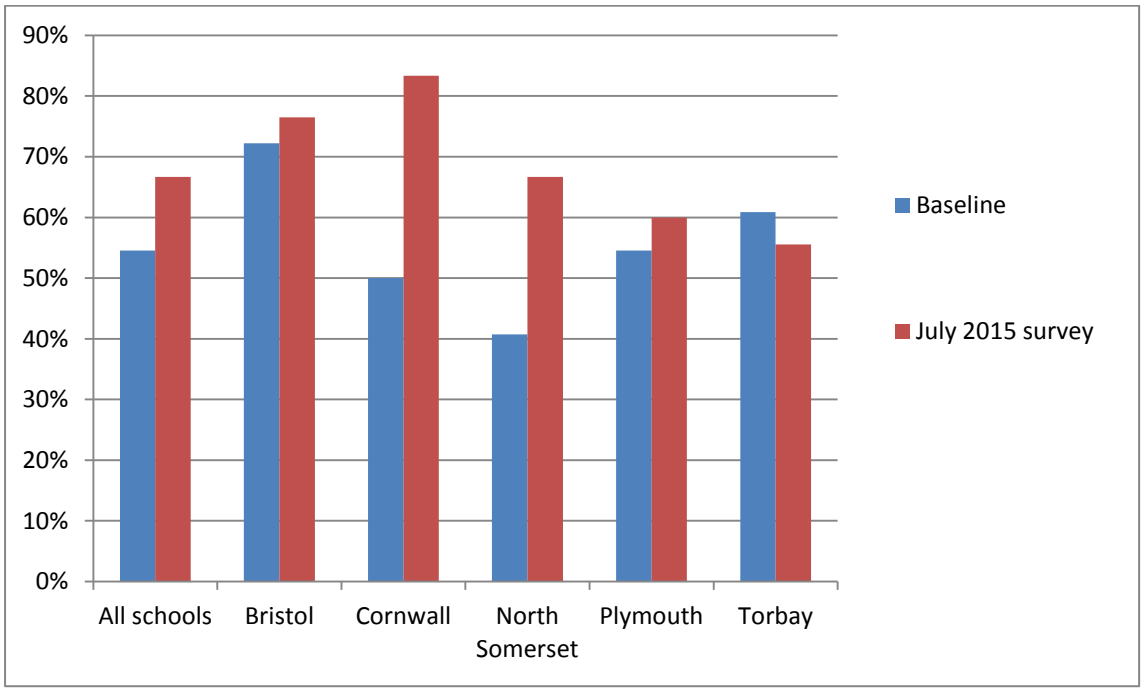
- **CPD attendance**

Table 5.2 below shows a change across the project in the proportion of schools reporting that staff and/or volunteers have undertaken LINE-related CPD. Tests showed this was a statistically significant increase (p-value=0.05) between the baseline and July 2015 school surveys. LINE-related CPD was a central part of project implementation to raise teachers' knowledge of and confidence in teaching their lessons outside.

Table 5.2: Staff / volunteers undertaking LINE CPD

	Baseline survey (n=121 schools)	July 2015 school survey (n=87 schools)
Proportion of schools in which staff/volunteers undertake CPD	55% (66)	67% (58)

Figure 5.10 below shows the same data across the project and by hub. Cornwall schools reported the highest increase in CPD activity, rising from 50 to 83 per cent during the project, while North Somerset schools reported an increase from 41 to 67 per cent. Schools in the other three hubs reported fairly stable levels of staff and volunteer engagement with CPD. Qualitative evidence suggested that the pattern of schools' engagement with CPD fluctuated as schools needs and priorities changed, and the stability in these hubs may reflect a period of consolidation in which staff were implementing their learning both in their own practice and across the school.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 5.10: Change in school CPD activity

- **Policy documentation**

Table 5.3 below shows the change across the project in the proportion of schools reporting that they had included LINE in their planning and/or policy documents. Tests showed this was a statistically significant increase (p-value=<0.01).

The table shows an increase in the number of schools that included LINE in their planning and policy documentation, again illustrating the point that changing a school's learning

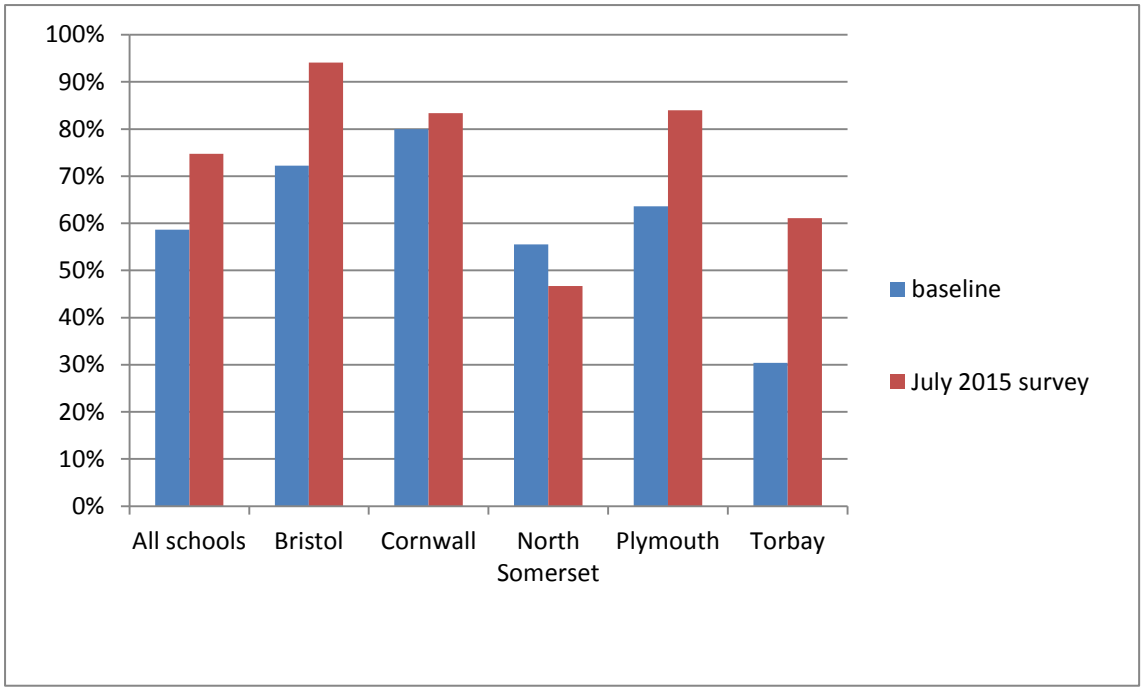
culture is a gradual process. The presence of LINE in schools' planning documents is important as that is how spending priorities are determined in schools, and LINE is only likely to be referenced if it is a priority for the school.

Table 5.3: Schools with LINE in school planning and policy documents

Schools' with LINE documentation	Baseline survey (n=121 schools)	July 2015 school survey (n=87 schools)
Either LINE included in SDP* *or* LINE policy	60% (72)	75% (65)
LINE included in SDP	45% (54)	60% (52)
LINE policy	34% (41)	40% (35)
Both LINE included in SDP *and* LINE policy	19% (23)	25% (22)

*SDP – school development plan

Policy documents are important at a practical and school development level for school staff; while there is no standard template to such a document, they tend to show school expectations (such as teaching outside every week), curriculum links and ideas for teaching outside, thereby providing a framework for staff to engage with LINE.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18

Figure 5.11: Change in schools reporting EITHER an outdoor learning policy OR inclusion of LINE in SDP

Figure 5.11 above shows the change in the percentage of schools that reported either an outdoor learning policy or the inclusion of LINE in the SDP across the project and by hub. Over 80 per cent of schools from Bristol, Cornwall and Plymouth reported that they had included LINE in one of these documents, while Torbay schools reported the largest

increase of 30 percentage points. North Somerset was the only hub from which schools reported an overall decrease in the inclusion of LINE in their documentation.

We have provided a brief overview of this aspect of LINE investment in this sub-section, as we discuss LINE policy documents in more detail in KEQ 7.

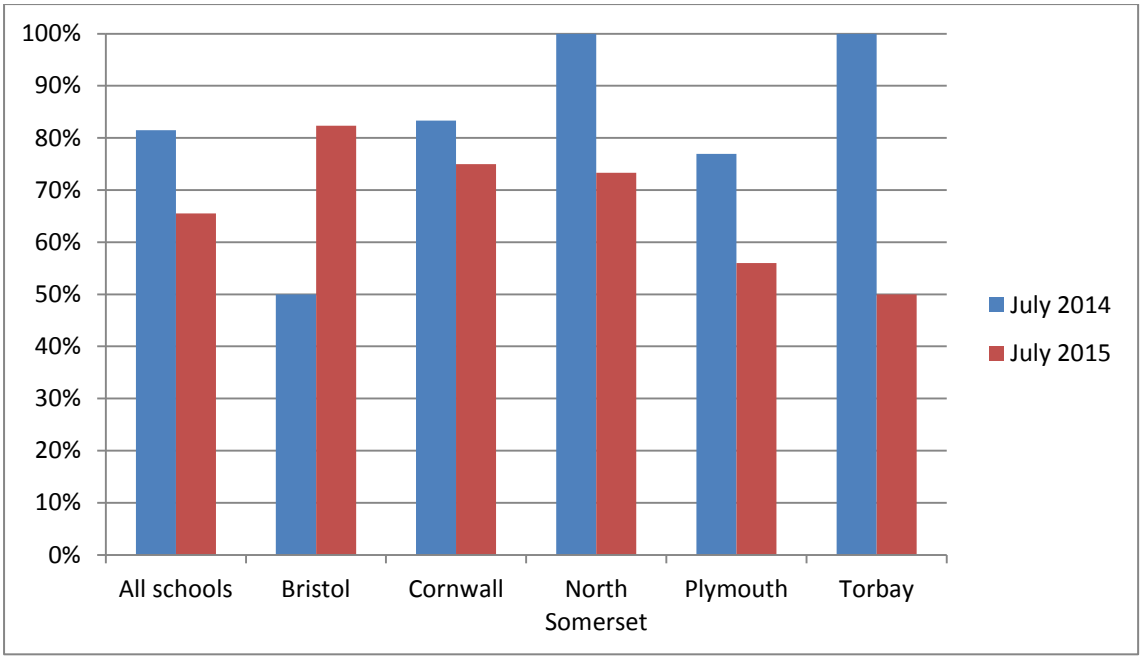
- **School budgetary spend on LINE**

Table 5.4: Percentage of schools reporting budget spent on LINE

	July 2014 (n=27 schools)	July 2015 school survey (n=87 schools)
Percentage of schools reporting budget spent on LINE	81% (22)	64% (56)

School budgetary spend is directly linked to the headteacher's approach to LINE, as s/he has control over the budget; one hub leader commented that spending funds on LINE was a strong signal that LINE practice was becoming established within the school. Schools were asked in the July 2015 school survey if they had spent money on LINE since their last survey (either the baseline or the July 2014 survey), and Table 5.4 above shows a high percentage of schools that reported spending on LINE. We are using these figures to demonstrate schools' commitment to, and investment in, LINE, but it is notable that schools will also raise money for LINE and/or be given donations of goods that support LINE – one school was given 22 puddle suits, for example, so that funds were not used for that purpose. School spend is therefore likely to be higher than indicated here. We discuss school spend on LINE in more detail in KEQ 11.

Figure 5.12 below shows the proportion of schools that reported spending budgetary funds on LINE by hub. The figures suggest a high proportion of schools spent a proportion of their budget on LINE at some time during the project; it is notable that at least 50 per cent of schools reported spending budgetary funds on LINE in the July 2015 school survey, ranging from 82 per cent in Bristol to 50 per cent in Torbay. This decrease in spending on LINE may have been due to schools' investing in LINE at particular points of LINE development, particularly at the start of their involvement with the project or that they found that LINE was relatively low cost once they had engaged with LINE more fully



July survey 2014 n=27: Bristol n=2, Cornwall n=6, North Somerset n=2, Plymouth n=13, Torbay n=4.
July survey 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18.

Figure 5.12: Change in percentage of schools reporting budgetary funds spent on LINE

Structural changes to school grounds

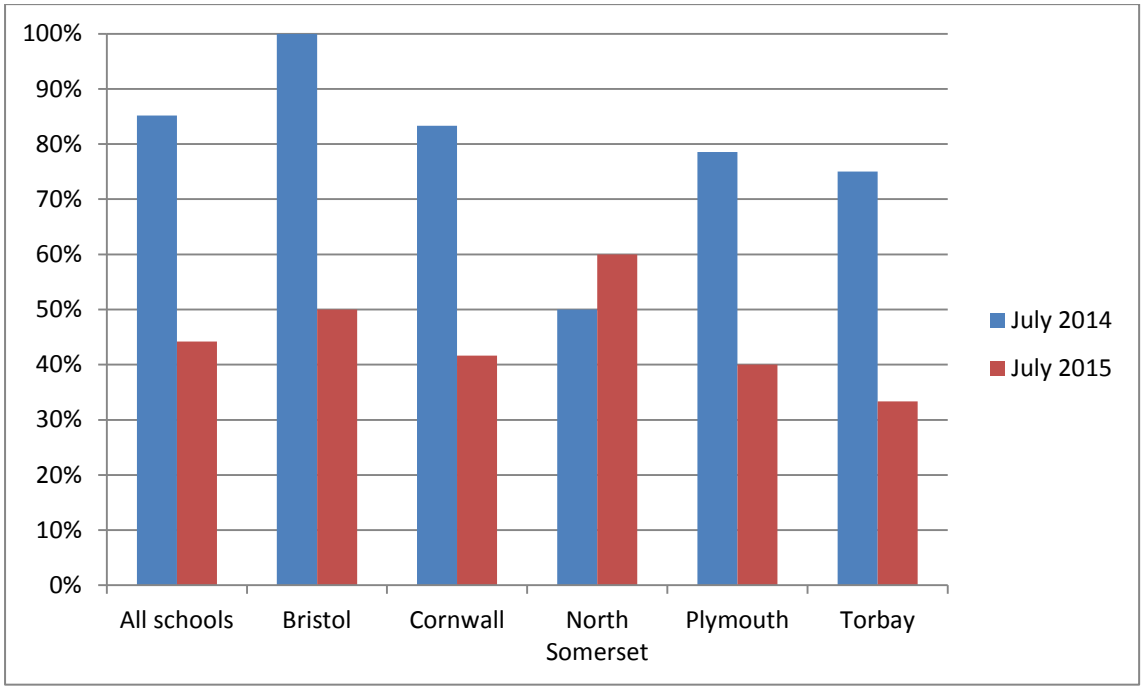
Investment in school grounds is another indication of the level of the headteacher's approach to LINE, as s/he has control over budgetary decisions relating to school grounds development. Table 5.5 below shows the percentage of schools that reported making structural changes in their grounds for LINE, which included clearing ponds, constructing a log seating area with fire pit, digging allotment areas for each class, improving pathways in wild areas, an orienteering course, building a clay pizza oven and installing a yurt for use as an outdoor classroom.

Table 5.5: Structural changes to school grounds for LINE

	July 2014 survey (n=28 schools)	July 2015 school survey (n=87 schools)
Schools reporting that they have made structural changes to school grounds for LINE	86% (24)	44% (38)

Figure 5.13 below reflects the evidence provided by hub leaders; schools tended to invest in particular projects at the beginning of their LINE journey (see also Figure 5.12 on school spending on LINE) but, as they become more confident and creative in their LINE practice, so the line between maintenance and structural development became more blurred, and the result may be an underestimate of structural changes in schools. There also comes a time when schools have exhausted the space in which to make structural changes and focus on maintenance. In his exit interview, the North Somerset hub leader reported that schools

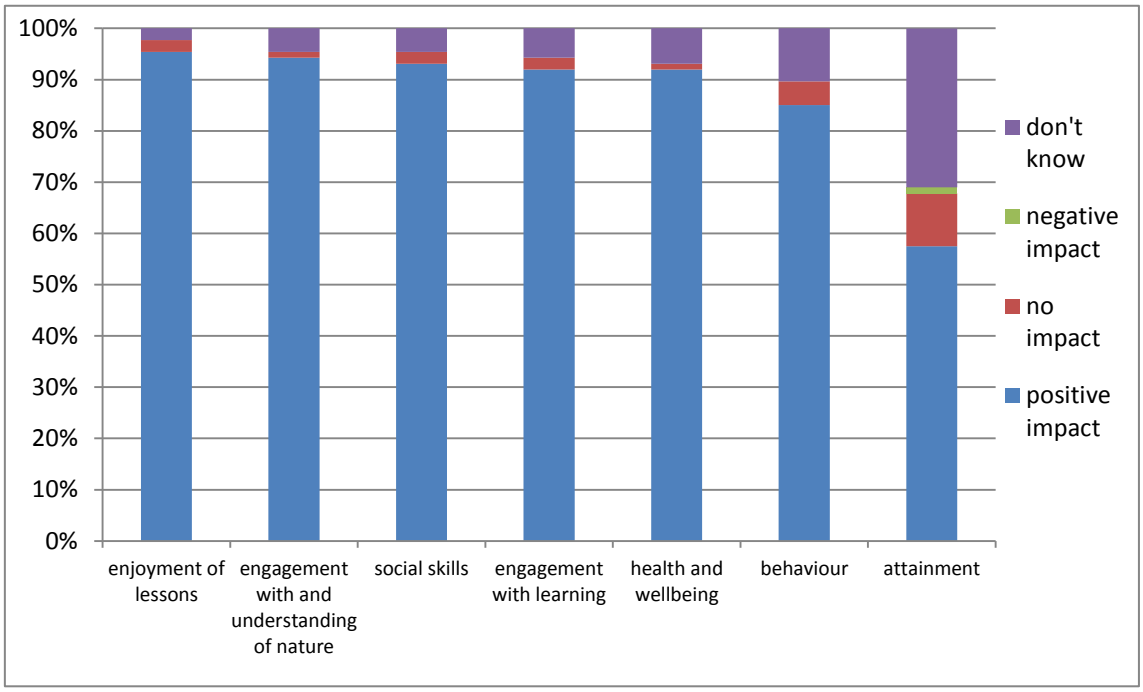
were still undertaking structural change with his support, but other hub leaders reported that this was no longer a priority.



July 2014 survey n=27: Bristol n=2, Cornwall n=6, North Somerset n=2, Plymouth n=13, Torbay n=4
July 2015 school survey n=86: Bristol n=16, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 5.13: Change in structural changes to school grounds for LINE

5.3 Did schools value LINE?

Previous sections of this KEQ focused on the practical, measurable activities reported and indicated by schools that demonstrated they spent both time and money on LINE. We also need to understand how teachers valued LINE at a theoretical level; the extent to which they believed that LINE was supporting schools' educational purpose. As we discuss schools' assessment of LINE on pupil impact in KEQ 4, the different curricular ways in which LINE is used in KEQ 6, and the question of sustained demand for LINE in KEQ 11, we refer briefly to schools' responses to the July 2015 school survey question on the impact of LINE on pupils in Figure 5.14 below. The Figure shows that over 90 per cent of responding schools indicated that LINE impacted positively on pupils' enjoyment of lessons, on children's engagement with nature, on pupils' social skills, on their engagement with learning and their health and wellbeing. Eighty-five per cent indicated that LINE had a positive impact on pupil behaviour, and 57 per cent indicated a positive impact on attainment.



July 2015 school survey: n=87

Figure 5.14: School assessment of LINE's impact on pupils

KEQ 6. Was LINE used for all areas of the curriculum?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project

KEQ 6. Was LINE used for all areas of the curriculum?

6.1 For which areas of the curriculum was LINE used across the project?

6.2 Were there patterns of use across the project?

6.3 How was LINE used creatively in the curriculum?

Data sources

June 2013/2014 and November 2013/2014 activity logs, May 2015 activity survey, school case studies

Key points

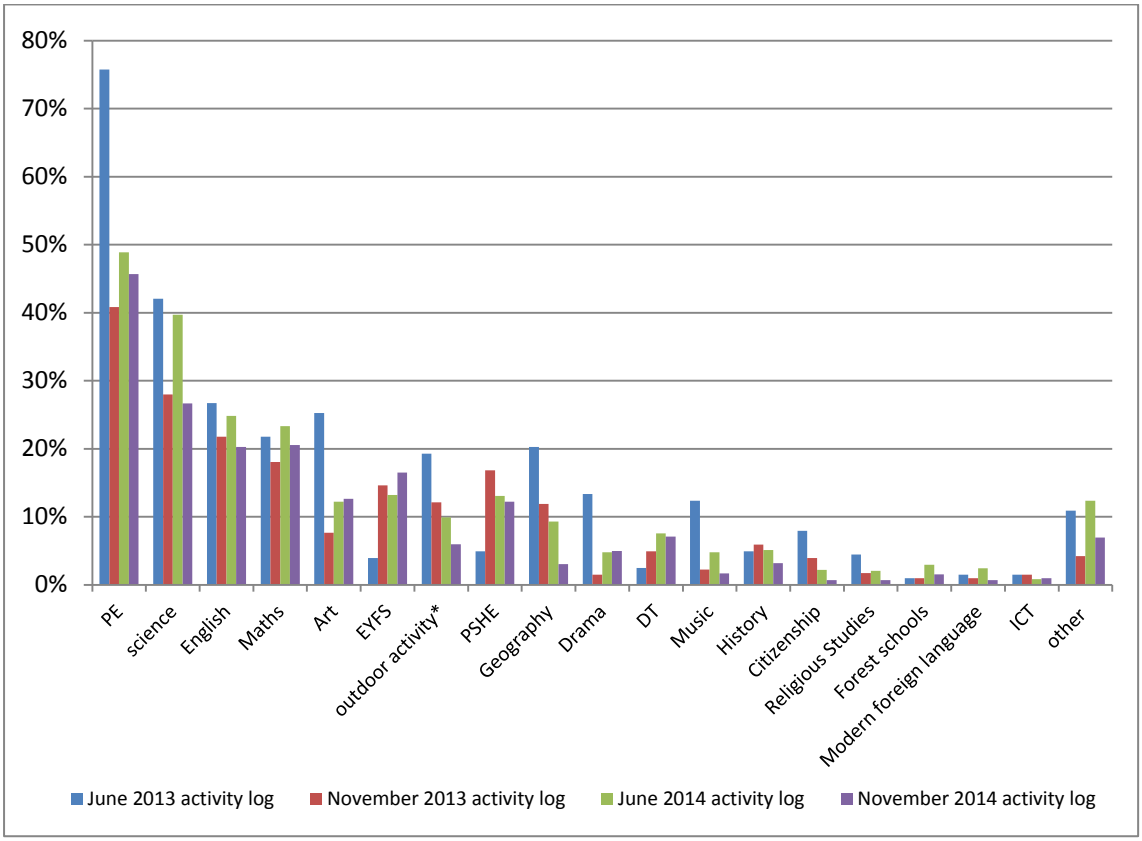
- LINE was used in project schools for all areas of the curriculum.
- Schools were using LINE regularly and consistently to deliver the core subjects of English, maths and science.
- There was some debate among project participants whether PE 'counted' as LINE Over 90 per cent of survey respondents indicated that LINE was either 'quite useful' or 'very useful' for curriculum delivery.
- Case-study schools illustrated how LINE can be used creatively and innovatively to engage children with their curricular learning.

NOTE

An activity log was run at four points during the project June 2013, November 2013, June 2014 and November 2014. Each week for four weeks each class within project schools was asked to report on various aspects of LINE including the total number of sessions delivered outside, curriculum areas that were delivered through LINE, and the usefulness of LINE in delivering the curriculum. The data presented below is a summary of these logs for those classes within project schools. Each response therefore represents the experience of one class per week. The percentages below were calculated by dividing the total number of responses showing a particular aspect of LINE by the total number of responses received. The activity logs therefore represent the relative use of LINE for responding classes and reported relative change over time.

An activity survey was run in May 2015 in which schools were asked to reflect on aspects of LINE activity rather than record actual activity.

6.1 For which areas of the curriculum was LINE used across the project?



June 2013: n=7 schools, n=202 returns; November 2013: n=17 schools, n=404 returns; June 2014: n=38 schools, n=819 returns; November 2014: n=39 school, n=720 returns.
*outdoor activity includes gardening / horticulture, outdoor learning and other outdoor activities not directly delivering other areas of the curriculum. These and 'Forest School' have been included as categories because they were all cited by teachers completing the survey; while not defined curriculum areas, evidence from the school case studies shows they are often used as inspiration or source material for curriculum areas.

Figure 6.1: Use of LINE for different curriculum areas (school activity logs)

Figure 6.1 above shows the percentages of responses indicating the use of LINE in school curriculum areas, using data from the four activity logs (June 2013 and June 2014; November 2013 and November 2014) in which classes in schools recorded the curriculum areas taken outside each week, for four weeks. The Figure illustrates the wide range of curriculum areas delivered through LINE. The high percentage of LINE PE recorded in the June 2013 survey is explained by the small number of responding schools.

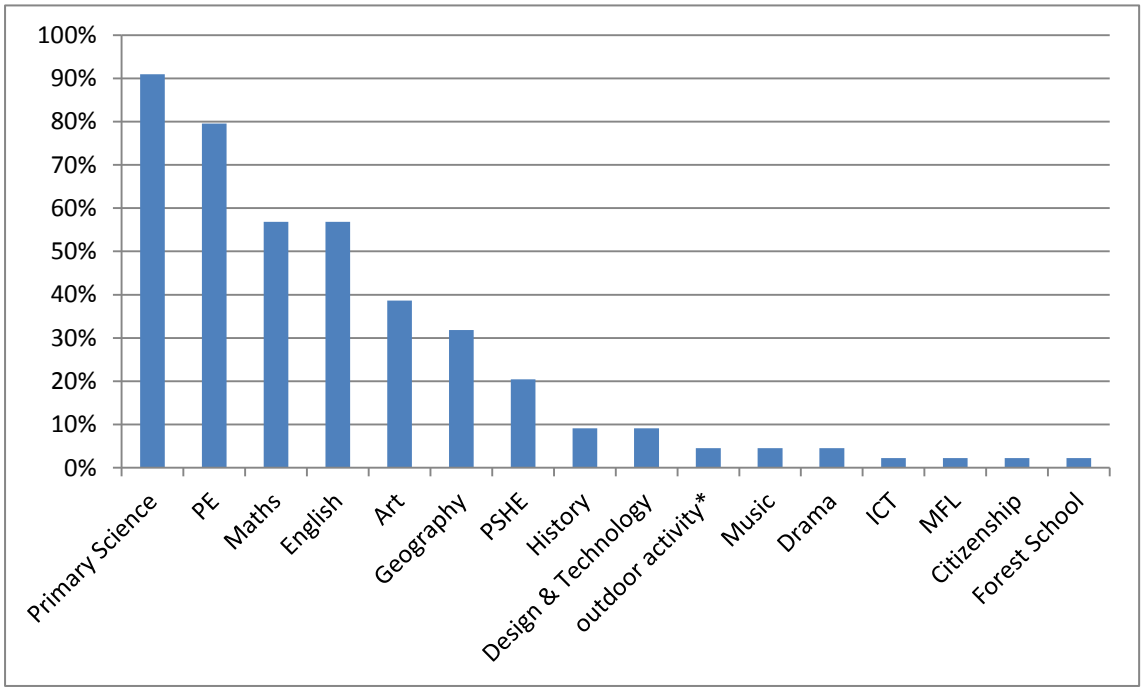
The Figure shows how, after PE lessons, the three main curriculum areas used for LINE were the core subjects of science, English and maths. Science was recorded as the core subject taken most frequently outside in all four activity logs, and the percentage of responses indicating maths lessons taken outside showed a slight increase from June 2013 to June 2014 (from 22 to 23 per cent). This increase was mirrored in the winter surveys, when the percentage increased from 18 per cent in November 2013 to 21 per cent in November 2014. The percentage of responses indicating English lessons were taken outside decreased in the corresponding time, although higher levels of English than maths were recorded outside except in November 2014. Schools' use of LINE to teach these

subjects reflects both their dominance in the timetable and confidence that learning objectives, and by association learning targets, can be achieved by teaching outside the classroom.

LINE was used for PE consistently, but there was debate amongst hub leaders and teachers as to whether PE 'counted' as LINE, or whether it was delivered outside simply for practical reasons. Both approaches were reported by teachers during case-study visits.

6.2 Were there patterns of use across the project?

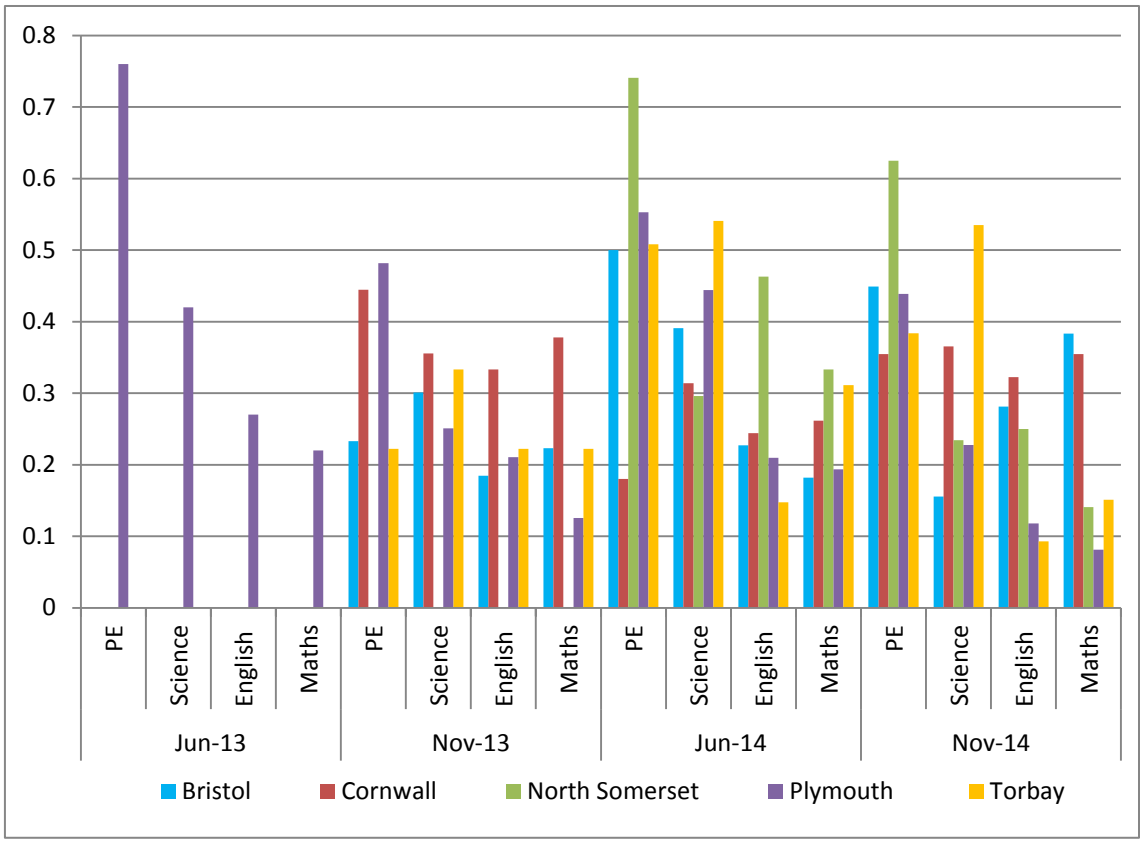
Figure 6.2 below shows the top five curriculum areas taught using LINE by schools responding to the May 2015 activity survey, in which they recorded the five most frequently-used curriculum areas for LINE. Once again science, PE, English and maths were consistently used with LINE, although in this case science more frequently than PE; this could be due to the nature of the May 2015 activity survey, in which teachers were asked to consider which areas of the curriculum they used most for LINE (and by implication which were the most important) rather than logging activity when they went outside. Nonetheless, when taken in conjunction with the findings from Figure 6.1, these results are encouraging because they suggest that, through regular and consistent use of LINE in core curricular subjects, LINE was becoming part of 'what teachers do' in these schools.



n=44

*outdoor activity includes gardening / horticulture, outdoor learning and other outdoor activities not directly delivering other areas of the curriculum. These and 'Forest School' have been included as categories because they were all cited by teachers completing the survey; while not defined curriculum areas, evidence from the school case studies shows they are often used as inspiration or source material for curriculum areas.

