

# Evaluation of the Home Access programme - Final report

**SQW (in partnership with Ipsos Mori and  
London Knowledge Lab)**

This research report was commissioned before the new UK Government took office on 11 May 2010. As a result the content may not reflect current Government policy and may make reference to the Department for Children, Schools and Families (DCSF) which has now been replaced by the Department for Education (DFE).

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

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## Executive Summary

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1. In September 2008 the previous administration announced the Home Access Programme – positioned as a £300 million initiative, with Becta as the delivery agent, subsidising the provision of computers and internet access at home for low income families with learners.
2. This is the final report of the evaluation of the Home Access Programme, conducted by SQW in partnership with Ipsos MORI and the London Knowledge Lab.

### Rationale and objectives

3. In our evaluation of the pilot phase of the programme we found that, in retrospect, the Home Access Taskforce report was published in the middle of the biggest up-turn in household internet penetration for several years. **The assumption that a plateau in internet penetration would persist, and that the digital divide (in terms of physical access) was not being narrowed, may not have been the case after all.**
4. However, we suggested that **there did remain a sound case for intervention**, given the acceleration of educational benefits, and given the cost barriers that still exist for the lowest income groups, provided that a) it was focused on benefiting those that previously did not have a computer and/or connectivity at home, and b) it was tightly coupled to initiatives to realise the pedagogical and parental engagement benefits of universal home access for learners.
5. The programme subsequently re-articulated its headline target in terms of households rather than learners, though this did not include reference to whether those households already had functional home access.
6. Our findings for the national roll-out suggest that **the changes previously proposed (in the interim evaluation report) to the articulation of objectives would have helped to improve the value for money of the programme** – in particular by bringing more explicit focus on the need to ensure that the programme benefits those without any access whatsoever, and in helping to make a more explicit link from the programme back to the classroom.
7. Becta considered that programme objectives couched in terms of households which did not already have home access would be difficult to fulfil, as this would entail incorporating an eligibility criterion which would not be verifiable in practice. Furthermore, they argued that there are still significant benefits for households which already had the internet at home, as access to the existing computer may previously have been rather limited for learners in large families and/or in households where the existing equipment was relatively old. We note, however, that inclusion of such a criterion would have helped to improve the programme's value for money (by deterring at least some households which already had functional home access).

## Inputs and activities

8. A total of **£194 million was spent on the Home Access Programme** – substantially less than the £300 million originally envisaged.
9. The programme was successful in attracting its target number of beneficiaries, approving applications and issuing grants in a speedy and efficient fashion to eligible households<sup>1</sup>. The programme adopted a ‘consumer’ model that was unique compared to its predecessor schemes, and was viewed positively by stakeholders; **many local authorities welcomed the approach as it reduced the administrative burden on them.**
10. The **supplier accreditation** process was seen as rigorous and fair. **Fraud was minimal**, despite early concerns – largely thanks to the payment card mechanism, which also helped minimise any stigma for beneficiaries. Becta **programme management** was viewed as effective; and stakeholders reported a positive experience in their engagement with Becta during the programme.
11. However, certain aspects of the programme did not go as well as was expected. Procurement of **Assistive Technology** suppliers was protracted, causing delays in issuing grants to this group of beneficiaries. Although the programme succeeded in achieving its intended volumes, many stakeholders perceived there to be **insufficient targeted marketing to harder-to-reach groups**. Authorities that chose the **aggregation** model reported a significant time commitment on their part, with some complaining of issues with the Home Access Grant Administration Service process; in the end only a small proportion of the grants were distributed through the aggregation model.
12. The **application documents and marketing materials were in the English language only**, a significant issue given that a fifth of eligible pupils would have been from families which do not have English as their first language. Schools organised support sessions to help struggling parents, and some local authorities provided translated material themselves (a process that could have been organised more efficiently centrally).
13. The consumer model did not require regular and intensive **engagement with schools**. Nonetheless, there was general consensus among stakeholders and teachers that school engagement is crucial in the success of a programme such as this. The more proactive schools with Home Access beneficiaries targeted and supported the neediest parents, and considered how best to change their pedagogical practices.

## Gross and net outputs

14. The **programme rapidly succeeded in achieving its target number of beneficiaries**. Including the pilot phase, the total number of households benefiting from the programme was 267,244 – approximately 4.5% of England’s six million households with dependent children.
15. The **profile of beneficiaries was largely as expected** – with younger age groups (typically less likely already to have a computer at home) accounting for relatively high proportions of

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<sup>1</sup> In the national roll-out, these were households eligible for Free School Meals (FSM) with a child aged 7 to 14 in state education in England.

approved applications, and a relatively even split by gender (52% male and 48% female). The ethnicity mix was broadly in line with that of the FSM population, but Asian/Asian British households were somewhat under-represented (9.9% of beneficiaries, compared with 13.7% of the FSM Key Stage 4 - KS4 - cohort in 2010), and only 7% of grants were awarded to beneficiaries for whom English is not their first language (though this group accounts for 22% of the FSM population).

16. The programme's **consumer model was very effective in addressing a highly dispersed target group**. In the national roll-out, grants were awarded to learners in a total of 18,984 schools (the vast majority of England's c. 21,000 maintained primary and secondary schools), and half of the beneficiaries do not live in England's 20% most deprived Lower Layer Super Output Areas. Alternative models targeted at schools with high proportions of FSM pupils, or at particularly deprived geographic areas, would have missed many of the low income households that did end up benefiting from the programme.
17. However, the 'leakage' was high – **most (55%) of beneficiary households already had both a computer and internet at home**, before they received the Home Access grant.
18. This does not imply, though, that there were no educational benefits associated with the package provided to households which already had a computer and the internet – a large majority of these (72%) felt that the Home Access device was 'much better' than the computer they used previously.
19. Amongst the group that didn't previously have it, we estimate that programme brought forward home access by about 2.8 years on average. For every 1 direct beneficiary household, we estimate that a further 0.36 households will have purchased home access for the first time, at least partly as a result of hearing about the programme.
20. Across the pilot and the national roll-out, **the overall net effect of the programme was to accelerate home access in a total of 163,000 households by a total of about 456,000 household-years**.

## Outcomes and impact

21. We found a number of positive indications that the programme is leading to improved outcomes in terms of **enhanced use of home access for education**. Beneficiary learners are on average using a computer 10.1 hours per week at home, of which 4.7 hours are on learning-related activities. There was strong agreement amongst interviewed children that having the Home Access computer is making learning more interesting, lets them use a computer much more often to help them learn, and is helping them to do better at school. In the case studies we found that some pupils reported such benefits being restricted though – sometimes due to technical difficulties with their package (primarily slow or inconsistent mobile broadband connectivity) and sometimes because of the set homework not involving the use of a computer.
22. There were also positive signs that the programme had contributed to **improved Information and Communications Technology (ICT) skills and confidence** for learners, with strong agreement amongst the surveyed children that their computer skills have got a lot better

because they now have the Home Access computer. Teachers in most of our case study schools cited recent improvements in ICT skills and confidence amongst pupils – although they were not necessarily able to attribute these improvements solely to the programme.

23. The case studies also provided evidence of the programme enhancing **opportunities for personal learning**. Pupils value the flexibility a home computer provides, in allowing them to do their homework or online research at home, rather than having to come into school early or stay late after school. Teachers in some schools observed that pupils were taking a more active role in their learning, by doing additional research at home, or using external internet resources to support revision.
24. Furthermore, it was clear that there are benefits in terms of **enhanced attitudes to technology amongst parents**. The vast majority (89%) of interviewed parents agreed that the Home Access computer is something the whole family can use, and most (57%) agreed that they were themselves more interested in using the internet than they were before they got the Home Access computer. This appears to have contributed to a high proportion of families continuing to pay for broadband access: only 9% of households whose free internet period had finished said that they didn't still have broadband connectivity.
25. Teachers in the majority of case study schools found it difficult to attribute any improvements in **learner motivation and behaviour** to the programme, mainly since they were often unsure as to which of their pupils had benefited. However, in general the use of ICT in learning is perceived to have a positive difference on motivation, with several pupils commenting that using the computers had made their work more interesting or fun.
26. The evidence regarding the effect of the programme on the **use of learning platforms** is quite mixed, and it is difficult to determine what effects can be attributed to the programme, as opposed to what would have happened anyway. More parents are now logging on to school resources than was the case in our 2009 baseline survey; but amongst the beneficiary learners, more children disagreed than agreed that they are logging on to their school's learning platform more often since getting the Home Access computer. In our case studies we didn't find any notable impact of the programme on the school's propensity to use their learning platform.
27. The findings regarding the effect on **parental engagement with their children's education** are also somewhat mixed. In the majority of case study schools, home access was not seen to have increased parental engagement, though teachers did acknowledge that email gave parents an additional means of engaging with the school outside parents' evenings or telephone calls. Lack of parental ICT skills, and understanding of what constitutes an appropriate use of the computer at home, was highlighted as a concern by some teachers.
28. It appears that the potential **adverse outcomes** of the programme were largely avoided – although there is a minority for whom the availability of home access (or easier access to a computer at home) is potentially displacing other valuable activities to an excessive extent.
29. In terms of **impact on reducing the digital divide**, we estimate that the programme accounted for a net increase in home access of approximately 167,000 households – equivalent to about 2.8% of England's households with dependent children. Data from Ipsos

MORI's Technology Tracker survey suggests that internet access amongst households with children increased by eight percentage points in the course of 2010, and we reckon that the programme accounted for about a third of this increase. **We estimate that home access penetration levels for households with learners in the 5 to 19 age group are now likely to be in the order of 95%, and still rising.**

30. It is as yet too early to judge the **educational attainment** impacts associated with the programme. However, encouragingly, FSM children's average attainment at KS4 appears to have increased sharply in the last year in the two pilot areas (where pupils received packages in 2009). Furthermore, the national attainment gap between FSM and non-FSM pupils has reduced substantially in the last two years – which is consistent with the hypothesis that 2008's sharp increase in internet penetration rates in low income households with children has helped to lead to improvements in educational attainment for these children.
31. While it was also too early to tell the extent of enhanced **parental engagement with their own skills development**, given that the Home Access package had only been received a matter of months before the interviews, the parents were generally positive about the potential benefits for themselves, with 78% agreeing that having home access will help them develop new skills, and 70% agreeing that it will help them find employment opportunities.

### Value for money

32. Our view is that the programme has been **effective** in achieving most of its intended targets, outcomes and impacts – although the programme would have been still more effective in achieving its overall aim (to move towards ubiquitous access for learners aged 5 to 19) if leakage had been lower, with the available resources more tightly focused on reaching those who didn't have any home access.
33. In terms of its '**economy**', we judge that this has been a relatively expensive programme to design and deliver – with an overall average expenditure of £727 per beneficiary household, of which £165 was on non-grant costs. However, this needs to be put into the context of the high risks and demanding timescales associated with the programme, complexities around tailoring packages to learners with special educational needs, and the fact that the programme was brought to a halt sooner than was originally anticipated.
34. Regarding its **efficiency**, on the basis of the business case model developed for the programme by PricewaterhouseCoopers (using updated assumptions for leakage and deadweight informed by this evaluation) it would appear that the projected benefits do outweigh the costs, with a positive Net Present Value of +£768 million – primarily through the model's anticipated impact of the programme in improving educational attainment, and hence enhancing the lifetime earnings potential of beneficiaries.



## Recommendations

35. In the light of our evaluation, we offer the following recommendations:

- Recommendation 1. The Department for Education should **consider how the operational learning from this major intervention should be applied in future programmes and projects.**
- Recommendation 2. The Department for Education should work with partners - including local authorities, the National Association of Head Teachers, the Association of School and College Leaders, the e-Learning Foundation, and Ofsted – to **develop mechanisms that encourage schools to obtain information on the extent of home access for their pupils, and to exploit better in their pedagogy the existence of near-ubiquitous home access.**
- Recommendation 3. Race Online 2012 should **consider the potential for a further promotional push specifically on the benefits of getting learners online at home, in the run-up to Christmas 2011.**
- Recommendation 4. After Christmas 2011, local authorities and schools should **review the extent to which there remains a gap in ubiquitous home access for learners, and explore local solutions** for addressing those families left without a computer and internet at home.
- Recommendation 5. The Department for Education should **further explore the relationship between home access and educational attainment.**

# 1: Introduction

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## Background

- 1.1 The previous administration's vision for Home Access was "to ensure that all pupils aged 5 to 19 in state maintained education in England have the opportunity to have access to computers and internet connectivity for education...at home."
- 1.2 In July 2008, the Home Access Taskforce report identified evidence of market failure, and made the case for government intervention in providing home access to technology, particularly to lower income families with children. The Taskforce proposed that a programme of intervention should address three key strands of activity:
  - maximising the benefits of home access to all
  - increasing the perceived value by parents
  - removing the barriers of cost for families with low incomes.
- 1.3 Following these recommendations, the Government announced in September 2008 the Home Access Programme – positioned as a £300 million initiative, with Becta as the delivery agency. This programme was to allow for eligible families to apply for a grant to purchase a Home Access package from an accredited supplier.
- 1.4 The programme was piloted in Oldham and Suffolk in 2009, and was rolled out nationally in late 2009. The national roll-out of the programme was targeted at pupils eligible for free school meals (FSM) aged 7-14 years in Key Stage 2 and Key Stage 3 only, compared to the original target group aged 5-19 years during the pilot phase<sup>2</sup>. The delivery model involved awarding grants to eligible families by means of a single pre-loaded card, which could be used to purchase a computer with one year's connectivity from approved suppliers.
- 1.5 In December 2008, Becta commissioned SQW – with Ipsos MORI and London Knowledge Lab - to conduct a longitudinal evaluation of the programme over the period 2009 to 2011. The evaluation was to be formative, in that it would identify lessons from the pilot phase in order to help shape the design of the national roll-out, and summative, in that it would be seeking to establish the net impacts of the intervention.
- 1.6 The overall evaluation research questions were as follows:
  - Has the programme succeeded in providing home access to technology for the target group? What has been the net effect of the programme (over and above what would have happened anyway)?

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<sup>2</sup> Becta and the Department for Education (DfE) had originally envisaged that the other age groups would be targeted with additional funding beyond the Comprehensive Spending Review (CSR) period. However, following the public expenditure cuts and the announcement of Becta's closure, it was decided that the programme would cease to operate beyond March 2011.

- Is there a measurable increase in the proportion of families within the target group who use Information and Communications technology (ICT) to support their learning? How does this proportion compare with that in more wealthy socio-economic groups?
- Is there a measurable increase in the proportion of families within the target group whose perception of the value of having ICT at home to support learning has increased?
- Does home access to technology lead to the intended benefits, including greater use of home ICT for educational purposes, a more personalised education, enhanced motivation and skills, and increased educational attainment?
- Is the programme effective and efficient in delivering home access to the target group?

## This report

- 1.7 This document is the final report of our evaluation of the Home Access Programme. It includes findings from: beneficiary surveys, a series of case studies, stakeholder consultations, and analysis of monitoring and secondary data. Evaluation research methods are explained in more detail in section 2.
- 1.8 The report qualitatively assesses programme impact to date, using evidence from school-based case studies, and provides quantitative analysis of the extent to which it has achieved its intended outputs, outcomes and impacts, using survey data. Secondary data provides an updated national context on the take up of home access to connectivity. We have also utilised Becta's programme monitoring data to assess various aspects of programme activities, and also to profile programme beneficiaries.
- 1.9 The structure of the report is as follows:
- section 2 sets out the programme logic model and explains our evaluation methodology further
  - section 3 summarises our assessment of the programme rationale and objectives
  - section 4 presents our assessment of inputs and activities
  - section 5 sets out an assessment of gross and net outputs
  - section 6 is our assessment of outcomes and impacts
  - section 7 summarises our assessment of value for money in the programme
  - section 8 presents our conclusions and recommendations.
- 1.10 There are three annexes:
- Annex A provides details of stakeholders that have been consulted, and profiles of the case study schools

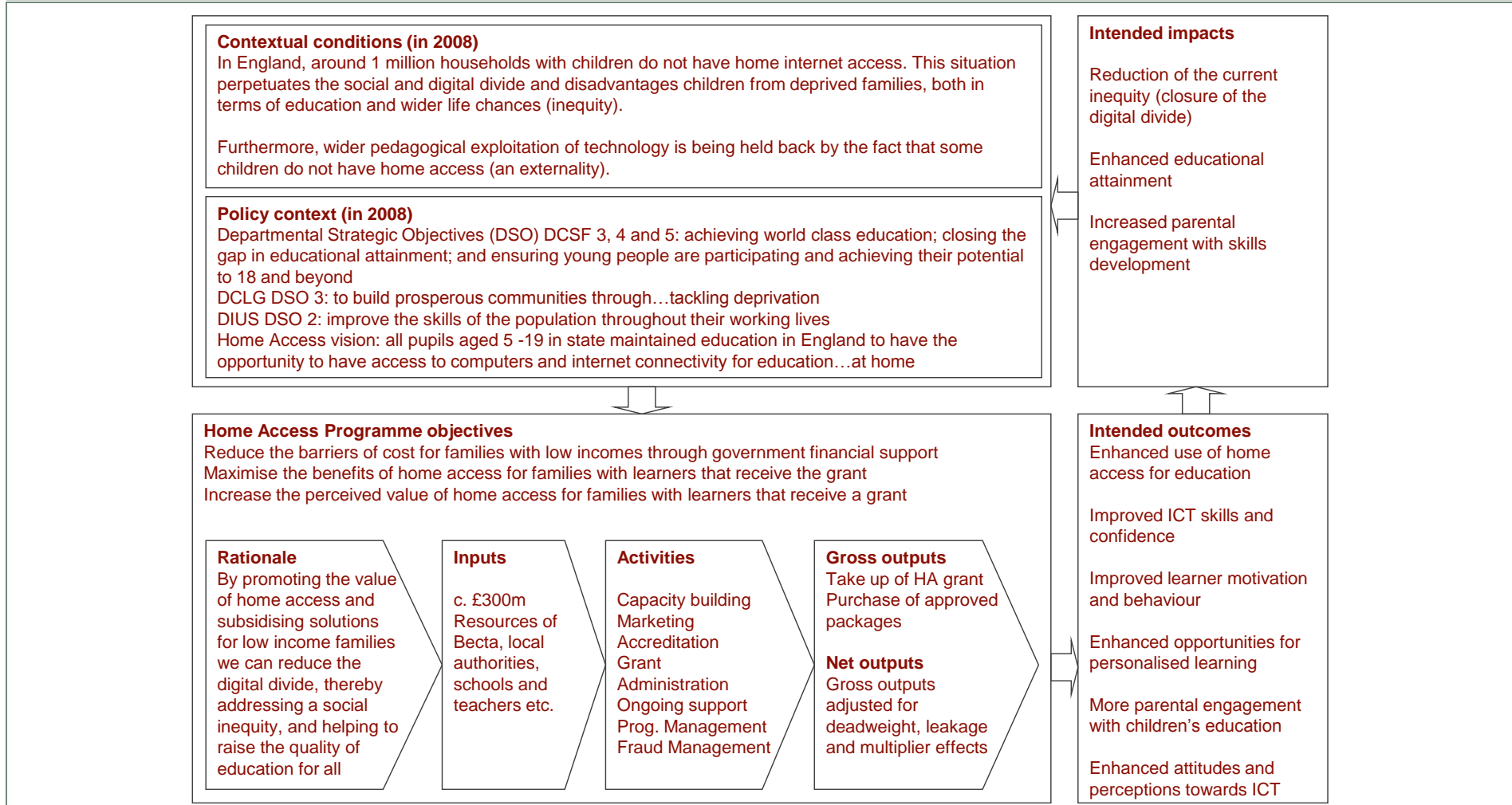
- Annex B sets out our analysis of the contextual conditions for the programme
- Annex C presents summary reports for each of the 15 case studies.

## 2: Programme logic model and evaluation methodology

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- 2.1 The purpose of logic modelling is to establish and challenge the main linkages between a programme's rationale, activities and effects. In summary, the framework explores the relationships between the following factors:
- **contextual conditions** and **policy context** – the problems that are being addressed, and the relevant over-arching policy drivers
  - programme **rationale** and **objectives** – the 'theory of change' as to why government intervention is justified, and the overall aims of the programme
  - **inputs** – resources that go into a programme
  - **activities** – the specific programme tasks undertaken using the inputs
  - **outputs** – the quantifiable results of the programme's activities, distinguishing between 'gross outputs' and 'net outputs' (those outputs in the target group which can be attributed directly to the programme activities and are in addition to those that would have occurred anyway, in the absence of the programme)
  - **outcomes** – behavioural changes and benefits for the target groups as a direct result of the net outputs
  - **impact** – the long-term changes in the contextual conditions that the programme seeks to address, resulting from the beneficiary outcomes.
- 2.2 Figure 2-1 below presents a summary of the logic model for the Home Access Programme, based on our review of the programme documentation and our discussions with stakeholders.
- 2.3 This logic model was tested throughout the evaluation, and formed the basis for the design of key evaluation methods. This helped to explore any potential lack of alignment between certain parts of the logic model – for example, between the rationale and the stated programme objectives, or between the rationale and the intended outputs, or between the activities and the intended outcomes. Where this was the case, we highlighted any such findings to the programme team, as a key part of our formative evaluation during the early stages of the research.
- 2.4 In presenting the findings of this evaluation, we have structured our report to set out our assessment of the evidence for each of the key components of the logic model.

Figure 2-1: Summary logic model (as at programme inception, in 2008)



Source: SOW, based on review of programme documentation. Note that department names in this diagram refer to those current at the inception of the Home Access Programme. Also note that this diagram reflects the £300 million originally envisaged to be spent, rather than the £194 million actually incurred.

## Evaluation methodology

- 2.5 Our methodology for the Home Access evaluation has comprised two principal aspects:
- a *formative or process evaluation* of the programme pilot in Oldham and Suffolk – this analysed the programme rationale and objectives, and identified a number of lessons from the pilot phase to inform the design of national roll-out activities
  - a *summative or impact evaluation*, to assess the net impact of the full programme.
- 2.6 The evaluation activity was in two phases: Phase 1 (January 2009 to December 2009) and Phase 2 (September 2010 to March 2011).
- 2.7 Table 2-1 summarises the approach and the core methodologies that were used in the evaluation.

Table 2-1: Summary of evaluation research methods

Research method	Evaluation phase	Purpose and details
Evaluation framework development	Phase 1	The evaluation framework was articulated in SQW's scoping report to Becta and outlined what would be assessed, how it would be assessed in terms of research methods, and the key indicators that would inform our assessment.
Stakeholder consultations	Phase 1, 2	26 in Phase 1 and 30 in Phase 2  Phase 1 consultations were aimed at testing the programme rationale and objectives, framing the key research questions to inform design of research tools, and identifying lessons learned from the pilot  Phase 2 consultations were aimed at gathering intelligence about delivery and implementation of the national roll-out. Both phases included consultations with local authorities, suppliers and wider stakeholders, including members of the Home Access Programme Board.
Research and policy reviews	Phase 1	The purpose of the literature review was to contribute to evaluation design by identifying the key benefits that the evaluation needs to focus on, and topics and hypotheses for testing in research tools.
National and local indicator data review	Phase 1	The review of secondary data sources linked to indicators of interest for the evaluation was aimed at identifying the core datasets for constructing a baseline and allow for trend analysis to contribute to the understanding of shifts in desired outputs and outcomes (take up, internet penetration, educational outcomes) during the course of the programme.
National and local indicator data analysis	Phase 1 and 2	This analysis took the core datasets identified above and collated and analysed data accordingly, to set up a baseline in Phase 1 and conduct trend analysis in Phase 2. Annex B presents the findings of the final analysis of contextual conditions using data from a number of sources.
Survey of beneficiaries and non beneficiaries in pilot areas of Oldham and Suffolk	Phase 1	The aim of the pilot area survey was to obtain perceptions of beneficiaries and non-beneficiaries of the pilot, with a particular emphasis on the appropriateness and effectiveness of the pilot design, processes and operations. Interviews were with parents/carers by telephone (Ipsos MORI), using a questionnaire agreed by Becta.

Research method	Evaluation phase	Purpose and details
		A survey of 400 households in Oldham and Suffolk was undertaken during May and June 2009, half with a named sample of known applicants and half with a random sample in areas of the two local authorities within England's 20% most deprived.
A national household survey – baseline and post intervention “NS wave 1” and “NS wave 2”	Phase 1, 2	Wave 1 = 808; Wave 2 = 295 <sup>3</sup>  The survey use a before-after methodology, with Phase 1 providing a baseline and Phase 2 providing a post-intervention picture. The survey was designed to provide quantitative data on the programme's outputs, outcomes and impacts. It used an in-home, interviewer-administered survey, involving two interviews per household – one parent/carer and one child, for up to 30 minutes each.  Wave 1 comprised face to face interviews with 808 households (parent/carer and child) across England in summer 2009, to provide a 'pre-treatment' baseline for the evaluation. The sample was drawn from an extract of the National Pupil Database, for households with addresses within England's 20% most deprived Lower Layer Super Output Areas.  Wave 2 comprised interviews in December 2010/January 2011 with a sample of 229 known beneficiary households drawn from Becta's monitoring data extract, plus a longitudinal sample of 66 households that were interviewed and did not have home access in wave 1.
An effective targeting survey in two waves “ETS wave 1” and “ETS wave 2”	Phase 2	Wave 1 = 350; wave 2 = 350  This 15 minute telephone survey with known beneficiary parents was an additional piece of work commissioned by Becta, to track levels of leakage and deadweight in the national roll-out, given the findings of the pilot evaluation.  ETS wave 1 was conducted in March 2010; ETS wave 2 took place in September 2010
Case studies	Phase 1, 2	Phase 1 = 7; Phase 2 = 15  The aim of the case studies was to gain qualitative insights into people's experience of the Home Access Programme. Where the survey was much looking at 'what', 'how many', etc., the case studies looked at 'how' and 'why'. A case was a school. Interviews were held with groups of children and with teachers and the ICT co-ordinator at the school.  Phase 1 case studies took place in the pilot areas of Oldham and Suffolk.  Phase 2 case studies were conducted in schools across England.  The case studies were selected to give a mix of schools, based on a number of criteria including levels of take up of the Home Access Programme grant, school type, Index of Multiple Deprivation and/or incidence of free school meals eligibility.
Monitoring data analysis	Phase 1, Phase 2	Financial and beneficiary monitoring data collated by the programme was used to provide evidence on programme inputs, activities, processes and key outcomes. It provided evidence on a number of indicators such as the numbers and characteristics of beneficiary households, types of packages and devices taken up, and the efficiency of the application process. It also provided financial data for our value for money assessment.  We analysed beneficiary monitoring data collated for the

<sup>3</sup> The original SQW/Ipsos MORI evaluation proposal for the NS wave 2 survey was to undertake similar number of interviews as NS wave 1. However, in the light of public expenditure cuts and the announcement of Becta's closure, SQW and Ipsos MORI were asked to reduce the scope and scale of the second wave.



Research method	Evaluation phase	Purpose and details
		pilot in Oldham and Suffolk. We also gained access to, and analysed two extracts of the national roll-out monitoring data collated by Capita.
Data linking – National Pupil database and Home Access Programme beneficiaries	Phase 2	<p>We undertook an exploratory analysis of beneficiaries' attainment using information from the National Pupil Database (NPD).</p> <p>The Department for Education provided NPD attainment information for the 290 pupils who benefited from the pilot in Oldham in 2009 and took their Key Stage 4 (GCSEs and equivalent) in 2010. SQW undertook exploratory analysis of the data to compare patterns in attainment amongst Home Access Programme beneficiaries and non-beneficiaries in Oldham.</p>

Source: SQW

- 2.8 The mixed method approach outlined above has allowed us to combine the evidence from quantitative survey methods and administrative data with qualitative case studies, in order to validate the emerging findings from the research and ensure their reliability and credibility.
- 2.9 The remaining sections of this report present our assessment of each key component of the logic model, incorporating evidence from these various research methods.

## 3: Assessment of rationale and objectives

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- 3.1 In this section, we examine the programme's rationale and objectives, to consider whether the rationale for intervention was valid, and whether the programme's objectives were appropriate.

### Summary of key messages

#### Programme rationale and objectives

In our evaluation of the pilot phase of the programme we found that, in retrospect, the Home Access Taskforce report was published in the middle of the biggest up-turn in household internet penetration for several years. **The assumption that a plateau in internet penetration would persist, and that the digital divide (in terms of physical access) was not being narrowed, may not have been the case after all.**

However, we suggested that there **did remain a sound case for intervention**, given the acceleration of educational benefits, and given the cost barriers that still exist for the lowest income groups, provided that a) it was focused on benefiting those that previously did not have a computer and/or connectivity at home, and b) it was tightly coupled to initiatives to realise the pedagogical and parental engagement benefits of universal home access for learners.

The programme did subsequently re-articulate its headline target in terms of households rather than learners – though without including any reference to whether those households already had functional home access.

Our findings for the national roll-out suggest that the **changes previously proposed (in the interim evaluation report) to the articulation of objectives would have helped to improve the value for money of the programme** – in particular by bringing more explicit focus on the need to ensure that the programme benefits those without any access whatsoever, and in helping to make a more explicit link from the programme back to the classroom.

Becta considered that programme objectives couched in terms of households which did not already have home access would be difficult to fulfil, as this would entail incorporating an eligibility criterion which would not be verifiable in practice. Furthermore, they argued that there are still significant benefits for households which already had the internet at home, as access to the existing computer may previously have been rather limited for learners in large families and/or in households where the existing equipment was relatively old. We note, however, that inclusion of such a criterion would have helped to improve the programme's value for money (by deterring at least some households which already had functional home access).

## Stated rationale and objectives

- 3.2 The rationale for intervention was set out in the Home Access Taskforce report from July 2008:

*Strong evidence exists for the potential educational, economic and wider benefits of home access to technology. Despite this growing body of evidence, approximately 35 per cent of families still do not have access to the internet and the digital divide is not being narrowed. It is clear that cost is a major barrier to access and, whilst costs of home access are falling, they will not do so quickly enough to prevent a large number of low-income families from being excluded from the educational and wider benefits of home access. This exclusion of low-income families results in an inequitable exploitation of home access and means that it is impossible for all learners and their families to experience these educational benefits without some intervention.*

*The Taskforce has identified evidence of market failure and is convinced there is a compelling business case for Government investment in support of widening opportunities to home access. The educational benefits alone justify such investment, but there will also be significant personal, social and financial benefits from any programme.*

- 3.3 We would summarise the **rationale** as follows:

- By promoting the value of home access and subsidising solutions for low income families we can reduce the digital divide, thereby helping to address a social inequity, and providing opportunities for schools/colleges and local authorities to raise the quality of education for all.

- 3.4 The Home Access Programme's intended contribution to the Government's vision of universal home access for learners was set out as a combination of three aims, four objectives and six 'benefit-recognition events':

- Aims:
  - To reduce the barriers of cost to families with low incomes, through government financial support
  - To maximise the benefits of home access to all eligible families with learners that receive the grant
  - To increase the perceived value of ICT for learning at home to all eligible families with learners that receive the grant.
- Objectives:
  - To increase the attainment of pupils
  - To provide wider opportunities for pupils to engage in formal and informal learning
  - To increase parental engagement with schools and colleges

- To increase awareness and enable improvements in economic and social benefits of having access to ICT at home.
  - Benefit-recognition events:
    - Decrease in the technology gap between the varying income groups
    - Special needs learners gain access to software or assistive technology, appropriate to their needs
    - Improved learning of eligible pupils
    - Increased parental involvement in child's learning
    - Increased number of parents using technology for learning for themselves
    - Improved economic status of eligible families, caused by use of technology.
- 3.5 Becta had begun work on rationalising programme objectives and aims in early 2010. However, with the announcement of Becta's closure in May 2010, and the need to achieve cost savings, it became clear that the additional work needed to maximise the benefits of home access for learners and families would not take place. On that basis, Becta's revised remit letter from the DfE focused the programme on its first aim: *to reduce the barriers of cost to families with low incomes, through government financial support.*
- 3.6 The Chief Executive of Becta (Senior Responsible Officer for the Home Access Programme) wrote to the Permanent Secretary for DfE, confirming the focus for the work for the remainder of the 2010/11 financial year, and alerting the Department to issues around how it would reap the benefits from the programme.
- 3.7 The original headline programme target was for 330,000 learners aged 5-19 years to receive financial support for an approved Home Access package by March 2011. However, for the national roll-out, the programme targeted learners aged 7-14 years only (Key Stages 2 and 3) as it was hoped that other age groups could be targeted once the programme was extended beyond March 2011. The target was subsequently reduced to 258,000 households.
- 3.8 It is important to note that although the *programme* aims, objectives and benefit-recognition events were focused on families eligible for the Home Access Programme grant, stakeholders thought that the evaluation should also gather evidence in the spirit of the wider *policy objectives* addressed by the Home Access Taskforce. As such, the Home Access Programme ought to be evaluated against its brief but within the context of contributing towards the vision of universal home access and its associated intended benefits for all learners and their families.