Figure 6.2: Schools' 'top five' curriculum areas delivered through LINE (May 2015 activity survey)



June 2013: n=7 schools, n=202 returns; November 2013: n=17 schools, n=404 returns; June 2014: n=38 schools, n=819 returns; November 2014: n=39 school, n=720 returns.

Figure 6.3: Hub-level differences in use of LINE to deliver PE, science, English and maths (from activity logs)

Figure 6.3 above shows schools' reported use of LINE for delivering PE, science, maths and English.

Bristol schools responded to three surveys (November 2013; June and November 2014). The percentage of responses indicating that PE lessons were taken outside varied between 23 (November 2013), 50 (June 2014) and 45 per cent (November 2014). The percentage of responses indicating that science lessons were taken outside were stable in the first two surveys (30 and 39 per cent respectively), and then decreased to 16 per cent (November 2014). The percentage of responses indicating that English lessons were taken outside increased steadily from 18 per cent (November 2013) to 28 per cent (November 2014). The percentage of responses indicating that maths was taken outside, however, showed the strongest increase (22 per cent in November 2013; 38 per cent in November 2014), perhaps reflecting the local drive to improve maths at that time. The curriculum area with the highest level of responses indicating that it was taken outside was PE (50 per cent, June 2014) and the lowest was in science (16 per cent, November 2014).

Schools from **Cornwall** responded to three surveys (November 2013; June and November 2014). The most notable finding is the consistency in the percentage of responses of lessons taken outside in these schools. Thirty-six (November 2013), 31 (June 2014) and 37 per cent (November 2014) of responses indicated that science lessons were taken outside; in English the respective percentages were 33, 24 and 32; in maths, the respective percentages were 38, 26 and 35. The exception was PE, which fluctuated between 44 (November 2013) and 18 per cent (June 2014). PE was the curriculum area with the highest percentage of responses indicating it was taken outside (44 per cent, November 2013) and also the lowest (18 per cent, June 2014).

North Somerset schools responded to two surveys (June and November 2014). Seventy-four per cent of responses indicated that PE was taken outside June 2014 and 63 per cent of responses indicated PE was taken outside in November 2014. The percentage of responses indicating that science was taken outside decreased from 30 to 23 per cent; the percentage of responses indicating that English was taken outside decreased from 46 to 25; and the percentage of responses indicating that maths was taken outside from 33 to 14 per cent between the two surveys, with all schools perhaps responding to the less favourable autumn weather by staying indoors more. PE was the curriculum area with the highest percentage of responses indicating it was taken outside (74 per cent, June 2014) and the lowest was in maths (14 per cent, November 2014).

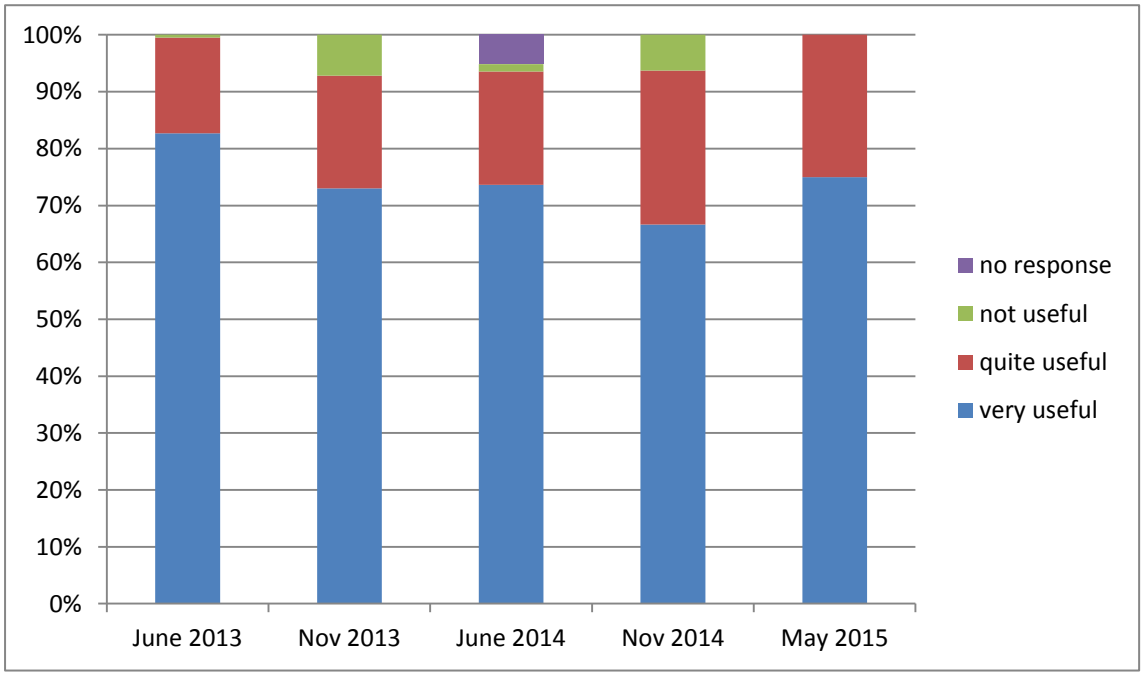
Plymouth schools were the only ones to respond to all four surveys. Initial high levels of responses indicating that PE lessons were delivered outside (76 per cent in June 2013) decreased subsequently to between 55 per cent (June 2014) and 44 per cent (November 2014). This could reflect the small sample size as well as Plymouth schools' initial enthusiasm to teach outside, with an initial focus on PE. The percentage of responses indicating that science lessons were taken outside was stable with 42 (June 2013) and 44 (June 2014) per cent in the summer months, and remained stable over the winter months (25 per cent in November 2013; 23 per cent in November 2014). The percentage of responses indicating that English lessons were taken outside remained relatively stable between 27 (June 2013) and 21 per cent (June 2014), although this decreased to 12 per cent in November 2014. The percentage of responses indicating that maths lessons were taken outside was also relatively stable, between 22 (June 2014) and 19 per cent (June 2014 in the summer and 13 per cent (November 2013) and eight per cent (November 2014)). PE was the curriculum area with the highest percentage of responses indicating it was taken outside (76 per cent, June 2013) and the lowest was in maths (eight per cent, November 2014).

Torbay schools responded to three surveys (November 2013; June and November 2014). In contrast to schools in the other hubs which reported that PE was the subject most frequently taken outside, science was most popular subject for LINE: 33 per cent of responses indicated teachers had delivered science through LINE in November 2013, 54 in June 2014 and 55 in November 2014. PE had strong variation, ranging from 22 per cent of responses

indicating lessons were taken outside in November 2013 to 51 in June 2014. The percentage of responses indicating that English lessons were taken outside ranged from 22 per cent (November 2013) to 15 (June 2014) and 9 (November 2014); that of maths lessons had some variation with 22, 31 and 15 per cent respectively. Science was the curriculum area with the highest percentage of responses indicating it was taken outside (54 per cent, June 2014) and the lowest was in English (nine per cent, November 2014).

The notable features of each hub were the consistency of the percentage of LINE lessons in all four subjects in Cornwall, the steady increase in the percentage of maths and English lessons taken outside in Bristol, the high percentage of science lessons taken outside in Torbay and Plymouth, and the high percentage of PE lessons taken outside in North Somerset.

The information from these surveys is complemented by further data from the school activity logs, in which responding classes and schools rated the usefulness of LINE in curriculum delivery. Figure 6.4 below shows that over 90 per cent of returns from all the activity logs rated LINE as 'quite' or 'very useful'. The higher overall usefulness rating in the June 2013 activity log is explained by the small number of responding schools. The Figure also shows the schools' view of the usefulness of LINE from the May 2015 activity survey, in which all schools viewed LINE as 'useful' or 'very useful' in delivering the curriculum. This slight increase from the activity log results could be due to the nature of the May 2015 activity survey, in which schools were asked to consider the importance of LINE. This is different to the activity log when teachers were logging activity when they went outside and responding to the success of individual sessions.



June 2013: n=7 schools, n=202 returns; November 2013: n=17 schools, n=404 returns; June 2014: n=38 schools, n=819 returns; November 2014: n=39 school, n=720 returns.
May 2015 n=44

Figure 6.4: Schools view on the usefulness of LINE for curriculum delivery (from school activity logs and May 2015 activity survey)

6.3 How was LINE used creatively in the curriculum?

Case-study visits showed that schools used LINE in a variety of different innovative and creative ways to engage children and young people with their learning. Examples from the themes reported in the case studies can be seen below:

- Using LINE to **generate awe and amazement**. A primary school teacher commented *'It's the physical contact with the outdoors and just learning about how it all works and that kind of awe and wonder about the natural world. And inspiring* [pupils, so they want] *… to learn more about that, about how things grow and where they come from'.*
- Creating **embodied experiences**. Dance students in one secondary school used the school grounds for manhunts and hid in the forest as inspiration for writing spy stories. The students then used their scripts and stories to create movement material when back in the classroom.
- Using LINE as **inspiration for children's writing**. One school created a giant footprint in the school field to field to tie in with the Iron Man story by Ted Hughes. This created a *'real life'* situation for the children that was seen by staff as *'a really good way of getting them to write creatively'*.
- Offering pupils **entrepreneurial projects**. Each year, Key Stage 2 pupils in one primary school take on a particular project in their school grounds. These have included negotiating willow workshops for all year groups; sourcing a model cow that can be 'milked'; installing water pipes for the farm area; writing to local companies to ask for seeds; feeding the school farm animals and selling the meat at school. Pupils regularly make phone calls to businesses to ask for financial support, and with success; a teacher commented: *'When you have children involved, it is surprising when they are making the phone calls … they are very difficult to say "No" to!'*
- **Engaging with real-world** problems. In a primary school, Year 6 pupils camped outside and based themselves outside regardless of the weather for the topic of 'natural disasters'. The teacher interviewed commented that the children built a refugee camp, and took time to understand the different types of equipment that would be needed depending on the type of event (e.g. tornado, volcano) had caused the disaster. He reported that pupils wanted make sense of what happened in this type of situation and how people affected coped with the consequences.
- **Making history come to life**. For the last four years in one primary school, the 'Saxon Settlers' history topic has been finished with role play in which pupils dress up as Saxons and have a feast to talk about the threat of Vikings. All gather round the bonfire, cook Saxon recipes, tell riddles and stories (Beowulf) in the school woods. One teacher commented on the authentic atmosphere this created: *'There is no way you could get that same sense of belonging to the past doing it in the classroom or the hall … it's just been amazing'.*

KEQ 7. Was LINE used in school improvement in project schools?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project

KEQ 7. Was LINE used in school improvement in project schools?

7.1 What were the patterns of change relating to school documentation for LINE?
7.2 How was LINE used in school improvement?

Data sources

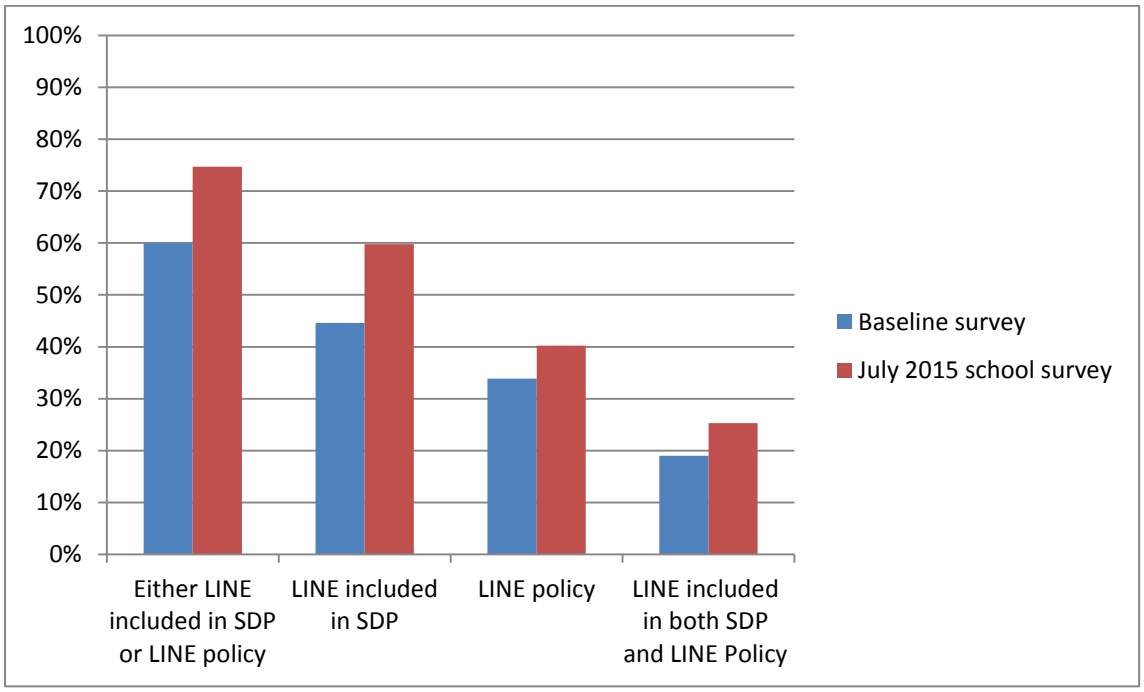
School baseline survey, hub leader interviews, school case studies, July 2015 school surveys

Key points

- The percentage of schools reporting that they included LINE in either their school development plan (SDP) and/or had an outdoor learning policy increased over the project lifetime.
- There was statistically significant evidence of an increase in the proportion of schools which included LINE in SDP between baseline and July 2015 (p-value=0.01).
- The was statistically significant evidence of an increase in the proportion of schools which either included LINE in SPD or in their policy between baseline and July 2015 (p-value<0.01).
- Hub leaders argued that the two most effective ways for schools to use LINE for school improvement were weaving LINE through the curriculum (possibly starting with English and maths), and using LINE as an arena in which to develop children's attributes and skills such as confidence, communication and behaviour.
- School action plans, the position and the personality of the LINE lead, and continuing professional development were regarded by hub leaders as important factors in developing the use of LINE for school improvement. Ofsted gradings were also seen to have some influence, in that schools with high grades could feel at greater liberty to introduce new ways of working in their schools than those with lower grades.
- Case-study schools provided examples of different ways in which LINE has supported whole-school improvement. These included aligning the 'Rights Respecting Schools' agenda and using LINE for 'Building Learning Power'.

7.1 What were the patterns of change relating to school documentation for LINE?

Figure 7.1 below shows the percentage of schools that had outdoor learning policies and where LINE was part of their SDP or equivalent, taken from the baseline survey.



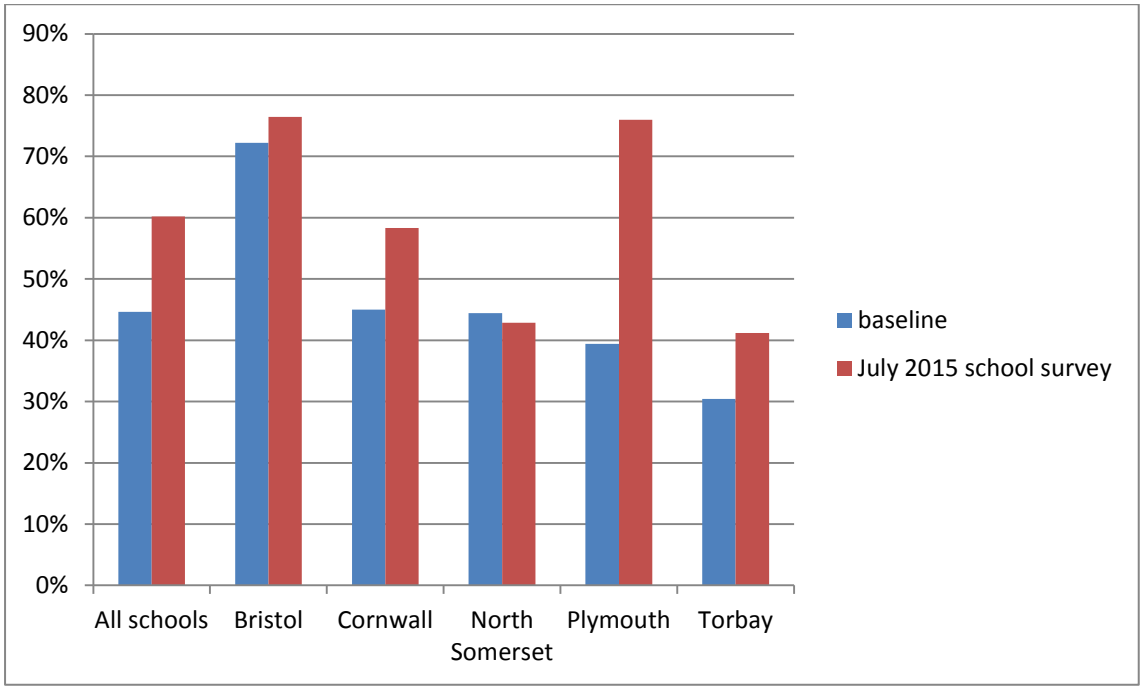
Baseline n=121, July 2015 school survey n=87

Figure 7.1: Project schools that reported an outdoor learning policy and/or inclusion of LINE in SDP

The inclusion of LINE in the SDP can be used as a proxy measure for a strategic school approach to LINE that is supported by senior leaders; they are involved in the document's development, and LINE would not be included without their approval. Including LINE in the SDP is likely to guarantee an explicit rationale, some resource allocation and a commitment to LINE. Formalising LINE through an outdoor learning policy is another proxy measure, this time for the inclusion of LINE in teaching practice, as the policy will generally outline the aims of LINE practice and the ways in which it could be used. Figure 7.1 above shows that the percentage of schools that referenced LINE in both SDP and a separate policy rose from 19 to 25 per cent during the course of the project (this is not a statistically significant change), while the percentage that had LINE in one of these documents rose from 60 to 75 per cent (a statistically significant increase (p-value<0.01). A greater increase in the percentage of schools that reported including LINE in their SDP (from 45 to 59 per cent, a statistically significant increase (p-value=0.01)) suggests that schools placed a stronger emphasis on a strategic approach to LINE, although these figures may underestimate the amount of LINE practiced in schools; LINE could have been included within separate subject planning documents rather than in an overall policy document. Taken together, these figures suggest that LINE was becoming more strongly embedded in schools' policies and practice.

Figure 7.2 shows that the percentage of schools that included LINE in their SDP increased across the project from 45 to 61 per cent. Within the hubs, the percentage remained

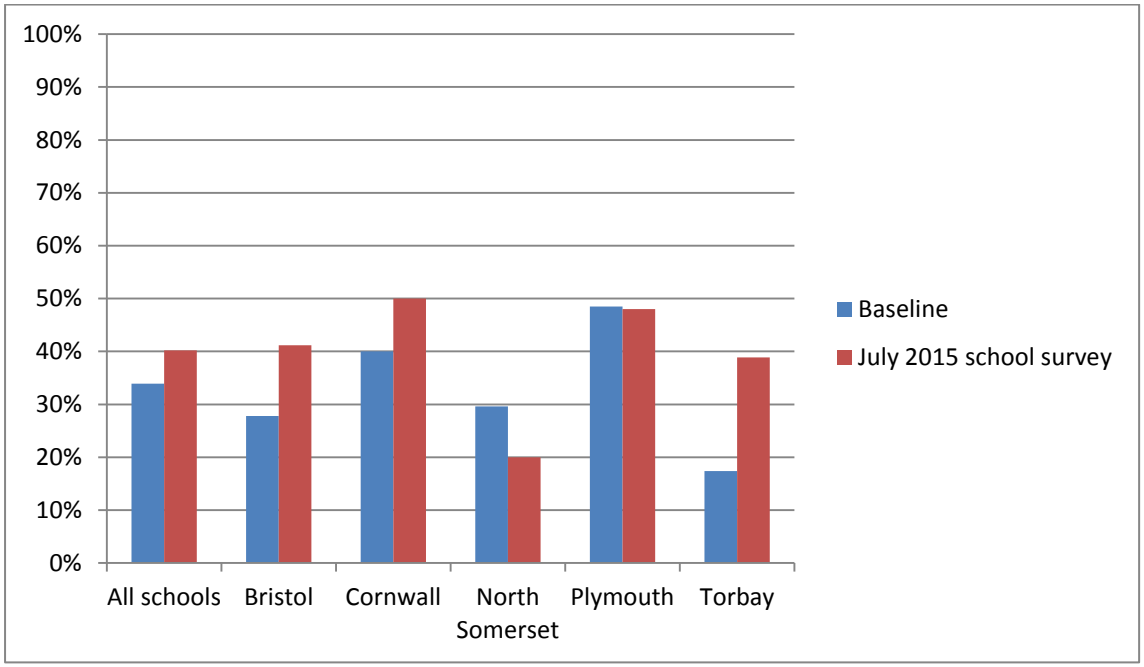
relatively stable at a high level in Bristol (72 at baseline; 76 per cent in July 2015) and at a lower level in North Somerset (44 and 43 per cent respectively). Plymouth reported the highest increase in the percentage of schools including LINE in their SDP (from 39 to 76 per cent), which suggests a strong increase in LINE development within the hub; that school leaders recognised the contribution that LINE could make to pupil outcomes, and that they were embedding its practice across the school. The percentage of schools that reported an increase in strategic LINE planning from Cornwall (from 45 to 58 per cent) and Torbay (from 30 to 41 per cent) suggest that they, too, were increasingly recognising the value of LINE.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18

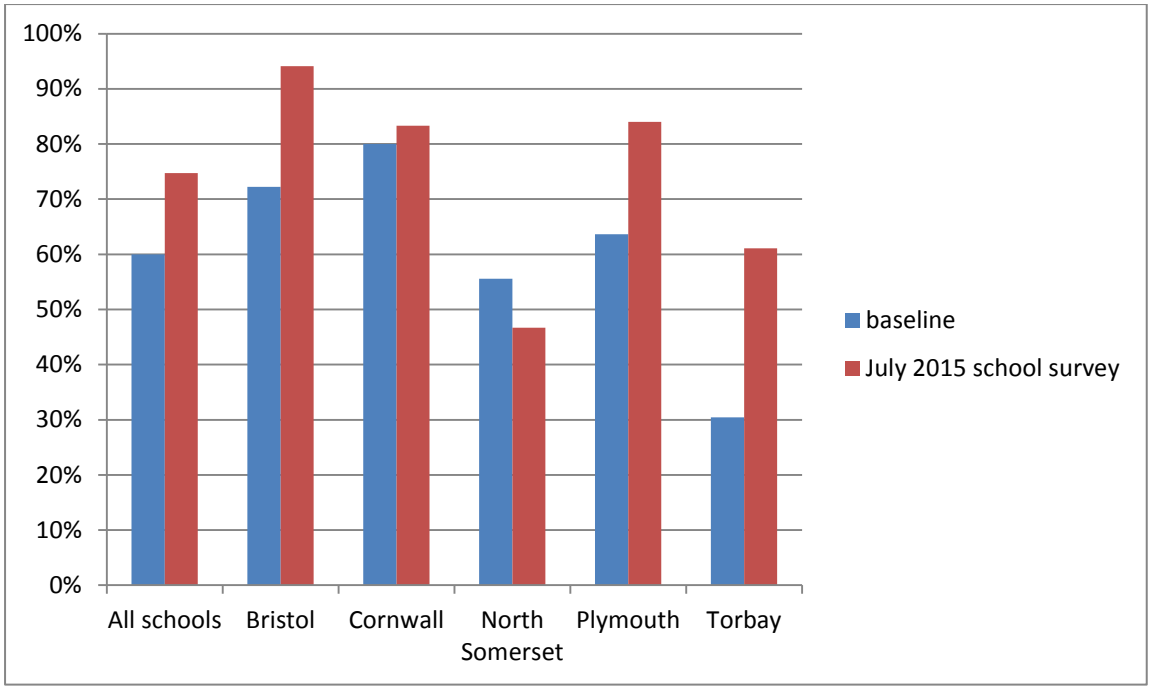
Figure 7.2: Schools that reported inclusion of LINE in SDP's

Figure 7.3 below shows that the percentage of schools reporting an outdoor learning policy increased across the project from 34 to 40 per cent. Within the hubs, Plymouth percentages remained the same in both surveys (48 per cent), while the percentage of schools in North Somerset that reported an outdoor learning policy decreased from 30 to 20 per cent. The largest increase of 22 percentage points was reported by Torbay schools (from 17 to 39 per cent), with increases reported from schools in Bristol (13 percentage points) and Cornwall (10 percentage points).



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 7.3: Schools that reported an outdoor learning policy

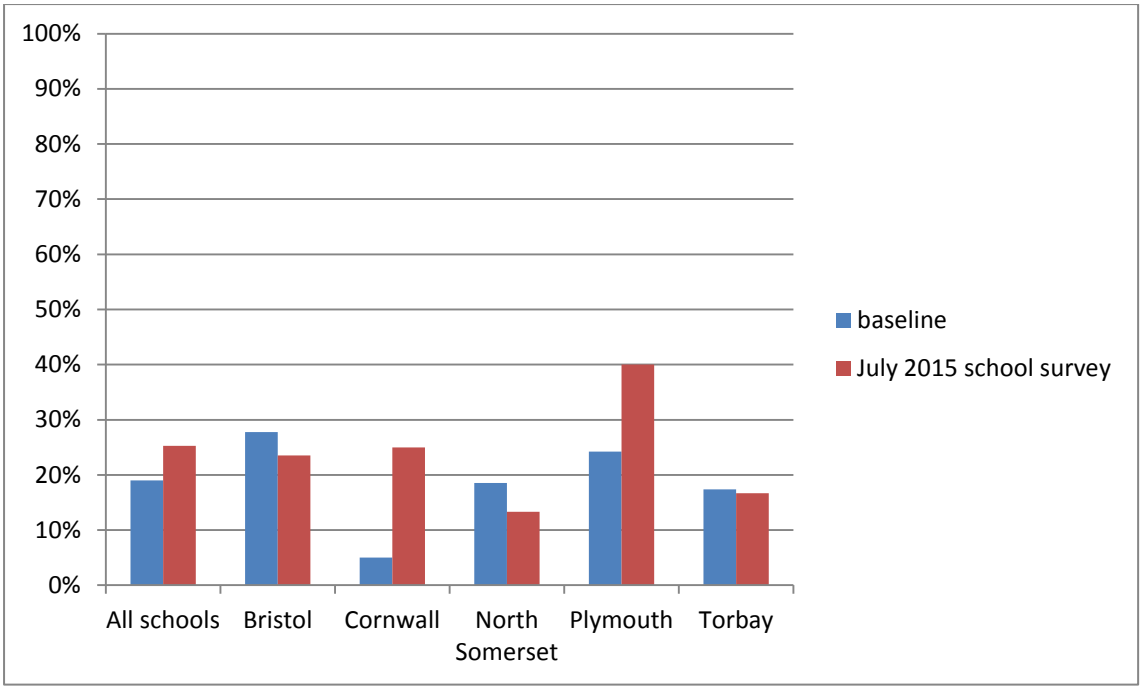
Figure 7.4 below shows the project and hub-level percentages of schools that reported either an outdoor learning policy or that they included LINE in their SDPs. There was no statistically significant change across the project during its lifetime. At hub level, Bristol schools reported the highest percentage of schools with both documents (94 per cent) and one of the highest increases in schools that reported both documents (22 percentage points). Torbay, however, had the largest percentage point increase in schools reporting both documents (30 percentage points), although from a lower base (from 30 to 61 per cent). Cornwall schools reported a consistently high level of LINE documentation (80 and 83 per cent), and Plymouth schools a sizable increase (from 64 to 84 per cent). The only hub to report a decrease in the percentage of schools that reported the inclusion of LINE in their documentation was North Somerset (from 56 to 47 per cent).



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18

Figure 7.4: Schools that reported EITHER an outdoor learning outdoor policy OR inclusion of LINE in their SDP

Figure 7.5 below shows a slight increase in the percentage of schools that reported both forms of LINE documentation. Schools from Cornwall reported an increase of 20 percentage points (from 5 to 25 per cent), although from a low baseline number. Plymouth schools reported a 16 percentage point increase (from 24 to 40 per cent), which reflects the increase in the high number of schools that reported including LINE in their SDP seen in Figure 7.2. The percentages of schools that reported LINE in both documents remained relatively stable in Bristol (down from 28 to 24 per cent), North Somerset (down from 19 to 13 per cent) and Torbay (17 per cent in both surveys).



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 7.5: Schools that reported an outdoor learning policy AND inclusion of LINE in SDP

7.2 How was LINE used in school improvement?

In this section, we draw on evidence from hub leader interviews and school case-study visits to assess the extent to which LINE was used in school improvement.

- **Hub leaders**

Hub leaders were united in their belief that LINE supported school improvement, and agreed that there were broadly two approaches in schools that would achieve this. The first was to make sure it was *'woven through the curriculum'* so that teachers were going outside as part of their everyday practice, and they provided illustrations of the way in which this was happening. In Torbay, for instance, the hub leader investigated ways of plotting LINE into science as a means of school improvement; schools in Torbay used topics around growing, cooking and creating a pizza oven as a means of delivering experiential learning through the curriculum for all pupil year groups; a school in Bristol blended their LINE approach with their Heritage Schools work by *'saturating'* the Year 2 curriculum with opportunities for learning outside, believing that this was the most effective way to embed LINE in daily practice.

The second approach was to provide an arena for foundational factors that were seen to contribute to pupil attainment. Hub leaders reported a variety of examples. One school in Plymouth used LINE as central to their approach of increasing children's enjoyment of school as a means to engage them with their learning and thus to drive up standards; the school moved from the Ofsted category of 'at risk' to 'good' during the time they expanded their LINE work, and hub leaders reported that this approach was formally recognised by

Ofsted (see KEQ 8 for more information). Other schools focused on the social and emotional benefits of LINE, using such approaches as adventure learning, Forest School, and horticulture to widen pupils' experiences and offer them opportunities to work together and develop new skills in different settings. The work on personal development outside in one special school was felt by hub leaders to have a significant positive effect on students' confidence, skills and behaviour which, in turn, was seen to have a positive impact on their examination results.

Hub leaders reported, however, that neither the process of weaving LINE through the curriculum nor providing an arena for foundation factors was necessarily straightforward, and that it could be difficult to persuade staff of the benefits of LINE. All reported headteachers and class teachers who had found resistance to LINE within their schools, and the challenges to engaging schools and how hub leaders dealt with these challenges are discussed in detail in KEQs 20 and 23.

Hub leaders reported a number of different factors that supported the use of LINE in school improvement:

- **Continuing Professional Development**. CPD was reported by all hub leaders as the key to developing LINE as a means to school improvement. All argued it was critical to be flexible in approach, and to tailor the CPD to individual school LINE development as their needs changed. They made the following observations:
  - CPD should be made specific to school needs at that time; individual school CPD needs changed as their LINE work developed and matured. One hub leader, for instance, noted a shift in schools' demand away from CPD that was directly linked to the core curriculum towards more general topics. The interviewee suggested this could be because teachers felt confident about teaching these subjects outside and wanted more varied ideas to expand their LINE practice. Another hub leader noticed a change in demand towards training sessions that teachers could cascade to other staff. Interviewees regarded this as a *'big shift'* from individual to whole-school impact, as it suggested schools were becoming more confident in their LINE practice and no longer felt the need for specialist support in particular areas.
  - CPD should show how LINE is complementary to learning inside the classroom, for example which aspect of maths could be taught outside more effectively than inside. This helped to demonstrate to teachers that LINE was more than *'doing classroom lessons with your coat on'.*
  - Whole-school CPD could sometimes be a catalyst for whole-school LINE action through demonstrating its potential impact in a number of different areas. For example, a day's whole-school training in one primary school was significant in giving staff the confidence to take

curricular learning outside in new and creative ways using, for example, story sticks, clay ovens and fire pits.

- **School action plans**. At the start of the project every beacon school in Bristol, Cornwall and Plymouth was encouraged to devise an action plan that was focussed on short, medium and long term goals. Hub leaders argued that the planning process seemed to be important in gaining whole school support; it was then easier to allocate resources to the action plan, either through popular support within the staff or through ring-fenced pots of money such as pupil premium.
- **The position and the personality of the LINE lead** within schools. Hub leaders believed this had an important effect on influencing other staff about the potential benefits of LINE. Bristol hub leaders reported one case in which the original LINE lead was replaced a Year 6 teacher who, first understood better the need to permeate LINE across the school and work across year groups and secondly, had the influence to promote these ideas successfully. While little had happened with the first LINE lead, the school became successfully engaged in a range of LINE activities with the second.
- **Ofsted gradings**. Hub leaders reported that on the one hand, schools who were successful in terms of academic progress could feel *'a bit freer about how they can interpret the curriculum'* compared to those schools who were under more careful scrutiny; hub leaders noted that project schools which went into Ofsted categories prioritised areas other than LINE. On the other hand, hub leaders felt that it was more difficult to shift the school culture to accept LINE in high performing schools, as they could feel that there was no need for change.

- **School case studies**

Analysis of the school case studies reflected the hub leaders' reports that schools used LINE in two ways for school improvement: a) to offer the space and different experiences that support the development of foundational skills and attributes that engaged children and young people with learning, and b) to enhance learning in particular curriculum areas. Some adopted a whole-school approach with LINE 'woven through' the curriculum while others, perhaps more recently introduced to LINE, were more piecemeal in their approach. We provide five examples of how LINE has been used as an integral part of school improvement below.

- One primary headteacher reported that LINE was part of the school's **ethos** of encouraging children to live healthy and happy lives, of providing a counterbalance to the digital world, and of stimulating an appreciation of the natural world. School leadership believed that all children benefit from being outside, and it was a school target for every class *'to go out at least once a week'*. LINE was used across the school and curriculum, with development of LINE activities the strongest in Reception and Key Stage 1 at the time of the case-study visit, and interviewees reported plans to *'weave it through the*

school's core curriculum' of English and maths more completely in the future, and to use LINE for topic work in the afternoon. Staff felt that LINE enriched children's learning through providing them with *'a real life… purposeful activity to access their learning'.* Teachers also reported that LINE improved the enjoyment of pupils' learning, which *'means they progress'.*

- One special school introduced *'regular and frequent'* use of LINE as the headteacher felt outdoor learning had **a major role to play in improving attainment at the school**. An outdoor learning specialist was appointed to lead the approach. All LINE lessons were planned around children learning 100 different skills that were *'based on the national curriculum skills and … transfer*[red] *back into the classroom'.* When the headteacher started at this school, students were making *'very little academic progress',* with 30 per cent of children in the upper quartile against national data sets for equivalent schools. This rose to 78 per cent after LINE had been introduced and, at the time of the case-study visit, the headteacher was anticipating between 92-100 per cent of students achieving results that would place them in the upper quartile. Interviewees felt that outdoor learning played a significant part in this improvement, combined with special needs training and the development of a new school behaviour policy, which recognised that students needed to adapt to new styles of learning outside.
- LINE fitted closely with the **UNICEF Convention for the Rights of the Child agenda,** which was part of one secondary college's approach as a 'Rights Respecting School'. Students were actively involved through the school council and 'outdoor spaces group' in changing the school grounds to enable LINE; teachers used LINE to provide experiences and opportunities for off-timetable days to focus on health and wellbeing, respect and skills immersion. There was also a strong student personal enrichment programme which included gardening, learning about wildlife and outdoor skills, and many LINE activities were explicitly linked with the local community to provide purposeful activities for students, for instance growing food on the school allotment for the local foodbank.
- In another primary school we learned of a **positive, *'aspirational'* LINE culture** that was supported by all members of the school community, including parents. A key belief of the LINE lead was that LINE must *'work for everybody'*. LINE had a number of aims including supporting the curriculum, developing understanding of the natural world and enhancing environmental awareness. Teachers were supported by the LINE lead in planning / developing LINE lessons, and chose their own activities; *'almost all'* undertook some LINE during the academic year. All pupils experienced Forest School for a five-week period with their teachers each year, apart from those from Year 6 who, for the past three years, have undertaken the John Muir Award in February. This was regarded as *'the highlight'* of the year for these pupils, who spend a week outside during the school year to 'discover,

explore, conserve' around the school grounds and then 'share' their experiences with the school community.

- LINE fitted closely with a primary school's approach of **'Building Learning Power'** through developing 17 specific skills that included reflection, collaboration and resilience. LINE expanded in this school from on-site activities to include regular Forest School for all pupils, where class teachers and Forest School leaders planned sessions that incorporated children's ideas and addressed a range of curricular learning, such as making rustic furniture (design technology), making and selling natural Christmas decorations (art), investigating insulation using natural materials (science), providing inspiration for writing (English) and symmetry (maths). LINE was *'not seen as a separate thing'* to curricular learning, and staff reported that it was their passion to *'make sure we use our local environment and children … learn how to use it and learn from it'.*

KEQ 8. Did LINE align with schools' core purpose of raising standards, measured by Ofsted reports and examination results?

Project element and objective Brokerage: Support schools in building LINE into their planning and practices	**Assumption** LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project
KEQ 8. Did LINE align with schools' core purpose of raising standards, measured by Ofsted reports and examination results? **8.1** What importance / value did case-study schools place on Ofsted reports / inspections and why? **8.2** What evidence was there for references to, and judgement of, LINE activities in case study schools, within Ofsted reports?	
Data sources School case studies, case-study schools' Ofsted reports	
Key points • Ofsted requirements and recommendations can influence school priorities, both before a visit and after Ofsted have made recommendations. • This may reduce resources for LINE if other priorities are highlighted or conversely encourage and legitimise practice if LINE success is recognised by Ofsted. • Ofsted frequently cited the benefits of high-quality LINE in case-study school Ofsted reports – in particular pupil progression, enjoyment of learning, and spiritual, moral, social and cultural development.	
NOTES Excerpts from Ofsted reports are 'in inverted commas'	

8.1 What importance/value did case-study schools place on Ofsted reports / inspections and why?

It is interesting to note the positive role that Ofsted can play in promoting LINE in schools and, although school views on Ofsted were not specifically sought from case-study schools, staff from ten schools referenced Ofsted with respect to LINE during their interviews. The themes that were reported were:

- **Recognition of Ofsted's acknowledgment of LINE work**

Six schools reported that Ofsted had recognised the benefits of LINE for children. Several schools reported that this recognition encouraged teachers in their LINE work and that the recognition was important for school staff morale. One school reported that they had explicitly showcased their LINE work to Ofsted inspectors during the day of the inspection.

- **Ofsted as an influencer of school priorities**

Five schools reported that Ofsted influenced school priorities. This covered a range of scenarios including: schools feeling pressure of an imminent or 'due' Ofsted and reducing LINE work to concentrate on class-based work; Ofsted reports altering school priorities after visits, again generally reducing resources for LINE as schools concentrated on areas highlighted by Ofsted; and schools more likely to engage with a new initiative, such as LINE, if they felt secure in their existing Ofsted rating.

- **School views that Ofsted inspectors did not 'get' their LINE work or elements of it**

One school commented that inspectors did not understand elements of the school's approach to LINE; another reported that inspectors recognised the work but did not see the deeper impact that it had on teachers' pedagogy.

8.2 What evidence was there for references to, and judgement of, LINE activities in case study schools, within Ofsted reports?

Ofsted reports were examined for references to LINE activity for the twenty-four case-study schools, selected so we could understand the context of the references. References were found in 16 Ofsted reports from these schools. We identified the following themes and have illustrated them with excerpts from these reports.

- **LINE supported and enhanced progress (seven references)**

There was range of references to both LINE activities and natural spaces within grounds that facilitated learning, skills development and enabled progress in particular areas of pupil development.

  - 'New initiatives, such as the outdoor learning, have been introduced and have made a positive impact on pupils' learning, personal and social development'.
  - '... staff use the information they have about the children to carefully plan the learning activities using both the indoor and outdoor areas to support development, especially in their communication and social skills'.
  - 'The school makes exceptionally good use of its extensive outdoor, wooded area to develop imaginative ways to encourage pupils to learn. Excellent learning was seen as Years 3 and 4 pupils were prompted to use technical language as they searched for mini-bugs that they later wrote about. Years 1 and 2 pupils greatly extended their speaking and writing skills as they discussed and searched for materials they would use to build their 'Gruffalo House''.
  - 'Very good use is made of their well-resourced and vibrant indoor and outdoor learning environment. Opportunities to develop children's language and communication skills are skilfully created and as a result they make good progress. Children delighted in showing the inspector the strawberries, onions

and peas they are growing and enthusiastically discussed how to weed their garden'.
    - '… staff use the information they have about the children to carefully plan the learning activities using both the indoor and outdoor areas to support development, especially in their communication and social skills'.

- **LINE enhanced enjoyment and provided motivational opportunities and experiences (ten references)**

LINE was often seen as enriching and exciting, and Ofsted recognised the difference that could make to children's school experience

    - 'Pupils enjoy working in the school gardens and take part eagerly in the Forest School'.
    - 'The curriculum is well organised to create memorable learning experiences including plenty of opportunities to learn outside ... Appropriate risk assessments are in place for the range of exciting outdoor learning opportunities'.
    - 'With the exception of work based on outdoor activities, tasks are sometimes too mundane'.
    - 'Excellent use is made of the school garden and outdoor learning to enrich the experiences for all pupils'.
    - 'The school grounds are well used to provide alternative learning activities where pupils enjoy being adventurous and working in teams'.
    - 'A good range of clubs, visits and visitors enhance the curriculum … Pupils are hugely appreciative of the opportunities to learn in the forest area of the school'.

- **Broadens horizons and in particular makes a contribution to personal, social, moral and cultural development (nine references)**

Personal, spiritual, moral, social and cultural development was referenced in Ofsted reports more than any other aspect of children's development.

    - '…topic work, such as the chicken project, provide[s] a wide range of experiences to promote pupils' spiritual, moral, social and cultural development'.
    - 'Pupils' personal, social, moral and cultural development is fostered well. The external environment provides excellent opportunities for an appreciation of animal and plant life'.
    - 'Pupils are hugely appreciative of the opportunities to learn in the forest area of the school. With these opportunities, in addition to the emphasis placed on encouraging pupils to reflect on the different ways they learn, the school makes a strong contribution to pupils' spiritual, moral, social and cultural development'.
    - 'For example, pupils' interest in dinosaurs was inspired as much during the planned activities at the breakfast club as it was during the lesson in the

woodland area. These imaginative activities make a positive contribution to pupils' good spiritual, moral, social and cultural development'.

- 'Pupils also enjoy an increasing range of opportunities for outdoor education which broadens their horizons and enhances their progress in classroom work. These activities contribute to pupils' improving spiritual, moral, social and cultural development'.
- 'The 'Forest School' programme based … nearby … successfully supports students to enable them to prepare for the world of work'.

Ofsted reports appeared to have no common language or framework to reference the part LINE played in school success but nevertheless many inspectors distinguished outdoor learning as contributory to high quality educational experiences that contribute substantially to providing an engaging broad and balanced curriculum.

KEQ 9. Did LINE benefit all involved in the project?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project

KEQ 9. Did LINE benefit all involved in the project?

9.1 School staff
9.2 Volunteers
9.3 Pupils
9.4 Parents

Data sources

July 2015 school survey, school case studies, pupil survey, parent / carer survey

Key points:

- About 70 per cent of respondents to the July 2015 school survey indicated that LINE had a positive effect on teachers' health and wellbeing, professional development and job satisfaction.
- Interviews with 12 volunteers during case-study visits showed that they enjoyed the work they undertook at the school.
- 92 per cent of children indicated that they enjoyed lessons outside. Boys in Key Stage (KS) 1 indicated higher levels of enjoyment than boys in KS2; girls' indicated enjoyment remained at the same levels in KS1 and KS2.
- The majority of children (62 per cent) indicated that they learned better outside than inside, although there was a difference of 11 percentage points between KS1 (69 per cent) and KS2 (58 per cent). A higher proportion of girls indicated that they learned better outside in both KS1 and KS2.
- The majority of children (58 per cent) indicated that they learned more outside, although there was a difference of 15 percentage points between KS1 (69 per cent) and KS2 (54 per cent). A higher proportion of girls indicated that they learned more outside in both KS1 and KS2.
- The majority of children (64 per cent) indicated that they achieved more in lessons outside, although there was a difference of 14 percentage points between KS1 (74 per cent) and KS2 (60 per cent). A higher proportion of boys indicated that they achieved more outside in KS2.
- Nearly 90 per cent of pupils indicated that they felt 'a lot' or 'a bit' healthy and happy in lessons outside. These figures were consistent across both Key Stages.
- 85 per cent of children indicated that they behaved well in lessons outside. A higher proportion of girls than boys in both Key Stages indicated that they behaved well in lessons outside.
- 72 per cent of responding children indicated that they 'got on better' with people during lessons outside. 83 per cent of girls in KS1 indicated that they 'got on better' with

people outside, but otherwise the figures were consistent across both Key Stages and genders.

- Results from the parent/carer survey showed a similar pattern of views to that of the children's, with agreement on enjoyment, the health and wellbeing and the social benefits of working outside. Parents/carers, however, were more certain than both teachers and children about the positive impact of lessons outside on children's learning.

NOTES

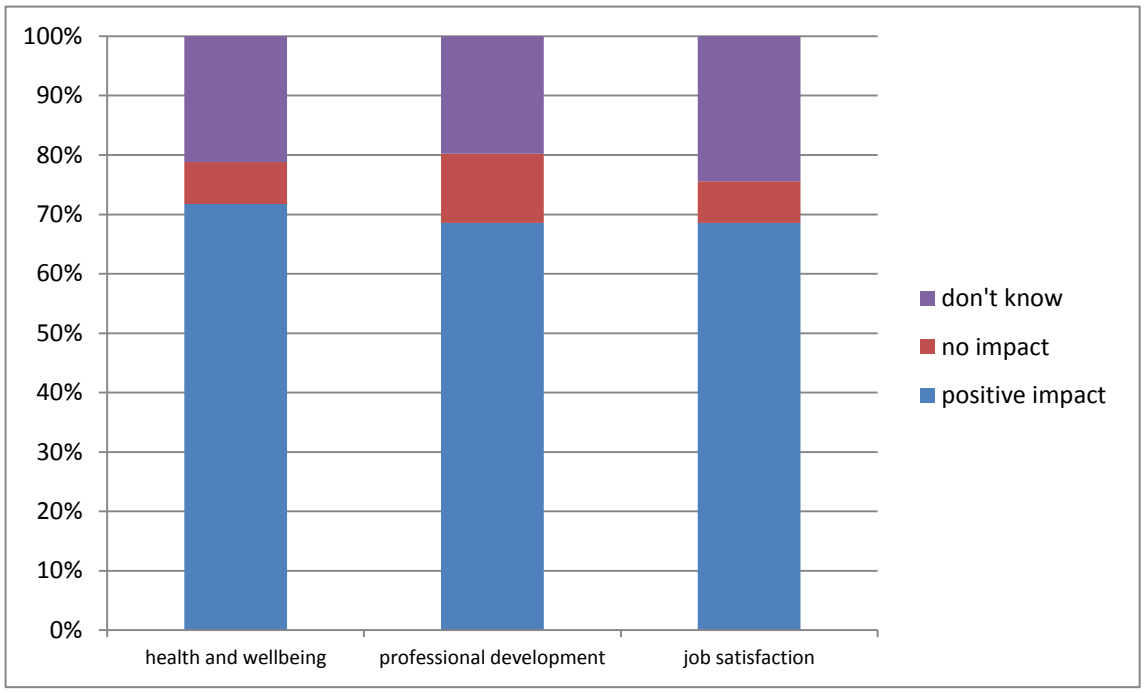
This KEQ focuses largely on the quantitative data relating to the benefits of LINE. We draw from the qualitative data to discuss these benefits in more detail in KEQ 10.

Survey respondents for the pupil and parent / carer surveys were asked to respond to a Likert scale. The terminology used in these (such as 'I learn more in lessons outside' and 'I feel I achieve more in lessons outside') was left open to respondents' interpretation, with the result that there may be some differences in understanding.

9.1 School staff

Figure 9.1 below demonstrates that 69 per cent of respondents to the July 2015 school survey believed that LINE had a positive impact on teachers' professional development and job satisfaction, and that 72 per cent of respondents believed that LINE had a positive impact on their health and wellbeing. None felt that LINE had a negative impact on these aspects of teachers' professional lives. These were all highly important findings in the current context of low teacher morale in England[6]. See KEQ 4 for more detail on the impact of LINE on teachers.

[6] Scott, S. (2016) Highest teacher leaving rate in a decade, SchoolsWeek, 30 June, http://schoolsweek.co.uk/highest-teacher-leaving-rate-in-a-decade-and-6-other-things-we-learned-about-the-school-workforce/ .



July 2015 school survey: health and wellbeing n=85, job satisfaction n=86, professional development n=86

Figure 9.1: LINE benefits for teachers reported by schools (July 2015 school survey)

9.2 Volunteers

A total of seven completed responses from the volunteer survey meant that we had insufficient data to draw any meaningful quantitative conclusions on volunteers' views about the benefits of LINE.

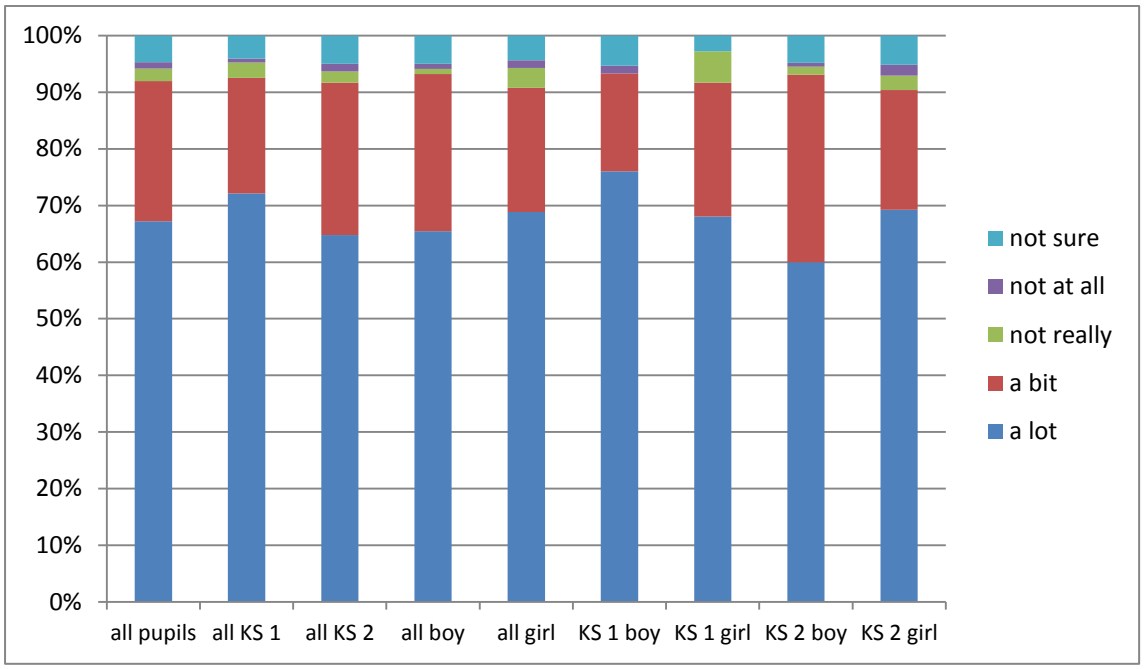
We interviewed 12 volunteers during the case-study visits. Almost all were parents whose children attended the school at which they volunteered, and all reported enjoying their roles which ranged from general support through to specialist knowledge in areas such as gardening and wildlife. Those volunteers who expressed a high degree of enjoyment and satisfaction from their volunteering had a positive relationship with staff in the school. Volunteering is discussed in more detail in KEQ 10 and in the volunteering KEQs.

9.3 Pupils

Pupil views were gathered through an on-line survey promoted to pupils by their schools. 496 children from nine schools in three hubs completed the survey in which they were asked to select answers on a five-point Likert scale to seven statements on learning, enjoyment, behaviour and health and wellbeing. In the following figures we have used the data from all 448 pupils from Key Stages (KS) 1 and 2 in seven primary schools to show differences in response from boys, girls, KS1 and KS2; for this section we have not used the data relating to children from special schools, as their numbers were relatively small. We emphasise that

the following figures are illustrative, and not representational, of the project, and that the results cannot be generalised.

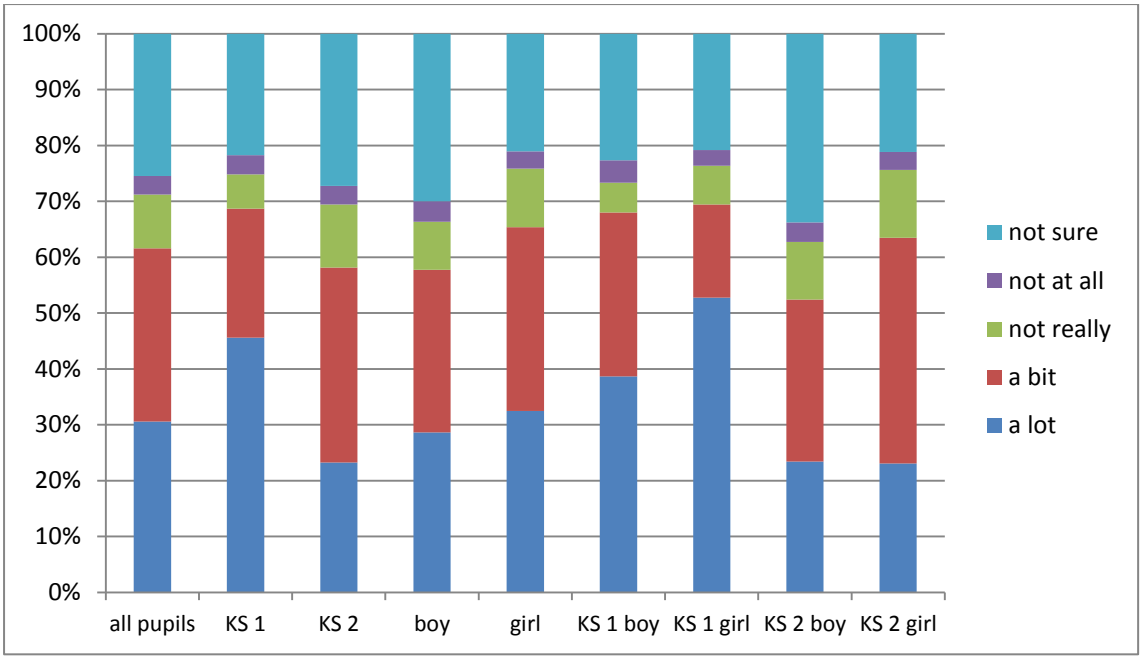
Figure 9.2 below shows the responses from the 448 KS1 and KS2 pupils to the statement 'I enjoy lessons outside', to which 92 per cent indicated that they enjoyed lessons outside 'a bit' or 'a lot'. There is a small difference when the Key Stages are separated; although the overall proportion of children that indicated enjoying lessons outside 'a lot' or 'a bit' remained around 92 per cent, the percentage of pupils indicating that they enjoyed lessons outside 'a lot' decreased from 72 per cent in KS1 to 65 per cent in KS2. This shift was largely because the proportion of boys indicating that they enjoyed lessons outside 'a lot' in KS1 (76 per cent) fell to 60 per cent in KS2, while the proportion of girls enjoying lessons outside 'a lot' stayed static at 68 and 69 per cent respectively.



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

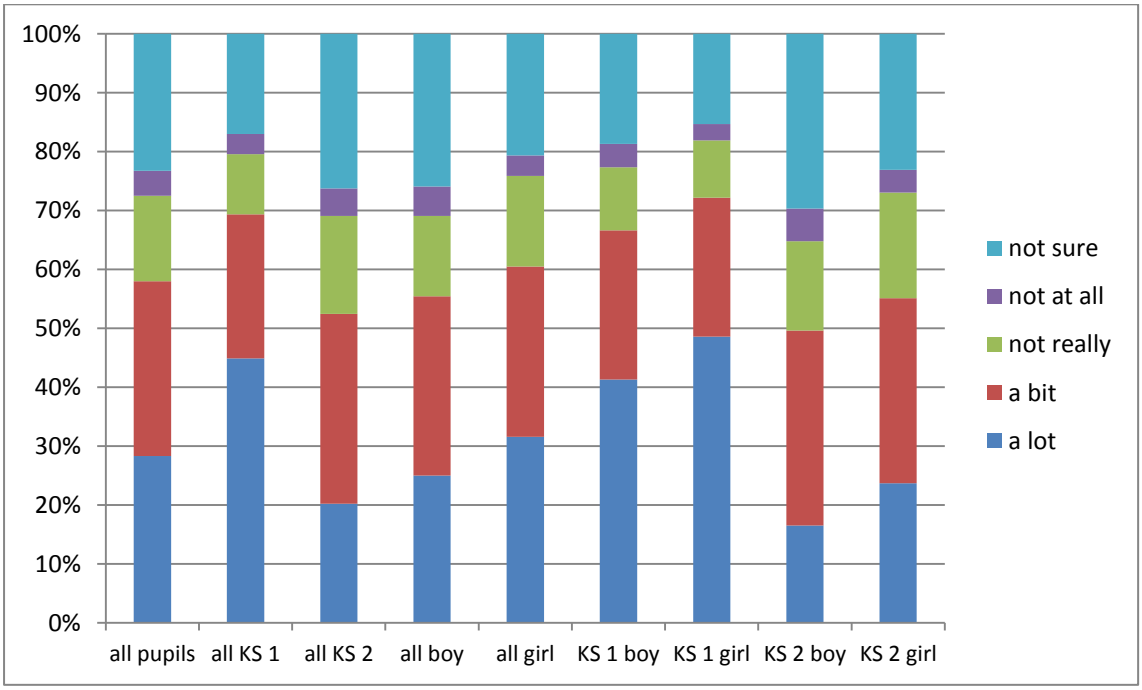
Figure 9.2: I enjoy lessons outside

Figure 9.3 below shows that 62 per cent of responding pupils indicated that they learned 'a lot' or 'a bit' better outside. Thirteen per cent indicated that they did 'not really' or 'not at all' learn better outside, while 25 per cent were 'not sure'. The percentage of children indicating that they learned better in lessons outside 'a bit' or 'a lot' in KS1 was 69 per cent, decreasing to 58 per cent in KS2; within those results, the percentage of children who indicated learning better outside 'a lot' decreased from 45 per cent in KS1 to 23 per cent in KS2. A higher percentage of KS1 girls indicated that they learn better outside 'a lot' (53 per cent) than KS1 boys (39 per cent), while in KS2 the main difference is between the percentage of girls who indicated that they learned 'a bit' better outside (40 per cent) and boys (30 per cent). In KS2 34 per cent of boys indicated that they were 'not sure' if they learned better outside.



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

Figure 9.3: I learn better in lessons outside



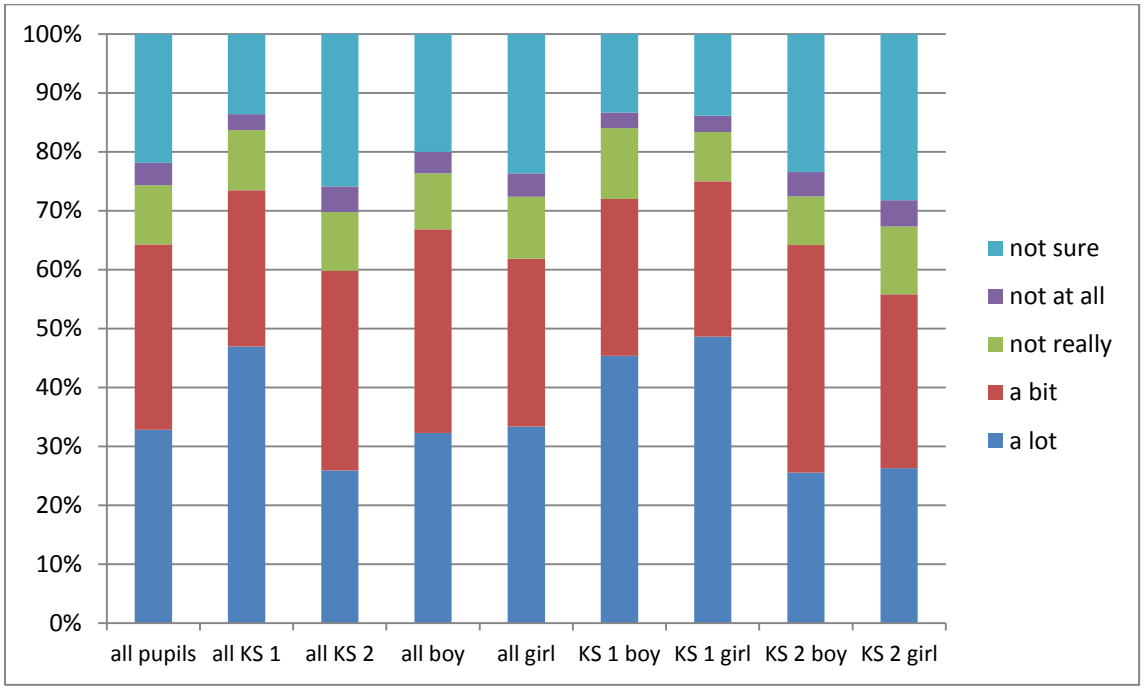
n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

Figure 9.4: I learn more in lessons outside

Figure 9.4 above shows similar patterns to Figure 9.3, although with a lower overall percentage of pupils indicating that they had learned ‘a lot’ or ‘a bit’ more in lessons outside (58 per cent). The percentage of children indicating that they learned ‘a lot’ or ‘a bit’ more in lessons outside in KS1 (69 per cent) decreased to 54 per cent in KS2. Once again a higher percentage of girls (49 per cent) than boys (41 per cent) indicated that they learned ‘a lot’ more in lessons outside in KS1 although, as in the previous Figure, the percentage of all

pupils indicating that they learned ‘a lot’ more outside were smaller in KS2 (girls 24 per cent; boys 17 per cent).