## Assessment of the rationale and objectives

- 3.9 In retrospect, it is clear from subsequent data that the Home Access Taskforce report was published in the middle of the biggest up-turn in household internet penetration for several years. The assumption that a plateau in internet penetration would persist, and that the digital

divide (in terms of physical access) was not being narrowed, may not have been the case after all.<sup>4</sup>

- 3.10 Was there still a sound rationale for intervention, then, in the light of recent market developments? Our research for the evaluation of the pilot phase suggested that there *did* remain a sound case, given the acceleration of educational benefits, and given the cost barriers that still exist for the lowest income groups, *provided that*:
- the national roll-out is designed to minimise the amount of ‘leakage’ (into households that already have a computer and internet access) and ‘deadweight’ (where public funding is used to buy a computer and internet access that the beneficiaries would have purchased with their own money)
  - the programme is tightly coupled to initiatives to realise the pedagogical and parental engagement benefits of universal home access for learners – for the majority who already have home access, as much as for the minority obtaining home access for the first time via this scheme.
- 3.11 The programme aims, objectives and benefit-recognition events noted above were couched in terms of the benefits to the learners and families that receive the Home Access grant – the reasoning being that wider benefits (cited in the Taskforce report) are not within the control of the programme. However, our evaluation of the pilot phase suggested that an additional explicit objective should be considered around stimulating an acceleration in the rate of pedagogical exploitation of home access – either for the programme or for related Becta activities.
- 3.12 Furthermore, we recommended that the headline programme target should be re-articulated in terms of the number of *households* with learners that are to be connected to the internet (via a computer) *which did not previously have functional home access*. The leakage associated with the pilot was high, and we suggested that the national roll-out must be very firmly focused on the households that are the hardest to reach and that do not (and will not) otherwise have home access.
- 3.13 Finally, we note that the three aims, four objectives and six benefit-recognition events described above were developed as the programme matured. Taken together, the aims, objectives and benefit-recognition events were a somewhat complicated articulation of what the programme intended to achieve, and the mapping from aims to objectives to benefit-recognition events was not straightforward. Our evaluation of the pilot phase suggested that rationalising and simplifying the aims, objectives and benefit-recognition events into a single set of programme objectives with explicit links back to the rationale for intervention articulated in the Home Access Taskforce report, would help to ensure internal and external clarity on what the programme is formally intended to achieve.

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<sup>4</sup> Also, the statement within the rationale for intervention, set out in the Home Access Taskforce report, that 35 per cent of families still do not have access to the internet at home, requires clarification: ‘households’ would have been more accurate than ‘families’ (many of the 35 per cent are elderly people with no children at home); in early 2008, approximately 17 per cent of England’s households with children (approximately 1 million households) lacked a computer and internet access, according to the Office for National Statistics (ONS).

- 3.14 The programme did subsequently re-articulate its headline target in terms of households rather than learners – though this did not include reference to whether those households already had functional home access.
- 3.15 Our findings for the national roll-out suggest that the changes previously proposed (in the interim evaluation report, from the pilot phase) to the articulation of objectives would have helped to improve the value for money of the programme – in particular by bringing more explicit focus on the need to minimise leakage (which turned out to be higher in the national roll-out than in the pilot), and in helping to make a more explicit link from the programme back to the classroom.
- 3.16 Becta considered that programme objectives couched in terms of households which did not already have home access would be difficult to fulfil, as this would entail incorporating an eligibility criterion which would not be verifiable in practice. Furthermore, they argued that there are still significant benefits for households which already had the internet at home, as access to the existing computer may previously have been rather limited for learners in large families and/or in households where the existing equipment was relatively old. We note, however, that inclusion of such a criterion would have helped to improve the programme's value for money (by deterring at least some households which already had functional home access).

## 4: Assessment of inputs and activities

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- 4.1 In this section, we describe programme inputs and the various activities undertaken by Becta and its partners, and examine the effectiveness with which these activities were delivered.

### Summary of key messages

#### Programme inputs and activities

A total of **£194 million** was spent on the Home Access Programme – substantially less than the £300 million originally envisaged.

The programme was **successful in attracting its target number of beneficiaries**, approving applications and issuing grants in a speedy and efficient fashion to eligible households. The programme adopted a ‘consumer’ model that was unique compared to its predecessor schemes, and was viewed positively by stakeholders; **many local authorities welcomed the approach as it reduced the administrative burden on them.**

The **supplier accreditation** process was seen as rigorous and fair. **Fraud was minimal**, despite early concerns – largely thanks to the payment card mechanism, which also helped minimise any stigma for beneficiaries. Becta **programme management** was viewed as effective; and stakeholders reported a positive experience in their engagement with Becta during the programme.

However, certain aspects of the programme did not go as well as was expected. Procurement of **Assistive Technology** suppliers was protracted, causing delays in issuing grants to this group of beneficiaries. Although the programme succeeded in achieving its intended volumes, many stakeholders perceived there to be **insufficient targeted marketing to harder-to-reach groups.** Authorities that chose the **aggregation** model reported a significant time commitment on their part, with some complaining of issues with the Home Access Grant Administration Service process; in the end only a small proportion of the grants were distributed through the aggregation model.

The **application documents and marketing materials were in the English language only**, a significant issue given that a fifth of eligible pupils would have been from families which do not have English as their first language. Schools organised support sessions to help struggling parents, and some local authorities provided translated material themselves (a process that could have been organised more efficiently centrally).

The consumer model did not require regular and intensive **engagement with schools.** Nonetheless, there was general consensus among stakeholders and teachers that school engagement is crucial in the success of a programme such as this. The more proactive schools with Home Access beneficiaries targeted and supported the neediest parents, and considered how best to change their pedagogical practices.

## The delivery model

- 4.2 The Home Access Programme adopted a delivery model that involved awarding grants to eligible families via a pre-loaded grant card that could be redeemed for computer/connectivity packages specified by Becta, and offered by a number of approved suppliers. This ‘consumer’ model differed from predecessor schemes such as Computers for Pupils which provided funding to local authorities and schools to provide equipment, support and advice to families.
- 4.3 However, an aggregation scheme was also offered as an option to local authorities and schools, alongside the main consumer model. Participating schools and local authorities were responsible for the promotion of the aggregation scheme to their families, distributing application forms, and then the subsequent ordering of compliant packages on behalf of those who decided to take part.
- 4.4 A majority of grants in the programme were issued via the consumer model. Almost all stakeholders, including schools, local authorities and suppliers were positive towards this model, and were of the view that it worked extremely well in terms of empowering families to exercise choice and own their home access equipment, which was not necessarily the case in earlier schemes. Furthermore, it ensured that local authorities were not burdened with delivery, allowing them to focus on promoting the scheme in their local areas.

## Programme inputs

- 4.5 A total of £194 million was spent on the Home Access Programme (including the pilot phase, but *excluding* the separate Home Access for Targeted Groups activity with local authorities), as summarised in the table below.

Table 4-1: Summary of programme expenditure (in £000s)

Type of expenditure	Actual 2008/09	Actual 2009/10	Forecast 2010/11	Total
Revenue	8,553	17,975	16,423	42,931
Capital	4,300	49,300	97,691	151,291
<b>Total</b>	<b>12,833</b>	<b>67,275</b>	<b>114,114</b>	<b>194,222</b>

Source: Becta, February 2011

### Unit costs

- 4.6 A total of 258,253 grants were redeemed under the national roll-out, which implies an average cost of approximately £727 per beneficiary household, if all programme costs are considered (including the costs of the pilot, and adding in the 8,991 beneficiary households from the pilot).
- 4.7 As shown in the table below, the overall unit costs were skewed somewhat by the relatively high expenditures associated with the pilot and with providing assistive technology. Excluding these elements, the unit costs of the national roll-out were approximately £657 per beneficiary household.



Table 4-2: A breakdown of the units for different elements of the programme

	Total revenue spend (£000s)	Total capital spend (£000s)	Total spend (£000s)	Number of beneficiary households	Cost per beneficiary household (£)
Pilot	6,044	7,100	13,144	8,991	1,462
National roll-out (excl assistive technology)	33,182	128,400	161,582	245,831	657
Assistive technology	3,704	14,191	17,895	12,422	1,441
<b>Entire programme</b>	<b>42,931</b>	<b>151,291</b>	<b>194,222</b>	<b>267,244</b>	<b>727</b>

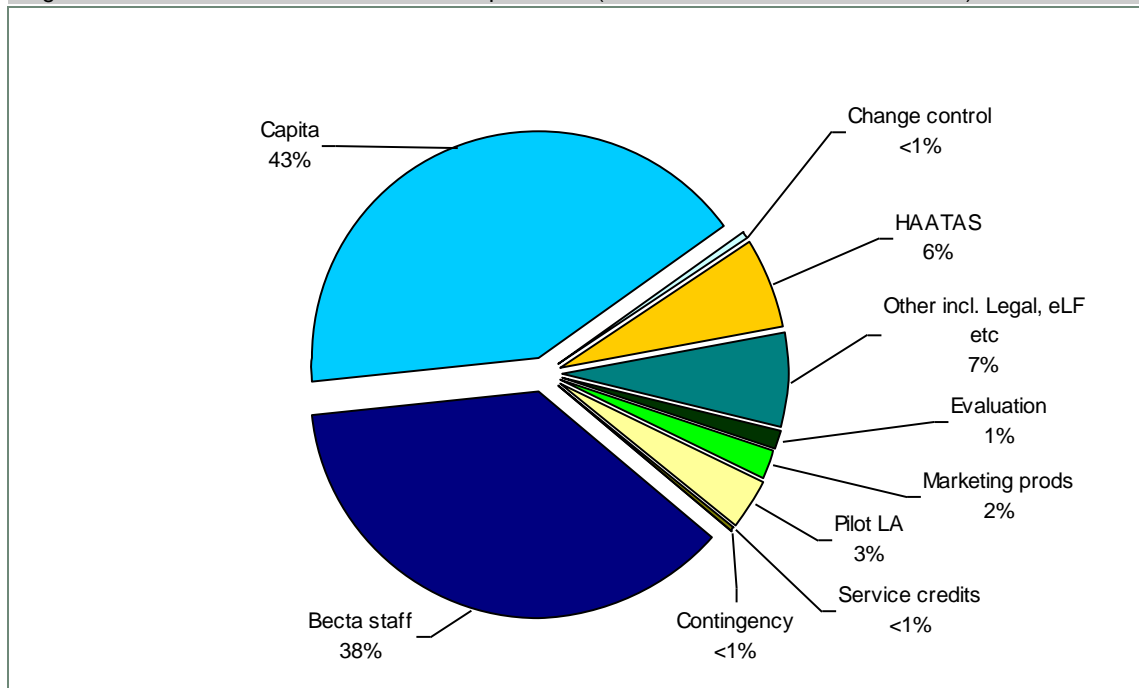
Source: Becta monitoring data March 2011, and financial data, February 2011

### Breakdown of programme expenditure

#### Breakdown of revenue expenditure

4.8 Figure 4-1 provides a breakdown of the total revenue expenditure (actual for 2008/09 and 2009/10, and forecast for 2010/11) amounting to nearly £43 million over the life of the programme. Spend was dominated by two main categories - 43% on the Home Access Grant Administration Service (HAGAS), and 38% on Becta staff costs. The HAGAS service costs included costs for operating the call centre, processing and validating applications, and supply of the payment card, as well as marketing and demand generation activities. Becta staff costs included programme management, procurement of HAGAS and suppliers, contract and supplier management, fraud management and monitoring, and central support services.

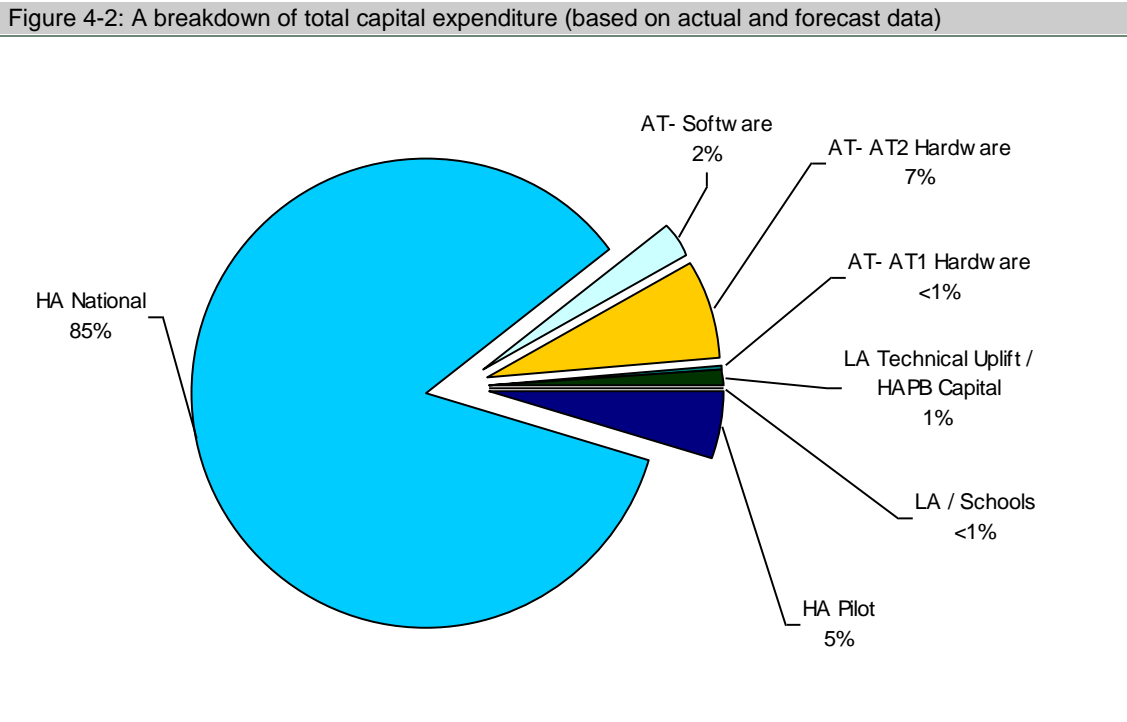
Figure 4-1: A breakdown of total revenue expenditure (based on actual and forecast data)



Source: Becta, February 2011. HAATAS = Home Access Assistive Technology Administration Service

*Breakdown of capital expenditure*

4.9 Figure 4-2 provides a breakdown of the £151 million capital expenditure – actual for 2008/09 and 2009/10, and forecast for 2010/11. Unsurprisingly, a large majority (85%, £128.4 million) of total capital expenditure was spent on the grants issued in the national roll-out. Assistive technology hardware accounted for a further 7% (£10.46 million) of the total capital costs.



Source: Becta, February 2011. Note that LA Technical Uplift refers to expenditure on ICT infrastructure within the two pilot local authorities, which was not incurred for the national roll-out. AT1 refers to Assistive Technology that was offered as part of the main package, and AT2 refers to Assistive Technology offered via bespoke solutions.

**Observations from consultations**

- 4.10 All fifteen local authorities that were interviewed as part of this evaluation appeared to have been involved in some way in promoting the programme, albeit in varying degrees. Since no additional funding was provided to local authorities by Becta to promote or deliver the programme, authority staff with responsibilities for ICT and learning tended to undertake Home Access Programme related activities as part of their day to day responsibilities. Although resources used were minimal, some authorities reported significant amounts of time spent by staff to promote the scheme, all of which appeared to have been absorbed by the authorities. Some authorities also indicated that they had been working with the E-Learning Foundation alongside the Home Access Programme to help families get home access.
- 4.11 Local authorities also reported that, although school engagement with the programme was variable, some schools had spent considerable amounts of their own time and resources in promoting the programme and helping families apply for the scheme.
- 4.12 The three local authorities that had adopted the aggregation scheme reported that they had spent significant amounts of time and resource in administering the scheme, although there was no funding made available for this.

## Activities

- 4.13 This sub-section describes and assesses the effectiveness with which each of the key programme activities were delivered. The activities are broadly categorised as: setting grant levels and options; determining the eligibility criteria; procuring and delivering the Home Access Grant Administration Service (HAGAS), including marketing and capacity building; accreditation and procurement of suppliers; the packages offered and taken up by customers; the aggregation model option; delivery of assistive technology; fraud management; and overall programme management and monitoring. It uses evidence from a number of sources, namely, beneficiary monitoring data, qualitative consultations with stakeholders and case study visits to schools.

### **Grant levels and options**

- 4.14 The Home Access Programme offered three broad types of packages, as summarised in Table 4-3.

Table 4-3: Summary of Home Access Programme packages in the main national roll-out

Package type	Package description	Package value
Full package	Comprising a computer and internet connection	£528
Device only	Through either a desktop, notebook or netbook <sup>5</sup>	£400
Connectivity only	Internet only option (mobile or fixed)	£180

Source: Becta

- 4.15 A full package included a computer, 12 months' worth of broadband connectivity, the operating system and productivity software, learning tools, parental control software and support.
- 4.16 Post pilot, Becta had reviewed the products on offer and optimised the package to include institutional software that offered some basic elements of assistive technology to help with needs such as visual impairment and literacy support. An enhanced, separate Assistive Technology package was offered to those judged as having complex needs.
- 4.17 Most stakeholders consulted during the course of the evaluation were of the view that grant levels were appropriate. Some reported having had feedback from families that they could get a cheaper computer from elsewhere – though this typically reflected the difficulties in communicating the added value associated with features included in the package above and beyond a basic computer (connectivity, parental control software, support etc.).
- 4.18 Table 4-4 compares application approvals and redemptions by package type, using Becta monitoring data up to and including 5 September 2010.<sup>6</sup> Over three quarters of approved grants were for the full package (196,584, 77.1%), with the device-only option accounting for

<sup>5</sup> A 'notebook' is otherwise known as a laptop computer – generally of a higher specification than the smaller 'netbook'

<sup>6</sup> SQW was provided with more up to date including the period up to December 2010. However, this contained data that were classified differently and contained inconsistencies and hence for reasons of accuracy, an earlier dataset is used to perform this analysis.

22.7% (57,802). Only a handful of the grants approved were for the internet-only package (633 or 0.2%).

Table 4-4: Levels of package approvals and application completions as of 5 September 2010

	Approvals		Redemptions		Total completed as % of total approvals
	Total	% of approvals	Total	% of redemptions	
Full package	196,584	77.1%	153,610	66.6%	78%
Device only	57,802	22.7%	75,118	32.6%	130%
Connectivity only	633	0.2%	215	0.1%	34%
Unknown	0	0.0%	1,762	0.8%	N/A
<b>Total</b>	<b>255,019</b>	<b>100.0%</b>	<b>230,705</b>	<b>100.0%</b>	<b>90%</b>

Source: SQW analysis of Becta monitoring data as of December 2010

- 4.19 The fact that more ‘device only’ packages had been redeemed than had been approved suggests that significant numbers of people (at least 17,316) who had been awarded the full package grant hadn’t actually chosen to take up the connectivity part of the package at the time of purchase. It is also notable that only a low proportion (34%) of connectivity only beneficiaries had redeemed their grants as of 5 September 2010.

### **Eligibility criteria**

- 4.20 In the national roll-out, grants were made available to families with learners aged 7-14 years that are eligible for Free School Meals (FSM). Eligible families were offered one grant per household, unless there were siblings with special educational needs that required enhanced assistive technology packages.
- 4.21 Aligning eligibility criteria with those used for FSM was a pragmatic decision, which enabled the programme to use eligibility data from the Department, and which reduced the complexity and cost of eligibility checking.
- 4.22 Amongst case study schools, most teachers were aware of the eligibility criteria being defined based on FSM eligibility. The criteria were largely perceived to be fair and the teachers and ICT coordinators acknowledged the need to have a practical measure to define eligibility. Nonetheless, the majority expressed some concern about families who “just missed out” on the benefits of the programme: low income, working families. Similarly, stakeholders broadly agreed with the criteria, while some expressed concern about the scheme missing ‘the working poor’.
- 4.23 Whilst most teachers believed the parents acknowledged the fairness of the eligibility criteria, a small number reported parental concerns regarding it. Parents with large families had questioned the restriction to one computer per family, whilst some low income families had been disappointed when told that they were not eligible. Some schools found it challenging to deal with the disappointed parents but others believed that the “the free school meal criteria made it easier, in that there were no fuzzy answers – if you're not on free school meals then you can't apply”.

### ***The Home Access Grant Administration Service (HAGAS)***

- 4.24 The Home Access Grant Administration Service (HAGAS) was outsourced by Becta to a managed service provider, Capita Business Services Limited. Capita was responsible for demand generation for both the main consumer model and Assistive Technology, issuing application forms, assessing returned applications and awarding grants by means of a payment card, issued by its sub-contractor, Barclaycard. Capita was also required under its contract to have an anti-fraud strategy.
- 4.25 Our consultations with some of the core members of Becta's Home Access team suggested that the procurement of the managed services provider took place relatively smoothly, although the running and management of it experienced some teething problems (for example, in the quality of management information).

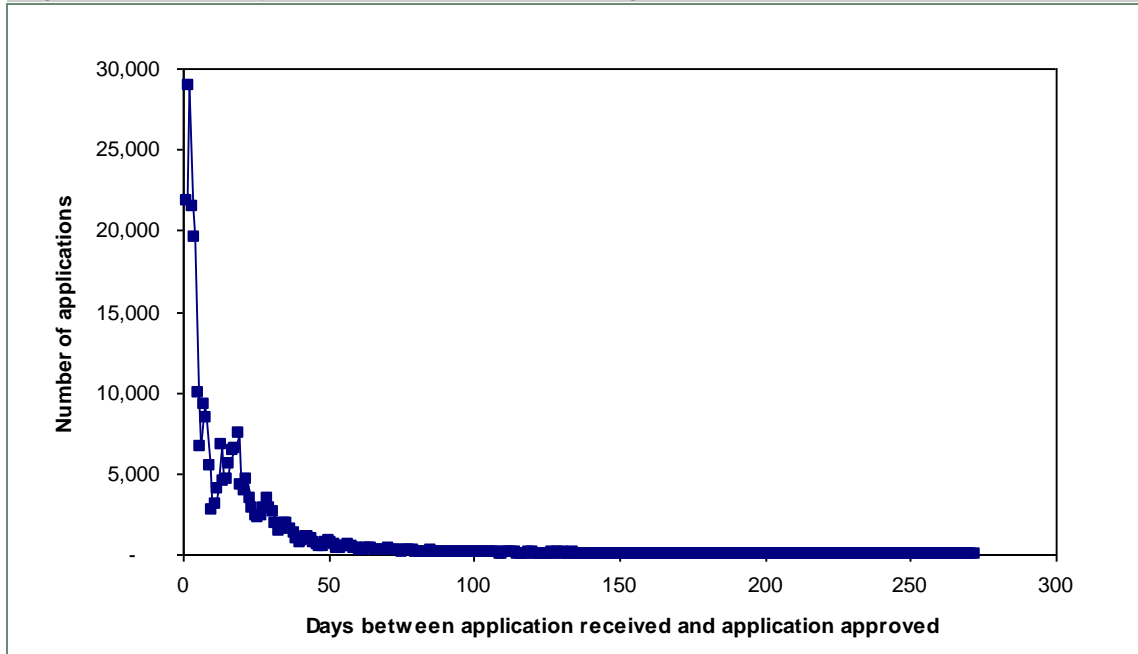
#### *Payment card*

- 4.26 Grants were issued to beneficiaries by sending out pre-loaded payment cards from Barclaycard, once applications were approved by Capita. Stakeholders, including Becta, were unanimous in their view that the pre-paid method worked extremely well as part of the wider consumer model – helping to minimise fraud and avoid potential issues of stigma for beneficiaries. The experience gained with these cards during the pilot phase helped to ensure that the process ran smoothly with suppliers in the national roll-out.

#### *Enquiry and application processing*

- 4.27 The HAGAS process involved receiving applications, checking eligibility, and approving or rejecting applications, followed by the issuing of grants and payment cards to beneficiaries.
- 4.28 As Figure 4-3 shows, once Home Access Programme applications were received, they were usually approved relatively quickly. Nearly half (47%) of applications were approved within seven days, whilst 81% were approved within 28 days, including any delays associated with applicants needing to go back to HMRC, for example, for further evidence.

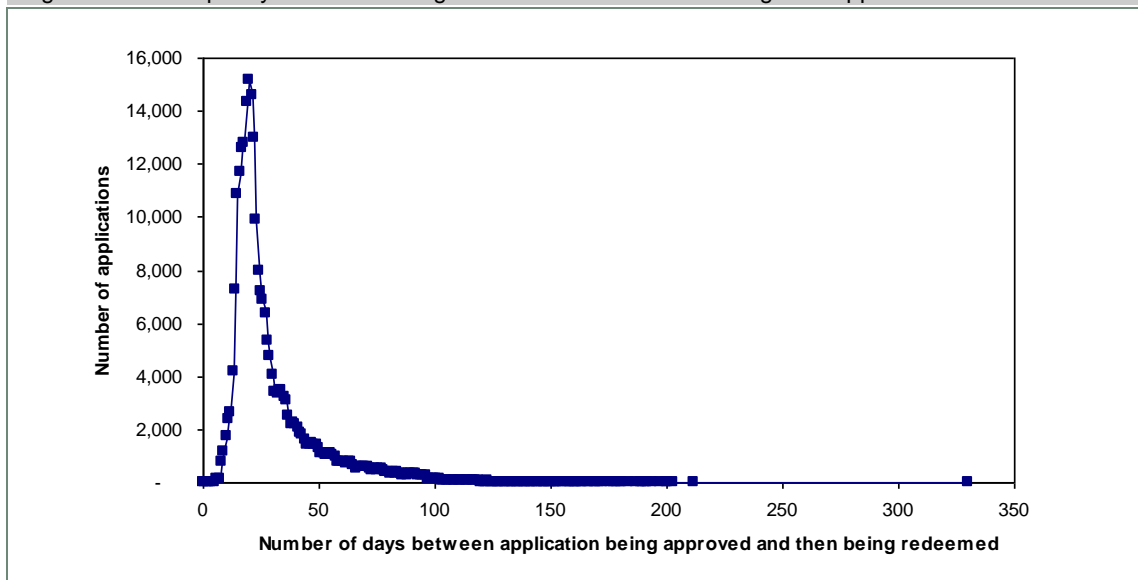
Figure 4-3: How quickly applicants had their applications granted after receipt<sup>7</sup>



Source: SQW analysis of HAGAS monitoring data (March 2011)

- 4.29 The beneficiary data also provided details of when approved grants were redeemed, allowing an examination of how quickly the approved grants were used to purchase packages by grant recipients. As shown in Figure 4-4, the modal time period was 15-23 days after grant approval (i.e. roughly between two and three weeks) with 43% of grant redemptions occurring within this timeframe; 86% of grants were redeemed within two months, and 92% within three.<sup>8</sup>

Figure 4-4: How quickly Home Access grants were redeemed following their approval<sup>9</sup>



Source: SQW analysis of HAGAS monitoring data (March 2011)

<sup>7</sup> Calculated by working out the days between the stated 'Approved' date, and the 'Received' date for each applicant in the March 2011 HAGAS monitoring data.

<sup>8</sup> Note that there was a 3 month time-out period for the grant cards. The few redemptions that were made 90+ days after applications being granted are presumed to be associated with cards that were either replaced or recharged.

<sup>9</sup> Calculated by working out the days between the stated 'Redeemed' date, and the 'Approved' date for each applicant in the March 2011 HAGAS extract data.

- 4.30 Many stakeholders thought that the speed of take up was a surprise, which they attributed partly to the high profile ministerial launch and the accompanying public relations campaign, and partly due to (unexpected) coverage of the scheme on GMTV. Notwithstanding some large peaks in queries, the HAGAS service coped with the volumes.
- 4.31 Becta monitoring data provides information on rejection rates of Home Access applications by local authority. As of 26 September 2010, across all local authorities, the mean rejection rate was around 6.3% – ranging from 2.4% in Poole to 14.3% in City of London (see Table 4-5 and Table 4-6 below).

Table 4-5: The five local authorities with the lowest rejection rates (as of 26 September 2010)

Local Authority	Region	Rejected %
Poole	South West England	2.4 %
Bournemouth	South West England	3.1 %
Southend-on-Sea	East of England	3.5 %
Portsmouth	South East England	3.8 %
Norfolk	East of England	3.8 %

Source: SQW analysis of Becta monitoring data

Table 4-6: The five local authorities with the highest rejection rates (as of 26 September 2010)

Local Authority	Region	Rejected %
City of London	London	14.3 %
Oldham	North West England	14.0 %
Blackburn with Darwen	North West England	13.7 %
Suffolk	East of England	11.8 %
Bradford	Yorkshire and Humber	10.7 %

Source: SQW analysis of Becta dashboard data as of 26 September 2010

- 4.32 We do not have any data on the reasons for rejection, but we note that both Oldham and Suffolk were amongst the five local authorities with the highest rejection rates – presumably due to beneficiaries from the pilot phase seeking to apply again under the national roll-out.
- 4.33 A majority of the fifteen local authorities that were consulted as part of the evaluation were pleased with Capita’s efforts to engage with them in the HAGAS process, including regular contacts and help, and generally had a positive experience with the organisation.
- 4.34 However, two of the three local authorities that adopted the aggregation model for delivering the scheme reported particular difficulties with the HAGAS service. In one case, despite opting for the aggregation model, details of learners were put in error through the consumer model in the management information system. In another, several grant cards went missing and had to be cancelled. There was a considerable lag between families being informed that

their applications had been approved, and families eventually receiving their packages. This created some confusion and anxiety amongst families.

#### *Application form*

- 4.35 The Home Access Programme application form was designed by Becta and Capita, and Capita were responsible for issuing the form to families, checking for eligibility, and approving or rejecting applications accordingly. The form clearly stated what the eligibility criteria were and required applicants to fill in their details as well as those of the child they were applying for. It also asked applicants to declare whether they had had computers previously via schemes such as Computers for Pupils. Although the form did say that the scheme was intended for families without existing home access, this was not one of the eligibility criteria, and the form did not ask for any declaration that the household did not already have home access.
- 4.36 According to several stakeholders, although the form worked well in general, a major weakness of the form was that it was in the English language only. This caused particular problems for families for whom English was not their first language. Indeed, language and literacy issues may have put some people off applying altogether. Many interviewed local authorities reported that schools had to intervene in this case by organising parents' evenings and holding workshops and special support sessions to help struggling parents complete the forms and better understand the application process. A few of the consulted authorities reported making translations of the form and other marketing material online to address this particular barrier. Furthermore, the HAGAS telephone call centre rules dictated that Capita deal with the benefit claimant (i.e. the parents) only, which sometimes led to difficulties if parents had poor English language skills. In such cases, children sometimes helped their parents complete the application form.

#### *Marketing*

- 4.37 Becta had outsourced demand generation to the managed services provider (Capita) for the Home Access Programme, while retaining responsibilities for stakeholder engagement and management at a strategic level. Its regional teams worked closely with those at Capita when any regional and local engagement activities were undertaken. Through its engagement with organisations such as the Training and Development Agency (TDA), Becta ensured that Extended Services and Parent Support Advisors were briefed about the programme.
- 4.38 Where local authorities had used the aggregated model, Becta and Capita worked with them to promote the scheme in respective local areas.
- 4.39 The programme was successful in generating sufficient demand to meet its overall targets for Home Access Programme beneficiaries – largely due to the initial momentum built up through the (televised) ministerial launch, combined with the later (unplanned) promotion of the scheme by moneysavingexpert.com's Martin Lewis on GMTV. Thereafter, the flow of applications built up steadily, and the programme throttled back – then stopped – active marketing as it approached its target volumes.



- 4.40 Although Capita did have regional representatives working with some schools and local authorities, a number of stakeholders were of the view that marketing of the scheme appeared to be patchy and low profile, and suggested that the programme may not have successfully engaged really hard-to-reach families, as there was already enough momentum to reach Becta's target for beneficiaries.
- 4.41 Although all local authorities had met their targets, there were some large variations in take up. Almost all fifteen local authorities that were consulted during the evaluation thought that take up in local areas would have been much lower, had they not undertaken their own promotional activities.
- 4.42 The three local authorities that had adopted an aggregation model in the programme reported lower than expected take up of grants in their local areas, which they partly attributed to poor marketing activity. Furthermore, grants issued for the enhanced AT2 packages were also fewer than expected. It was felt by some that Capita could have done more to target those with complex needs, to improve take up of the enhanced Assistive Technology packages.
- 4.43 The marketing material was criticised by some as not being family oriented, and not sufficiently tailored to tell the audience instantly what the scheme was about. Some consultees also thought that the material was overly complicated, and that it may not have been very well understood by a target group that was likely to have language and literacy issues.
- 4.44 Local authorities felt that, to some extent, they were left to their own devices to promote the scheme locally. Capita had sent them e-copies of marketing leaflets expecting them to print and distribute these accordingly. Indeed, all local authorities that we spoke to had engaged in some form of promotional activity.
- 4.45 Those authorities that had pre-existing schemes or schemes that ran alongside Home Access, were more proactive in raising the profile of the programme, as they saw clear synergies. For example, at the time of writing Barnsley was running a digital inclusion project called Total Barnsley Online that is offering Home Access Programme beneficiaries the opportunity to continue with their broadband service beyond 12 months at a lower cost.

**Table 4-7: Examples of marketing and promotional activities undertaken by local authorities**

Promoting the scheme at Head Teacher forums and briefings
Mail shot to families with FSM eligible children using the local authority FSM database
Writing to all local schools with distribution of marketing material
Presentations at parent evenings and workshops organised by schools
Presence of marketing material in other council services, such as libraries
Home Access application and marketing material translated into many languages
Working with Parent Support Advisors and Extended Services coordinators to promote Home Access Programme to eligible families

*Source: Consultations with local authorities*

- 4.46 The evidence from the case studies suggested that the majority of the marketing activities to pupils and parents in schools were led by the schools. This was also confirmed by the local authorities that were consulted for the evaluation.

- 4.47 Key staff members, such as the ICT Coordinators or Head Teachers, were either informed by Becta about the programme, or had become aware of it through other organisations (such as the e-Learning Foundation) or due to the proactive research. They arranged for the programme to be promoted to pupils and parents through form tutors, assemblies, Open Days and parents evenings, and by writing letters or sending flyers home to parents. Some parents interviewed also mentioned that the programme had been promoted in the local press but they believed that much of the marketing had been done through word of mouth.
- 4.48 Nearly all ICT Coordinators had good awareness of the programme, but the awareness amongst teachers was variable. According to the schools, however, the parental awareness of the programme was generally good.
- 4.49 Many of the schools had invested staff time to support parents with the Home Access applications and to help families overcome some of the known barriers for applying – even to the extent of a member of staff coming in at the weekend and phoning 200+ eligible families, to promote the scheme, in one case. The main barriers included language, literacy issues and lack of technical skills or understanding of how computers could support their children’s learning. Other barriers mentioned included the potential stigma regarding free school meals or being ‘low income’, parental suspicion over getting ‘something for nothing’ and concerns over the financial ability to pay for the connection after the first year.
- 4.50 To overcome barriers and help parents apply, the schools had taken steps such as providing meetings and one-to-one support for parents in completing the application form, translating marketing materials into other languages, and providing translators in meetings with parents. This support was more prominent in schools that had adopted the aggregation model, but it was also reported in some other schools.