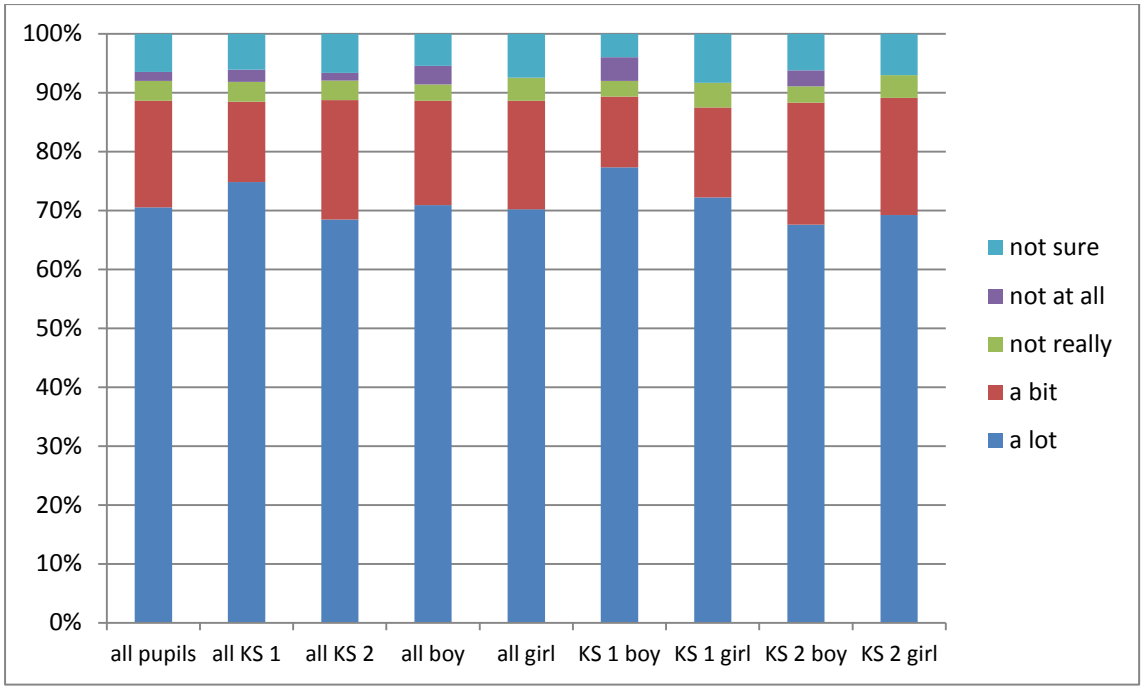
Figure 9.5 below shows that 64 per cent of responding pupils indicated that they achieved ‘a lot’ or ‘a bit’ more in lessons outside. In this case, the main difference was between KS1 and KS2; 74 per cent of pupils responded that they had achieved ‘a lot’ or ‘a bit’ more in lessons outside in KS1, whereas 60 per cent indicated that they had achieved ‘a lot’ or ‘a bit’ more in lessons outside in KS2. The patterns of response were broadly similar for both boys and girls in both Key Stages, although boys in KS2 indicated slightly higher levels of achievement (26 per cent ‘a lot’; 39 per cent ‘a bit’) than girls (26 per cent ‘a lot’; 29 per cent ‘a bit’).



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

Figure 9.5: I feel I achieve more in lessons outside

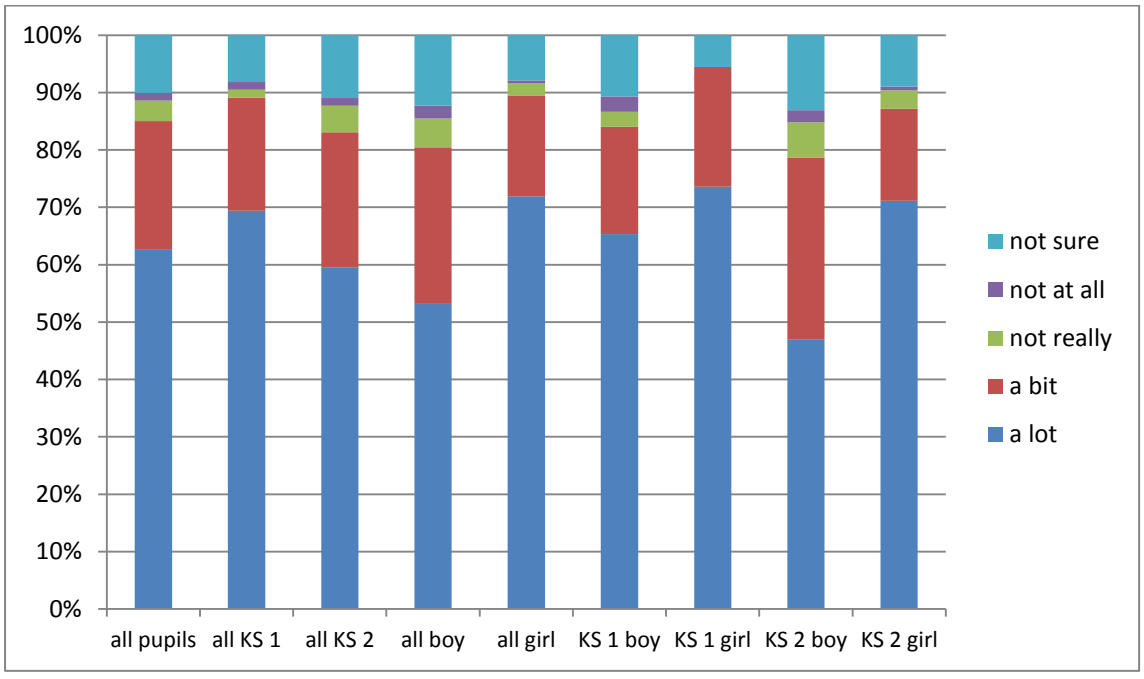
Figure 9.6 below shows a consistent percentage of pupils that indicated that they felt ‘a lot’ or ‘a bit’ happy and healthy in lessons outside; 89 per cent of all pupils, 89 of KS1 and 88 per cent of KS2 pupils responded in this way. The highest percentage of pupils responding that they had felt ‘a lot’ healthier and happier in lessons outside was among KS1 boys (77 per cent), although the proportion decreased in KS2 to 68 per cent; the girls’ respective percentages were 72 and 69 per cent.



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

Figure 9.6: I feel healthy and happy in lessons outside

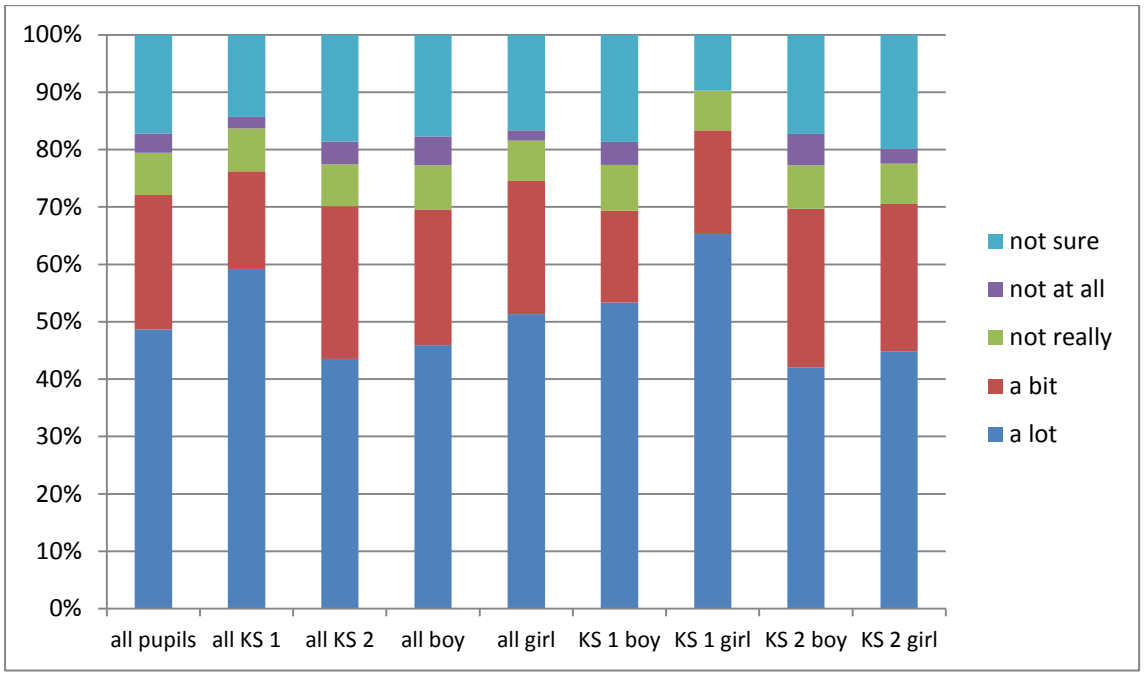
In Figure 9.7 below we show pupils' responses to the statement 'I behave well in lessons outside'. 85 per cent of responding children agreed that they behaved 'a lot' or 'a bit' better in lessons outside, with a slight difference between KS1 (89 per cent) and KS2 (83 per cent). 95 per cent of girls agreed that they behave 'a lot' or 'a bit' better outside in KS1, decreasing to 87 per cent in KS2; boys' respective percentages were 84 and 79.



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls

Figure 9.7: I behave well in lessons outside

Figure 9.8 below focuses on children's social relations during lessons outside. Overall, 72 per cent of responding children agreed that they had got on 'a lot' or 'a bit' better with people during lessons outside (76 per cent in KS1 and 71 per cent in KS2). The notable difference in this case was the 14 percentage points between KS1 boys and girls; 69 per cent of boys and 83 per cent of girls agreed that they got on 'a lot' or 'a bit' better with people during lessons outside, while in KS2 the figures are 70 and 71 per cent respectively.



n=448: 147 KS1 pupils (75 boys; 72 girls), 301 KS2 pupils (145 boys; 156 girls); 220 boys, 228 girls
Figure 9.8: I get on better with people during lessons outside

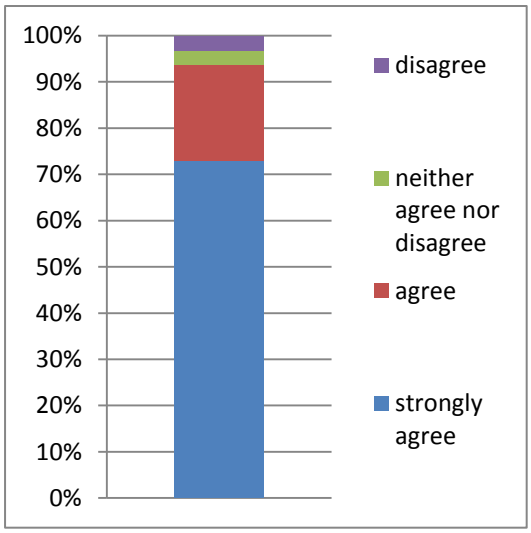
9.4 Parents

Parent / carer views were gathered through an on-line survey promoted by their children's schools. 63 parents or carers from two schools in two hubs responded. As was the case with the pupil survey, parents/carers were asked to respond to statements on a Likert scale; these statements corresponded to those in the pupil survey, with one additional question 'Would you like your child to spend more time outside?' Again we emphasise that the following Figures are illustrative, and not representational, of the project, and that the results cannot be generalised. Figures 9.9-9.16 below show the findings from these survey returns and, in the next
paragraph, we briefly compare the results with those of the children's survey where the questions are similar.

94 per cent of parents and carers agreed or strongly agreed that lessons outside helped their children enjoy school (similar to pupils' 92 per cent positive rating). 77 percent of parents agreed or strongly agreed that lessons outside helped their children achieve more (higher than the children's 64 per cent positive rating), while over 80 per cent agreed or strongly agreed that learning outside helped them to learn more effectively, and 90 per cent

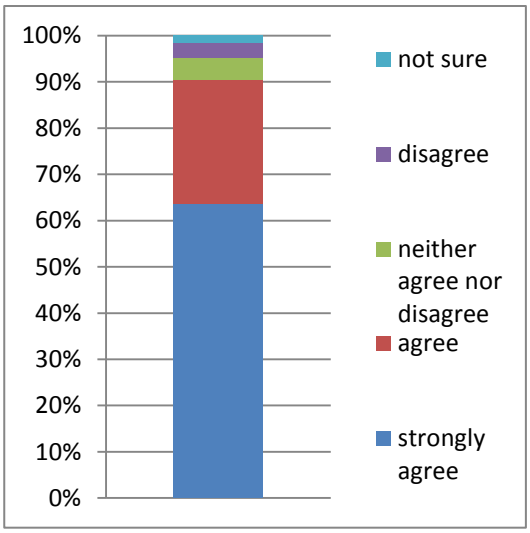
agreed or strongly agreed that lessons outside helped their children engage better with learning ('Lessons outside help my child to want to learn more'). 92 per cent of parents indicated that lessons outside had a positive impact on their children's health and happiness (similar to children's 89 per cent positive rating). 77 percent of parents felt lessons outside had a positive impact on their children's behaviour (slightly less than the 85 per cent positive rating indicated by children). 84 per cent of parents indicated a positive impact on their children's ability to get on better with people at school (higher than the 73 per cent positive impact indicated by children). Finally 90 per cent of parents/carers indicated they would like their children to spend 'a little' or 'a lot' more time outside during school.

Although the parent and children's views are not directly comparable as they are not from the same schools, they show a similar pattern of views with agreement on enjoyment, health and wellbeing and social benefits of working outside. Parents/carers, however, were more certain than both teachers (see KEQ 4) and children about the positive impact of lessons outside on children's learning.



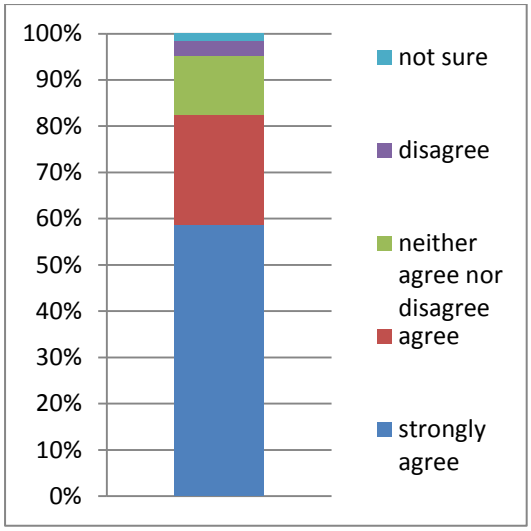
n=63

Figure 9.9: Lessons outside help my child enjoy school.



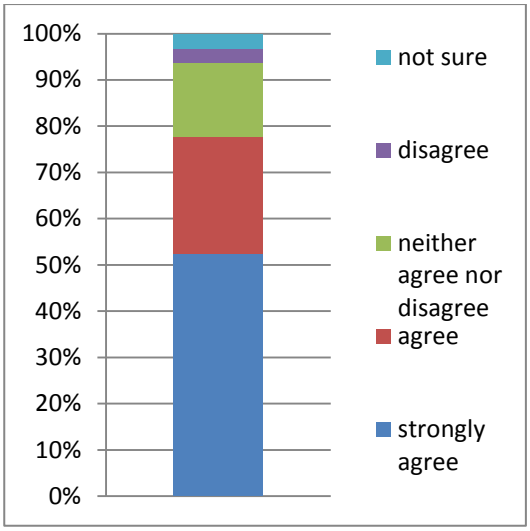
n=63

Figure 9.10: Lessons outside help my child want to learn more.



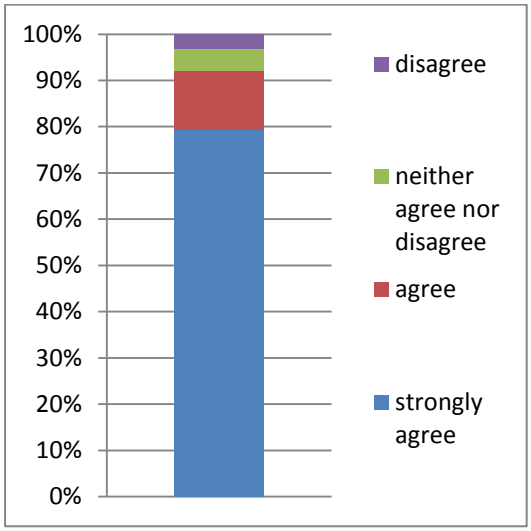
n=63

Figure 9.11: Lessons outside help my child learn more effectively.



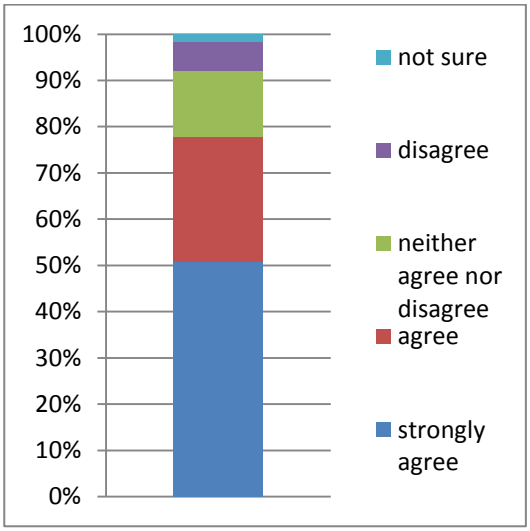
n=63

Figure 9.12: Lessons outside help my child achieve more.



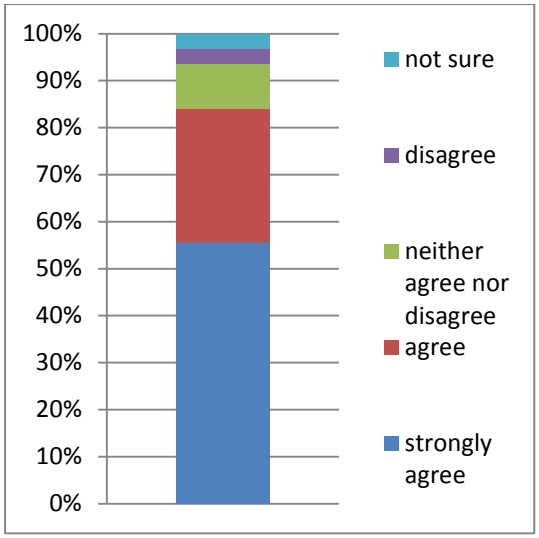
n=63

Figure 9.13: Lessons outside help my child stay healthy and happy.



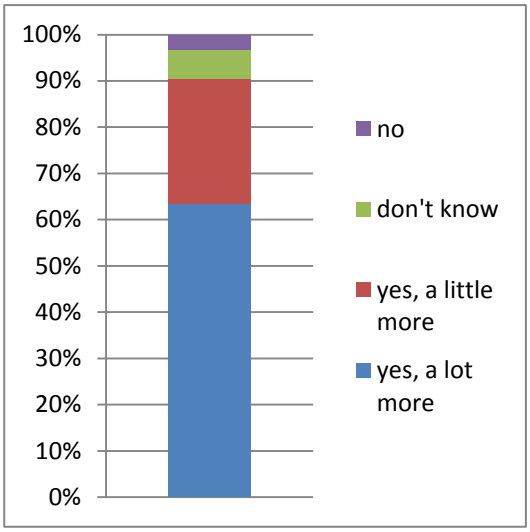
n=63

Figure 9.14: Lessons outside help my child behave well.



n=63

Figure 9.15: Lessons outside help my child get on well with people at school.



n=63

Figure 9.16: Would you like your child to spend more time outside?

KEQ 10. Was LINE enjoyable and inclusive?

Project element and objective	**Assumption**
Brokerage: Support schools in building LINE into their planning and practices	LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to recruit schools to the project

KEQ 10. Was LINE enjoyable and inclusive?

10.1 Was LINE enjoyable for teachers and pupils?
10.2 Was LINE inclusive?

Data sources

School case studies, pupil survey

Key points

- Staff interviewed reported that LINE was enjoyable and inclusive and described ways outdoor learning supported children's enjoyment through greater freedom to engage with each other, with nature and to solve problems.
- Pupils interviewed spoke of a number of ways in which they enjoyed LINE, including the rich physical and sensory environment and the opportunity to take responsibility.

NOTES

In this KEQ we discuss how LINE is enjoyable and inclusive for teachers and pupils in schools. We discuss issues related to volunteers in KEQs 44-64. This KEQ should be read in conjunction with KEQ 9, which reports on the survey data relating to the benefits of LINE to project participants. Direct interview quotations are *'in inverted commas and italics'.*

10.1 Was LINE enjoyable for teachers and pupils?

In this section we present the case-study data relating to teacher and pupils' enjoyment of LINE.

- **Teachers' views**

In KEQ 9, we showed that the majority of respondents to the July 2015 school survey indicated that LINE had a positive effect on teachers' health and wellbeing, professional development and job satisfaction. During the case-study interviews teachers spoke mostly about the children's enjoyment of learning outside, but confirmed their own high enjoyment levels suggested by the survey data. They reported that this enjoyment took a number of different forms:

- **Watching children engaging with the natural world**: *'I get a lot of personal satisfaction from it* [LINE] *but I think that is from seeing the engagement, the enjoyment … Just the joy of* [children] *being outside in the fresh air, engaged with nature, watching the seasons change – all the things I think are disappearing with children sat in front of televisions and x-boxes and game stations'.*
- Children learning **to use and learn from the local environment**: *'It has been a passion of mine to make sure we use our local environment and children … learn how to use it and learn from it'.*
- Increasing **teachers' enjoyment of teaching** because they are more relaxed: *'You're not having to worry about behaviour management so much out there because they are all so engaged and learning, so you can … enjoy the children more'.*
- **Improving teacher / pupil relationships**: *'I think often it* [LINE] *gives you the opportunity to … talk to children about different things and you realise more ... about them'.*
- The satisfaction of **watching children change their behaviour and solve problems** between themselves, and the impact that this had on their learning. One class in a primary school found it difficult to line up quietly, but then *'the same children then work together outside to work out how to put a hammock up and solve the problems needed to do that'.* The teacher felt that there was a *'magic moment'* when pupils realised they could to do that on their own, with learning shifting from *'being teacher-led to being pupil-led'.*
- Enjoying **the space for movement and engaging with others**: *'I like to get out a little bit … just to give them* [pupils] *a bit more space and a bit more time to work in groups'.*
- One teacher summed up many **teachers' responses** to their enjoyment of taking lessons outside: *'I think that … there is much more laughter … a lot of enjoyment … a bit more freedom, a bit more creativity'* for both teachers and pupils.

- **Pupil views**

In KEQ 9, we showed that 92 per cent of children indicated that they enjoyed lessons outside. Interviews with pupils during case-study visits yielded similar findings, with all children reporting that they enjoyed LINE activities, although there were some aspects that they did not enjoy (discussed below). They provided a number of different explanations of why they enjoyed learning outside, illustrated below:

- **Learning in different ways**: *'I enjoy doing the orienteering …* [We] *did that for maths. So we, like, you'd have to work out equations to find … out the number which you had to go to on the map … It was a fun way of doing maths which I think a lot of people enjoyed'.*

- The **practical context for learning**: *'I really like stuff like history and that kind of stuff, and you can do it more easily with learning outside ... Because you can actually see, like, the areas of historical interest'.*
- The **physical activity** that comes with learning outside: *'I like the fact that it's* [LINE] *something different, so you're not just stuck in a classroom but you're doing something active'.* One child pointed out that *'you can't climb trees in class!'*
- The **fresh air**, often contrasted with a stuffy classroom: LINE means *'you don't have to be sat in a classroom which is stuffy … It's nicer* [outside] *because of the fresh air'.*
- **Engaging with nature**: It is *'fun when you are just sitting there doing a piece of work and you get this random bug on your clipboard … or a butterfly comes and lands on you … And it is just feels really special that we have got all the opportunity to do all this'.*
- **New experiences**: *'It was my first time going on Dartmoor and it was incredible … I actually went back with my family; we sat on a giant rock and had lunch. It was such a good school trip!'*
- The **opportunity to succeed**: Forest School *'makes us feel … good because sometimes we build our own bases … We're proud of it'.*
- **Sensory experiences**, such as: *'I enjoy running around and digging'*; *'We can get messy'*; *'I like all the sounds'.*
- **Taking responsibility** for living creatures such as chickens, bugs and sea creatures: *'I'm proud of myself because when we saw a crab lying on its side, we filled a bucket with water and put the crab back in the water. And it swam off!'*

Similarly, pupils often spoke of the *'freedom'* that they felt outside and which they interpreted in different ways:

- **For discussion**: *'I feel like we have more freedom because we get to discuss more about what we are learning about with each other'.*
- The **space to experiment**: *'You can do stuff that you can't do at home and in class.'*
- The **physical space**: *There is more room … It makes me feel like I am free'.*

Children also articulated the benefits they felt in terms of health and wellbeing, which they reported in terms of feeling *'happy', 'incredible'* and *'fantastic'* when they were working outside.

Pupils generally had to be prompted in interviews for negative views on LINE. Reasons for not enjoying LINE activities centred largely on inclement weather and/or irritants such as bugs and wasps, but sometimes related to the quality of work they were able to produce in rain on paper and clipboards: '*If you wrote in pen then it would smudge and you would be*

really disappointed because you might not be able to read it any more … And when we go out we take whiteboards and pens and the pens don't work'.

10.2 Was LINE inclusive?

There was no direct question about the inclusivity of LINE either in the surveys or the case-study interviews. Nonetheless staff interviewed often spoke first, of how all children could succeed outside and secondly, how LINE was particularly helpful to different groups of children. Teachers' views on the inclusivity of LINE centred around the following six themes:

- LINE allows **all pupils to learn**. A headteacher of a special school commented: *'The youngster that finds learning in the classroom hard, it* [LINE] *allows them to sort of learn practically, doesn't it? Learning by doing, experiential learning, whatever. And also it varies the diet, doesn't it? If actually you're not very good in the classroom, to have it shoved down your throat five days a week must be purgatory, I think'.*
- LINE was regarded as a ***'great leveller'***, bringing out the talents of some children who tended to struggle within the classroom, while high achievers found activities more difficult outside: *'I think there has been a levelling of self-esteem. Those children that are less academic have certainly been able to achieve … I can think of particular children that that has been a huge reward for … Some of the bookish ones have struggled, and that is no bad thing either… I want them to overcome their stumbling blocks in any unfamiliar environment'.*
- Teachers felt that LINE could **help anxious children** with their learning because they seemed to feel less pressure outside than in class: *'Some of the children who are struggling a bit in class, and you see them change when you come outside …* [They] *seem more relaxed outside for some reason. A lot of the children who are very anxious when they are asked to do a task in the classroom, ask them to do the same task outside but perhaps presented to them slightly differently, they seem more relaxed and more able to engage with it'.*
- LINE was seen to **support those with emotional needs** and **improve their ability to interact** with other children: *'There are a lot of emotional needs within the school and some of the children who aren't flourishing in the classroom when you get outside all of a sudden their behaviour is fabulous, the way they interact with their peers is good, their self-respect and the way they conduct themselves is improved'.*
- Teachers reported that LINE gave shy children **the courage to join in with their peers**. For example one primary school teacher commented on how a quiet group of children in Reception began to talk about their activities when outside, with one particularly reserved girl *'running around and joining in*'.
- LINE was seen to support **the development of all children's social skills**, generally because *'the children have more freedom to move, try new ideas and work with different classmates'.*

Pupils did not refer directly to the inclusivity of LINE, but their interviews were underpinned by a sense of inclusivity through frequent use of the words ‘we’ and ‘us’. Most interviewees spoke of joint activities and tasks when outside.

KEQ 11. Was any increase in demand for LINE sustained?

Project element and objective Brokerage: Stimulate demand for LINE activities in schools	**Assumption** LINE is an effective tool for teaching and learning and a sufficiently compelling case can be made to ensure practice will continue beyond the life of the project
KEQ 11. Was any increase in demand for LINE sustained? **11.1** Was demand for LINE increased? **11.2** Was any increase in demand sustained?	
Data sources School baseline survey, July 2014 school survey, July 2015 school surveys	

Key points
• Schools completing all three school surveys (N=25) increased and sustained demand for LINE in their:
  ○ Teacher and TA involvement in LINE
  ○ Staff and volunteer attendance at CPD
  ○ Engagement with LINE providers
  ○ Spend from the school budget
• Although these schools are not a representative sample of project schools, they demonstrate the sustainable nature of demand for LINE in schools that are committed to the practice of LINE.	

NOTES In this KEQ we look only at a subset of 25 schools that completed three school surveys (school baseline, July 2014 and July 2015 surveys) to understand the sustainability of demand for LINE in these schools over the project lifetime.	

11.1 Was demand for LINE increased?

We measured the overall change in demand for LINE over the course of the project in KEQs 1, 2 and 5. KEQ 1 and 2 examined different data sources to determine change in levels of:

- LINE activity in schools
- schools' estimate of time spent on LINE
- teacher and TA involvement with LINE
- staff and volunteer attendance at LINE-related CPD
- working with LINE providers
- schools' use of green spaces

and KEQ 5 discussed change in schools' investment in LINE in the additional terms of:

- including LINE in school documentation
- school budget spent on LINE
- structural changes to school grounds.

KEQ 6 discussed the areas of the curriculum for which LINE was used, and demonstrated that schools were regularly using LINE to deliver maths, English, science and physical education. Taken together, these KEQs showed an increase in demand for LINE activity in participating schools in all areas except for working with LINE providers, where overall demand remained relatively stable. The data also showed a decrease between the July 2014 school survey (n=29) and the July 2015 school survey (n=87) in the percentage of schools that spent school budget funding on LINE (from 76 to 64 per cent) and that made structural changes to school grounds (from 82 to 44 per cent).

11.2 Was any increase in demand for LINE sustained?

In this KEQ we examine the sustainability of demand for LINE in 25 schools (hereinafter the subset). We selected these schools because this was the full complement of schools that completed the baseline, July 2014 and July 2015 school surveys, and it was through measurement at three points across the project that any shifts in demand for LINE could be seen. We examined the three areas that were included in all three surveys: teacher and TA involvement in LINE; staff and volunteer attendance at LINE-related CPD, and engagement with LINE providers. We also included information on school budgetary spend from 2014 and 2015, to illustrate sustainability in this area. We did not include the other areas of demand for LINE in this KEQ because they drew on different data sources such as the activity logs (which recorded time spent on LINE), or because they were only measured at the beginning and the end of the project to capture levels of change (e.g. school documentation) or in July 2014 and July 2015 (e.g. structural change to school grounds). We provide context for these findings from the subset by showing the results from both the subset and from schools across the project.