*Capacity building and engaging schools*

- 4.51 A recurrent theme in our consultations was the acknowledgement of the key role that schools could play in a scheme such as the Home Access Programme, and therefore, the importance of engaging with them effectively.
- 4.52 Some strategic stakeholders felt that learning points from the pilot did not get fully reflected in the national roll out. The pilots showed that schools were the prime route for engaging with parents. Although it was acknowledged that the delivery model for the national roll-out would be different from that in the pilot, they suggested that Becta could have been smarter in using its existing channels of support to schools to engage more effectively with hard to reach parents.
- 4.53 Nevertheless, schools appeared to play a crucial role in the roll-out. Local authorities reported that although involvement by schools in the programme locally had been variable, they were generally enthusiastic, and some schools had been particularly proactive in promoting the scheme to their families and driving take up in the local area.
- 4.54 Case study evidence also points to the variability of school engagement with the programme. Those that decided to get involved got tremendous mileage out of it by increasing take up of home access amongst its learners, and applying pedagogical strategies to fully utilise home access in learning.

- 4.55 Becta shared school-level take-up data with local authorities, who in turn shared this data with schools to prompt them to promote the programme amongst families. However, it did not provide schools with the flexibility to target certain pupils if they wished to, as they did not have access to individualised beneficiary data and therefore did not know which pupils had access via the Home Access Programme.
- 4.56 Indeed, a major concern among all consulted authorities was the fact that individual Home Access Programme beneficiary data was not shared; this meant that they did not know who had benefited from the programme locally, and therefore could not provide them with any targeted support, such as adult education classes in ICT, for example. Both local authorities and schools were of the opinion that although they were in a good position to help families make best use of home access to technology, there were unable to undertake any follow up activity in the absence of individual-level beneficiary data - the sharing of which was precluded by data protection issues.

### **Accreditation**

- 4.57 The Home Access Programme consumer model comprised an accreditation process, whereby Becta approved certain suppliers and packages. The process required suppliers to demonstrate that they could meet Becta's service level agreements, could provide packages that met Becta's technical and functional specifications, and could provide technical support to customers for 12 months.
- 4.58 Procurement was conducted in two phases. The first phase involved six suppliers, including a large retailer and the second phase comprised smaller local suppliers. Ten suppliers were selected and approved for the programme. All but one of the internet service providers that offered connectivity were *mobile* broadband suppliers.
- 4.59 The programme included two distinct suites of assistive technology packages that were included in the Home Access Programme:
- Assistive Technology 1 (AT1) - available in the main programme, this was designed for children that experience physical barriers to using a computer. It included extra hardware, such as an adapted mouse, an alternative keyboard or keyboard stickers.
  - Assistive Technology 2 (AT2) - this was designed for children with more profound needs and was tailored to the learner's specific individual requirements. A specialist evaluation officer liaised with the family to identify the most suitable assistive technology hardware, and once agreed, the equipment was delivered to the family. Two separate suppliers were appointed by Becta in a separate procurement exercise to provide specialised equipment and services for this element.
- 4.60 In order to provide for enhanced AT2 packages to families, Becta opted for a separate procurement process to select suppliers that could undertake assessments and produce bespoke, turnkey solutions. Becta procured two separate suppliers to provide a Learner Evaluation and Management Service (LEAMS) and Assistive Technology Equipment Supply (ATES). The former was responsible for administration and assessment of individual requirements, with the latter undertaking fulfilment of the solution. HAGAS would undertake

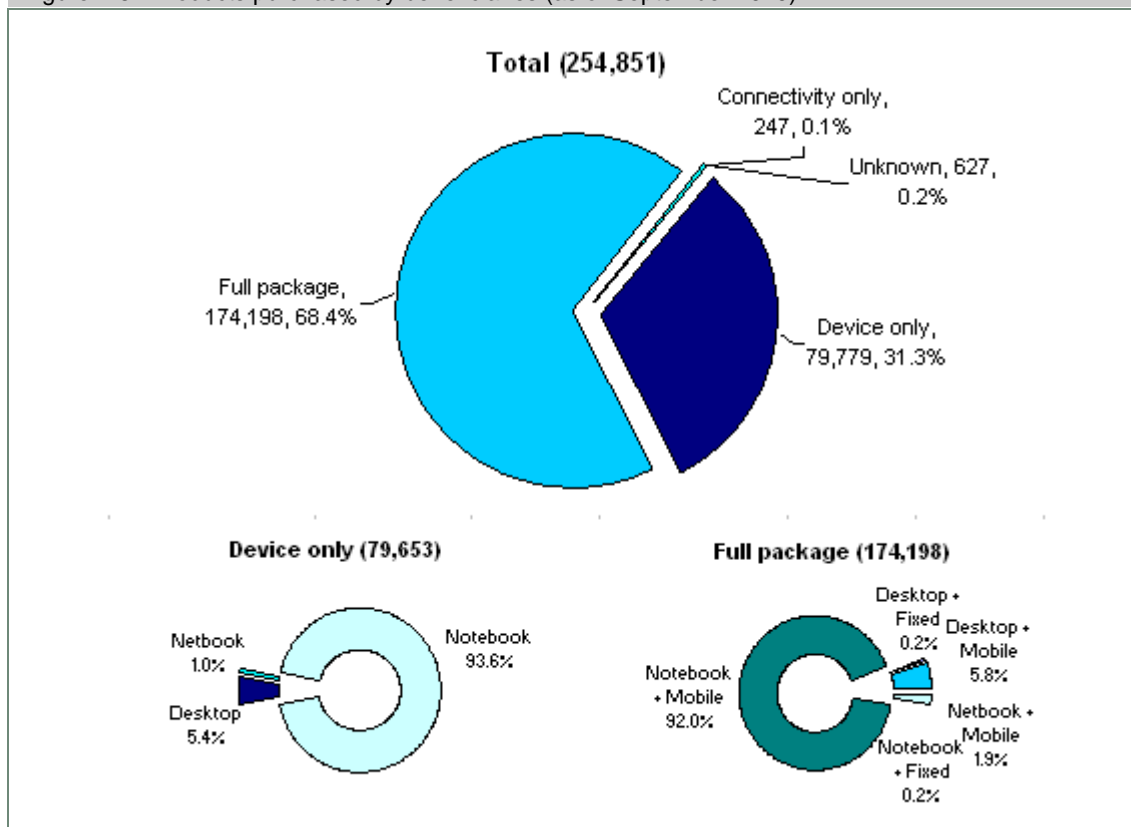
an initial eligibility review and processing of applications, followed by a review and a functional specification by a trained assessor in LEAMS, after which it would be passed on to ATEs to create a bespoke package.

- 4.61 The three suppliers that were consulted as part of the evaluation expressed their general satisfaction with the mainstream accreditation process. Although the paperwork and requirements were onerous and a somewhat unfamiliar process for them, they clearly understood the need to have a fair and rigorous process. Procurement was efficient and straightforward, and suppliers were kept suitably informed by Becta. The mobilisation phase also went smoothly and Becta adequately supported suppliers in preparing for the ‘go live’ date. Becta felt that they had learnt from a similar procurement exercise during the pilot phase and was able to improve its service level agreements in ways that enabled better tracking of progress and performance of suppliers.
- 4.62 Becta had rather less success when it came to the AT2 procurement process. A first attempt at procuring such suppliers failed, after which Becta consulted further with industry and other stakeholders, and decided to split the assessment and delivery requirements. A second, successful, round of procurement enabled two organisations to come on board, after a protracted process, which delayed the fulfilment of AT2 packages to approved applicants.
- 4.63 Some stakeholders questioned the dominance of one retailer in supplying the packages, and asked whether Becta could have done more to increase choice for consumers. However, our consultations indicated that this supplier’s success in the national roll-out was largely thanks to it having chosen to participate in the pilot, and having taken on board the lessons learned through that process.

*Packages purchased*

- 4.64 Figure 4-5 below examines the Home Access products that were bought by grant recipients as part of their package. Information on this was available for 254,851 beneficiaries through Becta’s supplier dashboard as of September 2010.

Figure 4-5: Products purchased by beneficiaries (as of September 2010)



Source: SQW analysis of Becta dashboard data, as of September 2010

- 4.65 Among those grant recipients that were awarded the full package and redeemed their grants, the most popular combination by far was the notebook<sup>10</sup> plus mobile broadband, with 92% of all full package redemptions (160,224 of 174,198) falling under this category. The next most popular option was a desktop computer plus mobile broadband option at 5.8% (10,028).
- 4.66 Similarly, for device-only purchases, the overwhelming majority (93.6%, 74,653 of 79,779) chose notebooks, with desktops and netbooks attracting very small proportions.
- 4.67 All 247 recipients of the connectivity-only option chose to buy a mobile broadband connection.
- 4.68 Although the programme had hoped that Home Access approved products would also be attractive to non-eligible households using their own funding, in practice very few such sales were made: only 41 non-Home Access Programme funded sales as of 5 September 2010, all but one of which were through one supplier (Supplier D – see below). We understand from Becta that sales to non-eligible households were inhibited by the incorporation in most packages of the Microsoft Home Learning Package, which was only available to grant recipients.

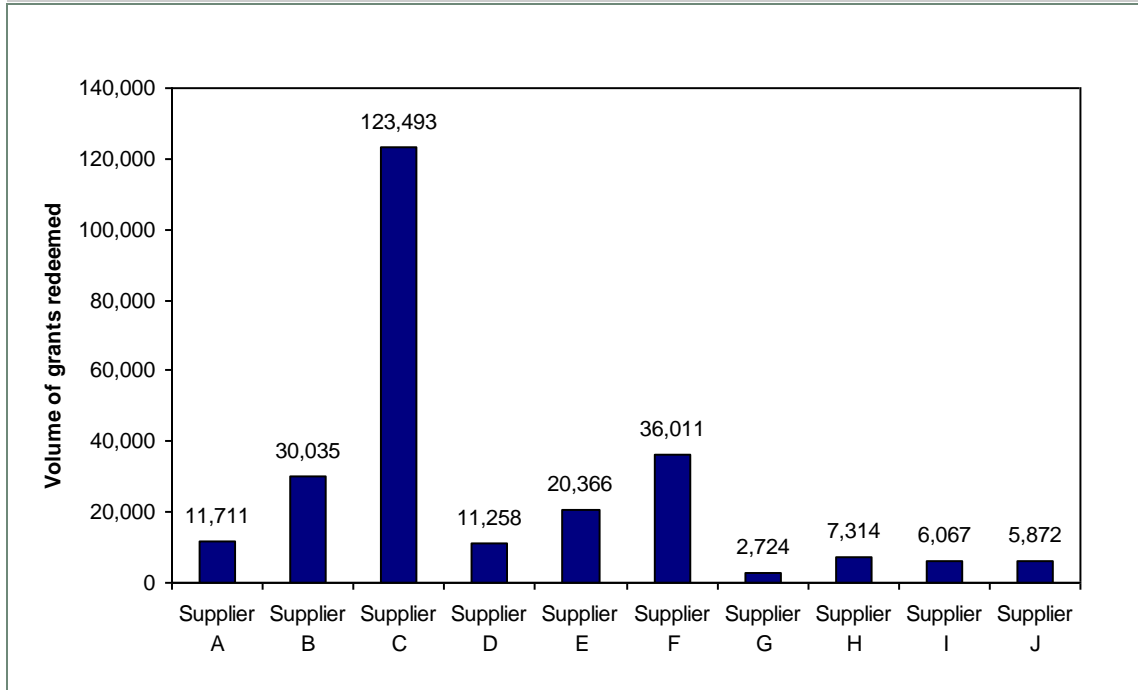
#### Suppliers and channels

- 4.69 Figure 4-6 shows the distribution of grants redeemed through the ten (anonymised) suppliers. The disparities in market share to some extent reflect the differing scales of the suppliers'

<sup>10</sup> A 'notebook' is otherwise known as a laptop computer – generally of a higher specification than the smaller 'netbook'.

operations, ranging from Small and Medium Sized Enterprises (SMEs) to large corporate retailers. One supplier in particular, Supplier C, accounted for almost half (48%) of all grants redeemed. This was followed by Suppliers F and B, which accounted for 14% and 12% of redemptions respectively. Combined, these three suppliers accounted for nearly 75% of all grants redeemed as of September 2010.

Figure 4-6: Breakdown of redeemed grants by retailer (as of September 2010)



Source: SQW analysis of Becta dashboard data as of September 2010

4.70 As shown in the tables below, physical shops (retail) were the largest sales channel, but it is notable that 37% of sales were made through the online channel – a surprisingly high proportion, given that the grant was intended for those households which didn't previously have the internet at home. In the NS wave 2 survey we found that 50% of those who ordered their packages online had done so from their own home (i.e. using existing home access to the internet).

Table 4-8: Sales by channel and package type, for redeemed grants as of September 2010

	Retail	Internet	Phone	Unknown	Total
Full package	94,489	69,250	9,828	659	174,226
Device only	50,932	24,916	3,741	203	79,226
Connectivity only	127	108	11	0	247
Unknown	1	626	0	0	621
<b>Total</b>	<b>145,549</b>	<b>94,901</b>	<b>13,580</b>	<b>862</b>	<b>254,892</b>

Source: SQW analysis of Becta dashboard data, as of September 2010

Table 4-9: Proportion of sales by sales channel, and package type

	Retail	Internet	Phone	Unknown
Full package	54.2%	39.7%	5.6%	0.4%
Device only	63.8%	31.2%	4.7%	0.3%
Connectivity only	51.4%	44.1%	4.5%	0.0%
Unknown	0.2%	99.8%	0.0%	0.0%
<b>Total</b>	<b>57.1%</b>	<b>37.2%</b>	<b>5.3%</b>	<b>0.3%</b>

Source: SQW analysis of Becta dashboard data, as of September 2010

### Aggregation

- 4.71 In parallel to the main ‘consumer model’, arrangements were put in place by the programme to support aggregated applications managed by schools and local authorities. In practice, however, the aggregation model appears to have provided only a relatively small number of beneficiaries: only 1 per cent (2,659) of the total approved applications recorded, for the 200 schools and three local authorities that adopted this model.
- 4.72 All local authorities that we consulted for the evaluation (barring the three that adopted the aggregation model) stated that they had in fact considered aggregation but had decided against it. Several of the authorities saw no real benefit in it for them. There was no additional funding involved, and they would have had to take on significant administrative burden. They were happy to see their role as promoting the programme and raising its profile among schools and families.
- 4.73 Indeed, many authorities were relieved to know that they were not required to deliver the programme, and generally, strategic stakeholders and suppliers commended the consumer model that Becta had adopted, as it gave choice and decision making powers to the individual, and avoided unnecessary bureaucracy.
- 4.74 We interviewed all three local authorities that aggregated, and their views on the effectiveness of the model varied. Their decision was based on the view that the model allowed them to add value to the Home Access Programme and provide targeted support to families. Besides actively promoting the scheme to families via schools, all three distributed the application forms and manned helpdesks to answer queries and provide support.
- 4.75 However, all three reported incurring significant time commitments and administrative burden, especially in the early stages of the process. Two of the three authorities faced significant issues with the HAGAS process, as discussed earlier in the section. Judging some of the marketing material as inappropriate, authorities tried to produce their own. However, they felt that it took too long to get approval from Becta. In hindsight, they would still support the aggregation model, provided there was better support, and some funding involved for its administration.
- 4.76 The case studies included four schools that had used the aggregation model, although they were not in the three aggregating local authorities. In the schools where the aggregation model had been adopted, the school had been particularly active in marketing the programme to pupils and parents, and provided strong support to parents in completing the application

forms. These intense marketing efforts were recognised to be key to the high uptake of the grant in the schools but they also helped the families in other ways. For instance, one ICT Coordinator noted that many parents had not realised, prior to their meetings, that if they had Sky they already had 'free' broadband available.

- 4.77 The case studies did not show the aggregating schools to be any better than non-aggregating ones at targeting pupils without existing home access. However, the schools using aggregation appeared to have already proactively looked to address home access issues and were generally more concerned about the equity aspect of the programme, in particular the families that would be missed out by the eligibility criteria. One ICT Coordinator stated that they would not have gone ahead with the Home Access Programme in the absence of their internal e-Learning Foundation netbook scheme because it would have been against the school ethos to miss out on so many families and it would have made it impossible to use the computers in class.
- 4.78 In terms of the benefits of aggregation, one ICT Coordinator identified an important benefit to be the leverage and influence it gave the school with suppliers, especially when they combined it with their internal e-Learning Foundation grant funded programme. The bulk buying helped the school to get better discounts with the suppliers and ensured that all pupils (Home Access and those on the internal programme) had the same equipment and software, allowing for consistency across the school. The Home Access Programme also benefited from the lessons they learned during the piloting of their own programme. Consequently they believed the aggregation approach helped to offer better value for money to the school, parents and the Home Access Programme overall.
- 4.79 The pupils in the aggregating schools were no more likely to mention using the Home Access computer for educational purposes, and the use and uptake of the VLE (Virtual Learning Environment) by teachers and pupils also varied similarly to that in non-aggregating schools. One of the aggregating schools had already moved towards a model where all or nearly all homework was set online, whilst the other two were still making the change. The teachers in the aggregating schools seemed to be more confident about setting homework online than before the scheme, and acknowledged the difference the Home Access Programme, together with other initiatives, had made.

### ***Assistive Technology***

- 4.80 As of December 2010, 4.7 per cent of approved applications had assistive technology elements to them. This analysis draws on Becta monitoring data for both AT1 and AT2 applications as of 31 October 2010.<sup>11</sup>

#### *Volumes*

- 4.81 As of 31 October 2010:
- a total of 14,226 applications for assistive technology packages (both AT1 and AT2) had been received

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<sup>11</sup> Monitoring data of December 2010 does not provide as detailed a breakdown



- of these applications, 74% (10,472) had been approved<sup>12</sup>
- of these approved applications, 61% (6,378) of the assistive technology grants had been redeemed.

4.82 Table 4-10 below provides a more detailed breakdown of the redemption and approval levels for each of the two assistive technology packages. Of all the assistive technology applications, 72% were for AT2.

Table 4-10: Approval and redemption rates for the assistive technology applications (as of 31 October 2010)

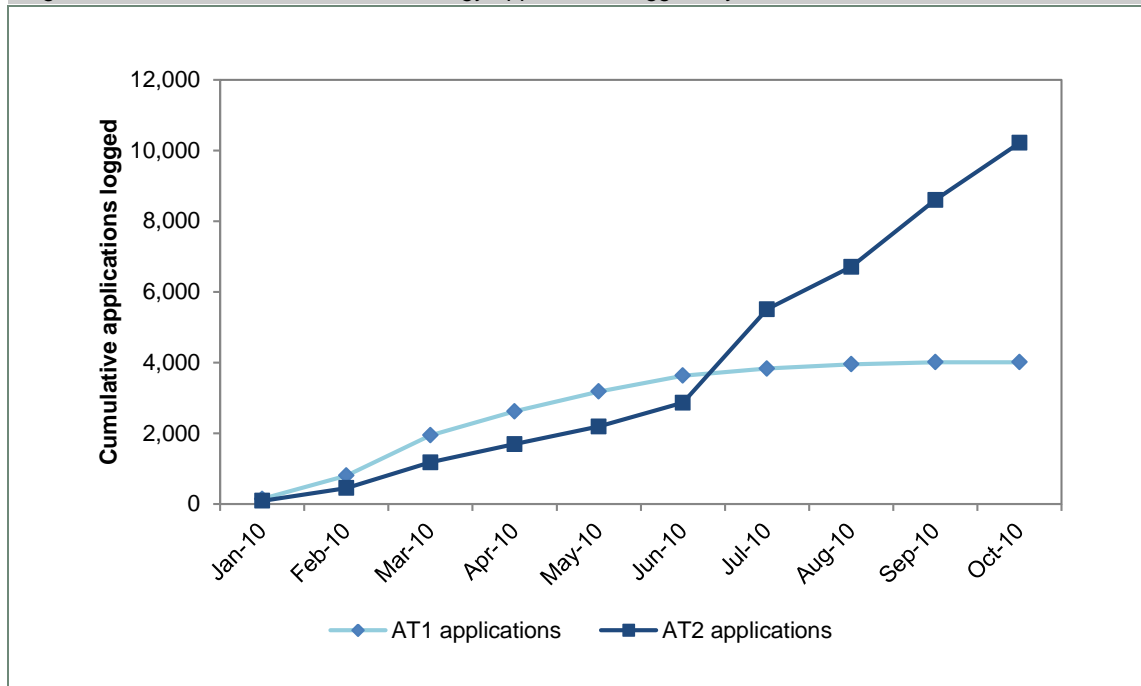
	Total applications	Not approved	Not redeemed	Redeemed
AT 1	4,013	807	17	3,189
AT 2	10,213	2,947	4,077	3,189
Totals	14,226	3,754	4,094	6,378

Source: Becta assistive technology monitoring data, as of 31 October 2010

4.83 As at 31 October, redemption levels were as yet considerably lower for AT2 (44% of approved applications) than for AT1 (99% of approved applications). This reflects the major push on promoting AT2 packages in the *latter stages* of the programme, as illustrated in the time series of cumulative AT1 and AT2 applications in the chart below.

4.84 The delays in procuring suppliers for AT2 had knock on effects on overall volumes and caused delays in delivering this element of the programme. Many stakeholders felt a more concerted and targeted marketing effort to reach families that had children with complex needs would have boosted numbers further.

Figure 4-7: Cumulative assistive technology applications logged, by month



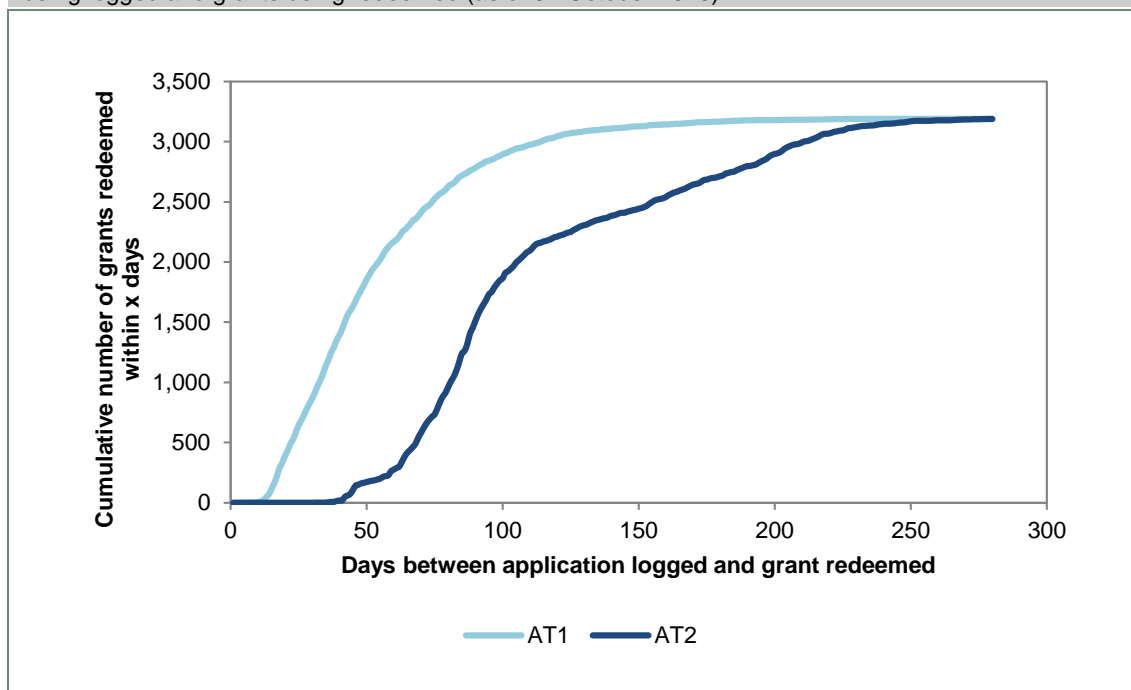
Source: Becta assistive technology monitoring data, as of 31 October 2010

<sup>12</sup> i.e. were recorded in the monitoring data 'redeemed' or 'not redeemed' as opposed to 'not approved.'

### Speed of application process

- 4.85 As would be expected, the more complex and customised nature of AT2 assessment and fulfilment led to a rather longer end-to-end process. As illustrated in the chart below, the median time for AT2 fulfilment (between applications being logged and grants being redeemed) was 91 days, as opposed to 44 days for AT1 packages.

Figure 4-8: Cumulative distributions of the time difference between assistive technology applications being logged and grants being redeemed (as of 31 October 2010)



Source: Becta assistive technology monitoring data, as of 31 October 2010

### Fraud management

- 4.86 The Home Access Programme gateway review had highlighted fraud and misuse as a key risk for the programme, given the delivery model. The most significant risk was selling off Home Access Programme computers using online sites, and making applications solely for this purpose. Therefore, from the outset, strong governance arrangements were put in place to address and manage this risk at a strategic as well as operational level. Becta built in anti-fraud measures into the design of delivery arrangements. The application form ensured all relevant details were collated, and a rigorous approval process was followed by Capita, which included verification of learner details using DfE data.
- 4.87 All Home Access suppliers were subject to regular anti-fraud audits and mystery shopping to ensure adherence to their contractual obligations. Capita employed a dedicated fraud auditor who worked closely with Becta's anti-fraud team. Resources used in the programme also included a fraud manager, supported by a quality assurance manager, all of whom reported to Head of Contracts at Becta. The fraud manager was a retired senior police officer.
- 4.88 Becta set up an anti-fraud administration and monitoring process which included establishing lines of communication with selected online sites and Cash Converters. On-selling was treated as fraud because all grant applicants, as part of the application process, signed a declaration that the computer purchased would be used for the benefit of their children in the

first 12 months. Selling-on within that initial period breached that undertaking and was treated as theft, with the incident referred to the police to take action under the Theft Act (1968). A number of selected online sites, such as eBay, were monitored daily by the Becta anti-fraud team. Where a suspect computer was identified, the seller would receive a challenge from the team, with the aim of getting the item withdrawn from sale.

4.89 Fraud was minimal in the end, and this was noted by stakeholders as a key area of success for the programme. The total number of suspected fraud incidents was 421, which represented 0.05% of all applications. Of these, 161 were subsequently not classified as fraud and 123 could not be pursued – principally due to the difficulties in identifying sellers on online auction sites. For the remaining 137, outcomes were as follows:

- referrals to Department for Work and Pensions/HM Revenue & Customs to pursue benefit fraud – 9
- withdrawn from sale following challenge – 83
- repayment action agreed – 12
- police action/prosecutions – 33.

#### ***Programme management and monitoring***

4.90 Becta monitored the progress and performance of suppliers, and the HAGAS service managed by Capita. It was also responsible for wider stakeholder engagement and the management of programme costs and targets.

4.91 A majority of the stakeholders consulted for the evaluation, who had either directly dealt with Becta or had observed its programme management, were complimentary about the management of the programme. In general, suppliers and local authorities interviewed as part of the evaluation appreciated the contact they had had with Becta regional colleagues, and reported good relations with Becta.

4.92 In general, Becta responded positively to our recommendations for the national roll out at the end of the pilot phase. These recommendations were informed by the evidence that we had gathered and analysed during the evaluation of the pilot in Oldham and Suffolk. Section 3 discussed some of these in the context of programme objectives. These and others are listed in the table below, along with Becta's published responses and our assessment of Becta's actions in the national roll-out.

Table 4-11: Becta responses to the recommendations from the pilot phase evaluation

SQW recommendations	Becta responses <sup>13</sup>	Assessment of actions taken
Review the current combination of aims, objectives and benefit recognition events to see whether these can now be rationalised to a simpler set of programme objectives, ensuring that there are strong links back to the rationale for intervention – in conjunction with objectives set for related activities.	Becta has developed a Benefits Strategy and Plan, which clarifies the benefits of the programme. Importantly, this work links directly to the development of the programme to ensure alignment. Becta has clarified the term 'connectivity' to pertain only to broadband access to assist the assessment of achievement of programme targets.	Becta had begun the work on rationalising programme objectives and aims in early 2010. However, with the announcement of Becta's closure in May 2010, and the need to achieve cost savings, it became clear that the additional work needed to maximise the benefits of home access for learners and families would not take place. On that basis, Becta's revised remit letter from the department focussed the programme on its first aim: <i>to reduce the barriers of cost to families with low incomes, through government financial support.</i>
Restrict the grant to one per household.	The Minister for Schools approved a move to one grant per household for the national Home Access Programme in June 2009	The national roll-out issued one grant per household unless there was a second child with complex needs in the household that required the enhanced AT2 package.  Stakeholders were generally of the view that this approach was fair and appropriate.
Focus the grant on households which previously did not have broadband internet access	The Home Access Programme will work, via the Home Access Grant Administration Service provider, to ensure that households with existing broadband home access are dissuaded from participating in the programme and enhance the targeting of households most in need.	The application form stated that the programme 'will help more families <i>who currently lack access to get online at home</i> '. However, this was not incorporated in the eligibility criteria, and no declaration was required that the applicant didn't already have home access.  Capita was not contractually required – or incentivised - to filter out households that already had home access.  A vast majority of stakeholders were of the view that the programme ideally should only benefit those that previously did not have broadband access, but recognised that this is extremely difficult to police.
Clarify the branding of the scheme	During the Home Access Pilot, Becta's customer research pointed to some complexity and potential confusion around "Next Generation Learning @ Home". An option to adopt a brand primarily focused on the term "Home Access" was proposed, while retaining a "Next Generation Learning @ Home" sub-brand to maintain links with other related initiatives. In light of the research, in July 2009 the Home Access Project Board approved new branding to be applied in the national programme.	The Home Access application form and literature were re-designed to give clearer prominence to the 'Home Access' brand, whilst retaining the 'Next Generation Learning' reference.

<sup>13</sup> [http://webarchive.nationalarchives.gov.uk/20101102103654/http://research.becta.org.uk/index.php?section=rh&catcode=\\_re\\_rp\\_02&rid=17449](http://webarchive.nationalarchives.gov.uk/20101102103654/http://research.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=17449)

SQW recommendations	Becta responses <sup>13</sup>	Assessment of actions taken
Develop and disseminate material to ensure that teachers are well-informed re the scheme	The Home Access Programme has placed a significant amount of effort in ensuring that the benefits of the Home Access Programme are maximised, including through keeping teachers and local authorities well informed, while also minimising the burden on schools. Stakeholder newsletters, tailored communications and case studies are all in place to inform teachers about the programme and assist them in translating the provision of Home Access packages into benefits for learners and households. This is backed up by integration with the work of the Qualifications and Curriculum Development Agency (QCDA) and National College for Leadership of Schools and Children's Services (NCSL) to ensure that teaching practices and training for head teachers supports the programme.	<p>In the national roll-out, Becta was responsible for engaging with strategic stakeholders, whilst outsourcing demand generation and marketing to Capita. Through its engagement with organisations such as the Training and Development Agency (TDA), Becta ensured that Extended Services and Parent Support Advisors were briefed about the programme.</p> <p>Based on the views collated from local authorities that were consulted with as part of the evaluation, PSAs may have played some role in promoting the scheme. However, this was down to the local authorities and schools; indeed, those that either had an ongoing digital inclusion agenda, or saw a clear benefit in engaging with low income families, took a more proactive approach to promoting the scheme.</p> <p>Case study evidence suggests that nearly all interviewed ICT Coordinators had good awareness of the programme, but teacher awareness was patchy.</p>
Consider mechanisms for providing a stronger feedback loop to teachers in the classroom.	Becta has been investigating the best mechanism to provide school-level or LA-level reports on the take-up of Home Access to enquiring schools and LAs. Any approach must balance costs and Data Protection Act requirements against the benefits for schools. In recognition that take-up of home access outside of the programme is equally important to schools, Becta encourages schools to build on their existing relationships with households to monitor the take-up of all forms of home access locally and integrate this information into updated teaching and learning practices.	<p>Local authorities were provided with data on school and LA level take up of the programme which was subsequently shared with schools. Authorities appreciated receiving this data from Becta.</p> <p>However, they also expressed as a key concern, the fact that they could not undertake any targeted follow up activity with families as they did not have access to individualised beneficiary data (the provision of which was precluded by data protection issues). They were keen to offer educational and other support but felt that they were constrained in doing so due to the lack of data. Many case study schools expressed the same concern.</p>
Seek to ensure that fixed broadband becomes a workable connectivity option	Becta has modified the requirements on Approved Suppliers to align better with existing practices in the wider market for fixed broadband to make it easier for fixed line broadband to be offered within the programme.	<p>The programme featured just one fixed line supplier. All others offered mobile broadband. Case study evidence suggests that several learners complained of poor connectivity and coverage.</p> <p>Some strategic stakeholders also felt that this restricted choice.</p>
Ensure that 'fair usage' download limits are clearly explained to beneficiaries in advance of purchase	Home Access Approved Suppliers are required to follow the Mobile Broadband Group principles of good practice for selling and promotion of mobile broadband products. This requirement is set out alongside others in the Approved Supplier Operational Requirements document to which all Approved Suppliers must adhere to maintain their approved status. Specifically, the principles state, "pricing information should set out the relevant tariff options, including a description of any fair usage limits. There must be an explanation of the consequences	Although download limits were explained in the relevant literature, it was apparent from our case studies that some families did not understand why their connectivity had apparently stopped working.

SQW recommendations	Becta responses <sup>13</sup>	Assessment of actions taken
Seek to minimise the extent to which useful appropriate content is blocked by parental control software	of the usage limit or fair usage allowance being exceeded.	Excessive blocking of appropriate sites continued to be a source of frustration in the national roll-out, and was a major source of queries to suppliers' helplines on the day of purchase (typically because beneficiaries could not access Facebook or YouTube)  Case study evidence suggests that the level of parental control tended to be variable both within and across the schools. In the majority of the schools visited at least some pupils reported parental control to be operating but pupils of all ages, even in primary school, reported lack of parental control at home. Many pupils reported that the parental controls had been turned off by themselves or older siblings, in order to access Facebook etc..
Ensure that the beneficiary dataset is well-defined, and accessible for statistical and evaluation purposes	Becta recognises the practical difficulties involved in accessing the appropriate dataset for evaluation of the Home Access Pilot resulting from inconsistencies between the two grant-processing bodies in the Pilot LAs. A single source of data will be available for the national programme and the Home Access Grant Administration Service will be required to provide Becta and its evaluators with appropriate access to data for use in evaluation.	Capita, the managed services provider for HAGAS, managed a single beneficiary management information system. Extracts from this system were well-structured, and made available to SQW during the course of the evaluation of the national roll-out.

*Source: Pilot Progress Report, 2009, Becta responses to SQW recommendations, and a review of evidence gathered in the evaluation of national roll-out*

## 5: Assessment of gross and net outputs

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### Summary of key messages

#### Gross and net outputs

The programme **rapidly succeeded in achieving its target number of beneficiaries**. Including the pilot phase, the total number of households benefiting from the programme was 267,244 – **approximately 4.5% of England's six million households with dependent children**.

The **profile of beneficiaries was largely as expected** – with younger age groups (typically less likely already to have a computer at home) accounting for relatively high proportions of approved applications, and a relatively even split by gender (52% male and 48% female). The ethnicity mix was broadly in line with that of the FSM population, but Asian/Asian British households were somewhat under-represented (9.9% of beneficiaries, compared with 13.7% of the FSM Key Stage 4 - KS4 - cohort in 2010), and only 7% of grants were awarded to beneficiaries for whom English is not their first language (though this group accounts for 22% of the FSM population).

The programme's **consumer model was very effective in addressing a highly dispersed target group**. In the national roll-out, grants were awarded to learners in a total of 18,984 schools (the vast majority of England's c. 21,000 maintained primary and secondary schools), and half of the beneficiaries do *not* live in England's 20% most deprived Lower Layer Super Output Areas. Alternative models targeted at schools with high proportions of FSM pupils, or at particularly deprived geographic areas, would have missed many of the low income households that did end up benefiting from the programme.

However, the 'leakage' was high – **most (55%) of beneficiary households already had both a computer and internet at home**, before they received the Home Access grant.

This does not imply, though, that there were no educational benefits associated with the package provided to households which already had a computer and the internet – a large majority of these (72%) felt that the Home Access device was 'much better' than the computer they used previously.

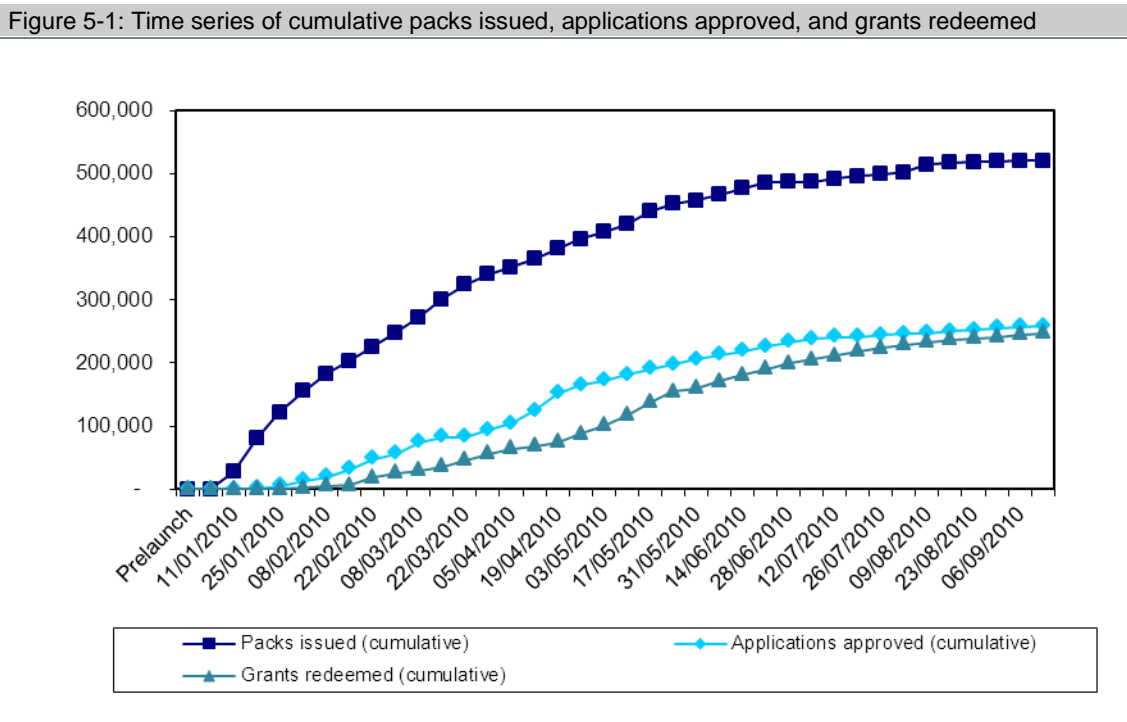
Amongst the group that didn't previously have it, we estimate that programme brought forward home access by about 2.8 years on average. For every 1 direct beneficiary household, we estimate that a further 0.36 households will have purchased home access for the first time, at least partly as a result of hearing about the programme.

Across the pilot and the national roll-out, the **overall net effect of the programme was to accelerate home access in a total of 163,000 households by a total of about 456,000 household-years**.

## Gross outputs

### Headline volumes

- 5.1 The national roll-out made rapid progress in achieving its target 258,000 beneficiaries, as illustrated in Figure 5-1.



Source: SQW analysis of Becta dashboard data, as of 26 September 2010

- 5.2 By the end of the programme, a total of **258,253** grants had been redeemed in the national roll-out, according to Becta. With only one grant offered per household in the national roll-out, we can therefore assume that the total number of households benefiting in the roll-out phase was also 258,253.
- 5.3 Adding in the 8,991 households that received packages in the pilot phase in Oldham and Suffolk in 2009, this brings the total number of households benefiting from the programme to **267,244**.
- 5.4 Hence, the programme benefited approximately 4.5% of England's 6.0 million households with dependent children.

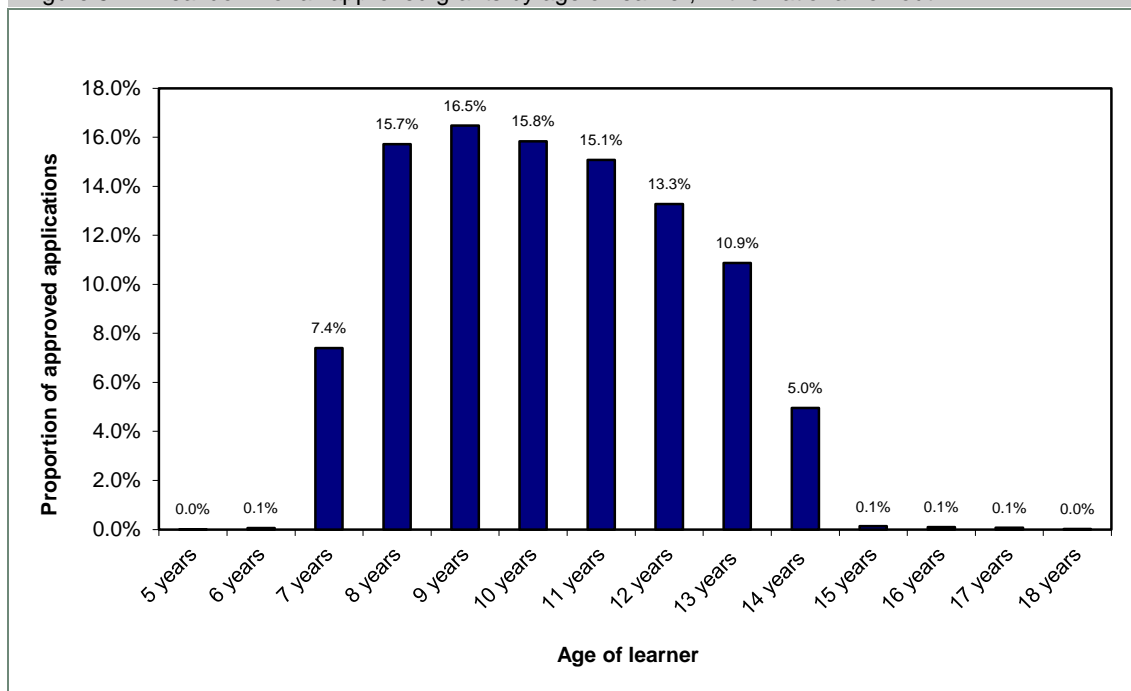
### Beneficiary analysis

#### Age of grant recipients

- 5.5 Figure 5-2 below provides a breakdown of approved grants by the age of the learner beneficiaries.



Figure 5-2: Breakdown of all approved grants by age of learner, in the national roll-out



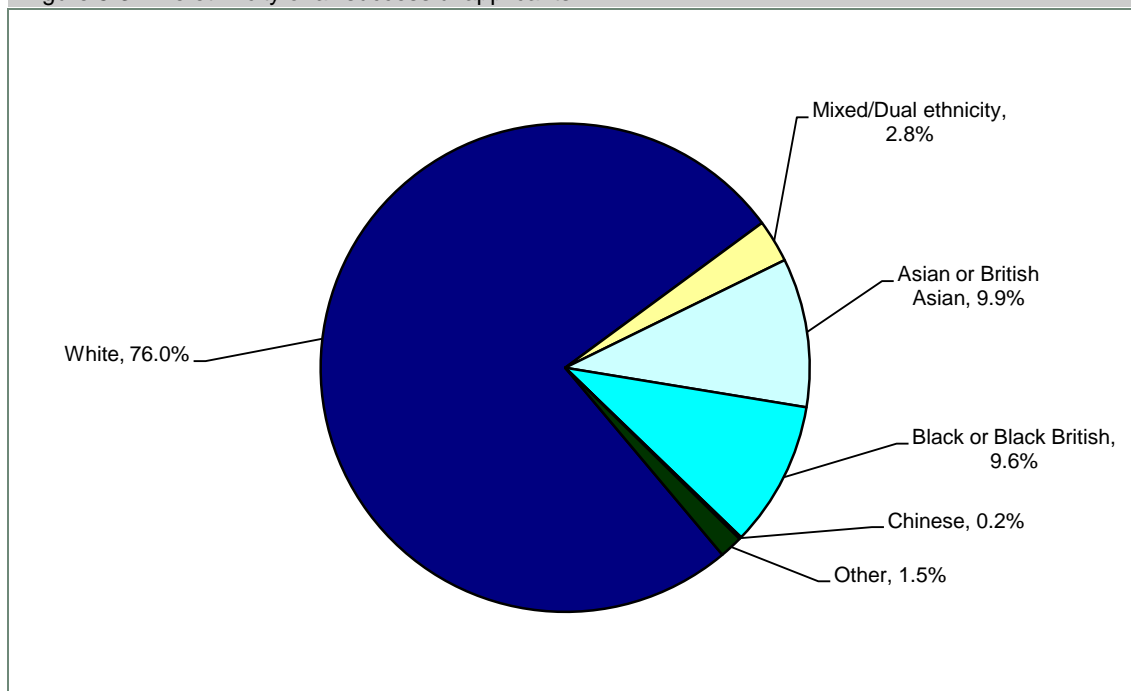
Source: SQW analysis of beneficiary database at December 2010

- 5.6 The Home Access Programme’s national roll-out targeted learners aged 7-14 years, in school years 3 to 9. As might be expected, the younger age groups (which would typically be less likely already to have a computer at home) accounted for relatively high proportions of approved applications. The smaller proportion of 7 year olds is explained by some of the learners in year 3 having turned 8 by the time of their application. A small but significant number of grants (a little over 1,000, representing 0.4% of the total) were awarded to learners aged under 7 or over 14 – i.e. outside the headline target age group for the intervention. Some of these will be ‘looked after children’ (for whom grants were available for the 5-19 age group); some will be children who are old for year 9; and there may be some gifted 6-year olds in the year 3 group.

#### Gender and ethnicity

- 5.7 There was a relatively even split amongst the successful applicants by gender. Of the approved grants, 52% were given to male beneficiary learners whilst 48% were awarded to females.
- 5.8 As Figure 5-3 below shows, 24% of beneficiary learners were from non-white ethnic groups. This is broadly in line with the ethnicity mix in the FSM population (e.g. of the 76,000 FSM-eligible pupils sitting GCSEs in England in 2010, 31% were from non-white ethnic groups). However, as shown in Table 5-1, it would appear that Asian/Asian British FSM-eligible households were somewhat under-represented amongst Home Access Programme beneficiaries (this group accounted for 9.9% of Home Access Programme beneficiaries, compared with 13.7% of the FSM-eligible KS4 cohort in 2010).

Figure 5-3: The ethnicity of all successful applicants



Source: SQW analysis of beneficiary database as of December 2010

Table 5-1: Comparison of the ethnicity mix of Home Access Programme beneficiaries and England's FSM-eligible KS4 cohort in 2010

Ethnicity	Proportion of Home Access Programme beneficiaries	Proportion of FSM-eligible KS4 cohort in 2010
White	76.0%	68.8%
Mixed / Dual Background	2.8%	4.7%
Asian or Asian British	9.9%	13.7%
Black or Black British	9.6%	9.7%
Chinese	0.2%	0.3%
Any Other Ethnic Group	1.5%	2.8%

Source: SQW analysis of Becta dashboards and DfE's SFR37\_2010

- 5.9 The reasons for this under-representation amongst the Asian/Asian British ethnic group are likely to be complex, but our case studies and stakeholder consultations did suggest that language (and culture) did present a barrier in some communities.
- 5.10 According to Department for Education statistics, the first language is believed/known to be other than English for approximately 22% of pupils eligible for and receiving Free School Meals in England's maintained primary and state-funded secondary schools. This compares with only 7% of Home Access Programme grants (c. 17,000) being awarded to those for whom English is not their primary language.

### Children per household

- 5.11 We do not have any monitoring data on the number of children per beneficiary household, but the table below compares the findings from the various beneficiary surveys conducted for this evaluation against the overall proportion of households with dependent children in England.

Table 5-2: Comparison of the number of children in the household: Home Access Programme evaluation beneficiary surveys vs overall proportion of households with dependent children in England

	ETS wave 1	ETS wave 2	NS wave 2 cross-sectional	Overall proportion of households with dependent children in England
1 child	16%	22%	18%	43%
2 children	33%	29%	32%	39%
3+ children	51%	49%	50%	18%

Source: ETS wave 1 (base 350, March 2010), ETS wave 2 (base 350, September 2010) and NS wave 2 cross-sectional (base: 229, January 2011); CLG's Housing Projections 2008 to 2033, England

- 5.12 Hence we see that a high proportion of Home Access grants were awarded to families with 3+ children in the household: about 50% of grants according to these surveys, compared with their overall share of 18% of England's households with dependent children. This may be a reflection of the attraction of the scheme for those families who wanted to reduce the competition between siblings for use of the household computer.

### Lone parents

- 5.13 Our ETS surveys suggest that more than 60% of Home Access grants went to households with lone parents, as illustrated in the table below. By contrast, the ONS estimates that approximately 23% of dependent children in the UK live with lone parent families (as of 2008). This may reflect the relative frequency of lone parent families amongst households eligible for FSM, and/or a relatively low previous level of home access penetration in lone parent households.

Table 5-3: Marital status of the respondents to the evaluation's Effective Targeting Surveys

	ETS wave 1	ETS wave 2
Married	24%	24%
Living together	15%	11%
Single	39%	39%
Widowed	3%	2%
Divorced	10%	13%
Separated	9%	12%
<b>Overall lone parent households</b>	<b>61%</b>	<b>66%</b>

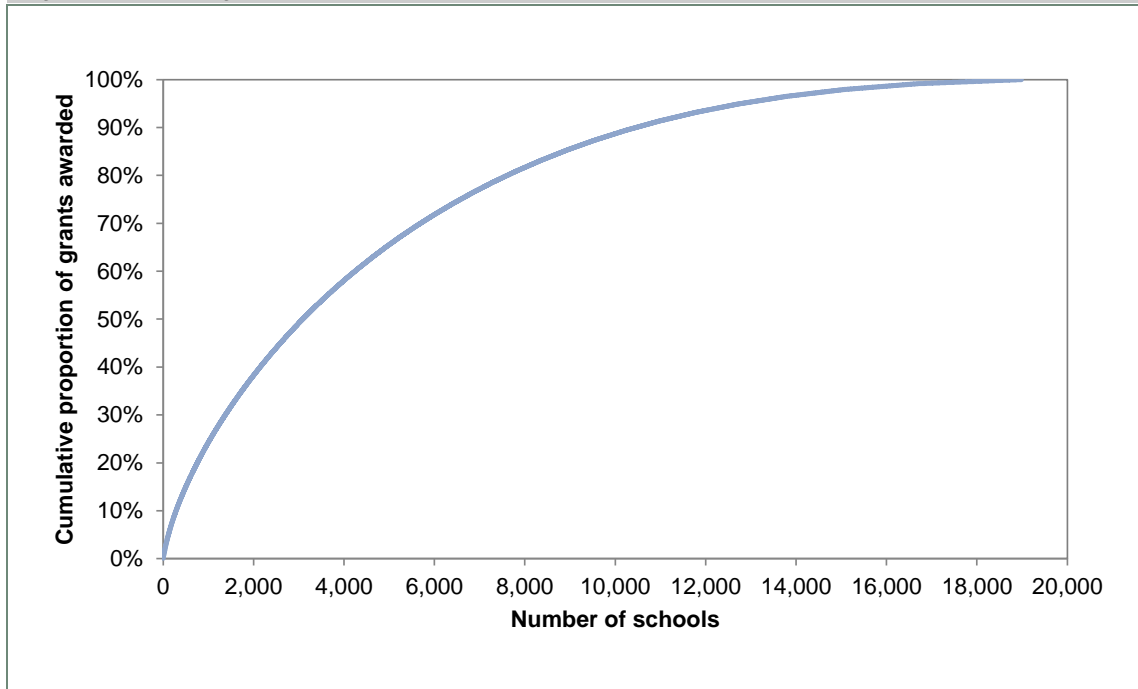
Source: Ipsos MORI for ETS wave 1 (base 350, March 2010), and ETS wave 2 (base 350, September 2010)

### Beneficiaries by school

- 5.14 Analysis of the monitoring data shows that the Home Access grants were awarded to learners in a total of 18,984 schools – i.e. there were beneficiaries in the vast majority of

England's c. 21,000 maintained primary and secondary schools. As illustrated in the chart below, 80% of applications came from learners in 40% of the schools (7,610). The largest total number of approved applications per school was 194 – at a secondary school for girls in Tower Hamlets.

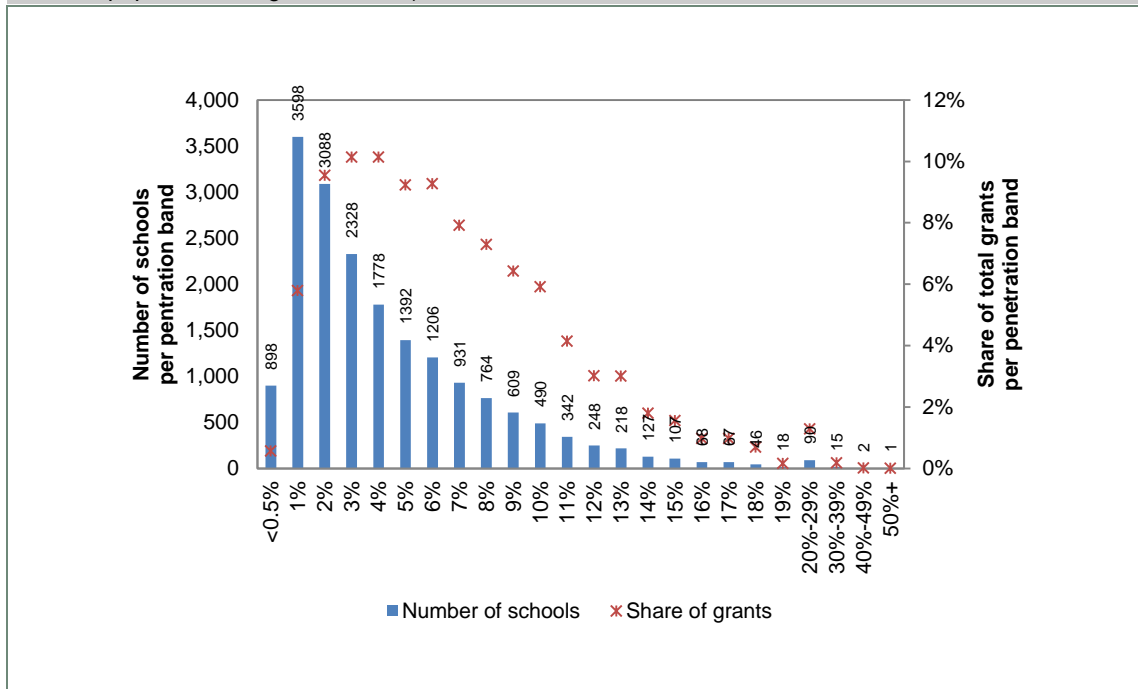
Figure 5-4: Distribution of grants in schools (cumulative distribution, starting with the schools with the highest number of grants awarded)



Source: SQW analysis of beneficiary database at December 2010

- 5.15 Looking at the *penetration* of Home Access amongst learners in schools with a total of 20 or more pupils according to DfE's EduBase portal (18,431 such schools with beneficiaries), we find that the vast majority of these schools had relatively low penetration rates: 71% of schools, accounting for 45% of grants, had less than 5% penetration; and 93% of schools, accounting for 82% of grants, had less than 10% penetration (as measured by total Home Access grants divided by total pupils). There were more than 100 schools which appear to have reached Home Access penetration rates of more than 20%, but collectively these accounted for only 1.5% of total grants.

Figure 5-5: Distribution of Home Access penetration rates in schools with beneficiaries (and with more than 20 pupils according to EduBase)



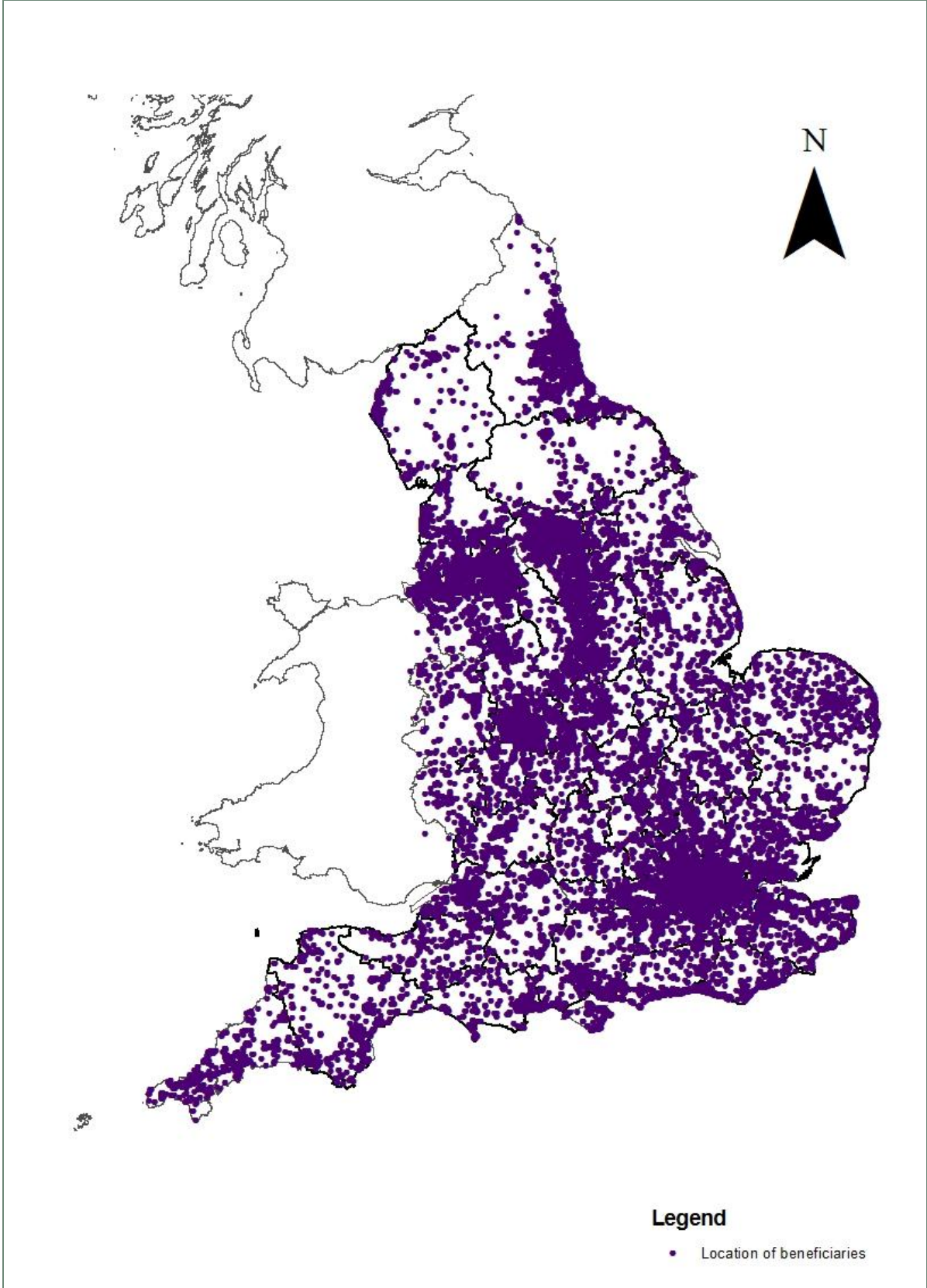
Source: SQW analysis of beneficiary database, EduBase. Note: penetration = approved Home Access applications divided by the total number of pupils in the school

- 5.16 Alongside the findings below regarding location of beneficiaries, this serves to emphasise the success of the programme’s consumer model in addressing a highly dispersed target group: for example, an alternative schools-based initiative targeted at only those schools with a high proportion of FSM pupils would have missed many of the low income households that did end up benefiting from this programme.

*Location of beneficiaries*

- 5.17 Becta was not able to provide us with full postcode details from the final beneficiary database. However, we did obtain such details in a May 2010 extract from the HAGAS database, and we have undertaken some analysis of the geographic distribution of programme beneficiaries based on their home postcode.
- 5.18 As illustrated in Figure 5-6 below, the programme benefited learners throughout England, with (as expected) heavy concentrations in the main urban areas.

Figure 5-6: The distribution of grant recipients across England



Source: SQW analysis of HAGAS beneficiary database extract (May 2010). © Ordnance Survey. Crown Copyright. Licence number 100019086

5.19 Using postcode data for recipient households as provided in the HAGAS extract data, it was possible to categorise beneficiaries by whether they lived in urban or rural Lower Layer Super Output Areas (LSOAs). As shown in

5.20 Table 5-4 below, 92% of beneficiaries live in urban areas with a population of over 10,000.

Area definition	Total	Percentage
Rural - Village, hamlet & isolated dwellings	3,774	2.8%
Rural – Town & fringe	6,674	5.0%
Urban, 10,000+	123,721	92.2%

Source: Source: SQW analysis of HAGAS beneficiary database extract (May 2010) and ONS (2005) Rural and Urban Definition for LSOAs

5.21 Matching the beneficiaries' postcodes against the Index of Multiple Deprivation (2007), we find that 50% of beneficiaries live in England's 20% most deprived LSOAs, and 75% live in England's 40% most deprived LSOAs (see the table below).

IMD ranking of LSOAs	Number of beneficiaries	Percentage of total beneficiaries
Top 10% (most deprived)	38,250	29%
10-20%	28,543	21%
20-30%	20,321	15%
30-40%	14,027	10%
40-50%	10,297	8%
50-60%	7,480	6%
60-70%	5,469	4%
70-80%	4,224	3%
80-90%	3,379	3%
90-100% (least deprived)	2,171	2%
Total	134,161	100%

Source: SQW analysis of HAGAS extract data (May 2010) and IMD 2007 data using GIS spatial analysis

5.22 It is striking from this analysis that the programme reached many eligible households who would not have been addressed by area-based interventions (such as Computers for Pupils which targeted the 10% most deprived areas in England): 50% of the Home Access Programme's beneficiaries were *not* living in England's 20% most deprived LSOAs.

5.23 Looking at the programme's penetration into the 10% most deprived LSOAs, we find a wide range of penetration levels – from 0.7 to 17 beneficiaries per 1,000 population. Of the ten *highest* penetrated LSOAs in these deprived areas, four are in London (in Westminster, Enfield and Tower Hamlets) and three are in Manchester.

Table 5-6: The ten most penetrated LSOAs (of the 10% most deprived LSOAs) as of May 2010

LSOA ID	Local Authority Name	No. of beneficiaries	Beneficiaries per 1000 population
E01004722	Westminster	45	16.6
E01013754	Leicester	29	16.6
E01014490	City of Bristol	47	14.5
E01006679	Liverpool	42	13.7
E01004285	Tower Hamlets	44	13.0
E01001430	Enfield	34	12.5
E01005108	Manchester	25	11.6
E01005142	Manchester	25	11.5
E01005245	Manchester	29	11.1
E01004672	Westminster	44	9.0

Source: SQW analysis of HAGAS extract data (May 2010) and IMD data using GIS spatial analysis

- 5.24 As shown in Table 5-7, the ten *least* penetrated (deprived) LSOAs in the national roll-out only had one beneficiary each (as of May 2010). Two of these LSOAs are in Oldham, which can be explained by the high levels of penetration achieved by the previous year's pilot in this local authority. It is possible that other areas with low penetration rates could be due to high levels of take-up of the previous Computers for Pupils (CfP) scheme.

Table 5-7: The ten least penetrated LSOAs (of the 10% most deprived LSOAs) as of May 2010

LSOA ID	Local Authority Name	No. of beneficiaries	Beneficiaries per 1000 population
E01011679	Leeds	1	0.56
E01005351	Oldham	1	0.56
E01008807	Sunderland	1	0.60
E01009935	Sandwell	1	0.62
E01007880	Sheffield	1	0.63
E01008834	Sunderland	1	0.64
E01006561	Liverpool	1	0.65
E01008055	Sheffield	1	0.65
E01005382	Oldham	1	0.65
E01020979	Hastings	1	0.65

Source: SQW analysis of HAGAS extract data and IMD data using GIS spatial analysis

- 5.25 Alternatively, it may be that the variations in the programme's penetration of these deprived LSOAs can be explained by variations in the age profiles for these areas (e.g. some having relatively few children aged 7 to 14). However, we note that eight of these ten least penetrated



deprived LSOAs are in the North of England – consistent with Becta’s ministerial dashboard observations that take-up levels in the North East, North West and Yorkshire & Humber were somewhat lower (pro rata to the estimated numbers of eligible pupils) than in other regions.

## Net outputs

5.26 In considering the value for money of an intervention, we need to convert ‘gross outputs’ (what the programme achieved) to ‘net outputs’ (what the programme achieved that wouldn’t have otherwise happened). In the case of this programme, there are three key adjustments we need to make:

- leakage – the extent to which an intervention’s gross outputs have related to beneficiaries outside the intended group<sup>14</sup>
- deadweight – the extent to which the programme has provided home access to households that would have bought their own access anyway
- multipliers – the extent to which the programme has stimulated increased levels of home access in households beyond the direct beneficiaries.

5.27 Each of these is considered below.

### **Leakage**

5.28 In public policy evaluations, ‘leakage’ is the extent to which an intervention’s gross outputs have related to beneficiaries outside the intended group.

5.29 Our analysis of the rationale for the Home Access Programme suggests that ‘the intended group’ should be those households with children (aged 5-19, in state-maintained education in England) which did not previously have any working computer with internet access at home. These are the households which the policy was conceived to address, in order to move more quickly towards universal home access for learners.

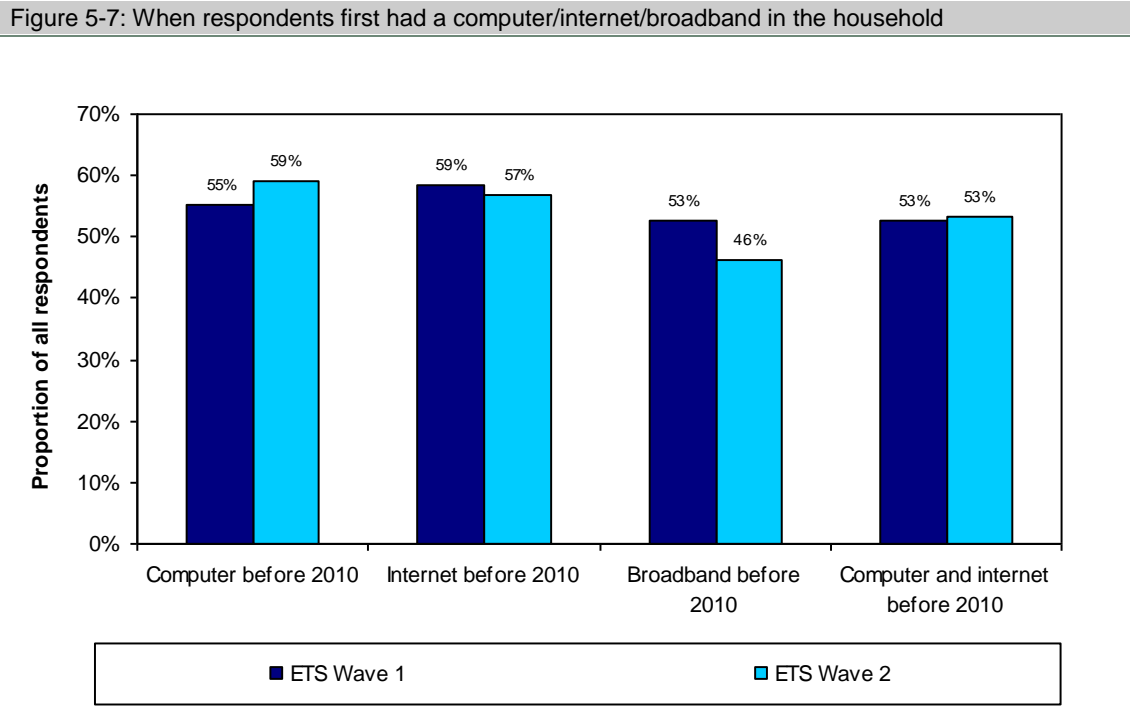
5.30 Whilst it can be argued that a household just having a computer at home doesn’t necessarily mean that a learner can access it when required (nor that the specification of the existing ICT is necessarily sufficient for a good learning experience), this would apply to many of the five million households with learners that already had home access (not just those in receipt of certain benefits). Providing an extra computer to a household which already had a computer and internet connection does nothing to reduce the number of households without *any* home access.