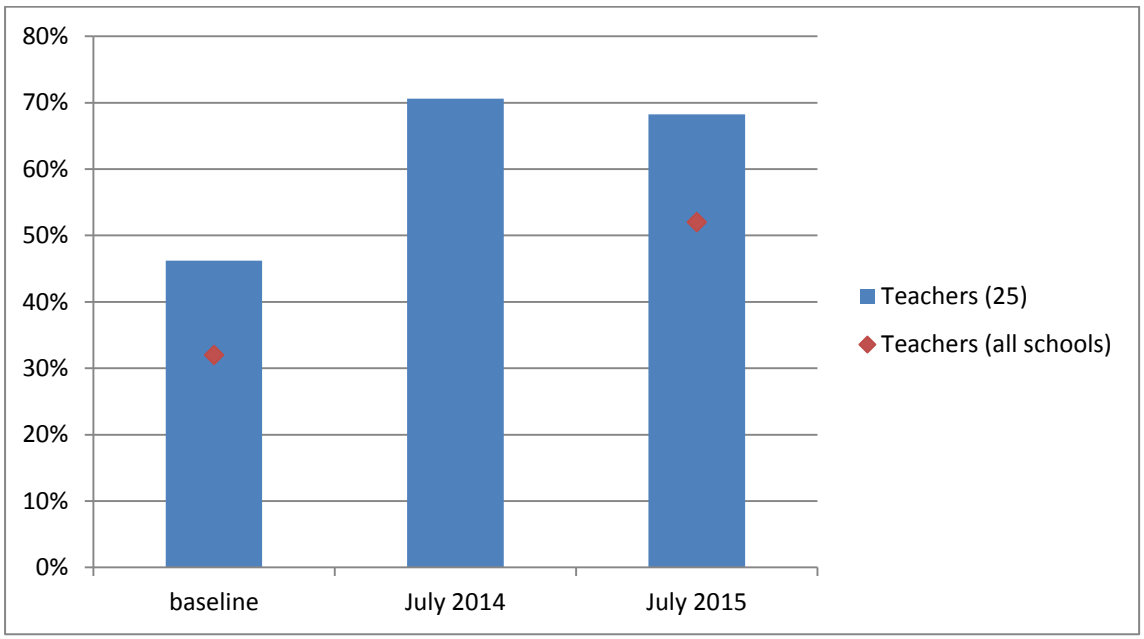
Plymouth schools provided around half of the sample (12), with the remainder drawn unevenly from the other four hubs as follows: Bristol n=2, Cornwall n=5, North Somerset n=2, Torbay n=4. Nineteen of the 25 were beacon schools and six were cluster schools; 21 were from the primary sector, two from the secondary, and two were special schools. The schools were engaged with the project from between 16 and 27 months, measured from the time that they completed the baseline survey, which the first completed in April 2013 and the last in March 2014. Nine of the 25 schools hosted case-study visits from the research team.

The findings illustrate the sustainability of the demand for LINE in these schools during this time, but are not generalisable across the project; although the schools are from the five hubs and the three school sectors, they are not a representative sample of participating project schools.

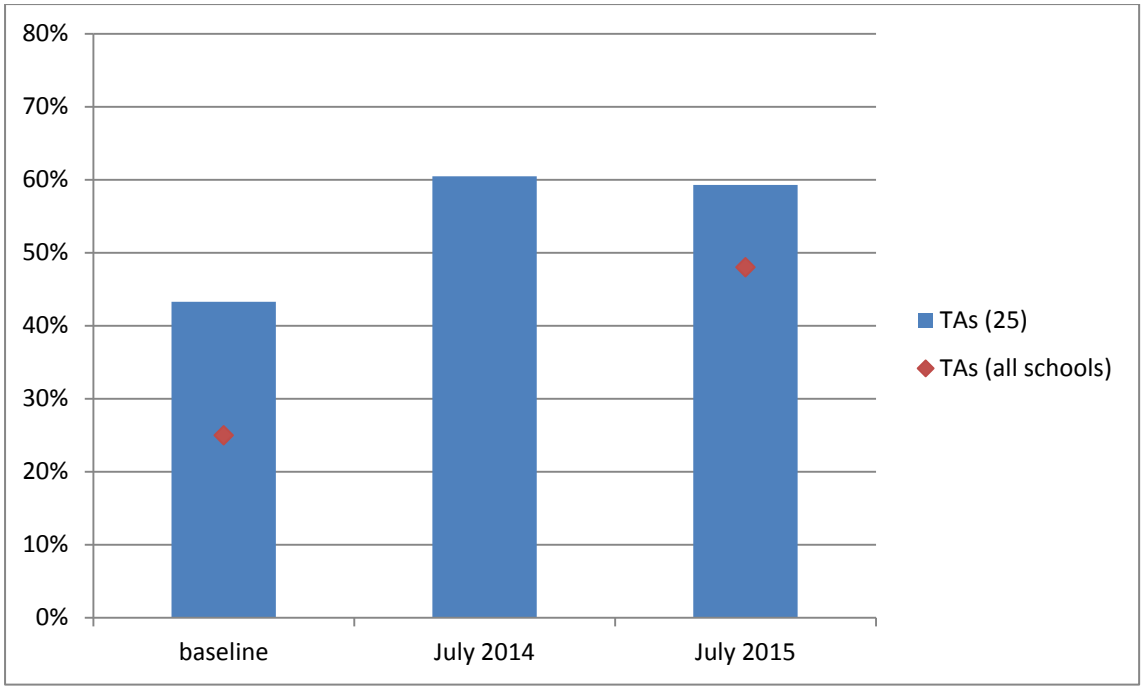
- **Teacher and TA involvement with LINE**

Figure 11.1 below provides the data on the percentage of teachers involved in LINE that schools reported in the school baseline, July 2014 and July 2015 surveys. Tests showed this was a statistically significant increase (p-value<0.001) from 46 to 68 per cent across the project. The subset reported initial higher levels of teacher involvement in LINE (46 per cent) than all schools (32 per cent). This then rose in the July 2014 school survey to 71 per cent and stayed at a similar level in the July 2015 school survey (68 per cent), showing a sustained increase from the baseline survey in teacher involvement with LINE.

Figure 11.2 shows schools' reported percentage of TAs involved in LINE, drawing on data from the school baseline, July 2014 and July 2015 surveys, and illustrates the statistically significant increase in TA involvement (p-value<0.001), this time from 43 to 59 per cent across the project. The subset schools' percentage of 43 per cent of TAs involved in LINE from the baseline increased to 60 per cent in July 2014 and maintained a similar level (59 per cent) in July 2015. Once again this shows a sustained increase in the level of demand, this time for TA involvement with LINE.



Subset n=25: Bristol n=2, Cornwall n=5, North Somerset n=2, Plymouth n=12, Torbay n=4
All schools:
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 11.1: Percentage of teachers involved in LINE



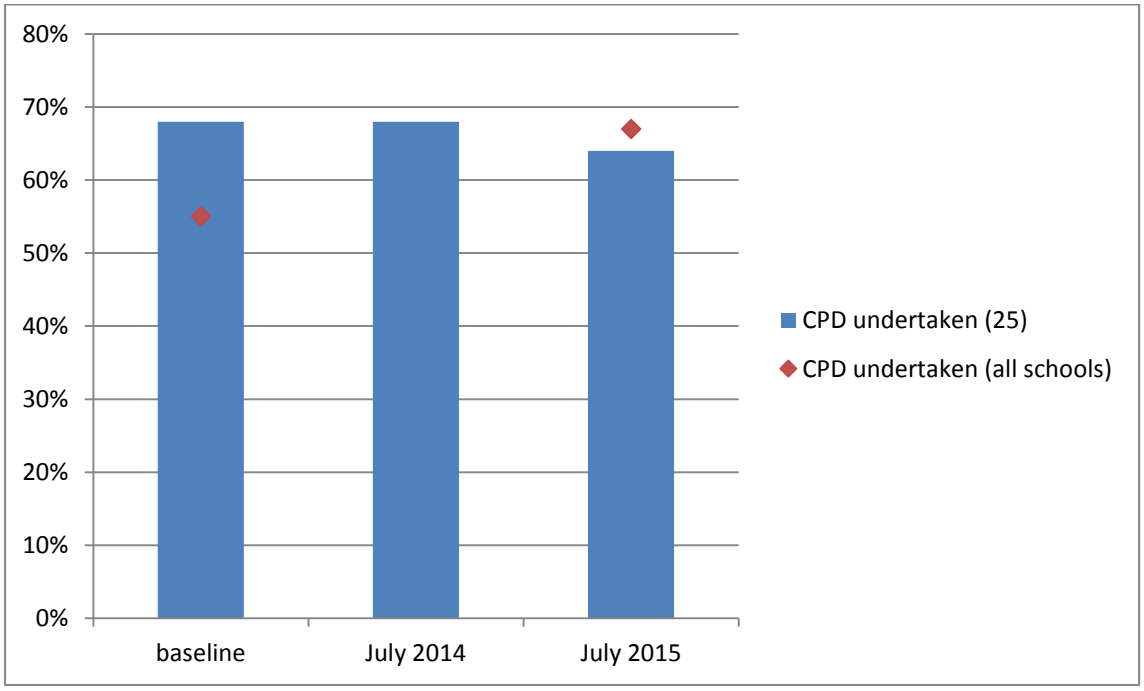
Subset n=25: Bristol n=2, Cornwall n=5, North Somerset n=2, Plymouth n=12, Torbay n=4
All schools:
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 11.2: Percentage of TAs involved in LINE (25 schools and all schools)

The subset schools' higher overall percentages of teacher and TA involvement in LINE may be explained by the high number of beacon schools (19) in the sample; these schools were selected by hub leaders as committed to LINE practice and willing to engage with its further development, and would therefore be expected to have higher levels of staff engagement with LINE. However the notable point is that the initial increase in demand for teacher and TA involvement in LINE remained stable over the next year. This suggests first, that LINE practice became embedded in these schools' everyday life; if the majority of teachers and TAs were involved with LINE in any one school, there is a strong likelihood that the school culture shifted towards one in which LINE became part of 'what they do'. When taken with the increase in LINE activity across the project (see KEQ 1 and 2), it also suggests that, after an initial increase in demand for teacher and TA involvement in LINE, that teachers in schools spent time consolidating their knowledge, building up practical experience in LINE and supporting those who had just begun to teach outside.

- **Staff and volunteer attendance at LINE-related CPD**

Figure 11.3 below shows that CPD activity in the subset schools stayed relatively constant during the project lifetime, with 68 per cent of schools with staff and/or volunteers reported as attending CPD in the baseline and 2014 surveys, and 64 per cent in July 2015. This can be compared to the statistically significant rise (p-value=0.05) in CPD attendance from 55 to 67 per cent across the project. This shows how these LINE-engaged schools continued to invest in CPD.

Once again this shows a sustained demand for LINE-related CPD in the subset schools. When taken with the findings above, the continued demand for CPD suggests that these schools continued to invest in development and training for staff to improve knowledge, understanding and quality of LINE practice across the school.

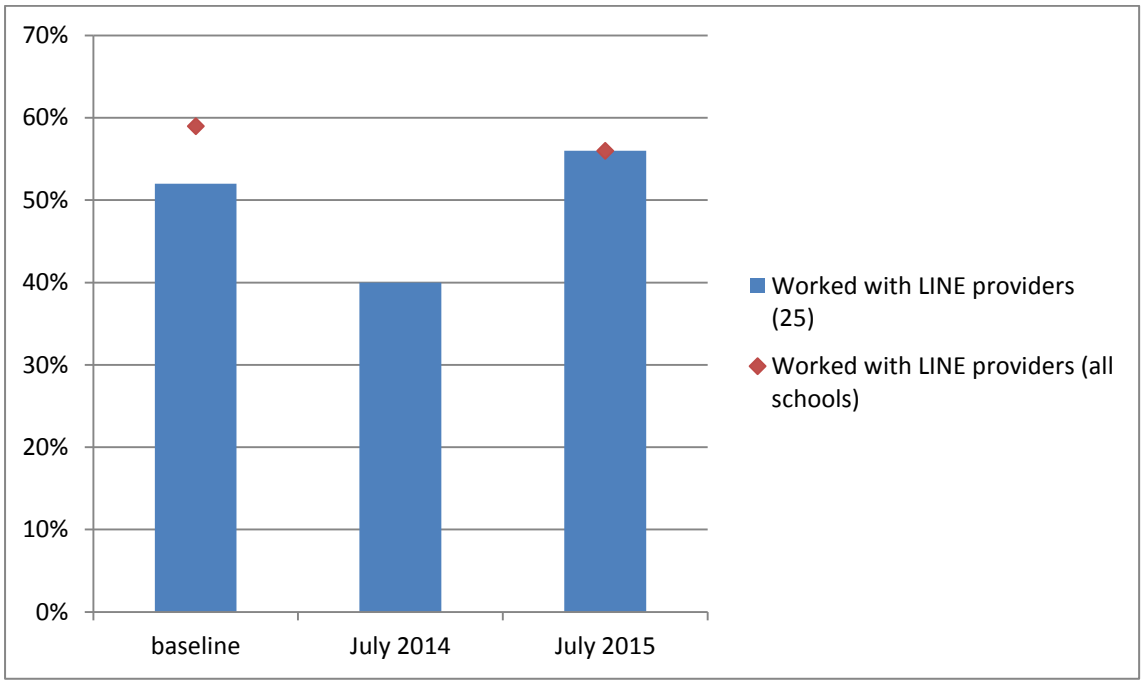


Subset n=25: Bristol n=2, Cornwall n=5, North Somerset n=2, Plymouth n=12, Torbay n=4
All schools:
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18.

Figure 11.3: Teacher, TA and volunteer attendance at LINE-related CPD

- **Working with LINE providers**

Figure 11.4 below shows the percentage of schools that reported working with LINE providers. The subset of 25 schools showed variable levels of working with LINE providers, starting at 52 per cent in the baseline survey, decreasing to 40 per cent in 2014 and then increasing to above their baseline level to 56 per cent in 2015.



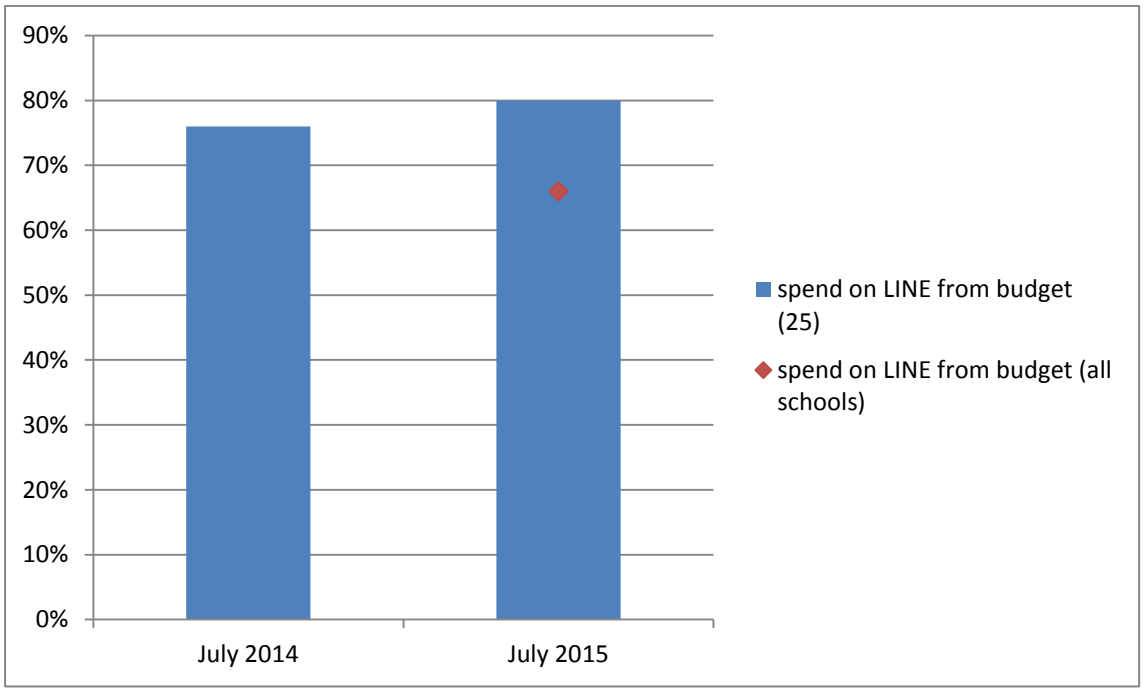
Subset n=25: Bristol n=2, Cornwall n=5, North Somerset n=2, Plymouth n=12, Torbay n=4
All schools:
Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18.
Figure 11.4: Percentage of schools working with LINE providers

The pattern from the subset schools, which contrasts with the slight decrease in schools working with LINE providers across the project, provides an illustration of the nuances within these overall figures; some schools developed an ongoing relationship with one or two LINE providers and continued to employ them either intermittently or regularly to support them in developing their school grounds and/or different areas of curricular work, while others may have recruited LINE providers such as story-tellers or bushcraft specialists for a particular occasion, and had no further contact. The sustainability of demand for LINE providers in the subset schools suggests that they may have built longer-term relationships with particular providers; interviewees from one subset case-study school recounted how they aimed to develop mutually beneficial relationships with external providers rather than commissioning and paying for services on a case-by-case basis.

- **Budget funds spent on LINE**

Figure 11.5 below shows the percentage of schools that reported spending their budget funds on LINE. It shows an increase in the percentage of subset schools that spent budget funds on LINE from 76 to 80 per cent between the July 2014 and July 2015 school surveys, a figure higher than the 64 per cent of all participating schools.

The continued spend from the core school budget demonstrates that these schools continued to value LINE and therefore invested in its delivery during the time they were involved with the project.



Subset n=25: Bristol n=2, Cornwall n=5, North Somerset n=2, Plymouth n=12, Torbay n=4
All schools:
July 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18.
Figure 11.5: Percentage of schools spending budget funds on LINE

- **Summary**

The subset of 25 schools that completed all three surveys showed a sustained overall rise in their demand for LINE through their teacher and TA involvement, CPD attendance, their engagement with LINE providers and their budget spend on LINE. They showed high levels of commitment to LINE, through these measures, through their effort in returning all three school surveys and through the number that agreed to case-study visits. While they may not be representative of all project schools, they demonstrate that in schools that are committed to the practice of LINE in their everyday work demand for LINE can remain sustained and ongoing.

KEQ 12. Was LINE activity embedded into school practice?

Project element and objective Brokerage: Stimulate demand for LINE activities in schools	**Assumption** LINE is an effective tool for teaching and learning, and a sufficiently compelling case can be made to ensure practice will continue beyond the life of the project
KEQ 12. Was LINE activity embedded into school practice? **12.1** What happened to levels of LINE activity within the project? **12.2** What did hub leaders report on the ways that schools had been embedding LINE into their policy and practice? **12.3** How did case-study schools embed LINE?	
Data sources School baseline survey, May 2015 activity survey, June 2014 activity log, July 2015 school survey, hub leader interviews, school case studies	

Key points
• Schools reported increased levels of LINE activity across the project.
• There was a statistically significant increase in the proportion of schools that included LINE in their SDP or had a LINE policy (p-value<0.01).
• Hub leaders reported three key ways of embedding LINE within the curriculum:
  ○ Starting small, allowing teachers to engage philosophically, emotionally and practically with LINE
  ○ Ensuring that the LINE lead had the *'agency and influence'* to make changes within the school
  ○ Mapping LINE onto other initiatives.
• Some case-study school interviewees spoke of the ways in which they had embedded LINE into school practice, which included taking time, creating and demonstrating success, and ensuring staff had training.	

12.1 What happened to levels of LINE activity within the project?

In KEQ 1 and 2 we examined schools' reported levels of LINE activity, focusing on three types of activity (curricular, after-school and lunch-time) and the time spent on LINE. We found that the percentage of schools indicating curricular LINE activity increased across the project from 91 to 100 per cent during the project lifetime, while after-school and lunch time activity increased from 69 to 82 per cent. Levels of community and weekend activity remained relatively stable at 31 and 30 per cent. Seven per cent of respondents (nine schools) undertook no LINE activity at the time of the baseline survey, and there was a statistically significant decrease in the proportion of schools that were not engaged with any LINE activities (p-value<0.001) in the July 2015 school survey. This is shown below in Figure 12.1.

Figure 12.2 shows schools' reported estimates of time spent on LINE activity, per week, per class. The termly increases across the two surveys (baseline and May 2015 activity survey) were from 31 minutes to 52 minutes in the autumn term; from 34 to 55 minutes in the spring term; and from 43 to 72 minutes in the summer term. All terms show an increase of over 60 per cent between the baseline and May 2015 surveys.

It should be noted that the figures are schools' estimates of time spent on LINE; see KEQ 1 and 2 for the figure calculations.

Baseline n=121, May 2015 activity survey n=44

Figure 12.1: Percentage of project schools that reported types of LINE activity

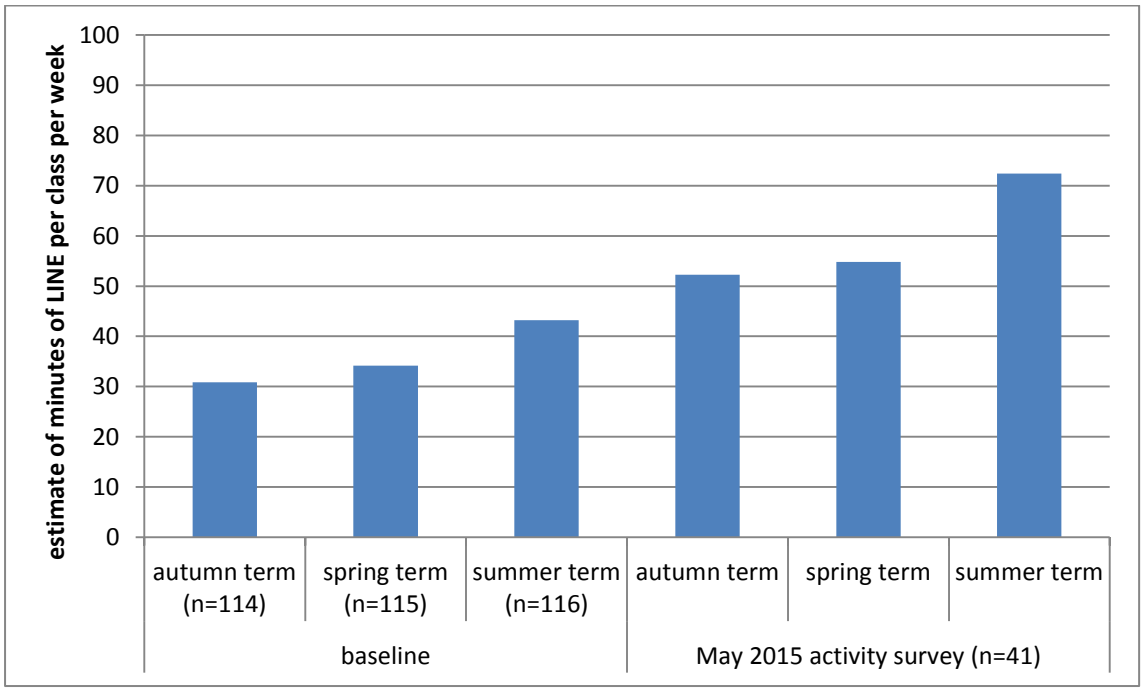
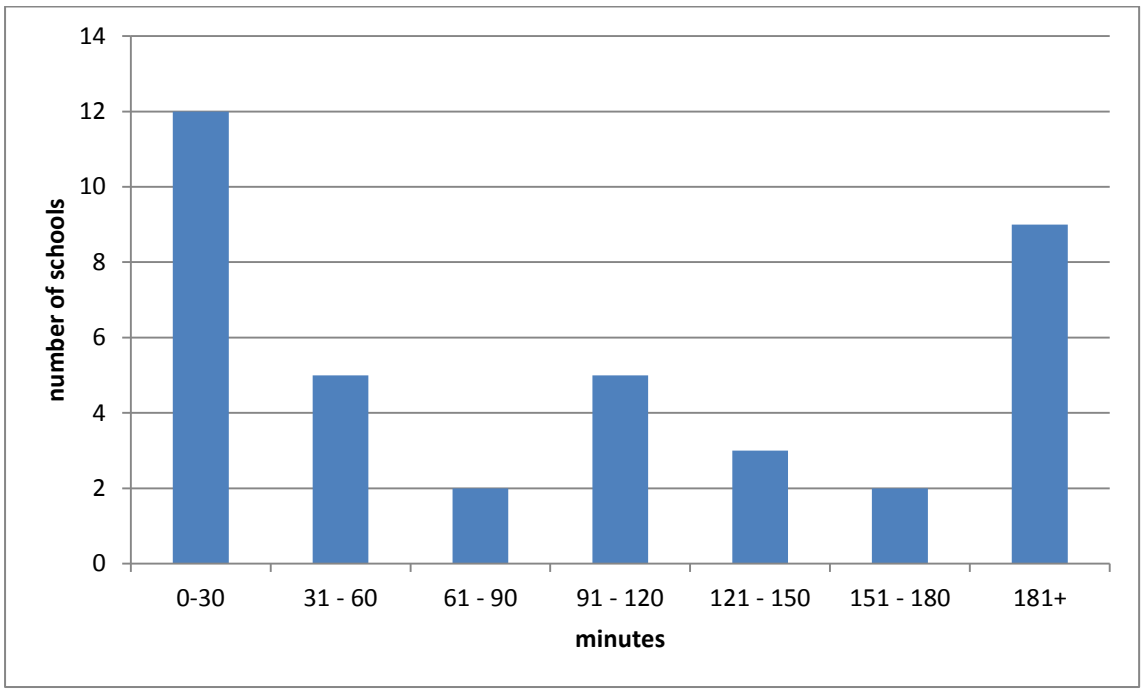


Figure 12.2: Schools' estimates of minutes of school LINE activity (per week per class)

The overall increase in levels of LINE activity and in particular curricular activity (see Figure 12.1 above) shows that project schools were increasingly valuing LINE for its contribution to children's learning. Nonetheless individual children's experiences varied within and between year groups in schools, and between schools, illustrated in Figure 12.3 below.



June 2014 activity log: n=38 schools. Bristol n=4, Cornwall n=6, North Somerset n=8, Plymouth n=14, Torbay n=6

Figure 12.3: Average minutes of school LINE activity (per class, per week) in schools that responded to June 2014 activity log

This wide variation in experience within the overall increase in project schools' LINE activities highlights the importance of the qualitative data in discovering the ways in which schools embedded LINE into their practice.

Confirmation of raised levels of LINE activity can be seen by the inclusion of LINE in school planning and policy documents. Table 12.1 below shows anincrease in the proportion of schools that included LINE in their planning and policy documentation between the baseline and July 2015 school surveys. Tests showed this was statistically significant (p-value<0.01). The presence of LINE in schools' planning documents was important because it meant that LINE had the headteacher's support and was therefore becoming embedded at a strategic level. Policy documents were important at a practical and school development level for school staff; while there was no template to such a document, they tended to show school expectations (such as teaching outside every week), curriculum links and ideas for teaching outside, thereby providing a framework for staff to engage with LINE. See KEQ 5 for further discussion of school documentation.

Table 12.1: Schools with LINE in school planning and policy documents

Schools' with LINE documentation	Baseline survey (n=121 schools)	July 2015 school survey (n=87 schools)
Either LINE included in SDP *or* LINE policy	60% (72)	75% (65)
LINE included in SDP	45% (54)	60% (52)
LINE policy	34% (41)	40% (35)
Both LINE included in SDP *and* LINE policy	19% (23)	25% (22)

In the next section we examine the ways in which hub leaders reported on LINE embeddedness in project schools, and in the final section we demonstrate the ways in which case-study schools were embedding LINE within everyday practice.

12.2 What did hub leaders report on the way that schools had been embedding LINE in their policy and practice?

In this section we draw on hub leader interview data to illustrate each of their views on how different schools embedded LINE during the lifetime of the project. All hub leaders saw this process as 'work in progress' over a prolonged period rather than something that could be achieved within the relatively short timeframe of the Natural Connections project.

Bristol

Bristol hub leaders believed that beacon schools already undertook *'a reasonable amount'* of activity when they joined the project, and that increasing levels of LINE embeddedness was a *'drip, drip process'* that involved changing minds gradually. Hub leaders reported that the first year of the project was about *'changing hearts and minds'*, which involved identifying existing practice, assessing grounds and looking at curriculum maps; the aim was to allow teachers the time to adapt their practice as they came to understand how LINE could benefit both their pupils and themselves rather than raise levels of activity to any great degree. Increased activity at this time was generally focused around development projects such as redesigning school grounds into functional areas for learning outside. Hub leaders felt that the beacon schools were engaging more on a *'philosophical'* than *'practical'* level with LINE at this stage, with LINE leads in beacon schools increasing their own levels of LINE activity in order to arrive at a language that would engage both colleagues and pupils. Further LINE development, hub leaders argued, would depend on subsequent school planning.

By July 2014 (half-way through the project) Bristol hub leaders felt they could see more engagement, both quantitatively – with schools spending more on LINE, which signified headteacher approval and probably inclusion in the SDP – and qualitatively, signified by a *'common language'* around LINE. However by the end of 2014, hub leaders were reporting that the local drive to improve maths at that time was leaving less time for other initiatives.

In March 2015, hub leaders reported that most beacon schools *'have very much taken on board the idea … of LINE being something that is taken on as a whole school … and that isn't just one person's responsibility'.* Hub leaders were supporting a range of schools in a variety of ways that were not necessarily connected to Natural Connections at that time, and reported that the approach in beacon schools was becoming *'more coherent',* with LINE practice *'woven through the curriculum'* and included in school planning. However hub leaders reported that in cluster schools the process was largely driven by one person, which was making it harder to embed LINE into the school's everyday practice.

At the time of their final interview in November 2015, hub leaders reported that beacon school staff were confident in LINE and regularly running CPD sessions in network meetings: *'in the last six to nine months the beacons have really taken a bit more ownership'.* In addition some cluster schools were reported as being *'as keen as beacons'* about LINE, although this many still relied on individuals to drive interest in the school. However, despite these high levels of engagement with LINE, two schools had disengaged from the project which hub leaders attributed to changes in senior staff, commenting that *'changes in people and circumstances can hugely affect culture* [in schools]'.

Cornwall

Cornwall hub leaders reported shortly after recruiting their beacon schools that they were *'all doing good things'*, with *'clear evidence of school grounds being used frequently'* in most schools, but that the levels of LINE activity were nonetheless inconsistent. At the end of 2013 they reported that beacon schools were putting a *'new and specific focus'* on ways in which they could develop and extend the LINE work they were undertaking within their own schools, and that this was *'helping to energise staff and bring more on board t*o *LINE'.*

Throughout 2014 hub leaders reported on the ways that different schools were embedding LINE in their own policy and practice, although the introduction of the new national curriculum was proving to be time-consuming for the high proportion of small schools in Cornwall. One commented that: '[it is] *a devil of a thing to bring into small schools'*; the new curriculum was designed for single year-group classes and *'more than half'* of Cornish schools had mixed-aged classes. Nonetheless hub leaders reported that some beacon schools were making good progress at embedding LINE within their own schools, and that three in particular had *'thrown themselves into the principle that the classroom is not bounded by walls'*; in July they reported that LINE work was *'gathering momentum'.* The main difficulty for the beacon schools was reported as finding the resources to support cluster schools, partly because of the distances (and therefore time) involved in setting up meetings, and partly because of the need to develop LINE leads' confidence in outreach work.