5.31 In the Effective Targeting Survey, respondents were asked (before any mention of the Home Access scheme in the interview) when they first had a computer and/or internet and broadband access in their household. Given that the national roll-out was launched in January 2010, the responses to this question provide a useful measure of leakage.

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<sup>14</sup> It should be noted that ‘leakage’ to beneficiaries outside the intended group does not mean that packages were provided to ineligible households (the grant was targeted at households eligible for Free School Meals). Neither does it imply that there were no educational benefits associated with those packages provided to households which already had a computer and the internet; there clearly were benefits valued by these households, as discussed later in this section.

5.32 As shown in Figure 5-7, over half of all wave 2 respondents (53%) said that they had both a computer and the internet at home before 2010, similar to wave 1; 59% of all respondents said that they had a home computer prior to 2010 and 57% of respondents had internet before 2010; 46% of all respondents had broadband prior to 2010, a lower proportion than those that said they had broadband in wave 1 (53%).



Source: Ipsos MORI ETS wave 1 and wave 2 (base of 350 in each wave)

5.33 This, however, understates the level of leakage somewhat as it excludes those who said that they ‘don’t know/can’t remember’ when they first got a computer or the internet. These figures are provided in Table 5-8 below.

Table 5-8: Number of the 350 respondents in each survey wave that answered ‘Don’t know/can’t remember’ to the following questions

	Wave 2	Wave 1
‘Roughly, when did you your household first get a computer at home?’	8	5
‘Roughly, when did you your household first get any type of connection to the internet at home?’	8	5
‘Roughly, when did you your household first get a broadband connection to the internet at home?’	23	7

Source: Ipsos MORI ETS Wave 1 and Wave 2

5.34 Furthermore, of the people who said that they first had a computer in their household in 2010, 31 later confirmed that they had a computer before the one they bought with the Home Access grant. Hence, we estimate that for ETS wave 2, **55% of all respondents had both a computer and internet access before they used the Home Access grant**, as shown in Table 5-9. The leakage figure is similar to the one that we had estimated for wave 1 (54%).

Table 5-9: Leakage calculation

	Total respondents with device/access before 2010 (wave 2)	Total respondents who don't know/can't remember when they first got device/access (wave 2)	Respondents who first got device/access in 2010, but who said they had the device/access before using the Home Access grant (wave 2)	Total respondents with device/access before Home Access grant (wave 2)	Proportion of all respondents, with device/access before Home Access grant (i.e. Wave 2 leakage)	Wave 1 Leakage
Computer	207	8	31	246	70%	61%
Internet	199	8	14	221	63%	61%
Broadband	162	23	15 <sup>15</sup>	200	57%	57%
Computer and internet	182	4	7	193	<b>55%</b>	54%

Source: SQW analysis of Ipsos MORI ETS waves 1 and 2

- 5.35 It would appear, therefore, that leakage has been substantially *higher* in the national roll-out (54-55% as estimated for ETS waves 1 and 2), than in the pilot (where leakage was estimated at 45%). Given the sample size, and the fact that roll-out was well under way when the wave 2 survey was conducted, we can be 95% confident that the actual level of leakage amongst the vast majority of beneficiaries of the national roll-out was between 49% and 59%.

#### *Number of computers*

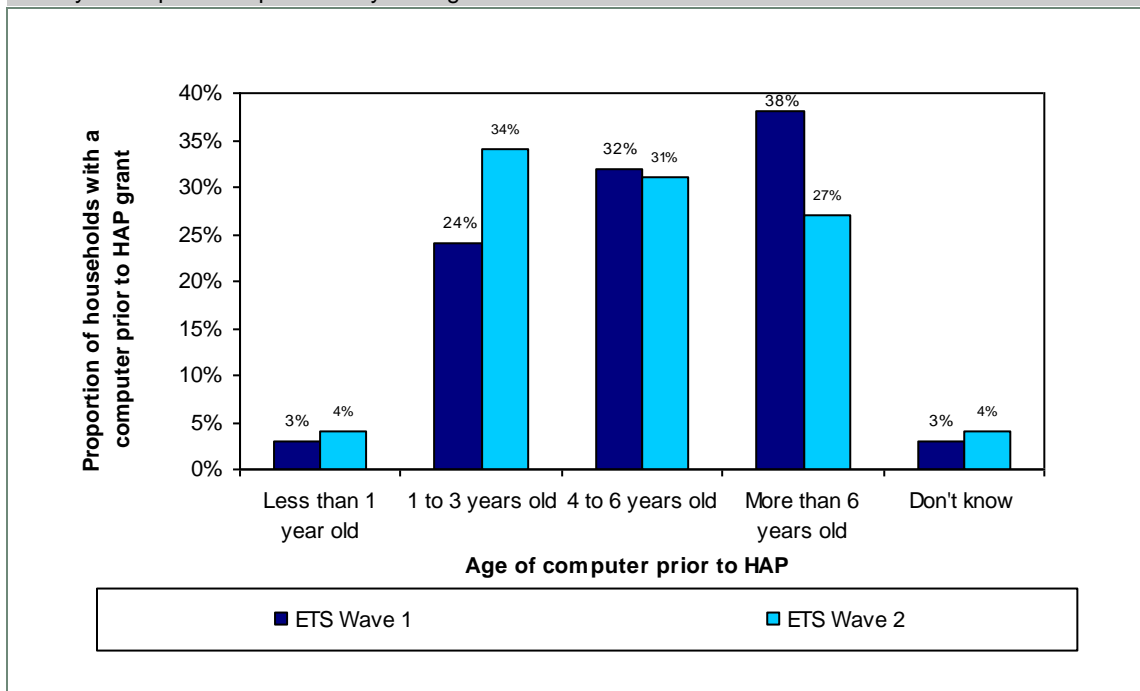
- 5.36 Although the leakage levels were clearly high, this does not imply that there are no educational benefits associated with those packages provided to households which already had computer and the internet.
- 5.37 Even if households had a computer prior to the Home Access Programme, the quality of access for children might have been compromised by competition between family members to use the computer. Although there was one household in ETS wave 2 that had as many as six computers, the mean number of computers per household (for all those with one before the grant) stood at 2.08, with the ratio of computers to under-20 year olds in the household being 1 computer per 1.64 children.

#### *Age of previous computer*

- 5.38 For 34% of ETS wave 2 respondents, their previous computer was 1 to 3 years old. However, 27% of ETS wave 2 respondents reported that their previous computer was more than six years old. We note that this is significantly fewer than the equivalent finding for ETS in wave 1 (38%), which is potentially indicative of those with the most pressing need to replace old computers having applied relatively early after the programme's launch.

<sup>15</sup> The survey did not ask respondents whether they had a broadband connection prior to receiving the Home Access grant. Consequently, this figure has been calculated by firstly working out the number of respondents that first got broadband in their household in 2010 (118 respondents), and then seeing of these, how many had an internet connection in the household prior to the Home Access Programme grant.

Figure 5-8: Age of pre-Home Access Programme computer, among households that had used the grant to buy a computer despite already having one



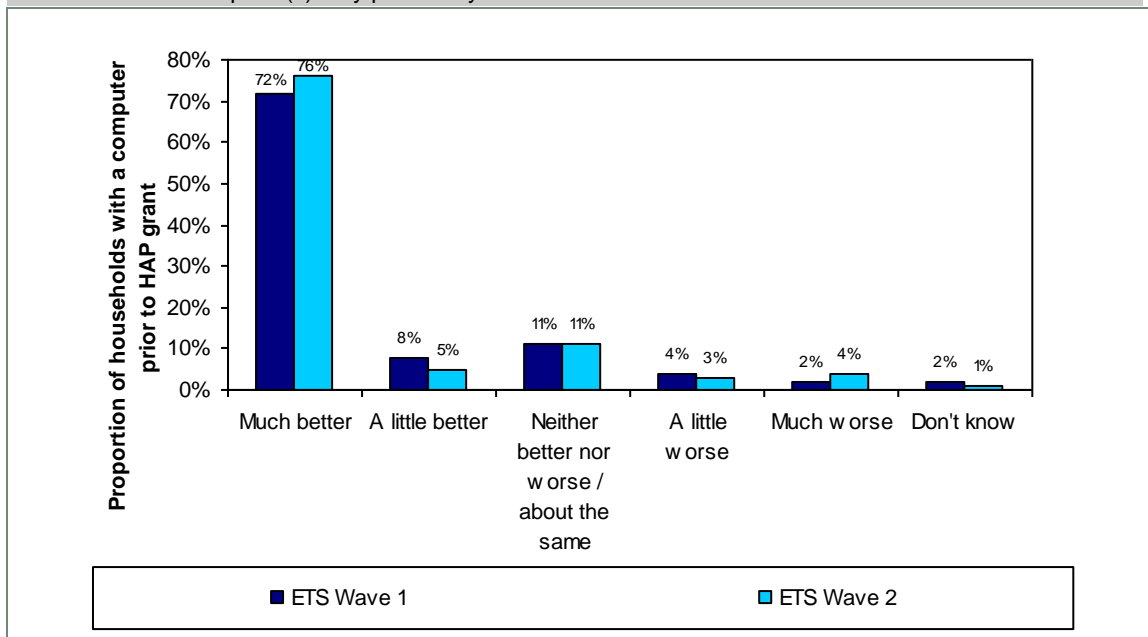
Source: Ipsos MORI ETS waves 1 and 2 (base of 183 for Wave 1, base of 211 for Wave 2)

- 5.39 The survey found that most (64%) of the relatively old devices were still being used in the household.
- 5.40 It is also worth noting that the age of the computer is indicative of when the household first obtained home access: 44% (91 of 207) of ETS wave 2 respondents who had a computer before 2010 first got a computer in 2005 or earlier, i.e. they were relatively early adopters in this low income group.

*Relative quality of the Home Access computer*

- 5.41 As shown in Figure 5-9, a large majority of respondents in ETS wave 2 (72%) who had previously had a computer felt that their Home Access was ‘much better’ than the device they owned previously.
- 5.42 Of the respondents who said that the Home Access computer was ‘much’ or ‘a little better’ than their previous computer, the most frequently cited reasons were that the Home Access computer was faster (54%), had ‘better/more software/applications’ (44%), and ‘can move around the house’ (16%).

Figure 5-9: Percentage of respondents that considered their Home Access computer to be better or worse than the computer(s) they previously had



Source: Ipsos MORI ETS waves 1 and 2 (base of 183 for Wave 1; base of 211 for Wave 2)

#### Evidence from the case studies

- 5.43 Although they provided qualitative rather than quantitative evidence, the case studies' discussions with pupil beneficiaries confirmed that a relatively high proportion of beneficiaries had already had home access. The majority of the pupils interviewed during the case study visits had more than one computer in the household. Only a handful of pupils confirmed that the Home Access computer was the only one in their household.
- 5.44 The pupils tended to refer to the other computers as family computers which had to be shared between other family members whilst the Home Access computers were often perceived to be dedicated to the beneficiary pupil and they got priority on using it. However, some pupils still shared their Home Access computer with other family members. Moreover, some mentioned their family computers having frequent technical issues or being less effective than their Home Access computer which meant that the Home Access computer was used more than the other ones. One pupil even stated that they had sold one of their old two computers on receipt of Home Access computer due to it being more effective.
- 5.45 Connectivity to the internet also seemed to exist in most pupils' homes prior to receiving the Home Access Grant, albeit some technical issues were reported by some pupils with the existing home broadband connections. Pupils and teachers also commented that the pupils regularly accessed the internet through their mobile phones but largely for social or leisure purposes.
- 5.46 A few schools had other initiatives directed to improve pupil home access. These were often linked to the e-Learning Foundation grant scheme and were jointly funded through the grant, school and parental contributions. The Home Access Programme was generally perceived to be complementary to the grant scheme although in some schools the lack of information about the Home Access Programme beneficiaries prevented the school from cross-checking

whether the pupils applying for the e-Learning Foundation subsidised computers had already received a free computer.

### **Deadweight**

- 5.47 ‘Deadweight’ is the extent to which the same gross outputs would have been achieved in the absence of intervention (in this case through beneficiaries buying their own computers and internet access – albeit possibly later than was the case with intervention).
- 5.48 The most meaningful analysis of deadweight in a market in which take-up is increasing anyway is to assess the extent to which beneficiaries’ purchases of home access have been *accelerated* as a result of the grant. The table below present an analysis of the acceleration effect of the Home Access Programme for beneficiaries who had not previously had a computer in their homes, using evidence from the ETS Wave 2 survey.

Table 5-10: Without the Home Access scheme grant, how soon do you think your household would have got a computer?

	Number of respondents	Assumed acceleration rate (months)
In 2010/this year	11	3
In 2011/next year	23	12
2–3 years’ time	21	30
4–5 years’ time	3	54
Longer	2	60
Never	30	60
Don’t know	19	30
Total	111	
<b>Average acceleration (in months)</b>		<b>33 months</b>

Source: SQW analysis of Ipsos MORI ETS Wave 2 responses

- 5.49 We estimate therefore that **the average acceleration effect was to bring forward home access by about 33 months** (2.8 years) in those households which did not previously have access, which is similar to 2.4 years estimated in our evaluation of the pilot phase.

### **Multipliers**

- 5.50 Interventions can have spill-over benefits beyond the direct gross outputs. In the case of the Home Access Programme, the most relevant measure is the extent to which non-applicants have themselves bought home access for the first time, as a result of hearing about the scheme – to ensure, for example, that their children don’t get left behind.

Although the programme had hoped that Home Access approved products would also be attractive to non-eligible households using their own funding, in practice very few such sales were made: only 28 non-Home Access Programme funded sales as of 5 September 2010. We understand from Becta that lack of sales to non-eligible households were inhibited by the

incorporation in most packages of the Microsoft Home Learning Package, which was only available to grant recipients under its licence conditions.

5.51 However, the fact of the Home Access Programme existing may have raised awareness more generally amongst non-beneficiary parents, and stimulated them into purchasing home access from their own funds. We can derive an estimate of this multiplier effect by examining the responses of the longitudinal sub-sample in our national wave 2 survey (who did not have home access when we spoke to them in wave 1). Of the longitudinal sample of 66 households:

- 52 had heard of the Home Access scheme when it was described to them
- of these, 22 now have a computer but didn't get it through the Home Access scheme
- of these, 7 did not have a computer before they heard of the Home Access scheme
- of these, 4 said that the Home Access scheme had influenced their decision to get a computer 'a great deal' or 'a fair amount'.

5.52 Hence, for the 11 households in the longitudinal sample that had received Home Access packages and didn't previously have a computer, there were a further four households who purchased home access for the first time as a result of hearing about the scheme. We estimate therefore, that **the multiplier effect is approximately 1.36** ( $=1 + 4/11$ ): i.e. for every 1 direct beneficiary households a further 0.36 households will have purchased home access themselves, partly as a result of hearing about the scheme<sup>16</sup>. This is significantly higher than the multiplier of 1.16 assumed in our evaluation of the pilot phase, but we consider this to be feasible given the higher profile (including national TV coverage) and wider geographic scope of the national roll-out (national-level spillover effects tend to be larger than local-level spillover effects).

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<sup>16</sup> It should be noted that the sample size of 66 households is relatively small, so some caution should be applied to this estimate of the multiplier effect.

### Summary of net outputs

5.53 In total, then, we estimate that the net outputs of the national roll-out are that home access has been accelerated by about 442,000 household-years, as shown in the table below:

Table 5-11: Analysis of the net outputs of the national roll-out	
	Value
Gross direct number of households supported	258,253 households
Less leakage	55%
Equals	116,214 households
Adjusted for the multiplier effect	1.36
Equals	158,051 households
Multiplied by the average acceleration of home access per beneficiary household	2.8 years
<b>Equals the net outputs</b>	<b>442,543 household-years</b>

Source: SQW analysis

5.54 Adding in the 4,995 households and 13,055 household-years *net* outputs estimated in our evaluation of the pilot phase in Oldham and Suffolk, this suggests that **the overall effect of the programme was to accelerate home access in a total of 163,000 households by about 456,000 household-years.**



## 6: Assessment of outcomes and impact

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### Summary of key messages

#### Outcomes and impacts

We found a number of positive indications that the programme is leading to improved outcomes in terms of **enhanced use of home access for education**. Beneficiary learners are on average using a computer 10.1 hours per week at home, of which 4.7 hours are on learning-related activities. There was strong agreement amongst interviewed children that having the Home Access computer is making learning more interesting, lets them use a computer much more often to help them learn, and is helping them to do better at school. In the case studies we found that some pupils reported such benefits being restricted though – sometimes due to technical difficulties with their package (primarily slow or inconsistent mobile broadband connectivity) and sometimes because of the set homework not involving the use of a computer.

There were also positive signs that the programme had contributed to **improved ICT skills and confidence** for learners, with strong agreement amongst the surveyed children that their computer skills have got a lot better because they now have the Home Access computer. Teachers in most of our case study schools cited recent improvements in ICT skills and confidence amongst pupils – although they were not necessarily able to attribute these improvements solely to the programme.

The case studies also provided evidence of the programme enhancing **opportunities for personal learning**. Pupils value the flexibility a home computer provides, in allowing them to do their homework or online research at home, rather than having to come into school early or stay late after school. Teachers in some schools observed that pupils were taking a more active role in their learning, by doing additional research at home, or using external internet resources to support revision.

Furthermore, it was clear that there are benefits in terms of **enhanced attitudes to technology** amongst parents. The vast majority (89%) of interviewed parents agreed that the Home Access computer is something the whole family can use, and most (57%) agreed that they were themselves more interested in using the internet than they were before they got the Home Access computer. This appears to have contributed to a high proportion of families continuing to pay for broadband access: only 9% of households whose free internet period had finished said that they didn't still have broadband connectivity.

Teachers in the majority of case study schools found it difficult to attribute any improvements in **learner motivation and behaviour** to the programme, mainly since they were often unsure as to which of their pupils had benefited. However, in general the use of ICT in learning is perceived to have a positive difference on motivation, with several pupils commenting that using the computers had made

their work more interesting or fun.

The evidence regarding the effect of the programme on the **use of learning platforms** is quite mixed, and it is difficult to determine what effects can be attributed to the programme, as opposed to what would have happened anyway. More parents are now logging on to school resources than was the case in our 2009 baseline survey; but amongst the beneficiary learners, more children disagreed than agreed that they are logging on to their school's learning platform more often since getting the Home Access computer. In our case studies we didn't find any notable impact of the programme on the school's propensity to use their learning platform.

The findings regarding the effect on **parental engagement** with their children's education are also somewhat mixed. In the majority of case study schools, home access was not seen to have increased parental engagement, though teachers did acknowledge that email gave parents an additional means of engaging with the school outside parents' evenings or telephone calls. Lack of parental ICT skills, and understanding of what constitutes an appropriate use of the computer at home, was highlighted as a concern by some teachers.

It appears that the potential **adverse outcomes** of the programme were largely avoided – although there *is* a minority for whom the availability of home access (or easier access to a computer at home) is potentially displacing other valuable activities to an excessive extent.

In terms of impact on **reducing the digital divide**, we estimate that the programme accounted for a net increase in home access of approximately 167,000 households – equivalent to about 2.8% of England's households with dependent children. Data from Ipsos MORI's Technology Tracker survey suggests that internet access amongst households with children increased by eight percentage points in the course of 2010, and we reckon that the programme accounted for about a third of this increase. We estimate that home access penetration levels for households with learners in the 5 to 19 age group are now likely to be in the order of 95%, and still rising.

It is as yet too early to judge the **educational attainment** impacts associated with the programme. However, encouragingly, FSM children's average attainment at KS4 appears to have increased sharply in the last year in the two pilot areas (where pupils received packages in 2009). Furthermore, the national attainment gap between FSM and non-FSM pupils has reduced substantially in the last two years – which is consistent with the hypothesis that 2008's sharp increase in internet penetration rates in low income households with children has helped to lead to improvements in educational attainment for these children. Drilling down into the individual-level data on the performance of Oldham's KS4 cohort in 2010, we found that Home Access beneficiaries outperformed the overall FSM cohort in Oldham in the key measure of 5+ A\*-C grades (including English and Maths as a GCSE) – achieved by 36% of the Home Access beneficiaries, versus 31% of the FSM cohort. Analysis of the contextual value added data, comparing actual KS4 score with that predicted by their previous KS2 attainment, suggests a very similar level of improvement for Home Access beneficiaries and the FSM cohort as a whole – though the attainment in both groups out-performed expectations on

average (using the median).

While it was too early to tell the extent of enhanced **parental engagement with their own skills development**, given that the Home Access package had only been received a matter of months before the interviews, the parents were generally positive about the *potential* benefits for themselves, with 78% agreeing that having home access will help them develop new skills, and 70% agreeing that it will help them find employment opportunities.

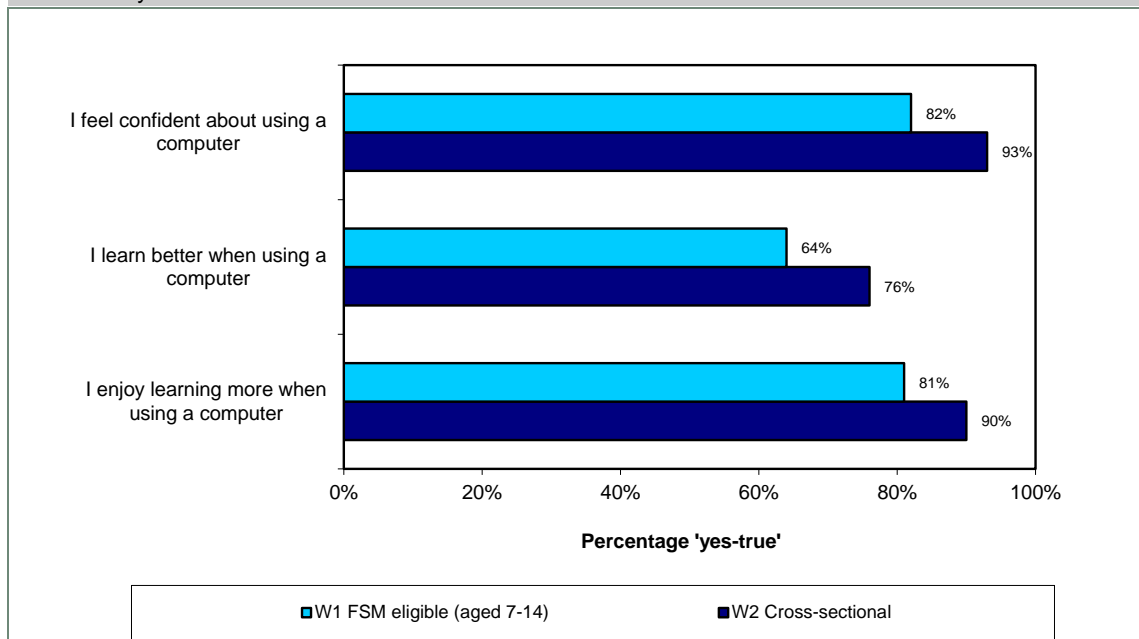
## Outcomes

- 6.1 The NS wave 2 survey and our case studies provide evidence on the outcomes for learners and their families. In this section, the NS wave 2 survey findings are compared with those from NS wave 1, where appropriate. In order to make this comparison as meaningful as possible it uses the cross-sectional sub-sample from NS wave 2 (the known Home Access beneficiaries) and compares this against those households from the baseline NS wave 1 survey which were eligible for FSM, and where the child was aged 7-14 (to match the eligibility criteria for the national roll-out). The average ages of respondents in these two groups are similar, at 10.8 and 10.4 years respectively (which is important because age is an influencing factor in many of the responses).

### **Enhanced use of home access for education**

- 6.2 As illustrated in the chart below, there was a marked improvement in children's perceptions of using a computer for learning – 90% in NS wave 2 said they enjoy learning using a computer, versus 76% in wave 1.

Figure 6-1: I'm going to read out a few sentences. I'd like to know whether each sentence is true or not true about you.

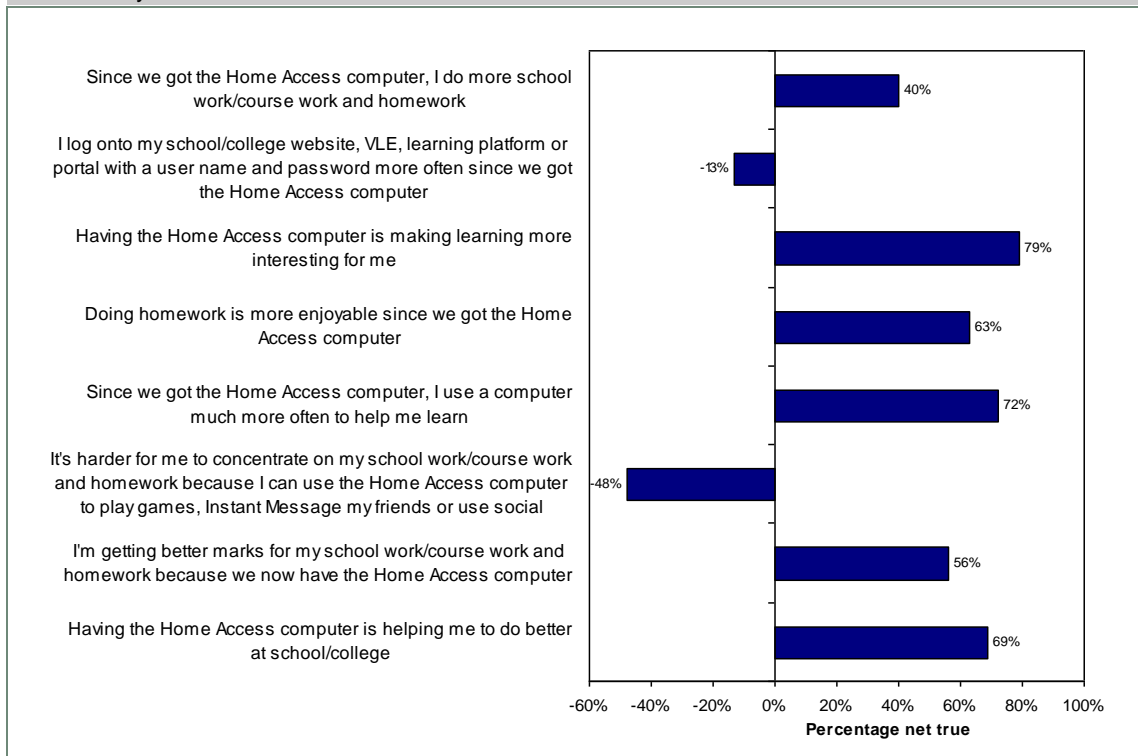


Source: Ipsos MORI NS wave 1 and wave 2 (CYP). Base: 224 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents (except in both cases, those that don't use computers to help them learn)

6.3 NS wave 2 also confirmed that Home Access beneficiaries are indeed using the packages received for educational purposes. On average, parents estimated that their children spend about 10.1 hours per week on a computer at home, of which about 4.7 hours are on learning-related activities. Of the children who use a computer at home, 95% are using the device provided through the Home access scheme.

6.4 When Home Access learner beneficiaries were asked specifically about the learning-related benefits of having the Home Access computer, the responses were typically very positive, as shown in Figure 6-2. For example, there was a +79% 'net true' response (i.e. proportion saying 'yes-true' minus the proportion saying 'no-not true') to the statement '*Having the Home Access computer is making learning more interesting for me*', and +69% net true response for '*Having the Home Access computer is helping me to do better at school*'. There was also quite strong disagreement (-48% net true) with the statement '*It's harder for me to concentrate on my school work/course work and homework because I can now use the Home Access computer to play games, Instant Message my friends or use social networking sites*'.

Figure 6-2: I'm going to read out a few sentences. I'd like to know whether each sentence is true or not true about you



Source: Ipsos MORI NS wave 2 (CYP). Base: 188 W2 cross-sectional CYP respondents who have used the Home Access scheme to get a computer and remember this

#### Evidence from the case studies

6.5 Most teachers acknowledged the importance home access played in education, and hence they believed pupils without it would be disadvantaged. One teacher commented:

*The majority of students do their best work out of school hours, where they can concentrate for extended periods and follow up any creative ideas they have been inspired by – without a computer at home, students at this level are really missing out. Though they can use the study area before*

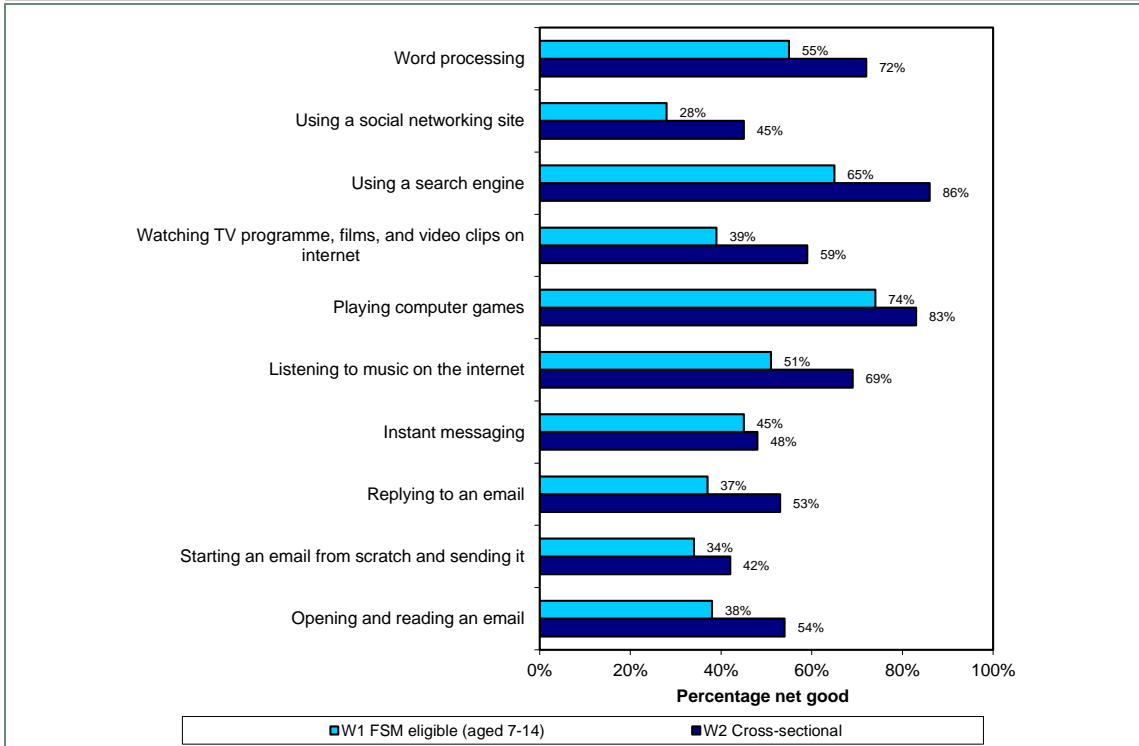
*and after school, it's very easy to tell who hasn't got a computer at home because of the quality of the work.*

- 6.6 The case studies provided some evidence of enhanced use of Home Access for education. Although most of the interviewed children had already had a computer at home before receiving their Home Access grant, some complained of their previous computers being slow, or that sharing among family members making it difficult to access the computer. Having their own computer, therefore, enhanced the potential to use home access for education.
- 6.7 The majority of the pupils said that they used the computer for homework or school related research and many used it now more for homework than they did six months ago. However, some pupils stated that having a computer at home had not increased the use for educational purposes because their homework was not set online or it did not involve using a computer, thus suggesting that lack of home access was not the only factor prohibiting greater use of ICT in home learning.
- 6.8 Using the computer at home was largely seen to be having a positive impact on the school work. Using the computer tended to make the homework easier and quicker to do. The completion rates of homework had increased and an overall improvement in homework quality as well as presentation was also observed in some schools. Pupils reported increased internet research, revision, and the use of external online resources, such as GCSE Bitesize or MyMaths.
- 6.9 However, many pupils reported technical difficulties with their new package which restrict these benefits - primarily slow or inconsistent internet connectivity, but also some cases of broken or faulty hardware.
- 6.10 In addition to educational use, most pupils used the computer also for leisure purposes. Popular social uses included social networking, keeping in contact with friends and family via email or MSN, playing games or downloading music. Some pupils believed that combining computer based leisure activities and homework had a positive impact on their school work. For instance, pupils mentioned that doing homework together with their friends through MSN or listening to music whilst doing their homework made it more fun or relaxing.

### ***Improved ICT skills and confidence***

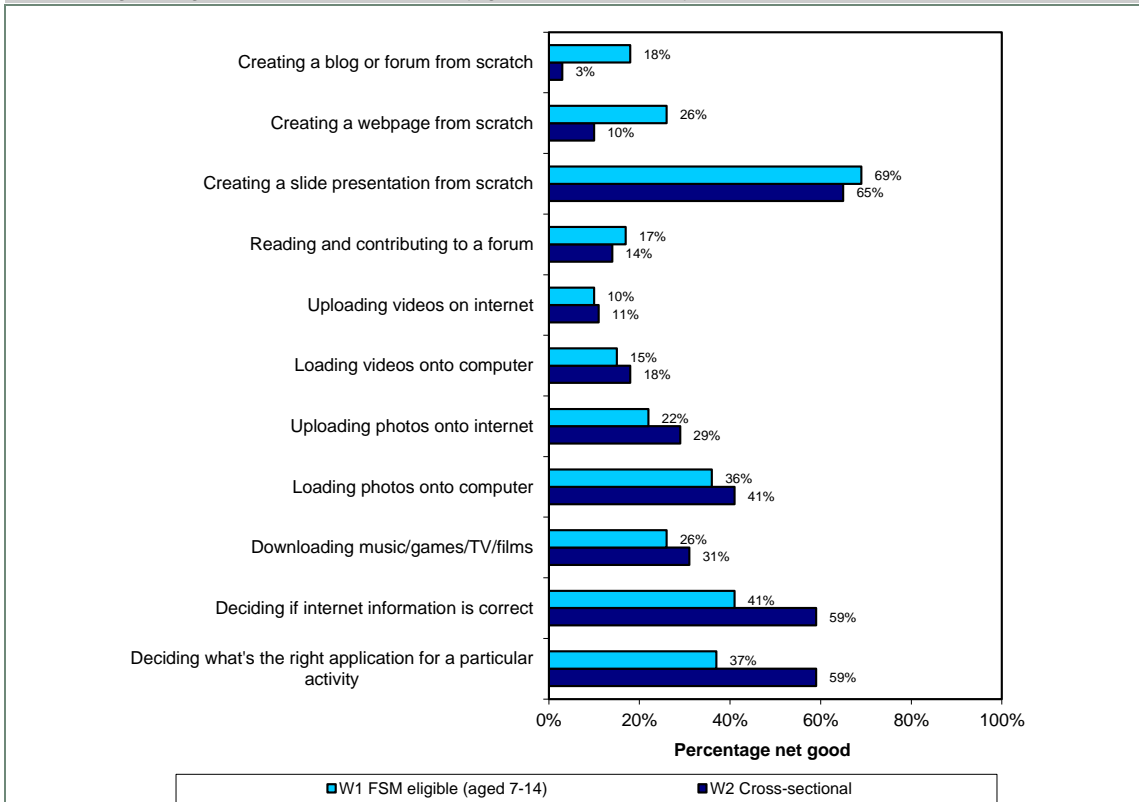
- 6.11 We found particularly marked differences between NS wave 1 and wave 2 in terms of learners' ICT skills and confidence, as shown in Figure 6-3 and Figure 6-4 below. For example, when asked how good or bad they were at various ICT-related tasks, the 'net good' response (i.e. the proportion saying excellent or fairly good, minus the proportion saying fairly bad or terrible) rose from 55% in wave 1 to 72% in wave 2 for word processing; from 65% to 86% for using a search engine; and from 41% to 59% for deciding if the information they find on the internet is correct.

Figure 6-3: I'm going to read out some things that people use the internet or a computer to do. Looking at this card, can you please tell me how good or bad you think you are at doing each thing ? – Percentage net good (= % excellent or fairly good minus % fairly bad or terrible)



Source: Ipsos MORI NS waves 1 and 2 (CYP) Base: 232 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents (in year 7 or above in each group)

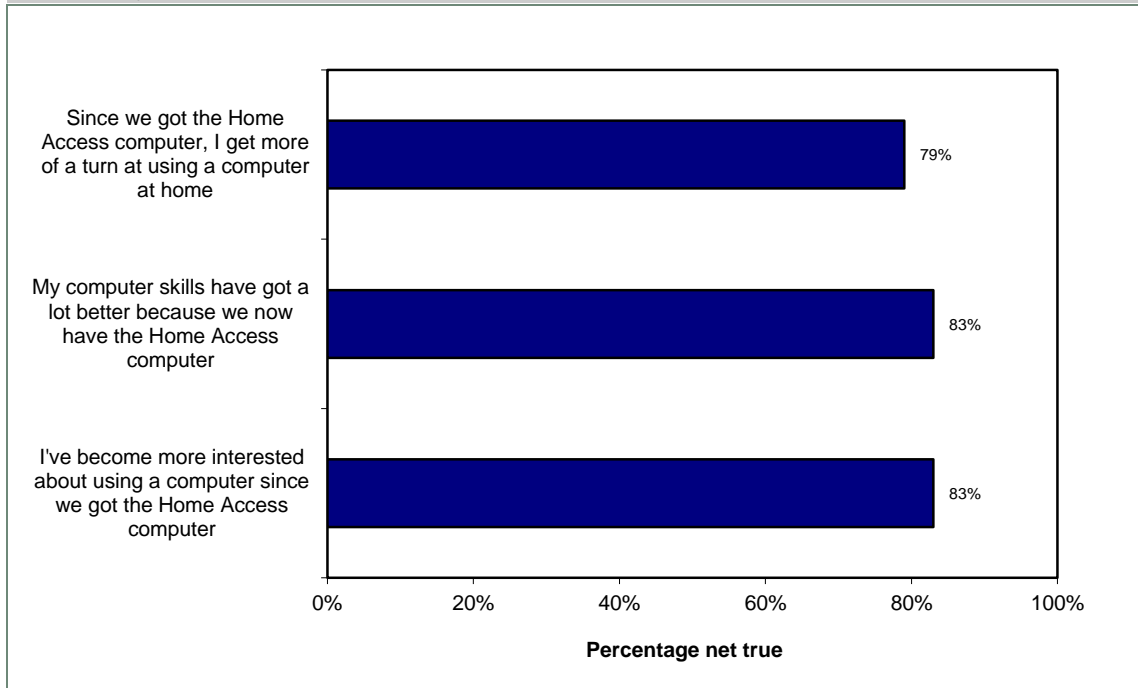
Figure 6-4: I'm going to read out some things that people use the internet or a computer to do. Looking at this card, can you please tell me how good or bad you think you are at doing each thing ? – Percentage net good (= % excellent or fairly good minus % fairly bad or terrible)



Source: Ipsos MORI NS waves 1 and 2 (CYP) Base: 232 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents (in year 7 or above in each group)

- 6.12 Specifically, there was an +83% net true response in NS wave 2 to the statement ‘My computer skills have got a lot better because we now have the Home Access computer’.

Figure 6-5: I’m going to read out a few sentences. I’d like to know whether each sentence is true or not true about you



Source: Ipsos MORI NS wave 2 (CYP (Base: 188 W2 cross-sectional CYP respondents who have used the Home Access scheme to get a computer and remember this.))

#### Evidence from the case studies

- 6.13 In nine out of the 15 case study schools teachers and the ICT coordinators cited recent improvements in ICT skills and confidence among pupils. This was both in terms of technical ICT skills as well as user confidence. However, in many cases the teachers were unable to attribute these improvements solely to the Home Access Programme, primarily because the teachers tended to be unaware of which pupils benefited from the programme. Hence, the teachers rather believed the programme had supported a general trend of children becoming more confident with technology. One teacher stated:

*“In ICT classes the ones who are really quick at it are the ones that you know have computers at home. There was a massive divide. We’d have to differentiate because of it – you’d be stretching your top ones with ICT club, and you and your TA would be hand-holding with all the simple stuff. It’s not so bad now.”*

- 6.14 In a handful of schools the teachers also highlighted how the getting home access enabled the previously disadvantaged pupils to build not just technical confidence but self-confidence by removing the stigma of being economically disadvantaged. A few teachers also noted improvements in parental ICT skills as a potential benefit of the programme by extending the ICT learning to home, but they did not have particular evidence for this.
- 6.15 Gaining ICT skills and confidence was not ranked highly amongst benefits cited by the learners although they tended to use computers more now than six months ago. Most learners

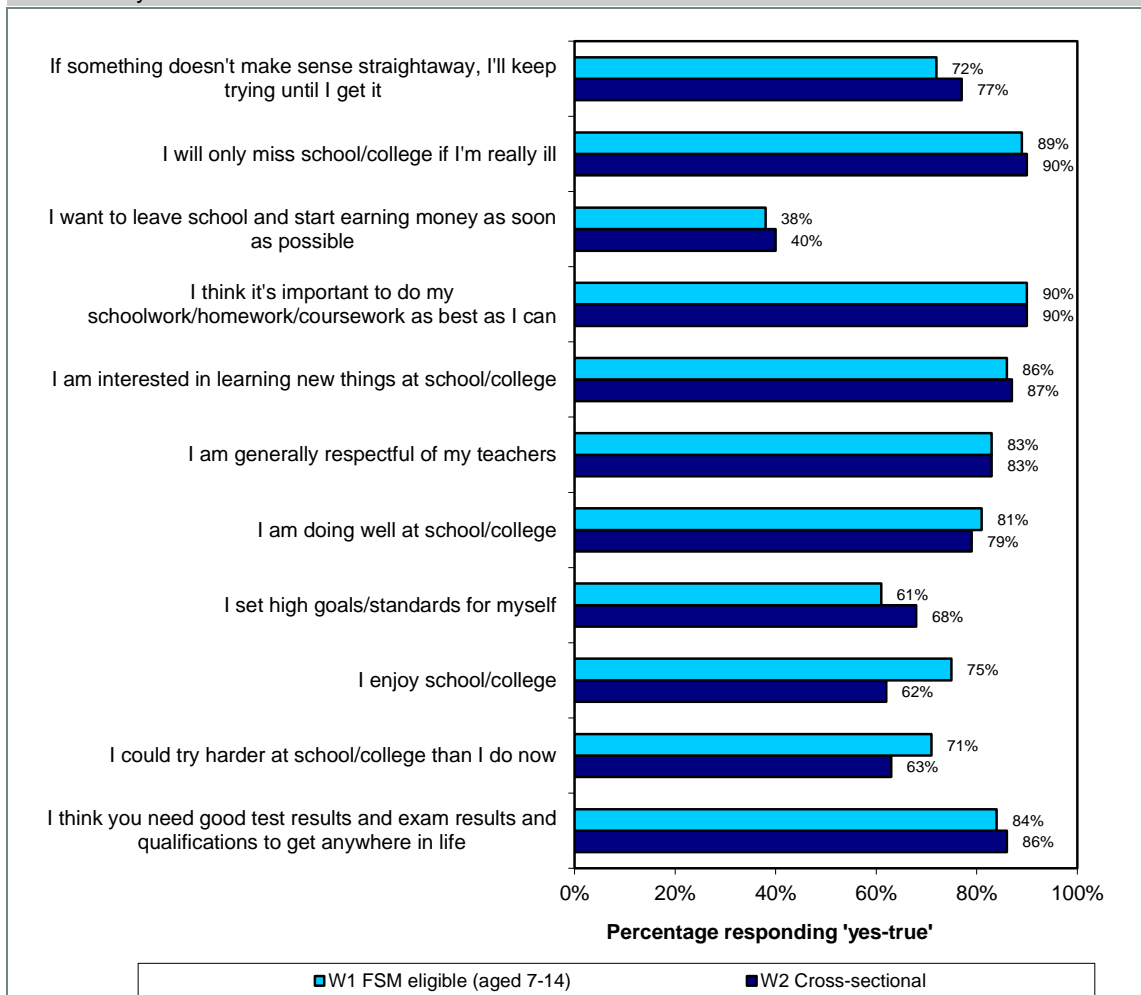
stated that using computer was easy and gave the impression that they had already developed their ICT skills and confidence through previous use computers at home and school.

**Improved learner motivation and behaviour**

6.16 The survey evidence regarding any benefits of Home Access for learner motivation and behaviour is more mixed. As shown in the chart below, many of the responses to the relevant questions were very similar between NS wave 1 and wave 2. However, there were:

- two positive indicators, in that those agreeing with the statement ‘I set high goals/standards for myself’ increased from 61% to 68%; and those agreeing ‘I could try harder at school/college’ fell from 71% to 63%
- one negative indicator<sup>17</sup>, in that those agreeing with the statement ‘I enjoy school/college’ fell from 75% to 62%.

Figure 6-6: I’m going to read out a few sentences....I’d like to know whether each sentence is true or not true about you.



Source: Ipsos MORI NS wave 1 and wave 2 (CYP)(Base: 232 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents)

<sup>17</sup> It is possible that the timing of the surveys may have influenced this result: wave 1 was conducted in summer, and wave 2 was conducted in winter



*Evidence from the case studies*

- 6.17 The teachers and ICT Coordinators in the majority of the schools found it difficult to attribute any improvements in learner motivation to the Home Access Programme, mainly since they were unsure as to which of their pupils had benefited from the scheme. However, the comments by pupils and teachers suggested that using ICT in learning has generally made a difference to their motivation. Several pupils commented that using the computers had made their work more interesting or fun, for instance through use of games in homework or making it easier to be creative compared to when working by hand. One student commented that using the computer makes reading more enjoyable for her because she did not like reading books:

*“Books are dominating, the flat screen isn’t, you can flick through a book online”.*

- 6.18 The improved motivation was also seen to impact their learning behaviour. Pupils were reported doing extra homework, or it had an impact on their homework completion rates. One teacher noted:

*“There was one particular student who didn't come into school because she couldn't do her homework, and didn't want to say why she didn't do her homework because she didn't want to look poor, and now she's got a laptop that has all changed – her attendance and school work has improved.”*

- 6.19 The use of computers had also helped the pupils to collaborate more with other pupils and some were reported setting up online discussion forums or using MSN to communicate about homework. According to teachers, the peer-to-peer learning was perceived to be beneficial as the pupils were teaching each other skills ‘way beyond what would be asked of them in class’.

***Enhanced opportunities for personal learning***

*Evidence from the case studies*

- 6.20 Most of the pupils interviewed believed that a key benefit of a home computer was the flexibility it provided to them in doing their homework or online research at home rather than having to come in to school early or stay late after school. Some schools also stated that their computer facilities were insufficient to cope with the demand so home access was crucial in enabling the pupils to do ICT based learning tasks. Home access was particularly important to pupils who had other commitments after school or whose parents were protective and preferred to have them at home after school.
- 6.21 There was some evidence of pupils being more able to personalise their learning through home access. Many cited benefits such as being able to spend more time doing their homework or absorbing new information. One pupil also noted that they benefited from having a computer at home because they were dyslexic and tended to need more time for studying.
- 6.22 Some schools also provided evidence of pupils taking a more active role in their learning and extending learning from school to home. This was mainly evidenced through pupils taking the

initiative to do additional research or working at home to catch up on missed lessons or to improve their understanding of topics covered, or independently using external internet resources to support revision. This had, according to some teachers, led them to ‘look, inquire, question more’ and to undertake “independent learning – not just learning that is put in front of them by teachers”. Some pupils seemed to enjoy this aspect. One pupil stated:

*I like using the computer because when you are searching for information you can come across something else you didn't know about. So when you are reading about something, something else catches your attention... so you are learning more.*

### **Enhanced use of learning platforms**

- 6.23 The evidence regarding the effect of the programme on the use of learning platforms is quite mixed, and it is difficult to determine what effects can be attributed to the programme, as opposed to what would have happened anyway.
- 6.24 As shown in Figure 6-10 later in this section, the proportion of *parents* saying that they use the internet to log onto their child's school/college website/VLE/learning platform/portal with a username and password increased substantially from 19% in NS wave 1 to 32% in wave 2.
- 6.25 In Figure 6-2, though, there was net disagreement amongst Home Access beneficiary *learners* in NS wave 2 with the statement ‘*I log onto my school/college website/VLE/learning platform/portal with a username and password more often since we got the Home Access computer*’ (-13% net true).

### *Evidence from the case studies*

- 6.26 Most of the schools visited had some kind of VLE or learning platform in use and compared to the schools visited for the Home Access Pilot case studies, the schools seemed to be more engaged in developing and using the VLEs. However, the extent to which the VLEs was actively used by the teachers and pupils still varied greatly from school to school.
- 6.27 Some schools had taken a very ICT focused approach and issued the majority, if not all of their homework online. In these schools the pupils reported high rates of accessing the VLE from home. Although acknowledged as an issue, the potential lack of access in some pupils' homes was not considered to be inhibiting the use of the VLE across the school. This was mainly because the school believed they provided sufficient opportunities for those pupils to use computers onsite before, during and after the school day. The staff in these schools tended to be trained on how to use and populate the VLE with relevant resources, and many had also incorporated the use of the VLE to their teachers' performance management framework, thus providing them with an incentive to engage with it.
- 6.28 Other schools were more cautious and issued a combination of both paper based and online homework to avoid disadvantaging pupils who remained without home access. In these schools concerns about those pupils without access were raised. Other barriers mentioned included technical issues with pupil computer compatibility or temporary internet access issues which were known to occur regularly.

- 6.29 In a couple of schools the use of the VLE was still very embryonic. In such schools the ICT Coordinators cited teacher skills and attitudes as a problem. Indeed teachers in these schools sometimes showed scepticism towards the use of ICT in learning:

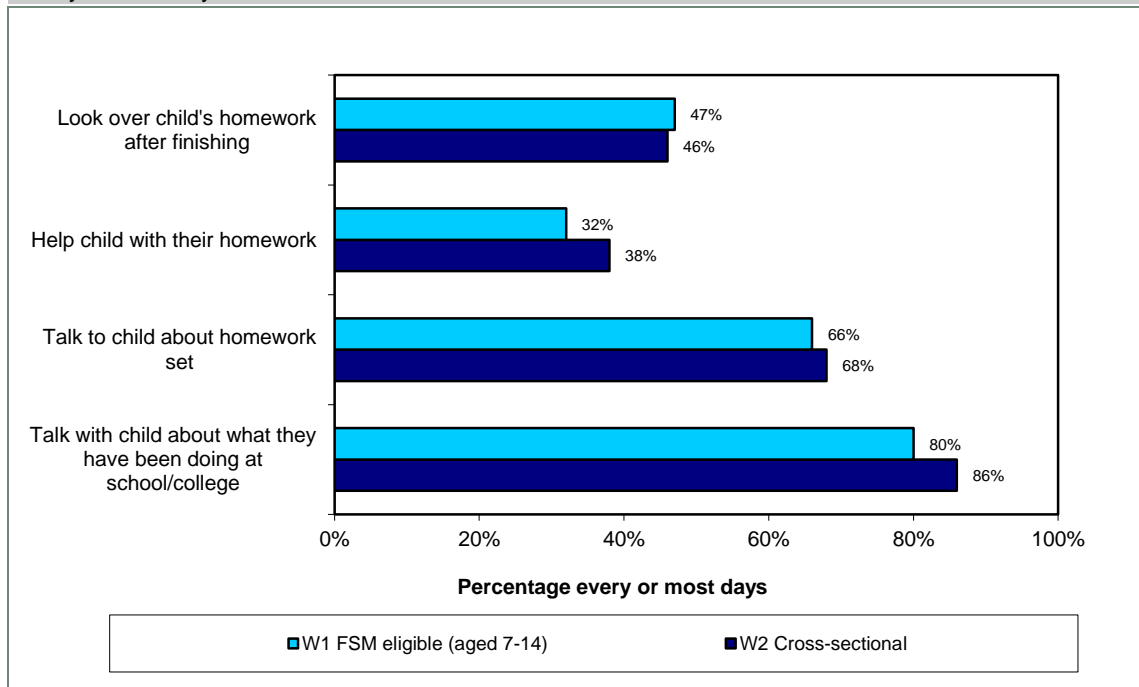
*In our current paper homework system, they are learning literacy, spelling, numeracy etc rather than just ICT skills. For some of our students doing something on the computer and printing it off are not skills that they will need in their life – spelling, handwriting and numeracy are more important.*

- 6.30 The Home Access Programme did not have a notable impact on the schools’ tendency to use the VLE. In those schools where the VLE was highly used, this had happened already prior to the national roll out of this scheme whilst in the other schools the plans were still constrained by other factors, such as the lack of information about pupils without access or slow progress in adoption.

### **Enhanced parental engagement**

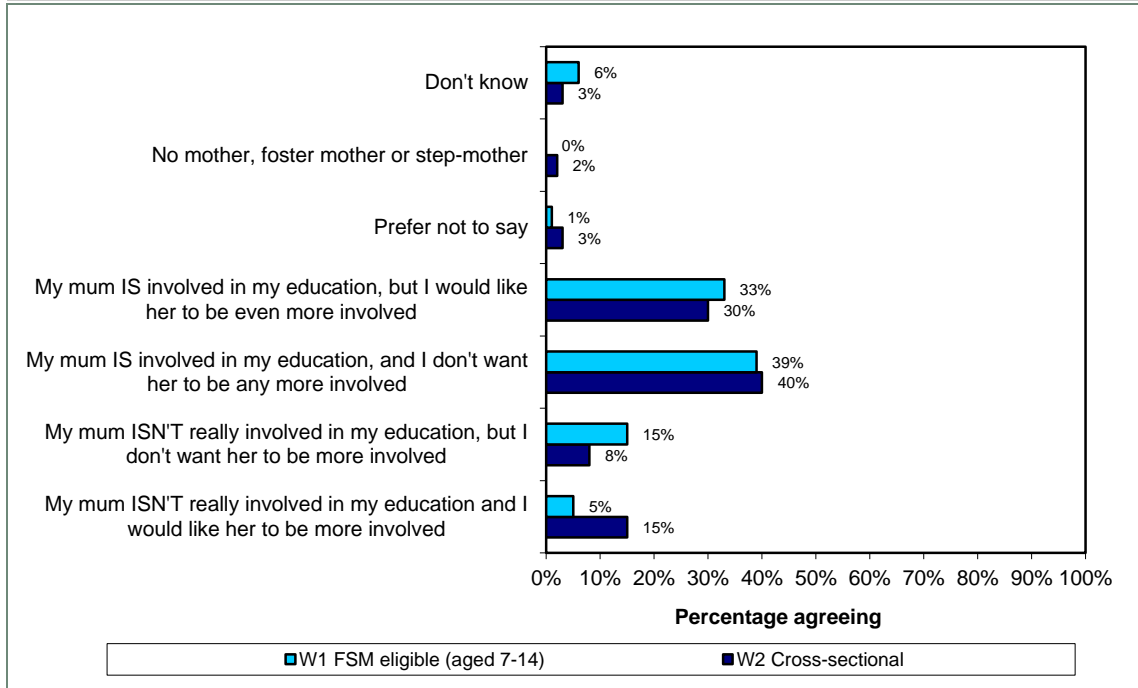
- 6.31 The findings regarding the effect on parental engagement with their children’s education are also somewhat mixed. Although, as shown in Figure 6-7, there were some increases between NS wave 1 and wave 2 in parents agreeing that they talk with their child about what they have been doing at school/college, the responses of the children are broadly similar between the two waves as to the extent to which their mum and dad are involved in their education (Figure 6-8 and Figure 6-9).

Figure 6-7: Which of the following best describes how often, if at all, you...? Percentage answering every or most days



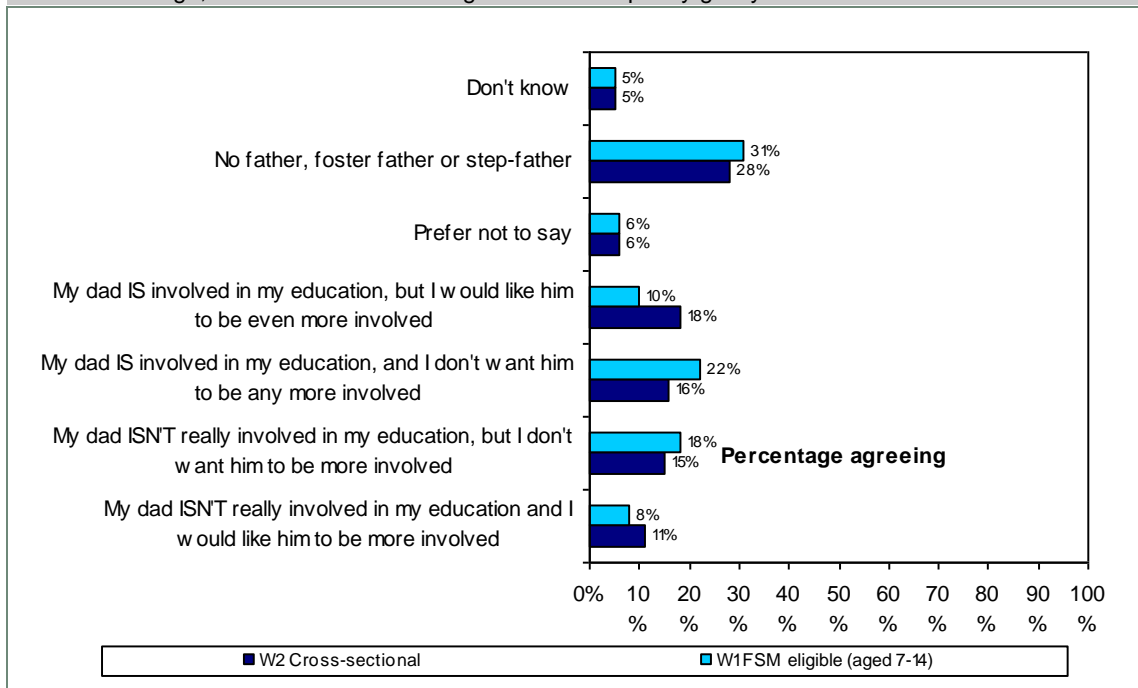
Source: Ipsos MORI NS wave 1 and wave 2 (Carers) Base: 232 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents

Figure 6-8: Which of these sentences best describes how you feel about your mum/step-mum/foster-mum's involvement in your education? By involvement, I mean how interested they are in how you're getting on at school/college, and how much encouragement and help they give you.



Source: Ipsos MORI NS wave 1 and wave 2 (CYP) Base: 93 W1 respondents that are FSM eligible and aged 7-14; 110 W2 cross-sectional respondents in year 7 or above

Figure 6-9: Which of these sentences best describes how you feel about your dad/step-dad/foster-dad's involvement in your education? By involvement, I mean how interested they are in how you're getting on at school/college, and how much encouragement and help they give you.

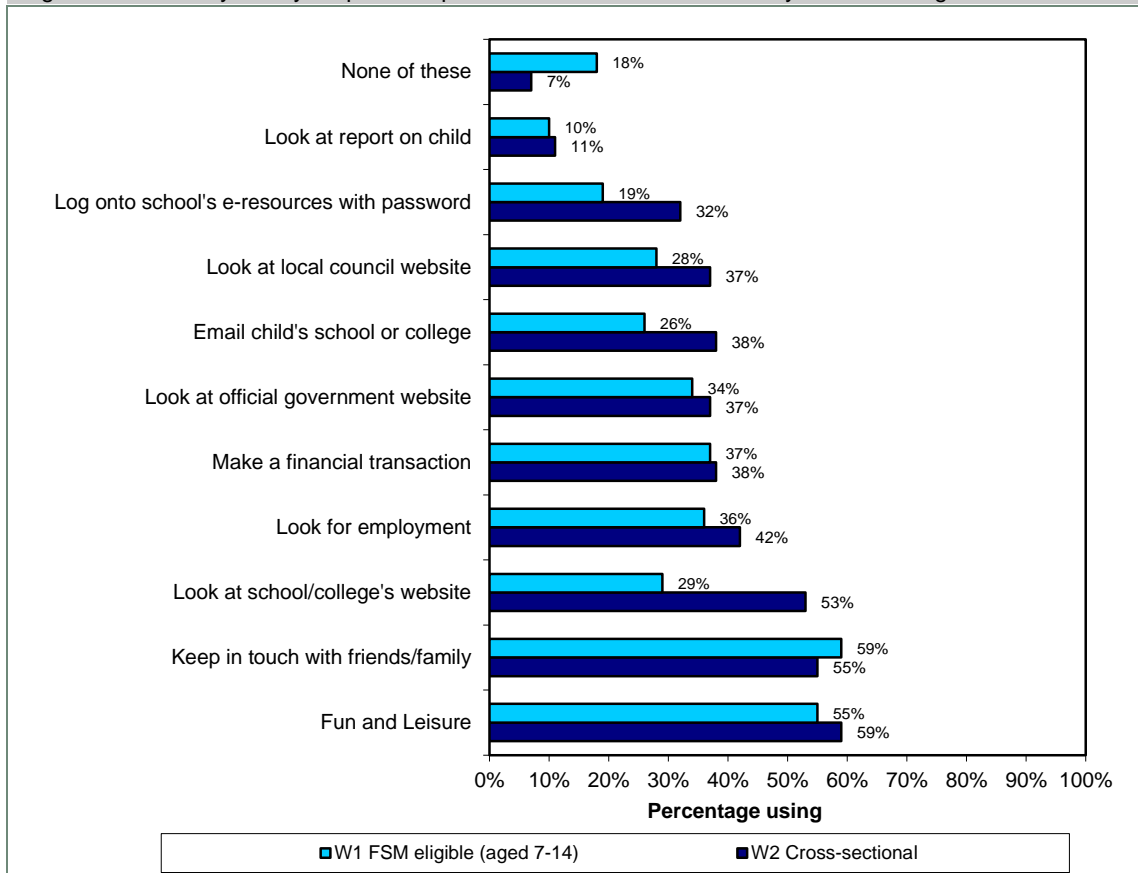


Source: Ipsos MORI NS wave 1 and wave 2 (CYP) Base: 93 W1 respondents that are FSM eligible and aged 7-14; 110 W2 cross-sectional respondents in year 7 or above

6.32 More encouragingly, there were some pronounced changes between the two waves in the extent to which parents had used the school VLE (increasing from 19% to 32%), had emailed

the child's school or college (increasing from 26% to 38%) and had looked at their child's school/college's website (increasing from 29% to 53%).

Figure 6-10: Have you or your partner/spouse used the internet to do any of these things?



Source: Ipsos MORI NS wave 1 and wave 2 (Carers) Base: 232 W1 respondents that are FSM eligible and aged 7-14; 219 W2 cross-sectional respondents (with home internet access in both cases)

#### Evidence from case studies

6.33 In the majority of the schools home access was not seen to have increased parental engagement, although the potential was acknowledged of home access providing parents with additional means of engaging with the schools (outside parent evening or telephone calls).

6.34 In a couple of schools the teachers believed that due to home access the parents were now more able to help their children with their homework and also have the ability to get other information for themselves, including learning English, checking bills or getting better deals. Some pupils' comments suggested that this was indeed happening in some homes. One pupil commented:

*“They can see other things, we can show them things, teach them things, find things – not like with a school book”.*

6.35 In certain schools where a parental portal had been launched, home access was enabling them to monitor their children's attendance and teachers reported queries from parents regarding attendance or their children being late. In some places the portal in combination with the programme had led to more off-site conversations with parents, also about learning. One teacher said:

*“I've got a better understanding of what lives the children have got at home, and the lives with their parents. Also the parents want to know more about school. It's a talking point. It's more about the learning, whereas before it was just about reporting what had happened. Productive, positive and focused.”*

- 6.36 The level of parental control tended to be variable both within and across the schools. In the majority of the schools visited at least some pupils reported parental control to be operating but pupils of all ages, even in primary school, reported lack of parental control at home. Only few parents were reported to be using parental control settings on the computer but the main means of control seemed to be parents or older siblings looking over their shoulder when they were using it or checking their internet history.
- 6.37 Lack of parental ICT skills, and a lack of understanding of what constitutes as appropriate use of the computer at home, were highlighted as concerns by some teachers. The teachers believed that more support was needed both to upskill the parents in ICT terms, but also to advise them on how to enable their children to get the maximum education benefits from the computer. For instance, one teacher suggested that parents may need to be “educated about the merits of educational games – rather than allowing their children to spend all their time on other games such as Hannah Montana”. Some schools were planning or had already taken steps to address the low levels of skills by providing parental training. The training tended to focus on specific issues such as the use of the VLE or how to enable parental control settings on their Home Access computers.

### ***Enhanced attitudes to technology***

- 6.38 It was clear – both in ETS waves 1 and 2 and in NS wave 2 - that there were benefits for the wider family as well as the named beneficiary learner. In the NS wave 2 survey, 89% of carers in beneficiary households agreed that the Home Access computer is something the whole family can use, and 57% agreed that they were themselves more interested in using the internet than they were before they got the Home Access computer.
- 6.39 In both ETS waves 1 and 2, respondent carers found the Home Access Programme device particularly useful for ‘finding out information’ and looking at the website for their child’s school or college, as illustrated in Table 6-1. Of the 189 households in ETS wave 2 in which the respondents or their partner had used the Home Access computer in the last four weeks, 94% found it ‘very useful’ or ‘quite useful’ for finding out information; 83% felt the same when looking at the school website; 77% found it very or quite useful to keep in touch with people; and 69% found it useful for getting good deals on products or services.