Nonetheless by the time of their exit interview in November 2015, hub leaders reported that LINE was becoming embedded across the curriculum for all ages and abilities in all project schools; that LINE was becoming *'increasingly … integrated into programmes of learning*

and not being delivered as isolated episodes without connection to the wider learning agenda'. They argued that Cornwall project schools had been *'particularly successful'* in planning LINE so that the experience *'feeds, supports and illuminates learning in the classroom'.*

North Somerset

At the start of project, North Somerset hub leaders reported that there was little coherent LINE activity in the area: *'I get the sense that there are a lot of schools out there that are sort of dabbling, sort of testing the water a bit, dipping their toe in'.* Engaging schools with the project was relatively slow in this hub (see KEQ 3), and in July 2014 the hub leader reported that in a number of schools the senior leadership had limited commitment to developing LINE, and that a number of LINE leads within beacon schools *'felt quite isolated'*. By the end of the year, the hub leader reported that project schools were split into two camps; those that took learning outside *'but it doesn't vary in style or approach much to indoors'* and those that believed LINE offered a different, and welcomed, style of learning. The hub leader commented that LINE was *'a long way'* from being integrated into daily practice in *'most schools'.*

However by March 2015 hub leaders felt that LINE was *'happening in more places'* with some *'spikes in activity'* in particular schools. These schools were at the stage of *'building confidence and making LINE activity regular'* rather than *'moving forward to a new way of teaching'.* The hub leader also reported that his conversations with schools suggested that the project had been successful in raising awareness of LINE and moving it up schools' agenda.

By the time of the exit interview schools in the North Somerset hub were reported as varying in LINE practice. One group of schools was felt to be active and this engagement with LINE stemmed from enthusiastic and supportive headteachers. Others were beginning to build confidence and in one school *'staff were seeing* [LINE] *as more of an option'* after a 'wild week' in school to stimulate activity. A number of others however were described as having lost momentum. The hub leader felt that *'We did retain them but … maybe more in a more theoretical light than an actual practical light. They were there filling out the odd bit of evaluation … but they weren't very active'.*

Plymouth

Plymouth hub leaders reported at the start of the project that LINE was well-established in some of their beacon schools, and that they were *'quite surprised by the enthusiasm that we got in reacting to this project. So there was some definite head of steam to begin with'.* LINE practice across the hub, however, was seen as generally inconsistent. During 2013 the notable initiatives were around grounds development, supported by an agreement the hub leaders made with the Devon Wildlife Trust, who offered *'realisable and practical solutions'* to greenspace issues, particularly where schools had a large outdoor area and *'might be overawed by the possibilities'.* Hub leaders commented that schools needed somewhere

'structurally sound' in which they could learn to take risks and build confidence before expanding LINE more widely into their practice.

In 2014 the hub leaders reported *'pockets of good practice'*, but also that they had underestimated the challenges to embedding LINE across schools; these included competition with attainment-focused initiatives, management issues, isolated LINE leads, the process of academisation, staff turnover, and the uncertainty felt by staff when schools changed headteacher. Nonetheless hub leaders felt that they were *'at the gateway'* of translating *'enthusiasm into action'*; they believed that staff networking with like-minded people across the hub was giving them confidence to engage more fully with LINE. Hub leaders reiterated the point that people were involved in the project *'because they are convinced it's the right way to deliver effective education'* and that the hub leaders' task was to support these people in embedding LINE into the curriculum and *'shift the culture'* within schools. In July hub leaders reported high levels of LINE activity through project schools, including some schools providing formal CPD for others, and in December they reported *'a sense of broadening curriculum coverage of the use of LINE'.*

At the time of their exit interview in March 2015, hub leaders reported that one third of project schools were highly engaged with LINE and had embedded practice, one-third were less engaged but active to a greater or lesser degree, and that one third had little involvement with LINE. The reasons behind this disengagement were seen as stemming either from different priorities – for example when schools underperformed they were often under pressure to implement a *'short-term crash'* on maths and English that precluded LINE – or because of a lack of capacity to lead LINE sessions and/or senior teachers emphasising other initiatives.

Torbay

Hub leaders the Real Ideas Organisation (RIO) were highly enthusiastic at the start of the project about four schools that they regarded as having a strategic approach to LINE. Their focus in the early stages of the project was to work with these schools to find different ways of embedding LINE into their policies and practice according to their circumstances and priorities. The RIO model was to engage other schools through the LifeLINE CPD network set up by RIO for the Natural Connections project, and then to work with potential beacon schools individually to support them in embedding LINE.

Early in 2014 hub leaders reported *'loads'* of LINE taking place in the hub, evidenced by the *'lively discussion'* and information-sharing at the most recent LifeLINE meeting. They continued to be *'impressed'* with the way Torbay schools were *'embracing'* LINE, and reported that the project was encouraging teachers to share their work with other schools in a way that was new to the area. In September hub leaders commented that the seven beacon schools were *'very advanced'* with their LINE activity, with most following the model of a Forest School leader taking much of the responsibility for outdoor learning; this meant that class teachers needed to tie their work in with the Forest School planning. At the time of

their exit interview, RIO reported that their beacon schools had embedded LINE successfully into their practice, but that the cluster schools were at the stage of engaging with LINE and had not yet *'transformed'* their practice. This may reflect RIO's initial reliance on one member of staff to deliver school CPD in the hub, rather than building expertise through school collaboration.

Mel Easter, the second Torbay hub leader appointed at the end of 2014, focused on developing new strategic links between schools, successfully engaging with established networks within the hub through her contacts and expertise. She reported that a project success was *'the commitment and the passion that is within Torbay. And that people have held it up as it does make a real difference'*; that the *'building blocks'* for increased levels of LINE activity had already been established when she took over the role.

Successful approaches to embedding LINE

Taken together, hub leaders reported that an important step towards embedding LINE was often to ensure that the school grounds provided a safe and functional area for LINE activity; grounds development had the effect of raising awareness of LINE throughout the school and *'giving permission'* to teachers to take their lessons outside. However, as one hub leader pointed out, this was not sufficient to embed LINE across the school; *'the easy bit is the resources, the hard bit is the teaching and learning!'*

Across the project, hub leaders were agreed on three key methods of embedding LINE activities within schools:

- **Starting small**, allowing teachers time to engage philosophically, emotionally and practically with LINE activities. As one hub leader commented: *'Schools have found that staff need time to see for themselves the benefit of LINE and to integrate it into their practice. This cannot be rushed. In many schools it needed at least a year to bring all on board … Rush it and you lose it'.*
- **Ensuring the LINE lead has the *'agency and influence'* to make changes within the school.** Hub leaders agreed that the role of the LINE lead, in which s/he needed to build staff enthusiasm for LINE, disseminate ideas and support LINE practice, was critical in building LINE momentum within schools. Equally, however, s/he needed to be able to build a LINE team as levels of practice increased to ensure the responsibility did not rest with one person.
- **Mapping LINE onto other initiative(s).** By integrating LINE into other initiatives – such as the Healthy Schools award or Active Mark, and curricular initiatives such as 'Heritage Schools' or 'Space to Write' – schools were able to engage in a purposeful way with LINE that reached across different aims. Another approach was to invest in technology (such as tablets) that could be used both inside and outside, offering flexibility in lesson delivery.

12.3 How did case-study schools embed LINE?

Researchers visited the 24 case-study schools during the period November 2013 - September 2015, and found that they were at differing levels of engagement with LINE; some had recently joined the project at the time of the visit while other had been engaged with LINE over a number of years and had joined the project as a means to develop their LINE practice further. This meant that LINE was embedded in varying degrees in these schools. Interviewees in a substantial minority of schools spoke of their intention to embed LINE after their initial activities, while others were more confident that first, LINE was embedded within the school and secondly, that they could articulate ways in which this had been achieved. One interviewee expressed the view of a number of teachers when she said that the: *'process of embedding something* [LINE] *which is really quite radically different to what … the normal* [teaching] *practice is, is obviously the key … development issue in terms of LINE'* and, as we show above, the process is not necessarily straightforward. However case-study schools told us about ways in which they had embedded LINE that expand largely on the hub leaders' point about 'starting small':

- **Recognise that it will take time and effort** to embed LINE successfully in any school, and use different approaches to involve staff:
    - Hold a whole-day event such as a 'Big Dig Day' to include members of the local community, showcase the type of work that can be done outside and encourage greater LINE participation.
    - Have regular LINE days such as 'Welly Wednesday', 'Wild Weeks,' 'Fab Friday' or 'Empty Classroom Day'. One school introduced a regular electricity-free day to encourage staff to go outside.
    - Use a theme, such as a day at the beach, to inform work across the curriculum for the next few weeks.
    - Integrate LINE with topics and awards such as healthy living and the Healthy Schools Award.
    - Provide LINE experiences through regular enrichment activities during teachers' planning, preparation and assessment (PPA) time.
- **Take time**, starting with areas in which teachers *'feel safe'*, and then expand: *'a gradualist approach is always a good one in terms of embedding* [LINE]*'.*
- **Identify areas that lend themselves to LINE** and work closely with teachers and/or departments to support LINE practice. Interviewees from several schools spoke of targeting maths as a suitable area through maths trails, orienteering and different types of construction (such as tarpaulin roofing), illustrating how LINE can be used to address school priorities.
- **Create success** by ensuring that teachers are equipped and confident in what they are aiming to achieve from the LINE activity. Showing any success through using case studies *'is a good way of being able to embed and progress it further with other departments who may be more reluctant or not quite able to see where the potential and possibilities are'*.

- **Include LINE into structural processes**, such as teacher observations and/or planning, for instance giving teachers a target number of hours to be outside.
- **Give staff training** to build confidence, understanding and expertise. Interviewees commented on the value of hub network meetings where they could meet *'like-minded people'.*
- **Have a child-centred teaching and learning culture in the school**. One school in which the teaching culture was child-led found that children wanted to go outside more during their lessons, and joining the Natural Connections project was seen as an opportunity to develop more fulfilling LINE experiences for children's learning. Another school involved the pupils in all stages of developing a newly-purchased field and increasing the amount of LINE activity. Interviewees in these schools made the point that pupils wanted to spend more time outside, and teachers responded to this demand.

KEQ 13. Did LINE activities improve the school's relationships with the community?

Project element and objective	**Assumption**
Brokerage: Stimulate demand for LINE activities in schools	LINE is an effective tool for teaching and learning, and a sufficiently compelling case can be made to ensure practice will continue beyond the life of the project
KEQ 13. Did LINE activities improve the school's relationships with the community? **13.1** What evidence was available that LINE contributed toward engagements between schools and the local/wider community? **13.2** What types of LINE activities brought schools and communities together? At what community level were relationships developed?	
Data sources Press cuttings for Natural Connections case study schools (collated through internet searches) with reference to LINE, central team instruments, hub leader interviews, school case studies	
Key points • There was evidence from promotional materials and interviews that LINE often played a key part in enhancing relations between schools and the wider community. • The nature of school/community engagements was broad, ranging from volunteer recruitment to collaborative funding bids. • Some schools aspired to be *the* hub for their communities.	
NOTES Media references were taken from case-study schools only, all of which have agreed to publication of their identity.	

13.1 What evidence was available that LINE contributed toward engagements between schools and the local/wider community?

Media articles were collected by internet searches for the 24 case-study schools that had agreed to publication of their identity; 23 local newspaper articles were recorded along with a number of national organisation features and magazines. The majority of the local articles focused on Natural Connections, while some articles emphasised school activities such as caring for animals.

School coverage in local media over the project period covered a number of areas, in which LINE featured either as a stand-alone item or as one of several issues being covered in one report. Community relationships benefiting from LINE were evident from a number of media articles and school newsletters, shown below. We include URL addresses to the media sources:

- To engage parents in their children's learning:
    - *Bristol Post* article – as part of a Heritage Schools project, children used overlooked local outdoor green spaces to learn about history (http://www.bristolpost.co.uk/Unearthing-untold-stories-history/story-22930346-detail/story.html).
    - *Cornish Guardian* article – BBC presenter and Natural Connections ambassador, Professor Iain Stewart, gave Year 6 pupils at one case study school a Geology lesson (http://www.cornishguardian.co.uk/TV-star-s-geology-lesson/story-20227144-detail/story.html).
    - *Plymouth Herald* article - a school sleep-over was organised for Year 6 pupils based around their curriculum topic of 'Identity', with students having the chance to be criminal investigators for a night (http://www.plymouthherald.co.uk/School-sleep-ndash-twist/story-23083358-detail/story.html).

- To recruit volunteers (from parents and others) for both practical work and curriculum support. Calls for volunteers appeared to be based on both personal or professional expertise, and also purely to increase child: adult ratios for activities and visits:
    - *Torquay Herald Express* article – school children contributed toward community volunteering project maintaining local railway station flower gardens (http://www.torquayheraldexpress.co.uk/United-bid-ensure-station-bloom/story-22102017-detail/story.html).
    - Sherwell Valley Primary, Torbay, school newsletter – 'Last weekend several parents kindly gave up their Saturday to undertake various outdoor projects around the school, with the aim of making the grounds a more exciting place for the children to play and learn. Thanks to Friends of Sherwell Valley for their help and support, we achieved far more than we had hoped for'.

- To develop relationships with local businesses both for the benefit of good neighbourly relations and for funding / donations
    - *Plymouth Herald* article – children planted wildflower plug plants in a meadow as part of the Plymouth 'Buzzing' project (http://www.plymouthherald.co.uk/Community-planting-Plymouth-meadow-help-reverse/story-20832722-detail/story.html).
    - *Bristol Post* article – children from one case study school contributed to the building of a willow whale by a local design and construction company in order to raise awareness of the impact of plastics in the sea (http://www.bristolpost.co.uk/beautiful-pictures-giant-whale-swim-Bristol/story-26827767-detail/story.html).
    - *Plymouth Herald* article – primary school children helped the creator and owner of Janner Jam launch her product in partnership with Natural Connections (http://www.plymouthherald.co.uk/Devon-jam-making-firm-helping-youngsters-learn/story-23034400-detail/story.html).

- *Cornish Guardian* article – secondary students grew crops for the town's food bank after taking over an allotment plot, as part of their Citizenship curriculum (http://www.cornishguardian.co.uk/Students-Callington-Community-College-growing/story-21287446-detail/story.html).

- To show how funding was needed or had been used to enhance facilities at the school, some of which would be used for greater community engagement:
  - Victoria Park Primary, Bristol, school newsletter - 'Big plans are afoot to redevelop our outdoor classroom into an exciting new space for learning about nature and the environment, with a variety of different habitats for wildlife including a pond. To raise money for this, we will be holding a sponsored nature trail in the park'.
  - *Torquay Herald Express* article – a school established a wildlife café for staff, students and the general public (http://www.torquayheraldexpress.co.uk/New-wildlife-cafe-open-soon-Torquay-school/story-22762508-detail/story.html).
  - *Wiltshire Times* article – Wessex Water donated money to a primary school to help build a pond dipping platform for a pond in the school's wild meadow area (http://www.wiltshiretimes.co.uk/news/11820141.Award_is_bringing_nature_home_to_Chippenham/).

- As a marketing tool to showcase the school and demonstrate why it was a good choice for local children
  - *Plymouth Herald* article – a school was featured in an article about Plymouth City Council's Stepping Stones to Nature project, in which children contributed towards an ecological survey and undertook woodland activities (http://www.plymouthherald.co.uk/Woodland-s-education-pupils/story-20024663-detail/story.html).
  - *Wiltshire Times* article - pupils spent a day at Help for Heroes Recovery Centre at Tedworth House, in Tidworth, as part of their outdoor woodland curriculum http://www.wiltshiretimes.co.uk/news/11820141.Award_is_bringing_nature_home_to_Chippenham/)
  - *Plymouth Herald* article – children from a marine academy illustrated the school theme by participating in a coastal bioblitz event (http://www.plymouthherald.co.uk/Pupils-wild-BioBlitz-event/story-22958982-detail/story.html).
  - *Plymouth Herald* article – a Silver Eco School prize was presented to a primary school in recognition of its work on reducing waste and landfill, increasing biodiversity, recycling and composting (http://www.plymouthherald.co.uk/Plymouth-primary-school-scoops-eco-award/story-23488410-detail/story.html).

These media articles suggested that links with the community were overwhelmingly positive. The only example of negative feedback from a community group was from a hub leader interview, in which it was reported that one school did not join the project because it hosted a local LINE provider within its building who felt the project would undermine their business.

13.2 What types of LINE activities brought schools and communities together? At what community level were relationships developed?

The hub leader interviews provided references to a number of community initiatives, initiated by schools and/or hub leaders that beacon and cluster schools were engaged in over the project period. In most cases, the specific initiatives were simply listed during the hub leader interviews, and these are shown below. Where hub leaders made specific comments on the nature of the relationship, these have been noted. These examples have been further supplemented by evidence from case study visits, with the result that the illustrations of community engagement below are from both sources. There is a degree of overlap between some community initiatives and named LINE providers.

Bristol

Schools made links with:

- Bristol Young Naturalists
- Volunteer Bristol after the hub leader commissioned the organisation and signed up all the beacon schools to the service
- University of the West of England regarding volunteering and research e.g. the University recruited a number of students to spend six weeks volunteering with project schools on activities decided by the schools
- the Wild Time group in the development of the 'Wild Time for Schools' app
- Northern Slopes Woodland
- Edible Bristol initiative. The hub leaders noted that this initiative was something that the local community trust were really keen to support and spread into the community through working with local shops
- the 'tree pips' project (a Bristol City Council initiative to involve children in planting trees across the city).

Cornwall

Hub Leaders and schools made links with:

- Volunteer Cornwall e.g. a joint bid with The Learning Institute was submitted to the Paul Hamlyn Trust for the 'Reaching Communities' initiative
- OPAL citizen science projects, included woodland surveys involving schools and members of the community
- Eden project as a partner in, for example, the Gardens for Life initiative
- Devon & Cornwall Housing Association on joint projects to develop their green spaces for school use

- The community for enterprise activities at Callington; for example, by providing social enterprise modules based on LINE projects in schools as part of University programmes

North Somerset

Hub leaders and schools made links with:

- networks within the area involving various collaborations and partners such as Sovereign Housing Association, and Wiltshire Wildlife Trust.
- the John Muir Trust and John Muir award
- GPs and community health workers.
- the 'tree pips' project that was developing in Bristol
- the local authority and community volunteers in Chippenham to develop woodland resources useable by schools

Plymouth

Hub leaders and schools made links with:

- green space managers through the Plymouth City Council hub leader team. This included members from the Council's Greenspace team.
- community days in local green spaces; for example, to enable parents to become familiar with green spaces that their children were often taken to for outdoor learning
- other secondary schools and parents
- Devon Wildlife Trust in supporting school grounds development
- Plymouth Woodland Project i.e. connecting parents and schools to use and learn about local woodlands through dead wood surveys, tree identification sessions etc.
- Plymouth Play Association Scrap Store Links i.e. the community resource centre holds LINE resource packs developed by the hub leader
- Bioblitzes in local green spaces, involving schools and families i.e. in Saltram House grounds, Radford Woods, and Batten Bay
- Kings Tamerton Local Nature Reserve
- The wider community. Several schools kept chickens on their grounds, with the result that members of the community, usually parents, helped to organise rotas in the holidays to care for these animals.

Torbay

Hub leaders and schools made links with:

- John Muir Trust work in Totnes St John's involving parents and local craftsmen such as hurdle makers
- National Trust at Brixham for providing a forest school site on a conservation site at Berry Head
- The community to establish the Collaton Country Fair involving volunteers to help run the event and sponsor work

- Torbay Coast and Countryside Trust; as land holders and land managers, the Trust works with schools and community members on using and managing resources for education

Data from the school case studies showed a wider variety of community engagements involving LINE that included the following elements:

- **Development of skills in young people and volunteer recruitment**

The modest number of (mostly parent) volunteers that were interviewed during case study visits reported that it had been relatively easy to get involved with their schools and that schools, generally, communicated well with parents. Parent volunteers were frequently cited as being helpful with offsite visits and working on manual labour tasks such as gardening, and digging ponds. The number of parents involved in these activities was seen by some schools as an indicator of school/community relations, particularly perhaps where volunteers were sourced from other community groups, such as churches.

- **Development of school resources and bringing local green spaces into use**

There were many examples given by the case study schools of members of the community contributing time and labour to the enhancement of green spaces for LINE. An example was given from one Plymouth school '*when the pond was being dug and trees planted each class went out in shifts and were helped by their parents and members of the community'*. The children were reported, in this case, to have been keen to see their parents helping and the teachers felt it was important for them to see their parents helping in the school.

- **Supporting sustainability i.e. conservation, organic food production**

Many of the case study schools involved community members in gardening projects. Examples included Year 7 and 8 parents working on a Cornwall beacon school's allotments; and an unemployed volunteer in Plymouth who was keen to support his daughter's teacher and pass on his gardening experience: *'They do so much for our children up here it's nice to give back.'*

- **Encouraging enterprise**

In one Cornwall beacon school, the administration team supported grant applications, for example, a £9000 Plot to plate, plot to community, plot to traders initiative: *'The students will make jam, sell it and money will come back for investment into the allotment plot to help it become more sustainable. The pupils are also learning business and enterprise skills, and social skills. A lot are from farming backgrounds and this could be the kind of business they are going to go into.'*

- **Promoting health and supporting local events**

The LINE Lead for a Torbay beacon school advised how they had started planning the following year's county show which was expected to draw in many members of the community. '*It is a whole community event. The PTFA lead on this project. In school there is always a summer topic that links to the show; for example in 2013 the children all grew something and there were various themes; this year it was 'let's get fruity', and in 2015 the main theme will be linked to herbs and spices, and bread*.'

- **Enhancing school and parent / carer relations**

One headteacher increased the forms of communication to secure better teacher/parent relations; for example, through information newsletters, which, amongst other benefits, led to volunteers helping with digging a pond.

A Torbay beacon school described the excitement and enthusiasm amongst teachers, students, and parents once a clay pizza oven had been built in the school grounds: *'we have only used it twice but the excitement and the community engagement that…that whole project brought was so valuable it was unbelievable.'* Once the parents had become enthused by their children's involvement in the construction, they too contributed to the building stage. Volunteers at the school *'recognised the value of the project in engaging parents and felt that the school had worked very hard to engage parents and that both the work they did and the environment they did it in* [outdoors] *helped in this'.*

Some schools very much viewed themselves as, or aspired to be, *the* hub for their local communities. '*The community aspect is another real part of our vision and values, that we are the hub on the hill and we are kind of the centre of the community.'* One Plymouth headteacher explained how proud he was that 100 percent of parents responding to their most recent Ofsted survey said they would recommend the school to another parent. Staff at a Cornwall school were convinced (from direct feedback from parents) that the way their outdoor area now looked due to recent developments was a '*big pull'* for people wanting to send their children there.

Staff at a Torbay beacon school believed there had been more community engagement since the school had started increasing its LINE, exemplified by use of a new forest school area by their local preschool, an increase in numbers of people '*willing to be involved'* as word spread of the '*outdoorsy*' nature of the school, and feedback from one parent who specifically chose to send her child to the school based on the outdoor learning that the school does.

KEQ 14. Did schools show a commitment to LINE by paying for related services?

Project element and objective	**Assumption**
Brokerage: Stimulate demand for LINE activities in schools	Schools are willing to pay for LINE services

KEQ 14. Did schools show a commitment to LINE by paying for related services?

14.1 Did schools use the LINE services of:

- Continuing Professional Development (CPD)?
- Direct provision from LINE providers?
- School grounds development services?

14.2 How did schools pay for these services?

Data sources

School baseline survey, July 2014 school survey, July 2015 school survey, hub leader interviews

Key points:

- The proportion of schools reporting engagement with LINE-related CPD rose from 55 to 67 per cent, a statistically significant increase (p-value=0.05) between their completion of the baseline and July 2015 school surveys.
- Schools from all hubs reported that they valued the networking and informal CPD opportunities offered and/or arranged by the hub leaders.
- Schools' individual CPD needs changed throughout the project. These were dependent on their own LINE development, changing school priorities and local/national policy demands.
- LINE providers were used largely for CPD and school grounds development rather than lesson delivery. Some schools set up ongoing relationships with LINE providers.
- School grounds development was valued, both as a resource for teaching and as a support / stepping stone for staff to develop their practice, confidence and expertise
- Schools were prepared to pay for services, although the local circumstances of each school determined which services and the level of payment.
- Schools used funding from a variety of sources to resource their LINE activities.
- Schools needed funding at specific points in their LINE development. This was generally when they had engaged with the concept of LINE, were ready to undertake greater levels of LINE activity and understood the resources needed to enable that activity.

NOTES

A small number of schools responded to the July 2014 school survey (n=28), and inferences drawn from this survey should therefore be treated with caution.

Direct quotations from hub leader interviews are in *'inverted commas and italics'*

14.1 Did schools value LINE services?

In this section we examine the evidence relating to schools' purchase of services of LINE CPD, direct provision from LINE providers and school grounds development.

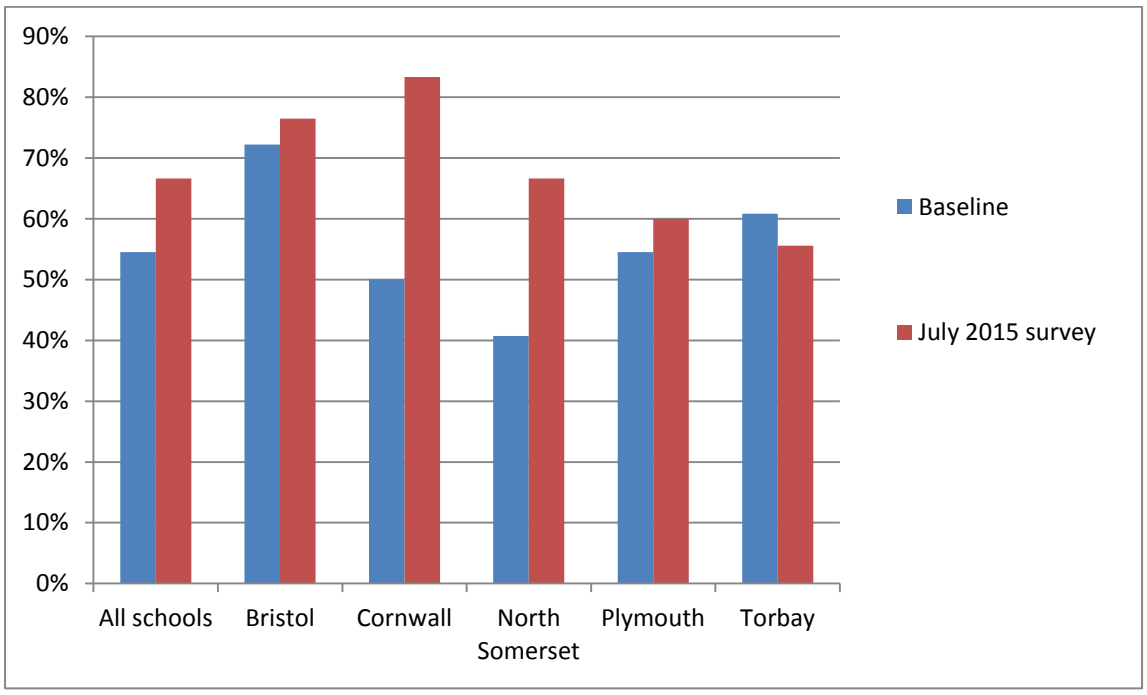
- **CPD activity**

Figure 14.1 below shows that, across the project from the baseline to the July 2015 school survey, the proportion of schools reporting engagement with CPD rose from 55 to 67 per cent, a statistically significant increase (p-value=0.05).

Bristol

The proportion of schools reporting CPD activity increased from 72 to 76 per cent in Bristol between the baseline and July 2015 school surveys. Bristol schools reported the highest engagement with CPD of all hubs in the baseline survey.

The hub leaders reported early in the project that, because all their beacon schools were different and their initial focus was on developing beacon schools, there was no generic CPD that was appropriate for all. Nonetheless they commented that initially the CPD focus would be on such matters as *'How do I convince my teachers that this doesn't contravene any health and safety standards? How do I get them out in wet weather? It will be pretty basic stuff to start with'*. They aimed to offer regular sessions, first for beacon schools and then, as the project progressed, to beacon and cluster schools.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 14.1: Change in school CPD activity

At the end of 2014 hub leaders reported three developments in demand for CPD. The first was that they organised CPD events requested by schools during network meetings (on identifying wildlife, for example) but that these sessions were not filled, while sessions around core subjects such as maths and science outdoors were always fully booked. Hub leaders suggested that this related to schools' priority areas; that it may have been more difficult for teachers to attend sessions that were not directly related to these acknowledged areas of school improvement. Secondly, hub leaders noted that teachers wanted detail in the CPD that was *'about really drilling down*' into the subject and that demonstrated those aspects of a subject (such as place value or algebra in maths) which could be delivered more effectively outdoors than inside; the focus had shifted towards value-added CPD, rather than simply encouraging teachers to take lessons outside. Thirdly, they reported that the demand for all CPD (including LINE-related CPD) had changed away from individual gain towards the impact that the CPD would have on the school; that teachers wanted training sessions that they could cascade to staff when they returned. This move towards collaborative CPD that could subsequently be used in whole-school development showed both the value that schools put on CPD and a maturity in LINE development in this hub.

Towards the end of the project, hub leaders reported that all schools had commented that one of the most useful aspects of the project was the face-to-face networking opportunity and sharing of expertise – or informal CPD – at Bristol hub meetings. This was a new opportunity provided by the project, and hub leaders reported that schools *'valued highly … the space and time to talk and spark off each other and go away enthused'*. This type of comment, together with the poor attendance at some organised CPD, led the hub leaders to re-think their CPD strategy. In their exit interview they reported that all CPD would be incorporated into their network meetings in the future and separate LINE CPD would no longer be offered.

Cornwall

The proportion of schools from Cornwall reporting CPD activity rose 33 percentage points (from 50 to 83 per cent) between the baseline and July 2015 school surveys.

Cornwall, with their more dispersed geography, had the second lowest initial levels of CPD but had the greatest increase among the hubs. Hub leaders reported frequently throughout the project that CPD opportunities for schools were made more difficult through the time needed to travel to the session and through the cost incurred either in terms of cover during school hours or (for many school staff) for childcare if the CPD were held as a twilight session after school finished.

Hub leaders sent a CPD survey to project schools in 2014, which identified that beacon schools wanted clear links to the core subjects in the new national curriculum. At this time, hub leaders developed a LINE element in some Specialist Leaders in Education (SLE) accreditation, and sought to provide LINE leadership training for LINE leads who were working to embed LINE in their own school and would then undertake outreach work with

other schools. Schools reported that they valued the Wild Tribe CPD programme (which was part of the Learning Institute where hub leaders were based) during termly hub leader visits, particularly those who wanted to provide Forest School experiences for their pupils but did not have the time or resources to invest in Forest Schools training. By the end of 2014 hub leaders reported a *'sense'* that *'a lot'* of CPD activity was being undertaken.

The Cornwall hub's wide geographic spread meant that informal CPD networking meetings were not as frequent as in the other hubs, but hub leaders reported that schools valued the opportunity to meet like-minded people at their LINE conference in 2014. Beacon schools were also invited to a half-yearly programme of meetings that were *'designed to enable colleagues to share information, experience and expertise; plan strategically and collaboratively; and articulate their needs and concerns'.* The hub leader's termly visits to beacon schools, supplemented towards the end of the project by visits to some cluster schools, were also a form of CPD which enabled hub leaders to:

- help senior managers and LINE leads resolve issues as they arose
- advise, support and validate practical initiatives
- transfer ideas and solutions between schools
- monitor developments in relation to plans.