Table 6-1: Proportion of respondents that answered 'very useful' or 'quite useful' when asked how useful they or their partner found the Home Access computer for a variety of functions (base is all respondents that confirmed that they or their partner had used the Home Access computer in the last four weeks)

	Wave 2 (base size = 189)	Wave 1 (base size = 247)
Entertainment and Leisure	75%	72%
Finding out information	94%	97%
Getting good deals on products or services	69%	64%
Keeping in touch with people	77%	73%
Looking at the website for your child's school or college	83%	80%
Looking for employment opportunities	56%	57%

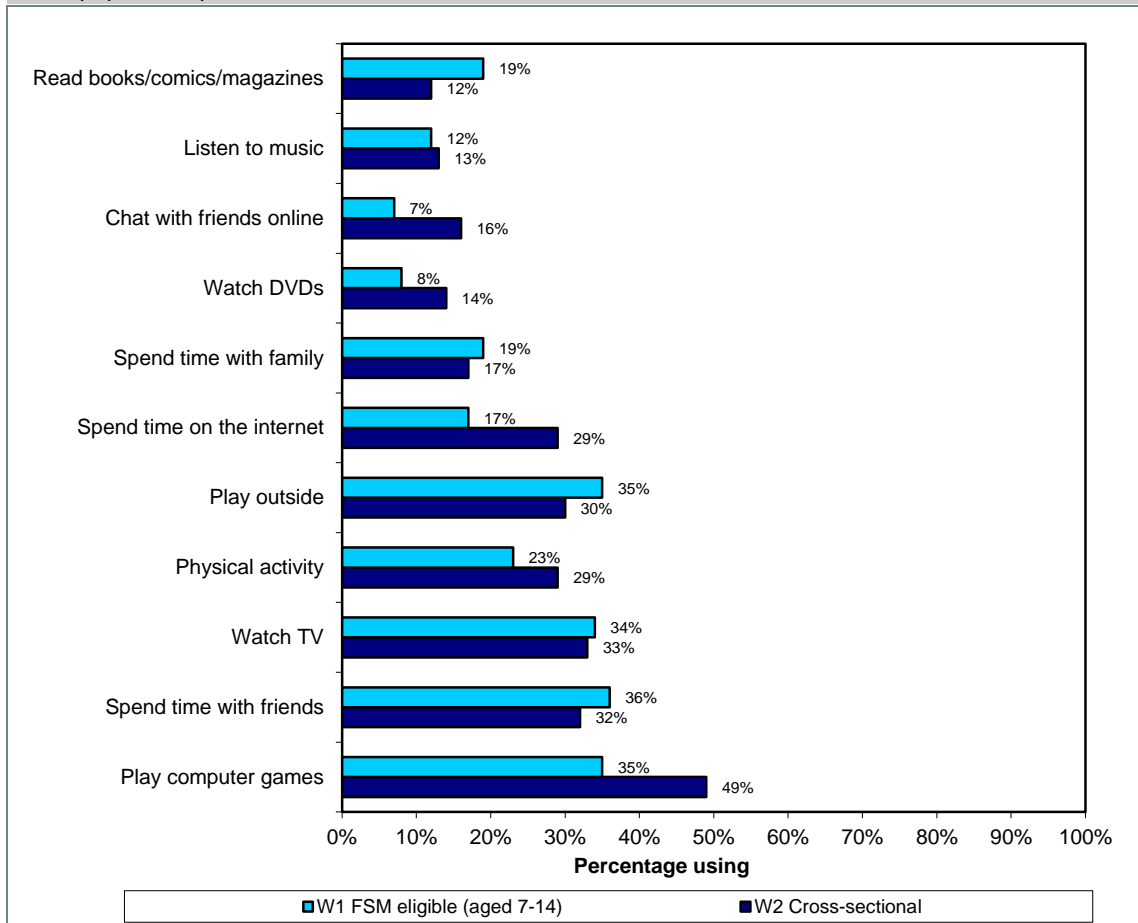
Source: Ipsos MORI ETS waves 1 and 2

- 6.40 The extent of adult carers' own use of the Home Access package, combined with their positive perceptions of the benefits for the child, appear to have resulted in a **high level of families continuing to pay for broadband access** once the initial period had finished. In NS wave 2 there were 22 respondents who had used a Home Access grant to get internet access but where the access provided by the scheme had now finished; of these only 2 (9%) said that they were no longer paying for broadband access to continue – either through the Home Access provider or another provider.
- 6.41 Teachers in a couple of case study schools commented that, in some families, financial concerns or lack of understanding of the benefits computers could have on their children's learning had acted as a barrier to applying for the Home Access grant. Financial ability to continue paying for the internet connection was also mentioned as a potential issue for sustaining the outcomes of the Home Access Programme.

### **Adverse outcomes**

- 6.42 The survey evidence suggests that the potential adverse outcomes of the programme were largely avoided – although there *is* a minority for whom the availability of home access (or easier access to a computer at home) is potentially displacing other valuable activities to an excessive extent.
- 6.43 We asked, for example, what things the children like to do most in their free time. The responses in NS wave 1 and wave 2 were broadly similar (see Figure 6-11), although there were increases in the proportion citing computer games (up from 35% to 49%), spending time on the internet (up from 17% to 29%) and watching DVDs (up from 8% to 14%).
- 6.44 Chatting with friends online also increased (from 7% to 16%) – possibly at the expense of spending time with family (down from 19% to 17%), spending time with friends (down from 36% to 32%) and reading books/comics/magazines (down from 19% to 12%). The proportion citing physical activity/sport increased though (23% to 29%).

Figure 6-11: In your spare time, what are things you like to do most? – percentage citing each of the most popular responses

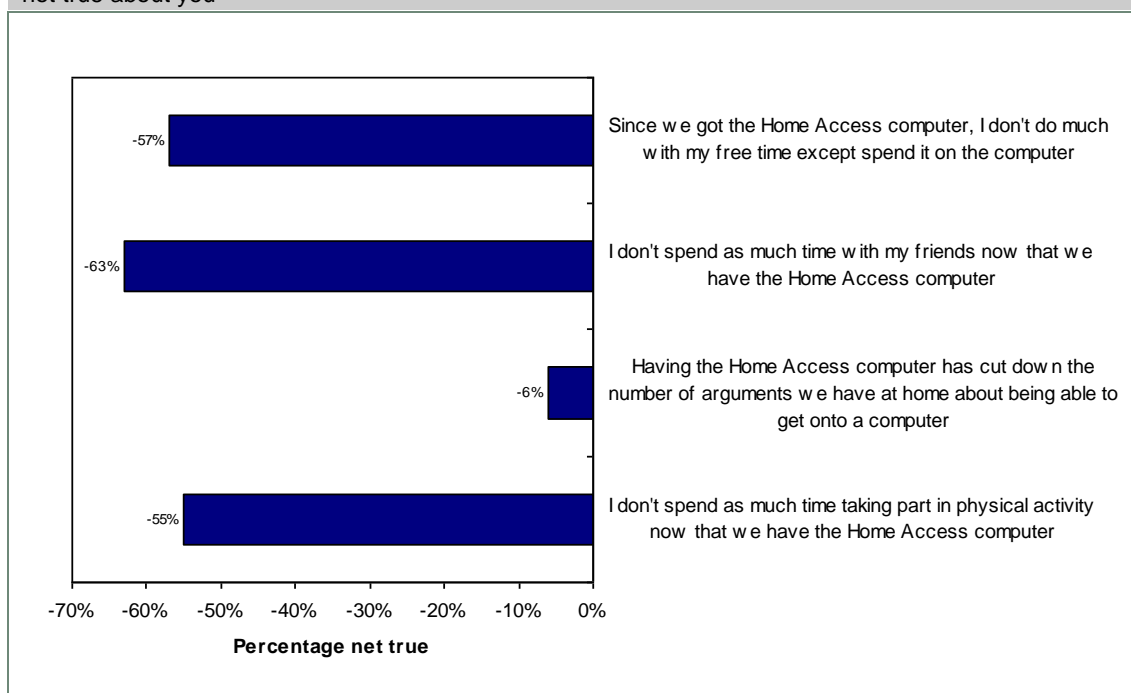


Source: Ipsos MORI NS wave 1 and wave 2(CYP) Base: 232 W1 respondents that are FSM eligible and aged 7-14; 229 W2 cross-sectional respondents

- 6.45 When asked specifically about the impact of having the Home Access computer on various other activities, the learner beneficiaries were predominantly of the view that the potential adverse outcomes did not apply in their case, with largely negative ‘net true’ responses for the statements ‘*Since we got the Home Access computer, I don’t do much with my free time except spend it on the computer*’ (-57%), ‘*I don’t spend as much time with my friends now that we have the Home Access computer*’ (-63%), and ‘*I don’t spend as much time taking part in physical activity now that we have the Home Access computer*’ (-56%).
- 6.46 There were roughly equal levels of agreement and disagreement whether ‘*Having the Home Access computer has cut down the number of arguments we have at home about being able to get onto a computer*’ (-6% net true).



Figure 6-12: I'm going to read out a few sentences....I'd like to know whether each sentence is true or not true about you



Source: Ipsos MORI NS wave 2 (CYP (Base: 188 W2 cross-sectional CYP respondents who have used the Home Access scheme to get a computer and remember this.))

#### Evidence from case studies

- 6.47 In the case studies some concerns were expressed regarding potential adverse outcomes. In terms of inappropriate content, teachers were worried about pupils viewing inappropriate content and parents' ability to use computer settings to block inappropriate websites. One teacher stated that Home Access put a lot of pressure on parents to be responsible for the e-safety of their children, but provided insufficient support in this area. However, the pupils' comments did not suggest that viewing or receiving inappropriate content was a widespread problem, although it was mentioned by a few pupils. Some mentioned that the e-safety software had blocked certain websites and a few also mentioned their parents having exercised additional control to block other websites, such as Facebook or YouTube. A number of schools mentioned that their internal e-safety programme had helped to avoid issues with online safety, both with parents and pupils.
- 6.48 Parental misuse of the Home Access computers was mentioned as a concern. This included both parents unblocking websites that were covered by the e-safety software for their own purposes as well as parents or siblings taking over the computer. Whilst there were very few examples of the former, some pupils (especially girls) mentioned that they did struggle to get on the computer due to other siblings or their parents using the Home Access laptop. One pupil mentioned she had started to save money for her own computer because her brothers were not letting her use her Home Access computer.
- 6.49 A few teachers mentioned that computer use for leisure purposes displacing study time was a potential problem, but in practice there was little evidence to suggest that this was the case. Many pupils said that they always prioritised homework. Sometimes this policy was enforced by parents but often it was the pupils themselves who had taken the approach independently.

Nonetheless, the pupils did say that online time had displaced other leisure activities, some spending most of their afternoons and evenings online. Pupils reported fewer visits to park, and meeting their friends outside less.

- 6.50 Additionally, technical issues with hardware, software and internet connections were mentioned as negative things related to the programme by both teachers and pupils. Teachers stated that the lack of compatible software on the pupil computers or frequent internet problems with the dongles prevented them from accessing the VLE. Pupils mentioned issues with slowness, freezing and internet connections as a key negative aspect of using the computer at home. In one school the technology issues had been so notable that the pupils found it difficult to mention anything positive about using the Home Access computer. Other negative aspects mentioned by teachers included the emergence of a “cut and paste culture”, occasional plagiarism, potential cyber bullying and pupils being tired at school due to playing games all night.

## Impacts

### ***Reduction of the digital divide***

- 6.51 We do not have recent national-level data for England on the levels of home access specifically for the 5-19 year learner age range originally targeted by the Taskforce, nor for the 7-14 year age group eventually targeted by the national roll-out.
- 6.52 However, data from Ipsos MORI’s Technology Tracker suggests that **internet access amongst UK households with children<sup>18</sup> has increased from c. 77% in January 2010 to 85% in January 2011** – a rise of eight percentage points. Although this survey is UK-wide, its respondents are predominantly resident in England, so we can assume that this is reasonably close to the picture for England.
- 6.53 As set out in the previous section’s analysis, we estimate that the Home Access Programme has accounted for a net increase in home access of approximately 167,000 households – **equivalent to about 2.8% of England’s households** with dependent children. Hence, we estimate that **the programme accounted for about a third<sup>19</sup> of the increase in home access in England’s households with children in the course of the year 2010**. This represents a very substantial contribution to the reduction of the digital divide, in our view.
- 6.54 The levels of internet penetration in households with children have historically been quite similar in England and Scotland. It would be interesting to verify the above estimate for the net impact of the Home Access Programme once the ONS internet penetration data for 2010 are available, by comparing the findings for England (where the Home Access Programme operated) and Scotland (where there has been no equivalent scheme).
- 6.55 While we are clearly some way off from having *universal* home access in households with children, the penetration rates for those households containing learners in the 5-19 age group

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<sup>18</sup> The base for this statistic was 320 households with children in January 2011, out of a total sample of 1,021 respondents.

<sup>19</sup> National roll-out in 2010 accounted for 2.5pp of 8pp = 0.31

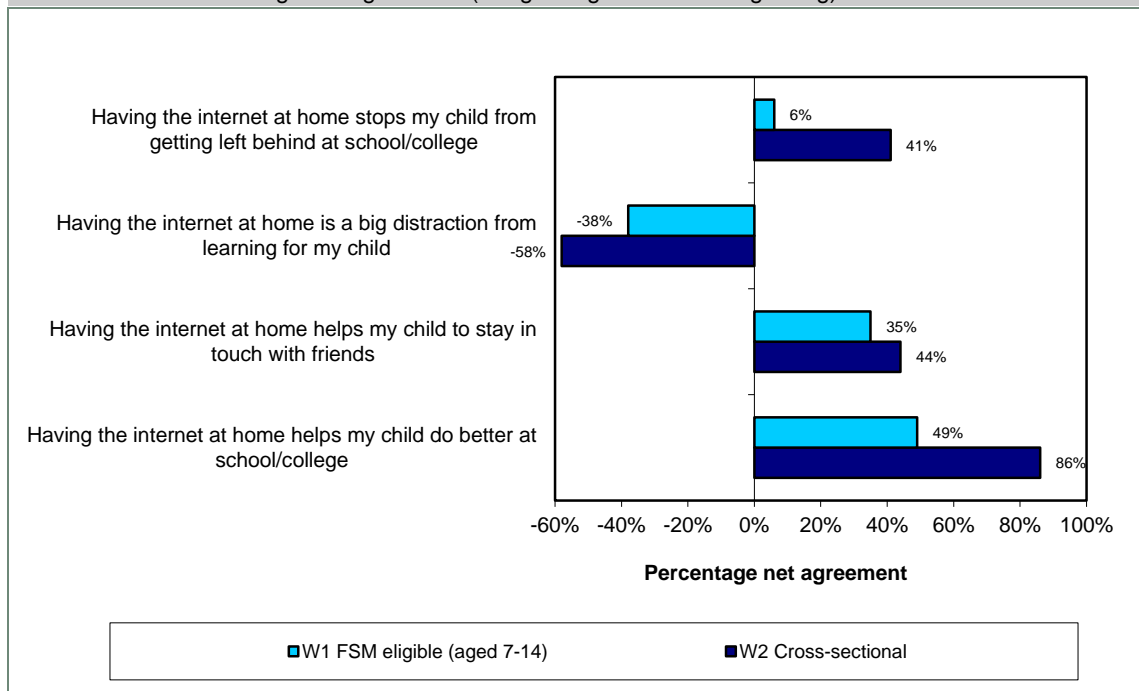
(as originally targeted by the Taskforce) will be significantly higher than that for those with any children, as households with older children are more likely to have internet access.

6.56 Latest statistics from ONS suggest that 90% of households with dependent children<sup>20</sup> had internet access at home in 2009, this figure having increased substantially between 2008 and 2009, as shown in Annex B. We would estimate therefore that **penetration levels for households with learners in the 5-19 age group are now likely to be in the order of 95%**, and still increasing. With particularly marked rises since the start of 2008, we suggest that **this has reached a level at which all primary and secondary schools in England should now be verifying the extent to which their pupils have home access, and re-configuring teaching methods and homework-setting accordingly** to take proper advantage of this key educational tool, in those year groups where there is ubiquitous (or very nearly ubiquitous) home access.

### Enhanced educational attainment

6.57 The NS wave 2 survey suggests that both pupils and parents are positive about the potential for educational attainment benefits from having access to the internet at home. Furthermore, as illustrated in the chart below, NS wave 2's cross-sectional sub-sample was more positive on this than the comparator sub-sample from NS wave 1 (FSM eligible households with child aged 7-14).

Figure 6-13: Thinking about your child, to what extent do you agree or disagree with the following statements? – Percentage net agreement (% agreeing minus % disagreeing)



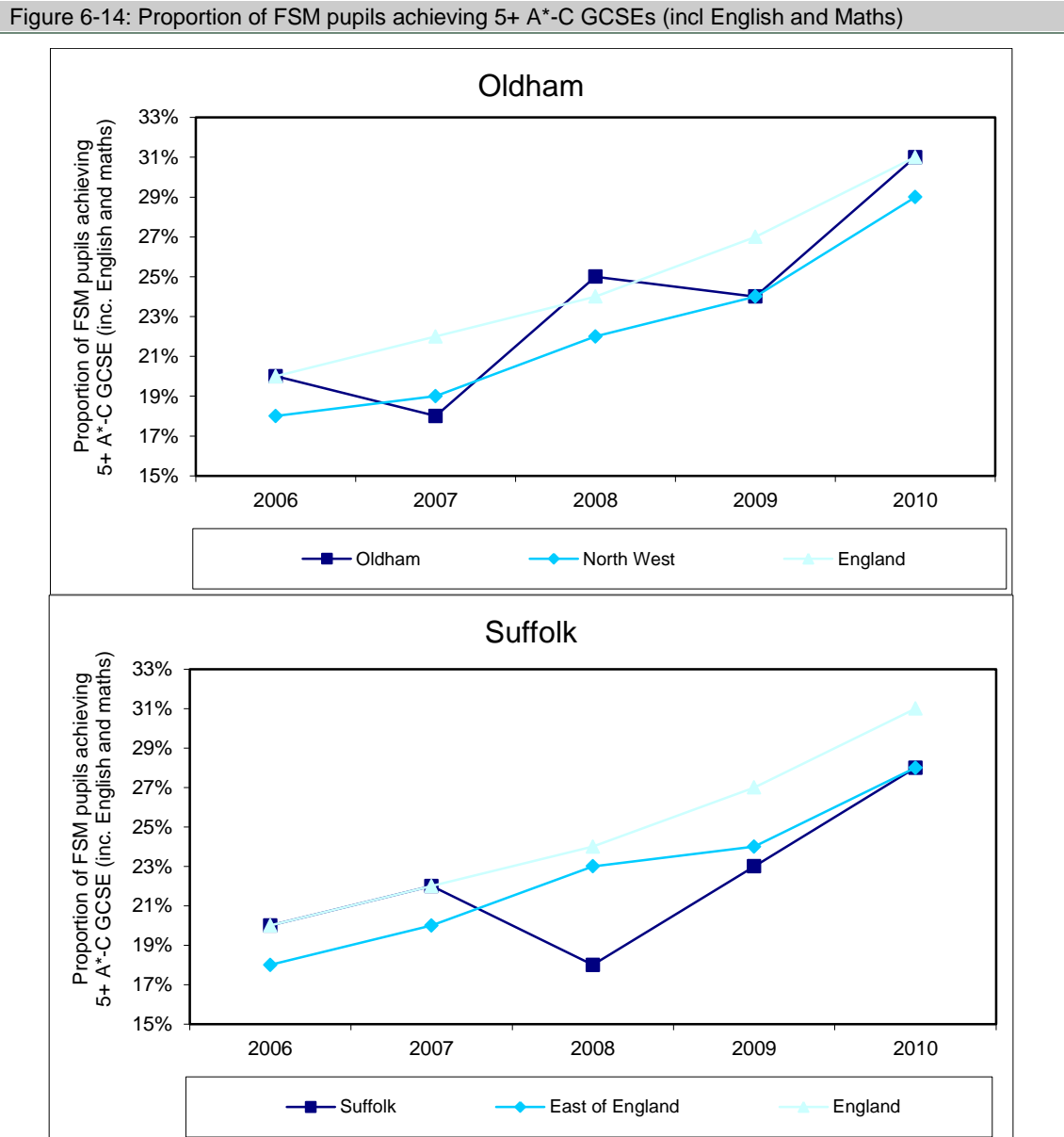
Source: Ipsos MORI NS wave 1 and wave 2 (Carers) Base: 152 W1 respondents that are FSM eligible and aged 7-14; 219 W2 cross-sectional respondents (with home internet access in both cases)

6.58 It is as yet too early to judge the attainment impacts associated with the national roll-out, given that beneficiaries only received the packages in the course of 2010. However, the pilot

<sup>20</sup> This number is higher than the Ipsos MORI figure quoted above because the latter considers children to be aged 0-15, whereas the ONS statistic also includes older dependent children

areas of Oldham and Suffolk potentially provide insights into the future effects of the wider programme, given that a number of pupils in those areas sat GCSEs in 2010, having received a Home Access package in 2009.

6.59 Encouragingly, FSM children’s attainment appears to have increased sharply in both of these local authorities over the last year – outpacing the regional and national trends – as illustrated in Figure 6-14.



Source: SQW analysis of DfE KS4 statistics

6.60 While they need to be treated with caution given that there can be significant year-on-year variability in GCSE results at a local authority level, these positive early indications do appear to be *consistent with* (though not necessarily confirm) the hypothesis that access to a computer and the internet at home can help improve the educational attainment of low income households. Furthermore, the national attainment gap between FSM and Non-FSM pupils (as illustrated in Annex B) has reduced substantially in the last two years – which is again consistent with the hypothesis that 2008’s sharp increase in internet penetration rates in low

income households with children has helped to lead to improvements in educational attainment for these children.

- 6.61 In order to drill down into the pilot area attainment data in more detail, we obtained individual-level beneficiary information from the pilot in Oldham (the similar set was not available for Suffolk), and identified the 290 beneficiary learners who would have completed KS4 in 2010. DfE matched this beneficiary dataset with attainment data from the National Pupil database, to provide us with attainment information for these Oldham beneficiaries.
- 6.62 The table below compares various attainment indicators for the Home Access beneficiaries in Oldham (290), versus those for FSM children as a whole in Oldham (641), and those for Oldham’s overall KS4 cohort (3,246) in 2010.

Table 6-2: Comparisons of KS4 attainment in Oldham

Attainment variable	Oldham	Oldham (FSM)	Oldham Home Access Programme beneficiaries
Total GCSE and equivalents new style point score	450	395	418
Capped GCSE and equivalents new style point score	328	308	302
Proportion attaining 5+ A*-C grades	77%	64%	66%
Proportion attaining 5+ A*-C grades including English and Maths counted as being a GCSE	52%	31%	36%
Proportion achieving 5+ A*-G grades	92%	88%	87%
Proportion achieving 5+ A*-G grades including English and Maths counted as being a GCSE	91%	85%	84%

Source: SQW analysis of data derived from National Pupil Database

- 6.63 As would currently be expected, given that these are low income households, both the FSM and Home Access beneficiary attainment levels are consistently lower than those for Oldham as a whole. However, it is again encouraging to note that the Home Access beneficiaries appear to have outperformed the overall FSM cohort in the key measure of 5+ A\*-C grades (incl English and Maths as a GCSE) – achieved by 36% of the Home Access beneficiaries, versus 31% of the FSM cohort.
- 6.64 The overall proportions achieving 5+ A\*-G grades (incl English and Maths as a GCSE) were similar between the Home Access beneficiaries and the FSM cohort (84% and 85% respectively), while the total GCSE and equivalents points score was higher for the Home Access beneficiaries (418 versus 395).
- 6.65 However, the above analysis does not take into account *prior attainment*. The picture becomes more complicated when we look at the difference between pupils’ actual KS4 scores and those predicted by the Contextual Value Added model based on their KS2 attainment.

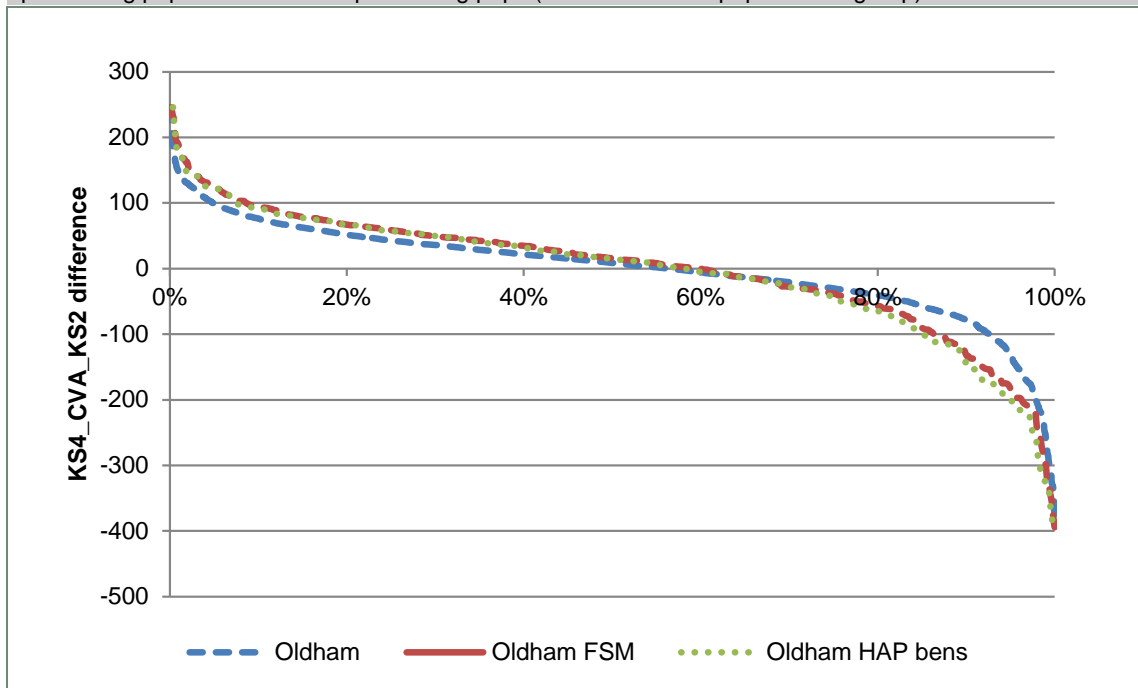
Table 6-3: Mean and median differences between actual and predicted KS4 score

	Mean difference between actual and predicted KS4 score (KS4_CVA_KS2)	Median difference between actual and predicted KS4 score (KS4_CVA_KS2)
Oldham	+0.6	+8.7
Oldham (FSM)	-0.1	+16.0
Oldham Home Access Programme beneficiaries	-5.3	+14.7

Source: SQW analysis of data derived from National Pupil Database

- 6.66 In all three groups the range of the ‘KS4\_CVA\_KS2’ difference is from -394 to +246 (as both the best-performing pupil and the worst-performing pupil on this measure happened to be Home Access beneficiaries) – so average differences in the order of +/- 20 are not far away from the score predicted.
- 6.67 Looking at the *mean* average differences, it appears that the overall results for Oldham and Oldham FSM are in line with that predicted based on their KS2 attainment, but that the mean for Home Access beneficiaries is slightly negative (i.e. they performed slightly worse than would be predicted based on their KS2 attainment).
- 6.68 However, these means are potentially distorted by a particularly low-performing ‘tail’. Looking at the *median* average differences, this is somewhat *positive* for all three groups – suggesting that the attainment in each of these three groups has outperformed expectations – and by more so in the FSM and Home Access beneficiary groups than in the Oldham cohort as a whole. The chart below illustrates the distribution of KS4\_CVA\_KS2 differences in the three groups (for those pupils for whom this score is available).

Figure 6-15: Distribution of the differences in actual and predicted attainment at KS4 – from most out-performing pupil to most under-performing pupil (x axis is % of all pupils in the group)



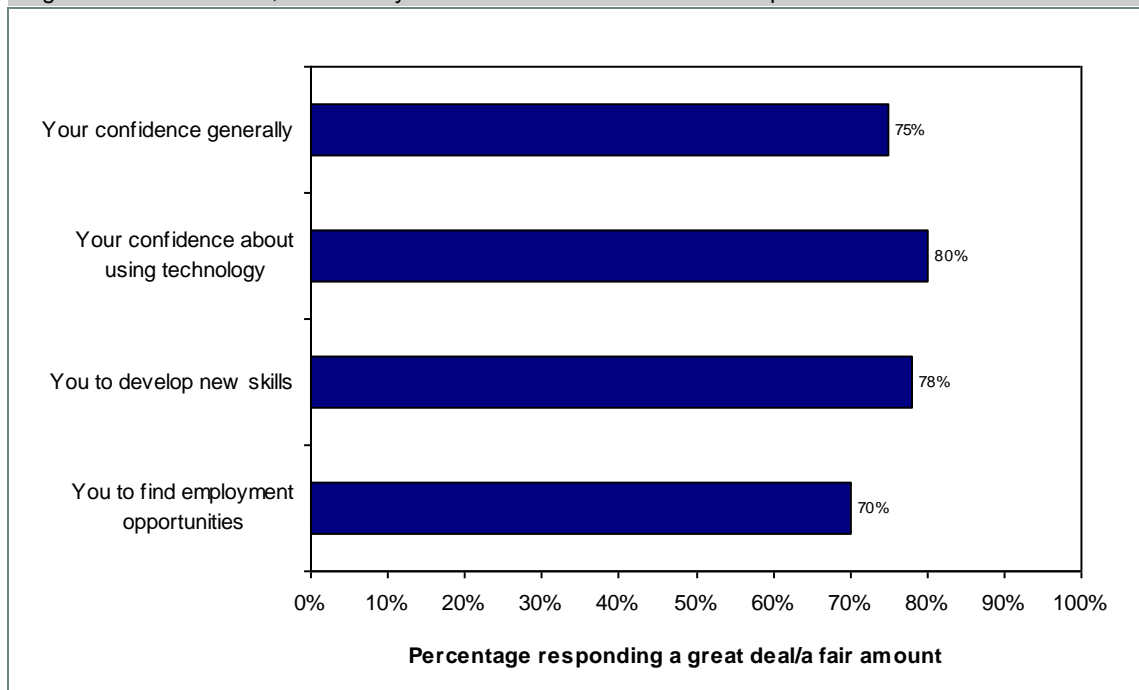
Source: SQW analysis of data derived from National Pupil Database

- 6.69 We note that the distributions for Home Access beneficiaries and the overall FSM cohort are virtually identical. Interestingly, the top half of these groups (i.e. the most improved 50% since KS2) has improved notably more, by this measure, than the most improved half of the overall Oldham cohort. However, the bottom fifth of the Home Access and FSM groups (i.e. the 20% whose performance has deteriorated most since KS2) has underperformed very markedly compared with the bottom fifth of the Oldham distribution.
- 6.70 It should be noted that the above analysis is only for one local authority - which may not be typical, and in which various other factors affecting attainment may be at work. When the KS4 results for the beneficiaries from the national roll-out start to come through, it would be valuable to undertake a more comprehensive analysis of the performance of beneficiaries.

### **Increased parental engagement with skills development**

- 6.71 A further intended impact of the programme was that learners' parents would themselves be drawn into developing their own skills, as a result of having access to the internet at home, leading to enhanced employment prospects and wage-earning potential.
- 6.72 While it was too early to test this in depth, given that the Home Access package had only been received a matter of months before the NS wave 2 interviews, the parents were generally positive about the potential benefits for themselves – with 78% agreeing that having Home Access will help them develop new skills, and 70% agreeing that it will help them find employment opportunities.

Figure 6-16: How much, if at all do you think that Home Access will help...



Source: Ipsos MORI NS wave 2 (Carers) Base: 235 main carers who have a computer and used the Home Access grant to get a computer

## 7: Assessment of value for money

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7.1 In this section we discuss the value for money of the programme in three respects:

- effectiveness – the extent to which the targeted outputs, outcomes and impacts have been achieved
- economy – the unit costs associated with the achieved outputs
- efficiency – the extent to which the benefits from the investment have outweighed the costs.

### Summary of key messages

#### Value for money

In the light of this evaluation, our view is that the programme *has* been **effective** in achieving most of its intended targets, outcomes and impacts – although the programme would have been still more effective in achieving its overall aim (to move towards ubiquitous access for learners aged 5 to 19) if leakage had been lower, with the available resources more tightly focused on reaching those who didn't have *any* home access.

In terms of its '**economy**', we judge that this has been a relatively expensive programme to design and deliver – with an overall average expenditure of £727 per beneficiary household, of which £165 was on non-grant costs. However, this needs to be put into the context of the high risks and demanding timescales associated with the programme, complexities around tailoring packages to learners with special educational needs, and the fact that the programme was brought to a halt sooner than was originally anticipated.

Regarding its **efficiency**, on the basis of the business case model developed for the programme by PricewaterhouseCoopers (using updated assumptions for leakage and deadweight informed by this evaluation) it would appear that the projected benefits do outweigh the costs, with a positive Net Present Value of +£768 million – primarily through the model's anticipated impact of the programme in improving educational attainment, and hence enhancing the lifetime earnings potential of beneficiaries.



## **Effectiveness**

- 7.2 There is little doubt that the programme has been highly effective in achieving its headline targets for beneficiary numbers (gross outputs) – rapidly reaching the intended 258,000 households within months after launch of the national roll-out.
- 7.3 No explicit targets were set for *net* outputs. Our evaluation has found a high level of leakage (55%), with much of the programme’s resources being spent on households which already had home access. While there were certainly benefits for those households (in improving the quality of access for learners), the programme would have been more effective in achieving its overall aim (to move towards ubiquitous access for learners aged 5-19) if leakage had been lower, with the available resources more tightly focused on reaching those who didn’t have *any* home access.
- 7.4 Notwithstanding that, the programme has accounted for a net increase in home access of approximately 167,000 households – equivalent to about 2.8% of England’s households with dependent children, and accounting for about a third of the increase in home access in England’s households with children in the course of the year 2010. This represents a very substantial contribution to the reduction of the digital divide, in our view.
- 7.5 Overall, we estimate that the programme has succeeded in accelerating home access in the target group by about 456,000 household-years.
- 7.6 It is still too early to say what the impact on educational attainment will be in the beneficiary group. However, the tentative findings from our analysis of the pilot phase’s KS4 Oldham beneficiaries provide some grounds for optimism on this count – as does the secondary data regarding national increases in FSM pupils’ attainment at GCSE in the last two years (which has followed a particularly rapid increase in home access for households with children in the year 2008). More directly, our evaluation has found that the beneficiary learners *are* typically using their packages in a substantive way for educational purposes (as well as for leisure), and both pupils and their parents are very positive that this will help them do better at school.
- 7.7 There are also broadly positive indications that the programme has made a contribution towards its intended outcomes of:
- enhanced ICT skills and confidence for the learners
  - enhanced opportunities for personal learning
  - enhanced attitudes to technology amongst the parents.
- 7.8 The evidence is as yet more mixed (with some positive and some negative findings) about the extent to which the programme has helped to achieve some other intended outcomes:
- improved learner motivation and behaviour
  - enhanced use of learning platforms
  - increased parental engagement.