Hub leaders reported that they took *'great care'* to ensure that these visits were regarded as *'supportive rather than 'inspectoral'*, and believed that they *'played an important part in maintaining* [school] *confidence and* [project] *momentum'.* In their exit interview, hub leaders reported that CPD had *'played a modest but nonetheless important part in Cornwall's LINE project'.*

North Somerset

The proportion of schools in the North Somerset hub that reported undertaking CPD increased from 41 to 67 per cent from the baseline to the July 2015 school survey. This 26 percentage point increase was the second largest within the hubs. Feedback from the North Somerset hub leader suggested that schools had had limited access to CPD and to local networks of support in the recent past because of the local authority's effective withdrawal from this area of practice.

The North Somerset hub provided most of its formal CPD in partnership with the Bristol hub. The hub leader reported that CPD take-up was greatest around core curriculum areas, but found that schools' ability to attend CPD and their willingness to pay diminished during the school year as staff had less time and money available for that purpose. The hub leader also provided CPD directly to schools, or bought in CPD for interested schools to attend in an attempt to kick-start their LINE activity; a different approach to the other hubs. Teachers' readiness to attend these network events in their own time suggests that they highly valued its CPD opportunities.

North Somerset did not develop a strong network of schools, in part due to the large geographical area of the hub. In response to this, in the later stages of the project the hub

leader tried to establish mini-networks in three locations. One of these has been successful, partly because of the willingness of a local LINE provider to facilitate the network but also because it fitted neatly with established local school relationships. These schools reported that they valued the ability to share knowledge and ideas between schools, and to network with local LINE providers; opportunities for networking were popular and well attended, particularly if held after school, thus avoiding teacher supply costs. Attempts to build a network around Weston-super-Mare are ongoing.

Plymouth

CPD activity rose from 55 to 60 per cent in Plymouth between the baseline and July 2015 school surveys.

The hub leader CPD offer to schools was a mixture of signposting to existing CPD, brokering opportunities through providers such as 'Beach School' (with ongoing support for schools with equipment) and some bespoke CPD based on the hub leaders' skills (e.g. biological identification through bug hunts). Halfway through the project hub leaders asked schools to suggest the types of CPD that was needed, but reported a limited response. They believed this was partly because there were too many CPD offers, many of which were either free and/or had no form of visible quality assurance; they suggested that this could confuse schools that were not fully confident in their LINE activities. They reported that schools signed up for some CPD sessions facilitated by the hub leader but then dropped out, possibly because of competing school priorities, a similar picture to that in Bristol.

Schools reported to hub leaders that they valued the opportunity and ability to network with other schools undertaking LINE, and this sharing of expertise and ideas was an integral part of all the networking meetings facilitated by the Plymouth hub leaders. Practical examples of this knowledge-sharing could be seen, for example, in the increasing number of schools that kept chickens; this started with a small number of schools in the hub and gradually expanded as these schools shared their experiences more widely. There were also examples of teachers delivering CPD (for example, during Plymouth's 'Woodland Week' in 2014), and of occasional CPD sessions after school.

In their exit interview, hub leaders outlined their continuing project model in which schools' subscription to the 'Outdoor Learning Community' would entitle them to both formal and informal CPD opportunities, including:

- three network meetings per year to link providers, schools and volunteers
- a forum for celebration and sharing
- hub support for maintenance of the Plymouth LINE Directory
- regular updates on latest research, resources and funding
- signposting to CPD sessions from a range of providers.

Plymouth hub leaders were also in the process of forming links with the Plymouth Teaching School Alliance to strengthen the network and widen LINE-related CPD opportunities for school staff.

Torbay

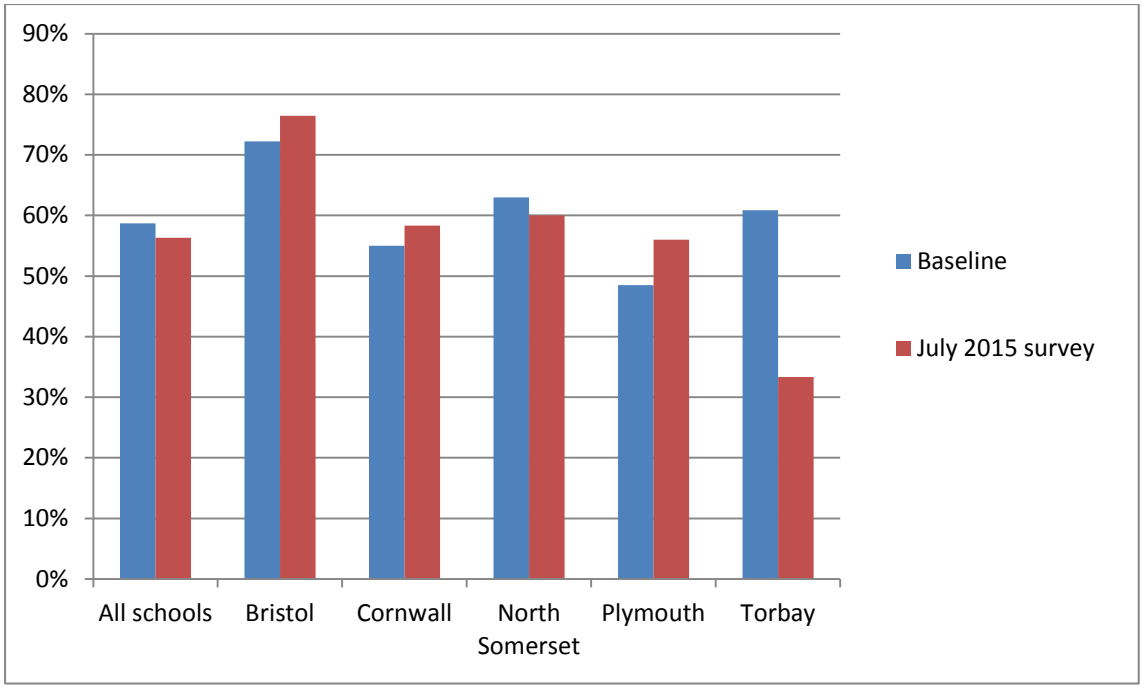
Schools' reported CPD activity decreased slightly from 61 to 56 per cent in Torbay between the baseline and July 2015 school surveys. This decrease, the only one across the hubs, may have been because of changes in hub leadership and because the ten schools recruited early in 2015 may not have had time to engage with CPD by July 2015 (see KEQ3 for further details).

Initially CPD was provided through the hub leader's LifeLINE network, which concentrated on a small number of highly-engaged beacon schools. The hub leader, RIO, believed that the network meetings were valued because they provided new local access to LINE CPD for schools. Whilst this was a helpful approach for some schools, it was not a hub-wide offer and relied on one member of the hub leader staff to manage the network and deliver the CPD. When this member of staff left, the network lost impetus as RIO was unable to respond to schools' CPD requests without paying for external trainers and had insufficient funds to cover these unexpected costs.

The replacement hub leader, appointed in November 2014, reported that there was little formal CPD in the hub at the time of her appointment but that there were some examples of schools working together informally to develop their LINE provision. Her first two acts were to initiate a hub-wide LINE meeting, which she reported was *'a starting point for collaboration',* and to provide funding for supply so that 16 staff from different schools could attend an 'outdoor learning coordinator' course offered by an external provider. She also signposted schools towards Cornwall's Wild Tribe LINE CPD provision. Her long-term aim was to set up a structure in which all schools met *'now and again',* arguing that schools did not want *'an overload of meetings unless they had a specific purpose'*, and that these occasional meetings would enable further informal sharing of knowledge and expertise to be arranged as appropriate between schools. She believed that *'small-scale CPD'* of this kind would work most effectively in this hub as schools had reported generally different requirements. All, however, had requested support in mapping science outdoors into the curriculum, and this work was ongoing at the time of the hub leader exit interview with the support of a STEM ambassador. Further plans involved linking with the curriculum network of the Torbay Teaching Alliance in order to provide a structure for regular LINE-related CPD within the hub.

- **Direct provision from LINE providers**

Across the project, schools reported a slight drop in levels of working with LINE providers from 59 to 56 per cent; within the hubs, Torbay schools recorded a decrease in working with LINE providers from 61 to 33 per cent. Bristol schools recorded the highest levels of working with LINE providers at baseline (72 per cent) and in July 2015 (76 per cent). In the following sections we describe hub leaders' efforts at brokering relationships between LINE providers and schools, and report their views on the success (or otherwise) of their efforts.



Baseline n=121: Bristol n=18, Cornwall n=20, North Somerset n=27, Plymouth n=33, Torbay n=23
July 2015 school survey n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 14.2: Project and hub level LINE provider engagement

Bristol LINE providers

The proportion of schools working with LINE providers increased slightly in Bristol from 72 to 76 percent between the baseline and July 2015 school surveys.

Bristol hub leaders were the first to invite LINE providers to meet schools in a separate provider network. This changed within a year to inviting providers to networking meetings with beacon schools, where some providers were invited to speak. Most providers, however, were invited in order to listen to schools' issues, because hub leaders felt that the providers *'had a tendency to take over and not listen to school needs'.* Early in the project one member of the hub leader team was appointed to deal with LINE provider issues and to find out those providers who wanted to work in schools; initially hub leaders reported that they were not aware of *'what providers we've got',* although within nine months said that they had connected with a number of organisations and individuals they had not previously known.

Brokerage continued through inviting providers to promote their services on the Bristol hub blog through writing 'how to' guides for schools, inviting LINE providers to the hub conference in June 2014 and continuing to invite them to hub network meetings; hub leaders reported that the project was providing a vehicle for conversations between teachers, providers and volunteers *'that haven't been had before'* and that the project was *'not just* [about] *changing the hearts and minds of the teachers …* [but also] *the providers".* Hub leaders reported, however, that communication between LINE providers and schools was not always positive as the providers needed to be more sympathetic to the pressures faced by schools, and that some providers were not prepared to work with schools to develop partnerships to mutual benefit; they wanted to be paid for all aspects of their work. This

might possibly have been a necessary course of action for smaller organisations that had no business development margins to cover these costs, but was less critical for larger organisations whose aims coincided with those of the project.

Towards the end of the project hub leaders reported that they were largely working with small LINE providers, and that those that attended the network meetings were developing relationships with schools and attracting more work, demonstrating that this initial engagement could stimulate greater demand for LINE provider services. Beacon schools that had employed LINE providers were encouraged to share their experiences so that other schools could take up any recommendations. At their exit interview hub leaders described how the network meetings continued to provide a successful forum to broker links between schools and LINE providers, although the hub leaders believed that *'only a handful of providers'* had *'really engaged with schools'* during the project lifetime.

Cornwall LINE providers

The proportion of schools in Cornwall working with LINE providers increased slightly from 55 to 58 percent between the baseline and July 2015 school surveys.

The hub leaders were cautious about endorsing particular providers and putting providers in touch with schools without some form of quality assurance, and felt that use of LINE providers was *'patchy'* at the start of the project because of *'schools' inability to foster effective partnerships with different providers'.* Hub leaders believed that LINE providers should engage with professional development in order to understand schools' requirements and to be able to deliver support that *'moved the staff forward'* rather than simply offering an interesting and productive day. At the same time, hub leaders recognised that this may create a tension for some providers who aimed to develop a *'dependency culture'* in which schools would come to rely on their services.

Hub leaders reported consistently throughout the project that engaging successfully with LINE providers in Cornwall was a challenge, and that some form of standardised quality assurance should be an essential part of the project. They introduced LINE providers to the project, offered them initial training, invited them to network meetings, and subsequently forwarded LINE provider emails to schools when asked. They developed partnerships with a few substantial providers such as OPAL, the Kernow Education-Arts Partnership and the National Trust, but continued to find that small LINE provider businesses generally failed to understand schools' needs. They reported that a few schools continued to engage with existing LINE provider partnerships and that some had started new relationships, but that other schools did not appear to be interested. In their exit interview, hub leaders recognised that LINE providers had not contributed substantially to the project, and reported that *'more emphasis should have been placed upon provider training in order for them to have played a more prominent role in the project'.*

North Somerset LINE providers

In North Somerset there was a slight decrease from 63 to 60 per cent of schools reporting they worked with LINE providers between the baseline and the July 2015 school surveys.

North Somerset was the only hub to have a LINE provider as hub leader. This meant that communication with other LINE providers in the area was strong, and that the hub leaders actively promoted information on providers to schools throughout the project. Hub leaders reported that this led to a degree of frustration on the part of LINE providers, however, who were willing to work with schools but were finding that schools lacked the interest or the readiness to engage with LINE providers; schools took time to identify what they needed and a number looked internally for the skills as a form of staff development, and so did not employ external organisations for training. This may have related to the hub leader's relative inexperience with the education system, with the result that he found difficulty in matching school needs and provider offer.

The hub leaders undertook some Forest School training within the hub, and other initiatives such as the John Muir Trust Award training and Plantlife training had some success. Interest among schools increased following different conferences where the hub leaders were able to promote both LINE and LINE providers. A particular success was hub leader provision of LINE-related CPD for a group of schools that were interested in joining the project, and this had the longer-term effect of involving the Wiltshire Wildlife Trust in facilitating a local cluster's continuing involvement with LINE.

At the time of the exit interview, the hub leader reported that he was re-connecting with local LINE providers to create a *'more formalised network'* for schools to access because the demand from schools was rising.

Plymouth LINE providers

The percentage of schools in Plymouth reporting using LINE providers rose from 48 to 56 percent between the baseline and July 2015 school surveys.

The hub leaders provided opportunities for schools and providers to meet through regular networking meetings and the occasional meeting aimed entirely at promoting LINE providers; *'some'* providers showed enthusiasm about getting involved in the early stages of the project. The hub leaders found, however, that the majority of relationships between schools and LINE providers were *'short-term'*, with few developing long-term and sustainable relationships of mutual benefit by working together on particular aspects of LINE; as was the case in Bristol, LINE providers wanted to be paid for any time they spent with the school. Hub leaders also reported that LINE providers tended to have difficulties with delivering their content in terms of age-appropriate language and complexity, and that there were few local LINE providers who knew of and about local green spaces. Hub leaders also commented that many project schools were '*not ready'* to engage with LINE providers as they were not yet sure of how their services could be useful.

Hub leaders' main focus was on engaging schools with the project and supporting them in developing knowledge and expertise in delivering LINE, and they believed that – given their limited time on the project – that brokering relationships between schools and LINE providers should be part of the central team's responsibility. Nonetheless they continued to seek out high-quality LINE providers but half way through the project reported that progress had *'stalled a bit'*: they had found that there were *'not enough excellent LINE providers'* to recommend to schools; LINE providers were not aware of curricular needs; and schools were not aware enough of their needs to be able to communicate them to LINE providers.

Towards the end of the project, however, brokerage between LINE providers and schools met with more success. Hub leaders reported that schools had completed their curriculum planning, and that it should therefore be clearer where LINE providers could support schools. At the same time teachers were reporting that they wanted *'links with LINE providers'*, and hub leaders commented that those who were engaging with the networking events were increasing their business as they grew to understand schools' needs: '*Providers are dependent on schools, and schools are being forced to change, therefore both parties cannot sit back and rely on old programme structures'*. In their exit interview hub leaders reported that this process was ongoing; they believed that some providers (such as those involved with science-related subjects) found it easier to make links with schools than others, and that the most successful model for LINE providers was that of generic support (such as Sustainable Futures) because they could offer ongoing support in different areas rather than specific sessions. Their final comment was that they believed that only a few LINE providers were flexible enough to change their offer in response to school needs, which were *'shifting all the time'.*

Torbay LINE providers

The proportion of schools working with LINE providers in Torbay fell between the baseline and July 2015 school surveys from 61 to 33 per cent.

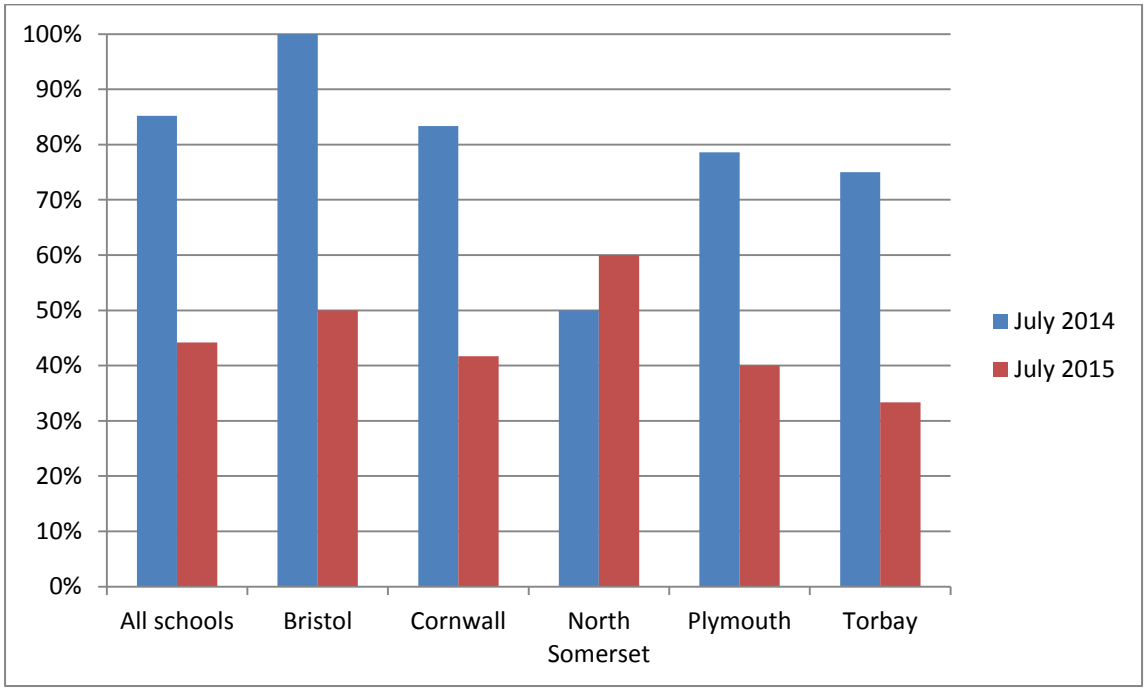
The hub leaders' original CPD offer through their LifeLINE network was school-based and focused on staff development through CPD rather than enhancing the curriculum through bringing in external providers. Towards the end of 2013 when the network arrangements were changed (see KEQ3), one LINE provider was employed to deliver CPD, with an initial focus on clay oven building. However hub leaders had not budgeted for these externally-led sessions and subsequently invited beacon schools to host the LifeLINE meetings, which met with limited success. The hub leaders' continuing focus on school recruitment meant that they made limited attempts to broker schools' engagement with LINE providers, and schools negotiated their own relationships. This could be one of the reasons behind the fall in LINE provider engagement seen in the July 2015 school survey.

Another could be the second hub leader's strong recruitment drive that engaged ten new schools with the project from November 2014; experience from the other hubs shows that it

took time for schools to understand their requirements before they began to engage with LINE providers. The new hub leader reported that she had signposted schools towards different LINE providers, and that she was creating a *'portfolio of LINE providers'*; as was the case with other hub leaders she commented that *'There are so many people out there, it's quality assuring the LINE providers, and I think that's a real issue'.* As part of the process of compiling the portfolio of LINE providers, she was intending to ask schools about those they felt had *'had a real impact'.* Overall, she believed that schools' engagement with LINE providers remained constant during the time that she was the hub leader.

- **School grounds development services**

Figure 14.3 below shows the structural changes reported by schools in the July 2014 and July 2015 school surveys. While the small numbers responding to the July 2014 school survey mean the figures should be treated with caution, they show that schools tended to invest in grounds development at the beginning of their engagement with LINE. When taken in conjunction with hub leader commentary below, they demonstrate that schools developed their grounds where necessary, and then focused on developing staff capacity and knowledge to use the newly-restructured school grounds. The overall reduction in the amount of schools' grounds development may also be explained by the limits to the grounds themselves; there comes a time when schools have exhausted the space in which to make structural changes and then focus on maintenance.



July 2014 survey n=27: Bristol n=2, Cornwall n=6, North Somerset n=2, Plymouth n=13, Torbay n=4
July 2015 school survey n=86: Bristol n=16, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 14.3: Change in structural changes to school grounds for LINE

Bristol

It is difficult to draw conclusions about changes in demand for school ground development in Bristol, as only two schools responded to this question in July 2014.

However, hub leaders reported one of the aims for the first year of the project was to support beacon schools in assessing the suitability of their school grounds for LINE and then developing them as required. They encouraged schools to think carefully before making changes to school grounds; to consider the learning and curriculum benefits together with the management and maintenance implications of any changes. Funding was offered to all beacon schools to support grounds development, but only two took up the offer; hub leaders reported that three beacon schools already employed school grounds development services. Two further schools did not take up the offer because of existing funded work already under way in their school grounds.

Cornwall

Schools that reported changes to school grounds in Cornwall decreased from 83 to 42 percent between July 2014 and July 2015, although the July 2014 figure was generated from only six schools.

As was the case in Bristol, hub leaders reported that an aim in the first year of the project was to help beacon schools evaluate their grounds; to suggest ideas for improvements that would link developments to areas of curriculum need, to *'translate ideas between schools'* and to offer each beacon school approximately £1,000 for grounds development.

North Somerset

North Somerset was the one hub where schools reported an increase in structural changes (from 50 per cent to 60 per cent) between the July 2014 and July 2015 school surveys, but the July 2014 figure was generated from only two schools.

The hub leader organisation had already worked with schools on grounds development before their engagement with the project and regarded this as important in providing a foundation for schools' effective engagement with LINE. The hub leader reported that he was keen to support schools in using their outdoor spaces creatively, and he was interested in building on the *'key components they may or may not have within their school grounds that might support outdoor learning'.* He reported that *'most'* of the project money allocated to schools was spent on schools grounds improvement.

Plymouth

The percentage of schools in Plymouth reporting structural changes to their school grounds decreased from 79 to 40 per cent between the July 2014 and July 2015 school surveys. The July 2014 figure was generated from 13 schools and 25 in July 2015, so the sample sizes are more robust. The fact that Plymouth's proportional reduction is similar to that of all schools across the project suggests that their pattern of early investment may be applicable more widely despite the low number of responses for July 2014 in other hubs

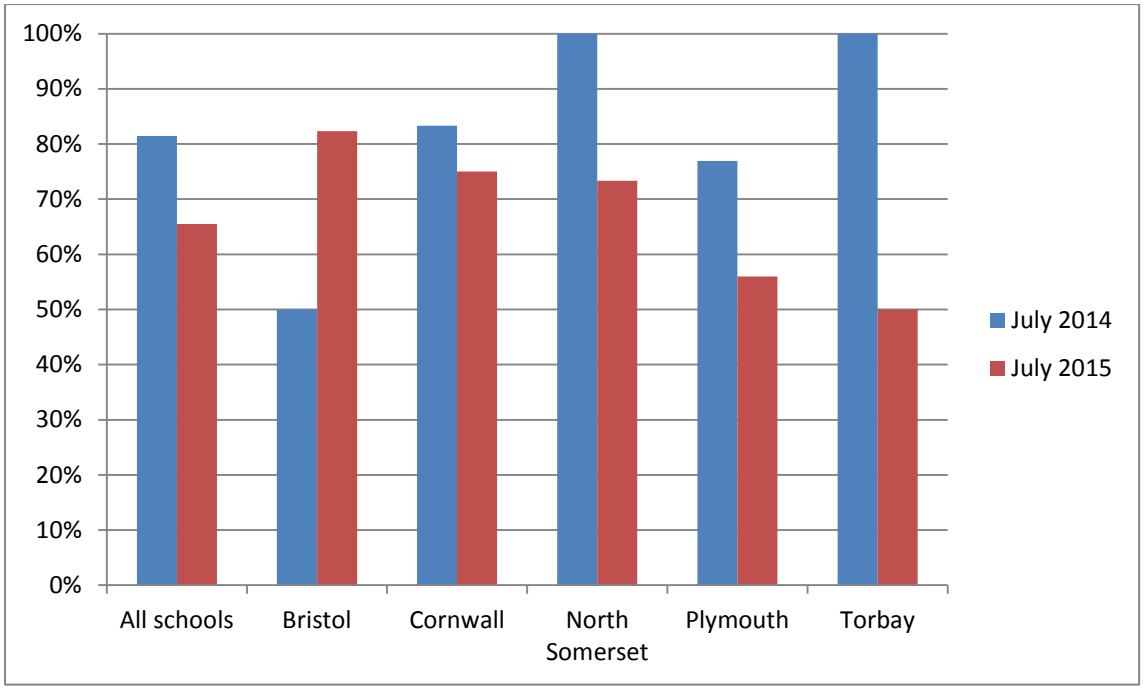
Early in the project, Plymouth hub leaders facilitated and negotiated services from the education officer at the Devon Wildlife Trust to advise beacon schools on grounds development. All beacon schools took up this offer and implemented a range of grounds works that included creating ponds, clearing ponds and planting schemes.
Plymouth hub leaders summed up the approach of all five hub leaders when they commented that grounds development could be seen as a *'natural stepping stone'* in the process of developing schools' LINE activities; they believed that schools needed somewhere structurally sound where staff could first learn to *'take risks and gain confidence'.* There was also a suggestion that the staff took greater interest in and ownership of the grounds when they were involved in their development, and were therefore more likely to become interested in delivering LINE themselves.

Torbay
The proportion of schools reporting structural changes to school grounds fell between July 2014 and July 2015 from 75 to 33 per cent, but the July 2014 figure was generated from only four schools.

Hub leaders RIO reported that they offered beacon schools funds for innovative grounds development but that few took up the offer; the exception was the application from one school to build an outdoor composting toilet on their newly-purchased Forest School field. The second hub leader reported that there was a need for specific knowledge on setting up areas and creating outdoor spaces for LINE that was currently lacking within the hub; this could be remedied through her plans to create a portfolio of LINE providers, which would include those with school grounds expertise.

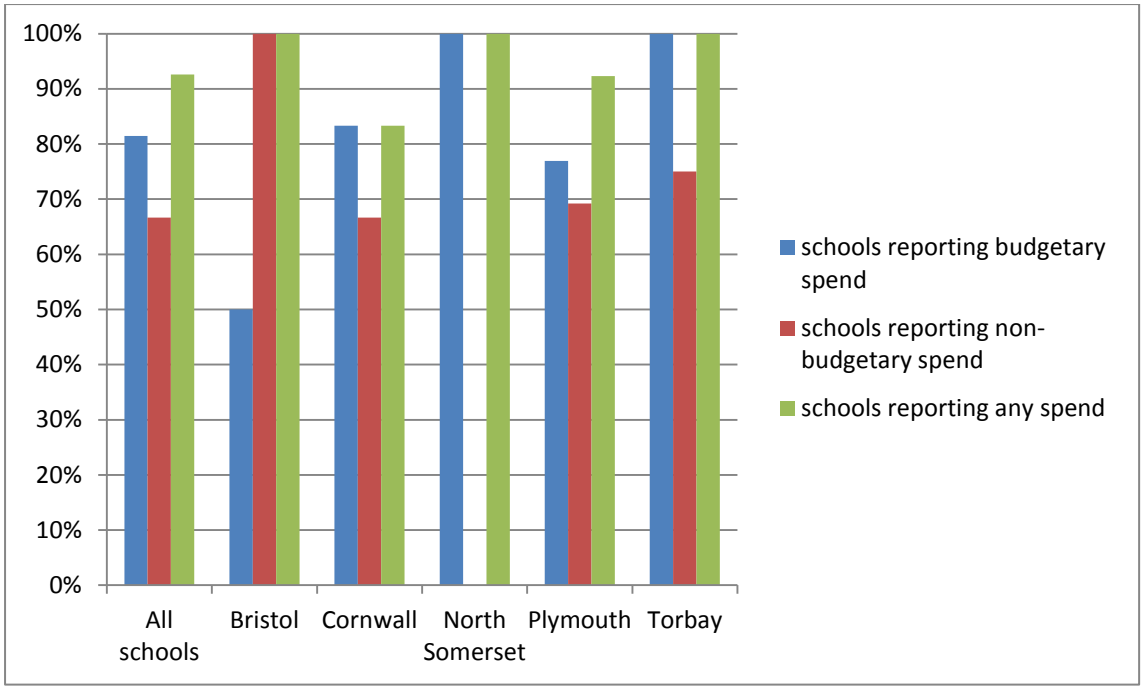
14.2 How did schools pay for LINE services?

Figure 14.4 sets out the change in the percentage of schools that reported spending on LINE from their budget in the July 2014 and July 2015 school surveys. It shows a drop from 81 per cent to 66 per cent overall, with only Bristol schools reporting an increase in spend (from 50 to 82 per cent). We focus on school budgetary spend in this figure because it is one indicator of support for LINE from senior leadership, who control how the budget is allocated. However, the picture is more complex as part of the reduction in spend may about increased embedding in the work of the school; LINE costs less if it is done in house in learning environments that are fit for purpose.



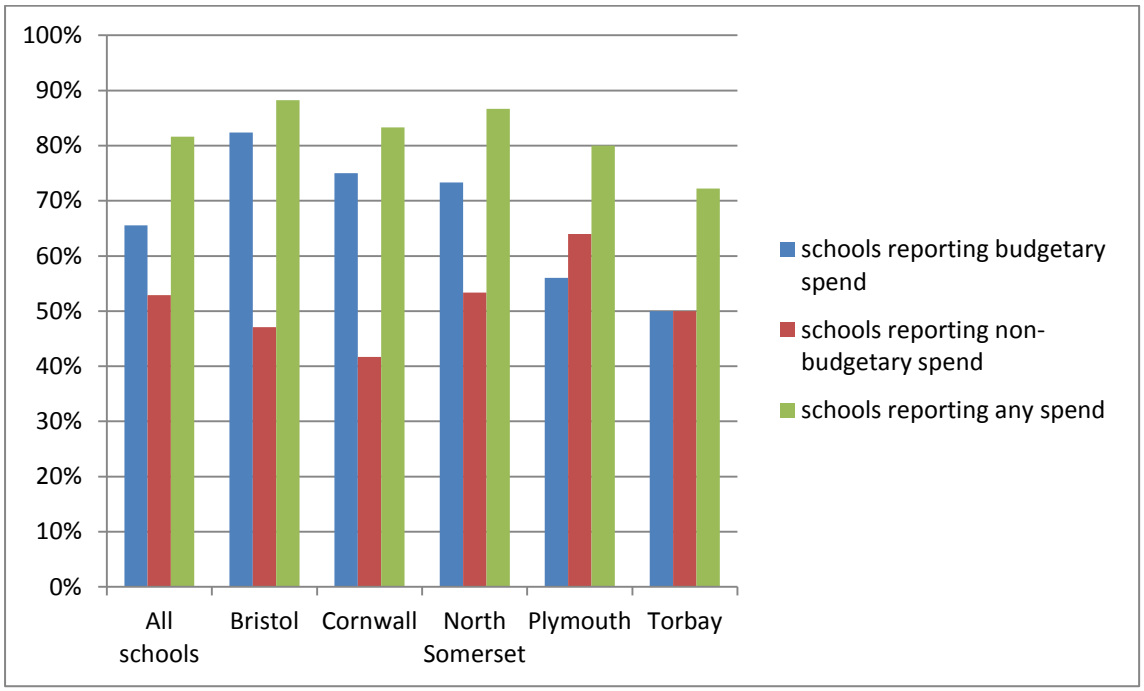
July survey 2014 n=27: Bristol n=2, Cornwall n=6, North Somerset n=2, Plymouth n=13, Torbay n=4
July survey 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18
Figure 14.4: Change in percentage of schools reporting budgetary funds spent on LINE

Furthermore, school budgets were not the only route for paying for services, and schools also accessed funding from grants, donations and in-kind support of materials, expertise and/or labour. Figure 14.5 shows the percentage of schools that responded which received these other types of support ('non-budgetary spend') and/or spent money from the budget ('budgetary spend'). The green column ('any spend') shows the total percentage of schools that responded which reported spending from any source on LINE. The low number of schools that responded to the July 2014 survey means that these results should be treated cautiously. Figure 14.6 shows the results from schools that responded to the July 2015 school survey, highlighting changes between the two survey points; the higher school response rate means that Figure 14.6 is more representative of the project.



July survey 2014 n=27: Bristol n=2, Cornwall n=6, North Somerset n=2, Plymouth n=13, Torbay n=4

Figure 14.5: Hub level school spend on LINE from budget and non-budget sources (July 2014 survey)



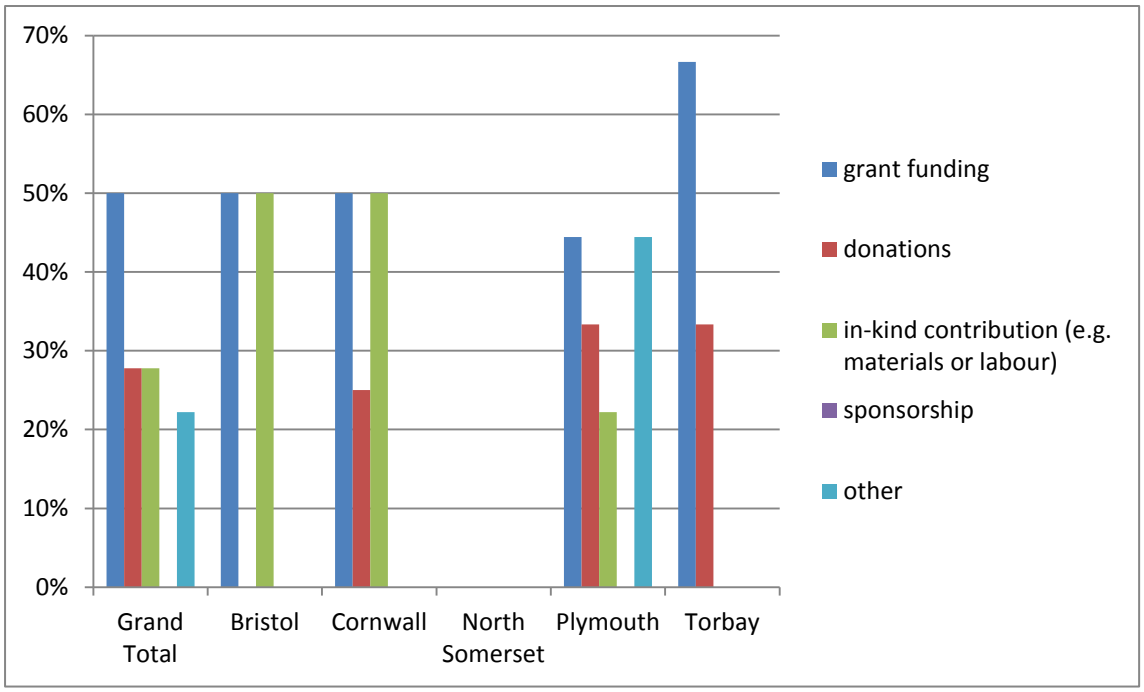
July survey 2015 n=87: Bristol n=17, Cornwall n=12, North Somerset n=15, Plymouth n=25, Torbay n=18.

Figure 14.6: Hub-level school spend on LINE from budget and non-budget sources (July 2015 school survey)

Both survey results show a consistently high level of school spend on LINE, with little overall variation between hubs; between 70 and 88 per cent of responding schools reporting spending on LINE in July 2015. The lowest spend in the hubs in this survey (Torbay: 72 per cent) can possibly be explained by the late recruitment of ten schools to the project from November 2014, who may not have had time to engage sufficiently with LINE to organise its

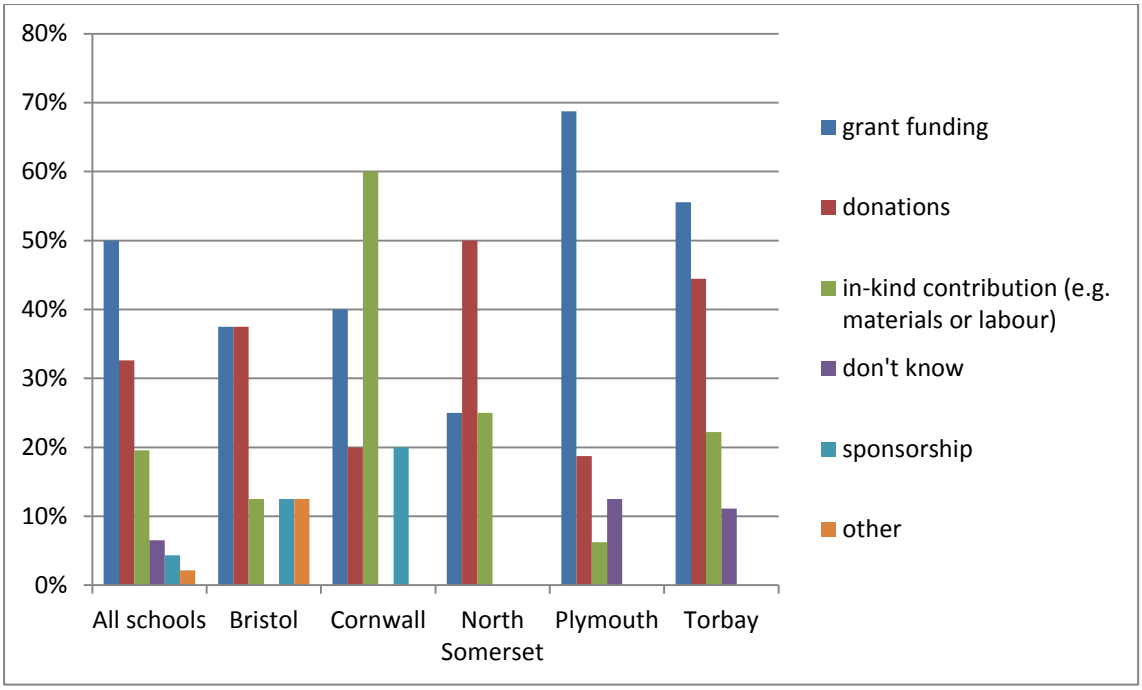
funding. Plymouth schools returned the highest number of responses to the two surveys (July 2014: 13; July 2015: 25), and the interesting shift there was towards lower levels of budgetary spend (from 77 to 56 per cent) while the percentage of schools reporting non-budgetary spend remained relatively constant (69 and 64 per cent respectively). This suggests that schools could have found ways of delivering LINE inexpensively and/or that their initial investment phase was coming to an end and they were focusing on LINE delivery within school grounds.

Figures 14.7 and 14.8 below show the proportions of different in-kind funding sources reported by schools. The sample sizes for individual hubs in July 2014 were too small to draw meaningful conclusions but overall they show that grant funding was the most frequently reported in-kind funding source (50 per cent). This percentage remained the same in the July 2015 school survey. Donations were the next most-frequently reported (28 per cent in July 2014; 33 per cent in July 2015), followed by materials and labour (28 per cent in July 2014; 20 per cent in July 2015).



July 2014 n=18: Bristol n=2, Cornwall n=4, North Somerset n=0, Plymouth n=9, Torbay n=3.

Figure 14.7: Hub-level types of in-kind funding received (July 2014 school survey)



July 2015 n=16: Bristol n=8, Cornwall n=5, North Somerset n=8, Plymouth n=16, Torbay n=9

Figure 14.8: Hub-level types of in-kind funding received (July 2015 school survey)

Hub leaders all reported that, apart from funds claimed by schools for specific projects such as grounds development, schools were slow to take advantage of the limited funds offered by the project. This may have been because of the conditions attached by hub leaders to the funding, or because the funding was insufficient for specific purposes. Together the evidence suggests that the absence of funding was not an intrinsic barrier to LINE but that schools' need was for particular resources at particular times. This was generally when the school had engaged with the concept of LINE, was ready to undertake greater levels of LINE activity and understood the resources needed to enable that activity.

KEQ 15. What role did brokerage play in stimulating demand? What worked well and what worked less well?

Project element and objective	**Assumption**
Brokerage: Stimulate demand for LINE activities in schools	The cascade model of delivery will stimulate demand for LINE as schools learn about its benefits from others already involved
KEQ 15. What role did brokerage play in stimulating demand? What worked well and what worked less well? **15.1** Did demand for LINE increase? **15.2** What was the brokerage model? **15.3** What worked well and what issues arose during project implementation?	
Data sources Hub leader interviews, school baseline survey, July 2015 school survey, school case studies	

Key points
• Demand for LINE increased.
• Each layer of the cascade model had different and wide-ranging responsibilities.
• Successful elements of the brokerage model were:
  ○ value for money for the project from additional time contributed by hub leaders
  ○ the collaborative and participatory nature of the project
  ○ increasing the scale and scope of LINE activity.
• Challenges were:
  ○ capacity at all levels of the project
  ○ testing the volunteering element of the project
  ○ creating a participatory web service
  ○ collecting evaluation data from participants.	

15.1 Did demand for LINE increase?

We have measured the overall change in demand for LINE over the course of the project in KEQs 1, 2 and 5. KEQ 1 and 2 examined different data sources to determine change in levels of:

- LINE activity in schools
- schools' estimate of time spent on LINE
- teacher and TA involvement with LINE
- staff and volunteer attendance at LINE-related CPD
- schools working with LINE providers
- schools' use of green spaces.

KEQ 5 discussed change in schools' investment in LINE in the additional aspects of:

- including LINE in school documentation

- school budget spent on LINE
- structural changes to school grounds.

In KEQ 11 we discussed demand for LINE reported by a SUBSET of 25 schools. These schools completed all three school surveys (baseline, July 2014 and July 2015), and showed an increased and then sustained demand in their:

- teacher and TA involvement in LINE
- staff and volunteer attendance at CPD
- engagement with LINE providers
- spend from the school budget on LINE.

In KEQ 25 we showed that the SUBSET of 25 schools were sustaining:

- increased staff involvement in LINE
- an increase in the amount of time spent on LINE
- funding spent on LINE and on activities, such as CPD and changes to school grounds, that help to enable and sustain LINE.

In summary, the data from these KEQs showed an increase in reported demand for LINE activity, time spent on LINE, teacher and TA involvement with LINE, CPD attendance, school use of green spaces, and the inclusion of LINE in school documentation. Schools reported a stable overall demand for working with LINE providers, while the data showed a showed a decrease between the July 2014 school survey (n=29) and the July 2015 school survey (n=87) in the percentage of schools that reported spending school budget funding on LINE (from 76 to 64 per cent) and making structural changes to school grounds (from 82 to 44 per cent).

15.2 What was the brokerage model for stimulating demand?

The Natural Connections Demonstration Project was set up as an experimental project that was to be tested over three years. The project aims were to stimulate school demand for LINE and the supply of local LINE services, and to support schools and teachers in building LINE into their planning and practices. There were four project elements of brokerage, volunteering, web service and evaluation outlined in the invitation to tender document[7], with each element intended to support the three project aims in different ways. The target number of schools to recruit was around 200[8], and the target number of volunteers anticipated to support schools was 200-500[9].

Plymouth University's successful bid for the project outlined a cascaded model of responsibility that was carried out at four levels; central team, hub leader, beacon school and

[7] Natural England (2012) *EU Tender for Natural Connections Demonstration Project 23895. Invitation to Tender: Specification*.
[8] Ibid, p.13
[9] Ibid, p.15.

cluster school. The overarching aim of this brokerage model was to build a series of local networks in which schools that were already successful in LINE ('beacon schools') could support others in developing their LINE practice; the vision was an ecological approach for sustainable LINE built on participation and collaboration, in which autonomous clusters of schools would continue after an initial injection of funding and support from the Natural Connections project.

This model would be facilitated first, by **the central team** who would drive, manage and monitor activity to make processes visible and replicable, and who would add value through providing professional development support, volunteering expertise and developing a web service. The central team would recruit **'hub leaders'** in five areas of high multiple deprivation (Bristol, Cornwall, North Somerset, Plymouth and Torbay) to undertake local brokerage. The five hubs were located in a wide variety of contexts and challenges in order to inform future project development; the rationale for five hubs was that brokers could support around 40 schools[10]. Hub leaders, in turn, would recruit around five **'beacon schools'**, all of which would be able and willing to support a local 'cluster' of around seven schools who had little or no experience of LINE at the time of recruitment. This responsibility would be undertaken by an unpaid **'LINE lead'** appointed from within the school. Finally with hub leader support, LINE leads in beacon schools would recruit their own **'cluster schools'**, and begin the process of sharing their expertise; over time, as cluster schools developed their expertise, so they could also support other local schools to engage with LINE. All project schools would appoint a **'LINE team'** to ensure that LINE responsibility was shared among different staff to enable the embedding of LINE across the school management structure and so that expertise would not be lost if one staff member left the school. The intention was that the whole would develop a sustainable model of local peer support in LINE that could expand as clusters grew in confidence and expertise.

The research element of the project would ensure that the different elements of the project were fully tested, and would provide the information to evaluate:

- the scale and scope of the project, and how that changed over time
- the effectiveness of the structures and processes put in place by the project teams in meeting the aims of the project
- the impact of the project on participating organisations, schools and individuals.

[10] Ibid, p.13.

The brokerage model is depicted in Figure 15.1 below.

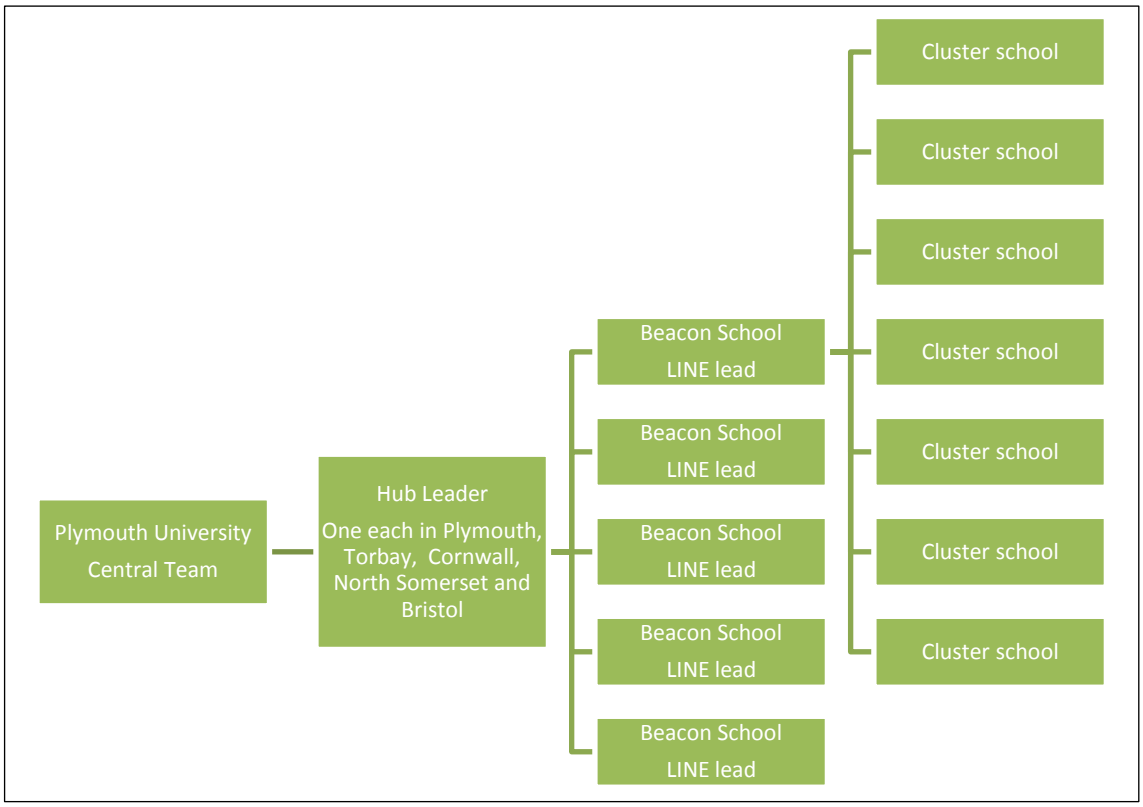


Figure 15.1: The cascaded model of project delivery

The responsibilities for each project 'layer' are outlined below.

- **Central team**

The central team's role was to lead and support project delivery, maintain strong communication with all partners and ensure that there was consistent monitoring and evaluation of developments at project, hub and school levels. Specific responsibilities were to:

  - provide **strategic direction** for the project, in collaboration with Natural England. This meant understanding government and local policy direction, finding potential areas of collaboration with national and local organisations, and seeking potential funding opportunities.
  - **promote the project** at regional, national and international levels by developing and extending local networks of schools, organisations and people involved with LINE, leading seminars and workshops, presenting at national and international conferences, and publishing in a range of digital and print media. This responsibility for promotion was closely linked to the responsibility to bring **added value to the project** through donated funding, time, materials and resources.

- **recruit and support hub leaders**. The nature of central team support (for example with the volunteering or LINE provider elements of the project) varied between hubs as each one developed its own delivery model.
- ensure **communication** between the different layers of the cascade model. This included reporting to the Project Board and Natural England through regular telephone and face-to-face meetings; ensuring communication between the central team, hub leaders and schools (where appropriate) remained open so that successes were reported and challenges could be addressed coherently; reporting relevant issues, developments and requirements to hub leaders and schools through emails, bulletins and newsletters.
- **support hub-level project delivery** through, for instance, organising meetings for hub leaders to share and discuss their project experiences; running CPD on topics such as fundraising that were either not delivered at hub level or could be better delivered strategically at this level; responding to hub demand for LINE leadership training by setting up a Master's LINE leadership module at Plymouth University.
- develop a **website** that would bring resources together to support LINE delivery both locally and nationally.
- develop **volunteering support** for schools to enable them to engage more fully with LINE.
- **test the model of delivery** through evaluation data collection and analysis.
- contribute to a greater understanding of the **benefits of LINE** through reporting (anticipated) positive project findings.
- **generate income** for the project, to make up the projected funding shortfall of £69,625.
- support **FACE's income generation target** of £29,000 to match the projected web service shortfall.

- **Hub leaders**

The hub leaders were paid £13,700 for two years' work, and had a fund of approximately £10,000 to develop hub level projects. Their responsibilities were to develop a local delivery strategy to engage schools with LINE, recruit schools to the project and then to support these schools in a sustainable way to develop their LINE practice. Specific project responsibilities were to:

- develop a **coherent project delivery** strategy within the hub. The central team described the general model to hub leaders, but emphasised the details of delivery would be devolved to hub leaders so that they could build a sustainable model aligned to their own organisation remit and interests.
- **recruit beacon schools**. All hubs developed different recruitment strategies in line with their own contacts and hub environment.

- **support beacon schools** when recruiting their cluster schools, although some hub leaders recruited cluster as well as beacon schools. See KEQ 3 for an in-depth discussion of project recruitment.
- **support** all schools through offering direct support and brokering LINE services of CPD and LINE provider services. Details of hub models of support for beacon and cluster schools can be seen in KEQs 14, 16, 18 and 24.
- ensure **communication** remained open between schools, hub leaders and the central team.
- visit, comment on and contribute to the **project webservice.**
- support schools in recruiting and working with **volunteers.**
- participate in regular **evaluation interviews**.
- ensure **data collection** from schools for the evaluation; support the evaluation team in finding schools willing to host case-study visits.
- develop a **sustainable delivery model** that would last beyond the three-year lifetime of the Natural Connections project.

- **Beacon schools**

Beacon schools were given between £1,000 - £2,500 for their involvement with the project depending on the hub, from the £10,000 allocated to hub leaders. Their responsibilities were to recruit cluster schools, and then to support them in developing their LINE knowledge and practice. Specific project responsibilities were to:

- appoint **a LINE lead** from established school staff to manage the project.
- recruit **a LINE team** from within the school (comprising, for example, headteacher, governors, teachers, parents) to support project activity.
- **recruit** around seven cluster schools to the project by creating links with neighbouring schools.
- **support** LINE development in these schools.
- visit, comment on and contribute to the **project webservice**
- recruit and work with **volunteers**
- complete **evaluation data** requests, and return them to the central team; possibly host a project case-study visit.
- facilitate **parent/carer, pupil and volunteer survey** completion through posting and promoting the links on their websites.

- **Cluster schools**

Cluster schools' project responsibilities were to:

- **recruit** a LINE team from within the school (comprising, for example, headteacher, governors, teachers, parents) to support project activity.
- commit to **increasing their LINE** activities.
- visit, comment on and contribute to the **project webservice**
- recruit and work with **volunteers**
- complete **evaluation data** requests, and return them to the central team; possibly host a project case-study visit.

- facilitate **parent/carer, pupil and volunteer survey** completion through posting and promoting the links on their websites.

15.3 What worked well and what issues arose during project implementation?

The model principles of building sustainable LINE through a participatory and collaborative approach worked well; hub leaders reported that they valued the hub leader meetings (organised by the central team) in which they could share experiences, and schools reported that they particularly valued the collaborative approach of LINE network meetings in their hubs (see KEQs 14, 16, 18, 22, 24 and 29 for more detail). The success of the model can be seen in the raised levels of LINE demand in participating schools (see KEQs 1 and 2, 5, 11 and 25); schools' positive evaluation of the impact of LINE on their pupils learning, which suggests high-quality LINE delivery (see KEQs 4, 7, 10); a greater embedding of LINE in school practice, reflected in statistically-significant increases in school LINE documentation (see KEQs 5, 7 and 12); and schools' creative and innovative LINE practice (see KEQs 6, 10, 19, 26).

In summary the project achieved its aim of increasing the scale and scope of LINE in hubs and in giving greater understanding of some of the impacts of LINE for project participants.

In addition:

- the project's base at Plymouth University provided an authoritative and respected centre for the project, a perception summed up by the following survey response: 'Having the backing from Plymouth University makes the project credible' (survey comment, July 2015).
- the project secured in £48,000 in funding to set up the Devon Naturally Healthy Schools hub, and c.£235,700 amount of added value in terms of donated times, materials and resources. The budget is discussed fully in Sections 9 and 10 of the Final Report.
- team members were invited to present at international conferences, and to write book chapters and contributions to different international LINE-related practitioner journals and magazines.
- the project hosted a number of international visitors from the USA, Belgium, Italy, Norway and Australia. All of these wanted to visit project schools to see their creative and innovative LINE work, and to take ideas back to their own practice.
- the project experience with the 'Growing Schools' website made a significant contribution towards understanding of the required resources and the further development of the 'Countryside Classrooms' web service, which is now a 'one-stop shop' for all organisations interested in and engaged with LINE.

The parts of the model that worked less well were:

- **Hub leader capacity**. All five hub leaders donated considerable amounts of unfunded time to the project, and achieved remarkable results with the funding that they received. However their financial constraints meant that they had to make choices about which project elements to focus on, and they all concentrated on the fundamental aspects of school recruitment and school LINE support. This had ongoing effects for the rest of the project. First, the web service element received little attention; hub leaders quickly reported that it had little relevant content and was difficult to navigate, and so found other ways of communicating with and supporting participating schools. Secondly, the volunteering element proved difficult to initiate and, while two hubs received small amounts of extra funding to explore the volunteering element more thoroughly because of the work they had started in this area, the remaining three engaged relatively little with the question of volunteers. Third, hub leaders were the conduit for information about and requirements for the evaluation, but had varying levels of application and effectiveness in this area, generally because their focus was on recruiting and/or supporting schools, and evaluation was not one of their top project priorities. In addition, one of the hub leaders spoke of the lack of *'carrot or stick'* to lubricate the process of data collection; survey data collected did not have an immediate use for schools, and there were no sanctions should they fail to do so. Fourth was the difficulty of engaging LINE providers; hub leaders were concerned about the equity of recommending one LINE provider over another without a transparent quality assurance (QA) process, but did not have sufficient time either to find out the names of potential LINE providers in the area or to QA their work. This meant that brokerage of LINE provider services tended to be through invitation to hub network meetings or through word of mouth if schools had recommended their services.

  Related to the question of hub leader capacity was the question of project boundaries. The innovative nature of the project, and the desire to encourage hub leaders to develop a sustainable project that fitted in with their own professional remit, ideas and beliefs, meant that there was no 'project template' for hub leaders, and no clear boundaries for the different responsibilities. While this meant flexibility in project delivery, it also created some difficulties as hub leaders had a wide range of differing responsibilities to discharge. For instance Bristol hub leaders reported that they had been *'slightly naïve'* in thinking that engaging volunteers with schools would be *'fairly straightforward'*, and wanted greater clarity about the central team role in this capacity; others were concerned over who would supply the training needed for schools to engage with volunteers, or for volunteers themselves. Some hub leaders questioned whether the role of the central team should include providing a list of local LINE providers and the QA process that they believed should accompany such a list. These questions were resolved during the project, but took up valuable time and perhaps created preventable areas of uncertainty.

A final issue with hub leader capacity was project cohesion. Hub leaders were invited to develop their own project delivery models, and some developed their own project branding; in Cornwall it was known as 'the LINE project' and in Bristol as 'the collaboration'. Although hub leader meetings were appreciated, they were infrequent and generally concerned with practical delivery issues, which allowed little or no time for the development of a common project language, inter-hub support and/or inter-hub projects and potential funding applications.

- The **proposed number of schools**. All hubs had difficulties with project recruitment and none reached the target number of 40 although Plymouth came close with 33. Three hubs recruited their beacon schools relatively easily (see KEQ 3), but all struggled with the highly time-consuming process of recruiting cluster schools. Two hub leaders commented that the target of 40 schools per hub within the project timeframe was unrealistic; another had the view that recruitment would continue gradually and would reach the required number after the project was completed; a third commented on the *'tension'* between the requirement to recruit 40 schools and the time it took *'to engage schools'*. The two hub leaders that had 42 (Torbay) and 75 (North Somerset) potential schools in their hub also commented that 40 schools was a particularly demanding target in their circumstances.

  As we have seen above, hub leader capacity was limited. Below we describe the difficulties sometimes experienced with the beacon/cluster relationship, and how all hubs gradually moved towards a hub-wide, dynamic model of collaboration and networking. The requirement to support more schools more intensively than first anticipated had the effect of stretching hub leader capacity still further, and one summed the situation up as: *'the more schools …* [we] *engage with, the less we have engaged with them'.*

- **Autonomous clusters** of around eight schools improving their LINE practice. There were several issues with this part of the project that were generally related to beacon school and LINE lead capacity and/or energy. In the first place, LINE leads in beacon schools needed to have expertise and belief in LINE together with the capacity and confidence to recruit and then support other schools; when they had these qualities, recruitment and support were successful but, more often than not, hub leaders needed to support these processes. Next, beacon schools had varying responses to the project from their cluster schools; although there were examples of flourishing clusters, most beacon schools found it hard to engage with more than one or two local schools. Third, hub leaders found that small clusters of schools lacked specific areas of expertise and often wanted different types of external support, or that the LINE lead lacked the capacity to support others. The hub leader was the critical component in mitigating all these processes, and all hub leaders moved towards a hub-wide, dynamic model of networking and collaboration that provided a greater

pool of expertise, that could be self-sustaining, and that (at the time of writing) was continuing the LINE momentum created within the project.

- **Variable school investment in LINE**. KEQ 5 showed in detail the variable amounts of investment that project schools made in LINE, and demonstrated that the assumption that all project schools would spend similar amounts of time and money on LINE was misplaced. KEQs 3, 12, 23 and 24 discussed the challenges to engaging schools successfully with LINE, while KEQs 21 and 25 outlined the factors that support LINE development within schools. In KEQ 23 we argued that the principal challenge was one of culture change, and that the key factors in developing LINE in schools were senior leadership support, strong LINE leadership and school investments of time, goodwill, energy and funding; those schools that had motivated staff, that believed in LINE and made it a priority were the ones that invested substantially in LINE, while others with different priorities, for whatever reason, invested less. Similarly LINE leads had varying interpretations of their role; some were passive sources of information, expecting schools to come to them, while others were more proactive in their attempts to support schools – that, in turn, were not always responsive to such approaches.

- **Communication**. There were a number of difficulties relating to communication:
    - In a larger and complex project such as Natural Connections, a significant amount of time is required, particularly during the formative stages, to develop detailed plans for key elements of performance reporting and delivery. The time required to develop and share this work with stakeholders should not be underestimated, particularly if the proposals are unplanned or experimental. In addition, it is important to acknowledge from the outset, that not all proposals will be accepted or be successful, so project staff need to be prepared for areas of work to be rejected or stopped.
    - The Natural Connections project and LINE provider expectations differed; the aspiration for sustainable models of LINE may have encouraged school in-house provision, but LINE providers possibly expected a greater demand for their existing services.
    - The four elements of the project, and the project management approach of maintaining four separate elements with their own timescales, meant that it was difficult to coordinate communication to hub leaders and schools in a way that was timely and appropriate. Hub leaders recognised the potential for information overload very quickly, and two insisted that they were the only conduit for project information to schools; the remaining three managed central team information but also allowed the central team to contact schools when needed. This had two implications:
        - The central team were unable to promote their CPD initiatives, such as ‘Teach and the Beach’ and fundraising workshops, directly to all schools, with the result that attendance was lower than it might have

been. This also highlighted a tension inherent in the project model; the central team's need to raise funds through CPD was often in direct competition with hub leaders' businesses and their own plans for project sustainability.

- Requests for evaluation data were not promoted. Hub leaders had their own project priorities, and the central team often did not know when or if they had passed on the data requests to schools; the necessary repeated requests served to reinforce the impression that the evaluation was a burden to all participants.

- **Volunteering**. Hub leaders had examples of LINE practice that could support schools in achieving their priorities, and project schools gradually came to value the benefits of LINE to their staff and pupils (see KEQ 7). However trying to engage schools with volunteering to support LINE before they had established their practice and seen the benefits was generally a step too far; teachers took time to build expertise and embed LINE in their practice, and many saw no need for volunteers or did not have the staff capacity to recruit and manage them, particularly at the start of the project. Schools did become more receptive to the idea of volunteers once their LINE practice was established and engaging volunteers was seen as support for these activities. These developments meant that the project's Volunteer Officer was effectively engaged too early; as two hub leaders commented, her time could have been used more effectively either towards the end of the project, or as a flexible resource to be drawn on when the need arose. In addition, the work undertaken by two hub leaders to test the volunteering element of the project suggested that its scope and complexity required a separate, fully-funded project (see KEQs 44-64).

- **Web service**. Hub leader and school response to the 'Growing Schools' website was poor; hub leaders reported that the website was '*clunky'*, held insufficient content to be useful to project schools and there were concerns about the QA process for LINE providers who were listed on the site. Other difficulties included: the aim of the website to support a localised project on a national website, with project information aimed at a relatively small number of schools; the reluctance of school staff to upload resources to the site; the development reported by one hub leader in which *'schools aren't very good at looking at websites generally … they're beginning to roll away from them again as a source of easy information'*; and the financial and structural constraints to changing the website design to make it more user-friendly. However these experiences were all taken into account in the creation of 'Countryside Classrooms', a new 'one-stop shop' for LINE services on which the project has a platform. By the end of the project, the NCDP Twitter account and blog were continuing to run successfully beside the project pages on 'Countryside Classrooms'.