7.9 Importantly, the programme appears to have avoided widespread adverse outcomes that had been a risk. While some learners did report, for example, spending less time with the family/friends, spending less time in physical activity, or staying up till the early hours of the morning on the computer, this was the case for only a relatively small minority and we have no reason to believe that these adverse outcomes were more prevalent as a result of this programme than they are more generally amongst families with access to the internet at home.

### **Economy**

7.10 The overall expenditure of the programme was £194 million, of which £44 million (23%) was spent on various non-grant costs.

7.11 In total the programme benefited 267,000 households (gross) – an overall unit cost of £727 per beneficiary household, of which £165 was on administration.

7.12 In terms of *net* outputs, we estimate that 163,000 households were provided with home access for the first time as a result of the programme (£1,190 per net household), and that home access was accelerated by a total of 456,000 household-years (£425 per household-year).

7.13 Various measures were taken to maximise the value for money of the programme's national roll-out – including limiting the grants to one per household (as opposed to up to two in the pilot), and working with suppliers to reduce the 'standard' (computer plus connectivity) grant from £600 in the pilot to £528 in the national roll-out.

7.14 We understand that some beneficiaries did perceive the packages to be expensive for the level of equipment they were being provided – compared with other devices available in the shops. However, this was not a like-for-like comparison, as the Home Access packages included additional services and software – including connectivity, parental control software, and support. For a government-funded scheme such as this it is difficult to see how the package costs could have been reduced substantially from that offered in the national roll-out – we anticipate that a lack of connectivity, support or parental control software would have been a major source of complaint/controversy had they been excluded, for example.

7.15 Some stakeholders suggested that the scheme was expensive in administrative terms (with 23% of the total costs going on activities other than grants). The programme's overall non-grant cost levels of 23%, and £165 per beneficiary household, falls within a very broad range of administrative costs for comparator schemes; for example:

- 1.9%, equivalent to £9 per voucher, for the Child Trust Fund (£7.2m p.a. administration out of £387m total p.a. for c. 770k vouchers p.a.)
- 6.4%, equivalent to £55 per beneficiary, for the Education Maintenance Allowance (£36m p.a. administration out of £560m p.a. for 650,000 young people)
- £1,743 per claim for the rural Single Payment Scheme in England (cf £285 per claim for the equivalent in Scotland)
- 46% for the London congestion charge (£144m p.a. on administration out of £313m p.a. revenues).

7.16 On balance we judge that this has been a relatively expensive programme to design and deliver. However, that needs to be put into the context of four important factors:

- the high **risks** associated with the programme (e.g. potential for adverse outcomes, and potential for fraud) – the mitigation of which entailed costs (such as use of the payment card)
- the very demanding **timescales** for the programme delivery, driven to some extent by a push for the programme to complete within the current Comprehensive Spending Review period, given diminishing prospects of obtaining any further funds thereafter – it is possible, for example, that a longer period available for bidding for and negotiating the HAGAS contract could have increased the attractiveness of this work to a wider range of bidders, and reduced this aspect of the programme’s costs
- certain necessary **complexities**, in particular around ensuring that the programme provided a suitable solution for pupils with a variety of special educational needs
- the fact that the **programme was curtailed**, finishing sooner than was originally envisaged (the intention had been for further funds to be made available post March 2011) – hence the various fixed costs, such as the programme design, set-up and pilot were spread over lower volumes than had been originally intended.

7.17 For a direct comparator on overall unit costs, we can look to the Computers for Pupils scheme which we understand cost at least £90 million<sup>21</sup>, and has distributed approximately 100,000 devices. We do not have data on the net outputs of the CfP scheme, but this equates to at least £900 per beneficiary (gross), compared with the Home Access Programme’s £727.

### **Efficiency**

7.18 The ‘efficiency’ aspect of a value for money analysis is concerned with the extent to which the benefits of an intervention outweigh its costs. In 2009, PricewaterhouseCoopers was commissioned to develop a revised business case model for the Home Access Programme, which indicated a positive Net Present Value of £869 million, as illustrated in the table below.

Table 7-1: PwC estimates for the costs, benefits and NPV of the programme	
Result	Estimate (£m)
Total government costs	205.1
Total parent costs	278.6
Total costs	483.6
Learner wage benefits	905.3
Reduction in truancy benefits	5.6
Consumer benefits	127.4
<b>Total benefits</b>	<b>1,073.8</b>
<b>NPV</b>	<b>868.7</b>
NPV (pupil benefits only)	705.8

Source: The Home Access Programme – Update of Cost-Benefit Analysis, PwC, January 2010

<sup>21</sup> This was the centrally-provided funding. Some local authorities would have invested extra funding themselves, and the exact total amount spent on CfP is not known.

- 7.19 Using updated assumptions for costs, leakage and deadweight informed by our evaluation, this PwC model does indicate that the projected benefits do still outweigh the costs, with a **positive Net Present Value of +£768 million** – primarily through the model’s anticipated impact of the programme in improving educational attainment, and hence enhancing the lifetime earnings potential of beneficiaries.

## 8: Conclusions and recommendations

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### Summary of conclusions

#### *Rationale and objectives*

- 8.1 In our evaluation of the pilot phase of the programme we found that, in retrospect, the Home Access Taskforce report was published in the middle of the biggest up-turn in household internet penetration for several years. **The assumption that a plateau in internet penetration would persist, and that the digital divide (in terms of physical access) was not being narrowed, may not have been the case after all.**
- 8.2 However, we suggested that there **did remain a sound case for intervention**, given the acceleration of educational benefits, and given the cost barriers that still exist for the lowest income groups, provided that a) it was focused on benefiting those that previously did not have a computer and/or connectivity at home, and b) it was tightly coupled to initiatives to realise the pedagogical and parental engagement benefits of universal home access for learners.
- 8.3 The programme did subsequently re-articulate its headline target in terms of households rather than learners – though this did not include reference to whether those households already had functional home access.
- 8.4 Our findings for the national roll-out suggest that **the changes previously proposed (in the interim evaluation report) to the articulation of objectives would have helped to improve the value for money of the programme** – in particular by bringing more explicit focus on the need to ensure that the programme benefits those without any access whatsoever, and in helping to make a more explicit link from the programme back to the classroom.
- 8.5 Becta considered that programme objectives couched in terms of households which did not already have home access would be difficult to fulfil, because this would entail incorporating an eligibility criterion which would not be verifiable in practice. Furthermore, they argued that there are still significant benefits for households which already had the internet at home, as access to the existing computer may previously have been rather limited for learners in large families and/or in households where the existing equipment was relatively old. We note, however, that inclusion of such a criterion would have helped to improve the programme's value for money (by deterring at least some households which already had functional home access).

#### *Inputs and activities*

- 8.6 A total of **£194 million was spent on the Home Access Programme** – substantially less than the £300 million originally envisaged.
- 8.7 The programme was **successful in attracting its target number of beneficiaries**, approving applications and issuing grants in a speedy and efficient fashion to eligible households. The

programme adopted a ‘consumer’ model that was unique compared to its predecessor schemes, and was viewed positively by stakeholders; **many local authorities welcomed the approach as it reduced the administrative burden on them.**

- 8.8 The **supplier accreditation** process was seen as rigorous and fair. **Fraud was minimal**, despite early concerns – largely thanks to the payment card mechanism, which also helped minimise any stigma for beneficiaries. Becta **programme management** was viewed as effective; and stakeholders reported a positive experience in their engagement with Becta during the programme.
- 8.9 However, certain aspects of the programme did not go as well as was expected. Procurement of **Assistive Technology** suppliers was protracted, causing delays in issuing grants to this group of beneficiaries. Although the programme succeeded in achieving its intended volumes, many stakeholders perceived there to be **insufficient targeted marketing to harder-to-reach groups**. Authorities that chose the **aggregation** model reported a significant time commitment on their part, with some complaining of issues with the Home Access Grant Administration Service process; in the end only a small proportion of the grants were distributed through the aggregation model.
- 8.10 The **application documents and marketing materials were in the English language only**, a significant issue given that a fifth of eligible pupils would have been from families which do not have English as their first language. Schools organised support sessions to help struggling parents, and some local authorities provided translated material themselves (a process that could have been organised more efficiently centrally).
- 8.11 The consumer model did not require regular and intensive **engagement with schools**. Nonetheless, there was general consensus among stakeholders and teachers that school engagement is crucial in the success of a programme such as this. The more proactive schools with Home Access beneficiaries targeted and supported the neediest parents, and considered how best to change their pedagogical practices.

### **Gross and net outputs**

- 8.12 The programme **rapidly succeeded in achieving its target number of beneficiaries**. Including the pilot phase, the total number of households benefiting from the programme was 267,244 – **approximately 4.5% of England’s six million households with dependent children**.
- 8.13 The **profile of beneficiaries was largely as expected** – with younger age groups (typically less likely already to have a computer at home) accounting for relatively high proportions of approved applications, and a relatively even split by gender (52% male and 48% female). The ethnicity mix was broadly in line with that of the FSM population, but Asian/Asian British households were somewhat under-represented (9.9% of beneficiaries, compared with 13.7% of the FSM KS4 cohort in 2010), and only 7% of grants were awarded to beneficiaries for whom English is not their first language (though this group accounts for 22% of the FSM population).

- 8.14 The programme's **consumer model was very effective in addressing a highly dispersed target group**. In the national roll-out, grants were awarded to learners in a total of 18,984 schools (the vast majority of England's c. 21,000 maintained primary and secondary schools), and half of the beneficiaries do not live in England's 20% most deprived Lower Layer Super Output Areas. Alternative models targeted at schools with high proportions of FSM pupils, or at particularly deprived geographic areas, would have missed many of the low income households that did end up benefiting from the programme.
- 8.15 However, the 'leakage' was high – **most (55%) of beneficiary households already had both a computer and internet at home**, before they received the Home Access grant.
- 8.16 This does not imply, though, that there were no educational benefits associated with the package provided to households which already had a computer and the internet – a large majority of these (72%) felt that the Home Access device was 'much better' than the computer they used previously.
- 8.17 Amongst the group that didn't previously have it, we estimate that programme brought forward home access by about 2.8 years on average. For every 1 direct beneficiary household, we estimate that a further 0.36 households will have purchased home access for the first time, at least partly as a result of hearing about the programme.
- 8.18 Across the pilot and the national roll-out, the **overall net effect of the programme was to accelerate home access in a total of 163,000 households by a total of about 456,000 household-years**.

### ***Outcomes and impact***

- 8.19 We found a number of positive indications that the programme is leading to improved outcomes in terms of **enhanced use of home access for education**. Beneficiary learners are on average using a computer 10.1 hours per week at home, of which 4.7 hours are on learning-related activities. There was strong agreement amongst interviewed children that having the Home Access computer is making learning more interesting, lets them use a computer much more often to help them learn, and is helping them to do better at school. In the case studies we found that some pupils reported such benefits being restricted though – sometimes due to technical difficulties with their package (primarily slow or inconsistent mobile broadband connectivity) and sometimes because of the set homework not involving the use of a computer.
- 8.20 There were also positive signs that the programme had contributed to **improved ICT skills and confidence** for learners, with strong agreement amongst the surveyed children that their computer skills have got a lot better because they now have the Home Access computer. Teachers in most of our case study schools cited recent improvements in ICT skills and confidence amongst pupils – although they were not necessarily able to attribute these improvements solely to the programme.
- 8.21 The case studies also provided evidence of the programme enhancing **opportunities for personal learning**. Pupils value the flexibility a home computer provides, in allowing them to do their homework or online research at home, rather than having to come into school early or

stay late after school. Teachers in some schools observed that pupils were taking a more active role in their learning, by doing additional research at home, or using external internet resources to support revision.

- 8.22 Furthermore, it was clear that there are benefits in terms of **enhanced attitudes to technology** amongst parents. The vast majority (89%) of interviewed parents agreed that the Home Access computer is something the whole family can use, and most (57%) agreed that they were themselves more interested in using the internet than they were before they got the Home Access computer. This appears to have contributed to a high proportion of families continuing to pay for broadband access: only 9% of households whose free internet period had finished said that they didn't still have broadband connectivity.
- 8.23 Teachers in the majority of case study schools found it difficult to attribute any improvements in **learner motivation and behaviour** to the programme, mainly since they were often unsure as to which of their pupils had benefited. However, in general the use of ICT in learning is perceived to have a positive difference on motivation, with several pupils commenting that using the computers had made their work more interesting or fun.
- 8.24 The evidence regarding the effect of the programme on the **use of learning platforms** is quite mixed, and it is difficult to determine what effects can be attributed to the programme, as opposed to what would have happened anyway. More parents are now logging on to school resources than was the case in our 2009 baseline survey; but amongst the beneficiary learners, more children disagreed than agreed that they are logging on to their school's learning platform more often since getting the Home Access computer. In our case studies we didn't find any notable impact of the programme on the school's propensity to use their learning platform.
- 8.25 The findings regarding the effect on **parental engagement with their children's education** are also somewhat mixed. In the majority of case study schools, home access was not seen to have increased parental engagement, though teachers did acknowledge that email gave parents an additional means of engaging with the school outside parents' evenings or telephone calls. Lack of parental ICT skills, and understanding of what constitutes an appropriate use of the computer at home, was highlighted as a concern by some teachers.
- 8.26 It appears that the potential **adverse outcomes** of the programme were largely avoided – although there is a minority for whom the availability of home access (or easier access to a computer at home) is potentially displacing other valuable activities to an excessive extent.
- 8.27 In terms of impact on **reducing the digital divide**, we estimate that the programme accounted for a net increase in home access of approximately 167,000 households – equivalent to about 2.8% of England's households with dependent children. Data from Ipsos MORI's Technology Tracker survey suggests that internet access amongst households with children increased by eight percentage points in the course of 2010, and we reckon that the programme accounted for about a third of this increase. We estimate that home access penetration levels for households with learners in the 5 to 19 age group are now likely to be in the order of 95%, and still rising.



- 8.28 It is as yet too early to judge the **educational attainment** impacts associated with the programme. However, encouragingly, FSM children's average attainment at KS4 appears to have increased sharply in the last year in the two pilot areas (where pupils received packages in 2009). Furthermore, the national attainment gap between FSM and non-FSM pupils has reduced substantially in the last two years – which is consistent with the hypothesis that 2008's sharp increase in internet penetration rates in low income households with children has helped to lead to improvements in educational attainment for these children. Drilling down into the individual-level data on the performance of Oldham's KS4 cohort in 2010, we found that Home Access beneficiaries outperformed the overall FSM cohort in Oldham in the key measure of 5+ A\*-C grades (including English and Maths as a GCSE) – achieved by 36% of the Home Access beneficiaries, versus 31% of the FSM cohort. Analysis of the contextual value added data, comparing actual KS4 score with that predicted by their previous KS2 attainment, suggests a very similar level of improvement for Home Access beneficiaries and the FSM cohort as a whole – though the attainment in both groups out-performed expectations on average (using the median).
- 8.29 While it was too early to tell the extent of enhanced **parental engagement with their own skills development**, given that the Home Access package had only been received a matter of months before the interviews, the parents were generally positive about the potential benefits for themselves, with 78% agreeing that having home access will help them develop new skills, and 70% agreeing that it will help them find employment opportunities.

### **Value for money**

- 8.30 Our view is that the programme has been **effective** in achieving most of its intended targets, outcomes and impacts – although the programme would have been still more effective in achieving its overall aim (to move towards ubiquitous access for learners aged 5 to 19) if leakage had been lower, with the available resources more tightly focused on reaching those who didn't have any home access.
- 8.31 In terms of its '**economy**', we judge that this has been a relatively expensive programme to design and deliver – with an overall average expenditure of £727 per beneficiary household, of which £165 was on non-grant costs. However, this needs to be put into the context of the high risks and demanding timescales associated with the programme, complexities around tailoring packages to learners with special educational needs, and the fact that the programme was brought to a halt sooner than was originally anticipated.
- 8.32 Regarding its **efficiency**, on the basis of the business case model developed for the programme by PricewaterhouseCoopers (using updated assumptions for leakage and deadweight informed by this evaluation) it would appear that the projected benefits do outweigh the costs, with a positive Net Present Value of +£768 million – primarily through the model's anticipated impact of the programme in improving educational attainment, and hence enhancing the lifetime earnings potential of beneficiaries.

## Recommendations

8.33 In the light of our evaluation, we offer the following recommendations:

- Recommendation 1. The Department for Education should **consider how the operational learning from this major intervention should be applied in future programmes and projects**. In particular:
  - setting explicit objectives for the *net* intended outputs as well as the *gross* intended outputs (which we believe would have forced more concerted action to reduce leakage in this programme)
  - whether the payment card mechanism used by this programme could/should be deployed elsewhere (given that it seems to have been very effective in minimising fraud, and also in minimising any stigma for beneficiaries)
  - ensuring that scheme marketing/application form literature is translated into other languages as appropriate (the lack of which was a weakness of this programme).
- Recommendation 2. The Department for Education should work with partners - including local authorities, the National Association of Head Teachers, the Association of School and College Leaders, the e-Learning Foundation, and Ofsted – to **develop mechanisms that encourage schools to obtain information on the extent of home access for their pupils, and to exploit better in their pedagogy the existence of near-ubiquitous home access**. In particular, we feel that there would be value in:
  - developing good practice suggestions regarding approaches to surveying the extent of home access amongst their pupils (something which the more ICT-aware schools are already doing)
  - schools seeking to capture and analyse information on home access on pupils' entry into primary and secondary school
  - incorporating relevant 'nudges' re the exploitation of home access into the relevant self-evaluation tools for schools, such as Ofsted's self evaluation form, and the self review framework used to assess schools' ICT maturity
  - disseminating good practice resources and case studies in effectively exploiting home access (many schools already having gone through a learning curve on this, which could be used by schools elsewhere).
- Recommendation 3. Race Online 2012 should **consider the potential for a further promotional push specifically on the benefits of getting learners online at home, in the run-up to Christmas 2011**. The data from Ipsos MORI's Technology Tracker suggests sharp increases in internet penetration in low income households following Christmas in each of the last few years, and we feel that influencing purchasing decisions at this time of year (when families are anyway considering relatively large

discretionary expenditures) could be particularly effective in helping to extend home access for learners.

- Recommendation 4. After Christmas 2011, **local authorities and schools should review the extent to which there remains a gap in ubiquitous home access for learners, and explore local solutions** for addressing those families left without a computer and internet at home – linking in as appropriate with existing initiatives such as the e-Learning Foundation and Pass IT On ([www.helppassiton.co.uk](http://www.helppassiton.co.uk)).
- Recommendation 5. The Department for Education should **further explore the relationship between home access and educational attainment**, including:
  - exploring whether the significant improvements in FSM KS4 attainment over the last two years is linked to the sharp increase in low income household internet access in the year 2008
  - analysing the attainment of Home Access Programme beneficiaries, relative to their peers and relative to the scores predicted by their Key Stage 2 attainment, as their results for Key Stage 4 start coming through.

## Annex A: Stakeholder consultees and case study schools

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- A.1 Our evaluation methodology has included consultations with 56 stakeholders over the course of the evaluation – some in 2009 (Phase 1) and some in 2011 (Phase 2). The consultations completed in Phase 2 have informed our evaluation of the national roll-out of the Home Access Programme. Consultees included Becta, a number of strategic stakeholders and members of the Home Access Programme Board, suppliers and local authorities.
- A.2 Phase 1 consultees were listed in our Pilot Progress Report (2009), and we gratefully acknowledge the cooperation of our Phase 2 consultees, shown in the table below.

Table A-1 : Phase 2 stakeholder consultations (September – March 2011)

<b>Organisation:</b>	<b>Person</b>
Barnsley Metropolitan Borough Council	Dave Tidman
Becta	Alan York
Becta	Bill Williams
Becta	Ian Halpin
Becta	Nick Shacklock
Becta	Niel McLean
Birmingham City Council	Stephen Pincher
Bristol City Council	Ayleen Driver
Capita	Liz Frost
Comet	Chris Kent
DA Computers	John Niblett
Department for Education	Graeme Hayton
Department for Education	Inderjeet Nijhar
Department for Education	Stephen Kingdom
Derbyshire County Council	Andy Callow
Durham County Council	Janine Docherty
E Learning Foundation	Valerie Thompson
Essex County Council	Peter Featherstone
Hertfordshire County Council	James Dent
Hull City Council	Dougal Gill
Key Tools	Simon Colebrook
London Borough of Newham	Graham Pragnell and Paul Stratton
Newcastle City Council	Colin Scott

<b>Organisation:</b>	<b>Person</b>
Norfolk County Council	Sharon Jay
Northamptonshire County Council	Brenda Scoble
Race Online 2012	Graham Walker
Salford City Council/Liverpool City Council*	Stephen Druary
Shropshire Council	Phil Wilson
Suffolk County Council	Ian Brown and Liz Johnson
Training and Development Agency	Tim Tarrant

*Source: SQW \*This consultee was relatively new to his post at Liverpool City Council at the time of consultation, and had previously held a post at Salford Council in which he engaged with the Home Access Programme.*

- A.3 We undertook case studies in 15 schools across England. Visits included interviews with head teachers, teachers and ICT coordinators, and focus groups with a number of pupils. We are very grateful to these case study schools for sparing the time and effort to participate in our research. Details of these (anonymised) case studies are provided in the table below.

Table A-2 : Case study schools 2010-2011								
Case study	Type of school	Local authority	Region	Number of teachers consulted	Number of ICT coordinators consulted	Total no. of pupils interviewed	Total number of approved applications	Approved applications as proportion of total pupils
Case study 01	Primary	Birmingham	West Midlands	3	1	18	111	15%
Case study 02	Primary	Nottinghamshire	East Midlands	4	1	18	92	17%
Case study 03	Primary	Norfolk	East of England	3	1	19	55	15%
Case study 04	Primary	Northamptonshire	East Midlands	4	1	23	40	16%
Case study 05	Secondary	London Borough of Newham	London	3	1	11	154	9%
Case study 06	Secondary	Kent	South East	3	1	12	99	6%
Case study 07	Secondary	Nottingham	East Midlands	3	1	15	130	8%
Case study 08	Secondary	London Borough of Tower Hamlets	London	4	1	12	142	10%
Case study 09	Secondary	South Tyneside	North East	3	1	19	109	8%
Case study 10	Secondary	London Borough of Newham	London	3	1	7	135	10%
Case study 11	Secondary	City of Bristol	South West	3	1	11	99	8%
Case study 12	Secondary	Birmingham	West Midlands	7	1	15	76	7%
Case study 13	Secondary	City of Bristol	South West	3	1	13	61	5%
Case study 14	Secondary	Sunderland	North East		1	23	118	11%
Case study 15	Secondary	Birmingham	West Midlands	4	1	19	106	12%
Additional interview	Primary	Redbridge	London		1	0		
<b>TOTAL</b>				<b>50</b>	<b>16</b>	<b>235</b>	<b>1,527</b>	

Source: SQW

Table A-3 : Case Studies Overview Table

Type	Numbers
Primary	4
Secondary	11
Teachers	50
ICT co-ordinators	16
Pupils	235
	Y4 = 23
	Y5 = 28
	Y6 = 32
	Y7= 7
	Y8= 61
	Y9 = 57
	Y10 = 25
	Y11=2

Source: SQW

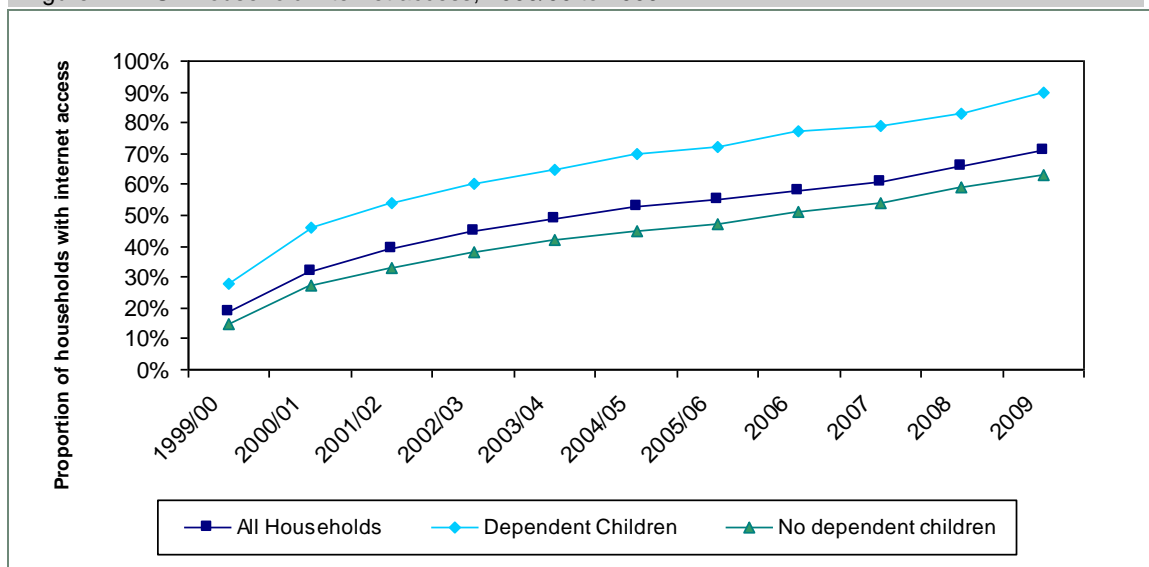
## Annex B: Contextual conditions

- B.1 The purpose of this Annex is to provide an update to the original secondary data baseline produced for the *Home Access Programme Pilot Progress Report (2009)*. We draw upon a range of data sources to illustrate home access trends, broadband coverage and take-up, children’s use of the internet, pedagogical use of home access, and educational attainment trends.

### Home access trends

- B.2 UK household internet access has continued on its recent rising trend. The ONS Living Costs and Food Survey (see chart below) suggests that between 2008 and 2009, there was a five percentage point rise in the proportion of all households with an internet connection. By 2009, 71% of all UK households had an internet connection. For households with dependent children the figure stood at 90% and for households with no dependent children 63%.

Figure B-1 : UK household internet access, 1999/00 to 2009



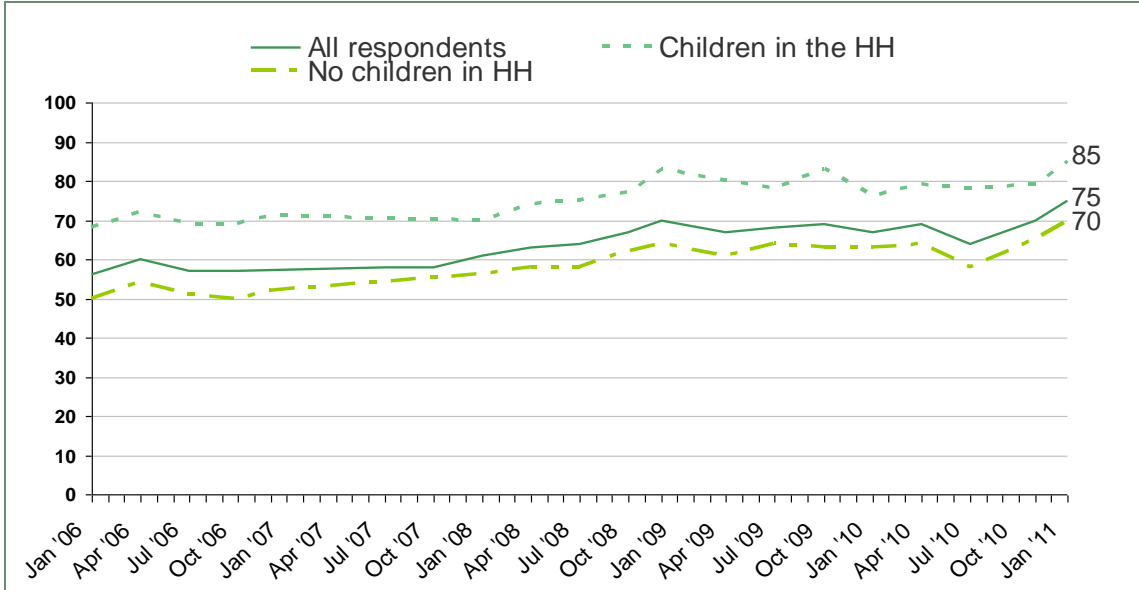
Source: ONS, *Living Costs and Food Survey (2008-2009)*, *Expenditure and Food Survey (2001-02 to 2007)* and *Family Expenditure Survey (prior to 2001-02)*. Note, a dependent child is defined as a person aged 0-15 in a household or aged 16-17 in full time education and who is not married. From 2006 onwards, reporting switched to calendar rather than financial years.

- B.3 More recent primary data collated via a survey undertaken by Ipsos MORI shows that the proportion of households with internet access dropped in early 2010 before rising steadily over the latter half of 2010 and early 2011. For households with children<sup>22</sup> the figure dropped below the 80% mark in early 2010, before rising to 85% by January 2011.

<sup>22</sup> Note that the internet penetration of ‘households with children’ is very dependent on the definition of ‘children’, because households with older children tend to be more likely to have the internet than households with younger children. Ipsos MORI’s Technology Tracker survey uses the definition of a child being aged 15 or under – which results in lower internet access results than the ONS definition as noted under the chart above.



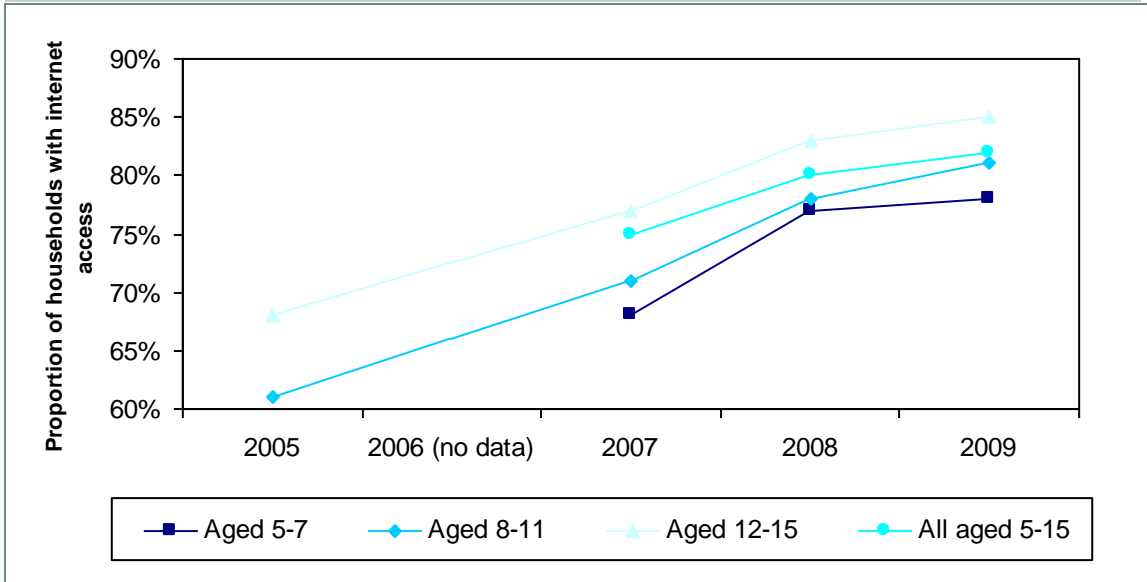
Figure B-2 : UK household internet access, 2006-2011



Source: Ipsos MORI Technology Tracker January 2006 – January 2011. Base: circa 2,000 interviews per wave until January 2010, circa 1,000 per wave thereafter.

B.4 Evidence provided by Ofcom also indicates a sharp rise in internet penetration amongst households with children in 2008, flattening out in 2009 (see chart below). By 2009, 82% of households with a child aged 5-15 had internet access. The highest access rates were found in households with older children, as 85% of households with children aged 12-15 had internet access.

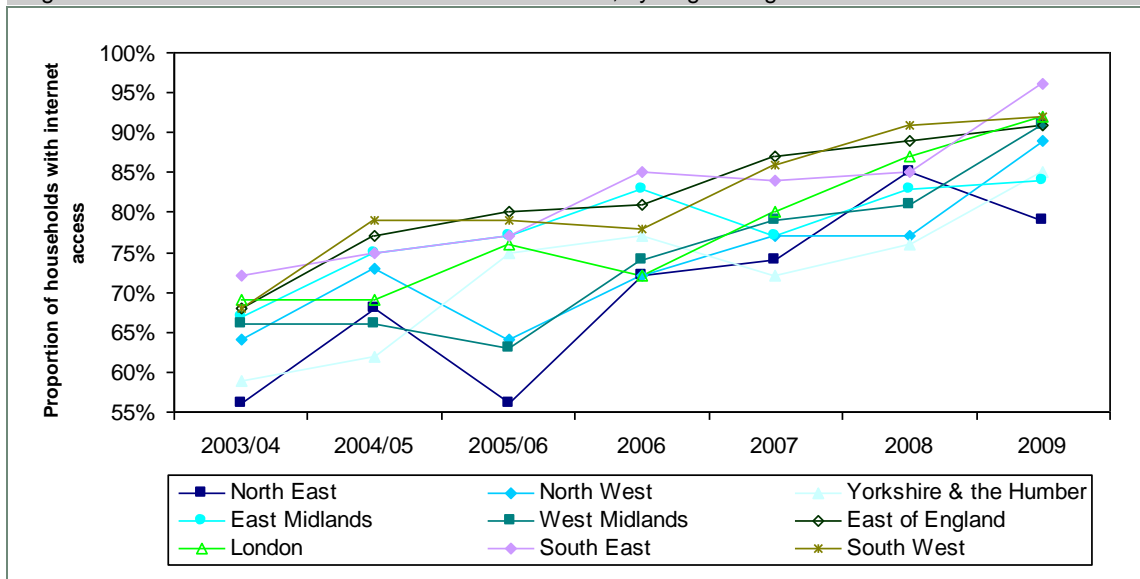
Figure B-3 : Internet access of households with children



Source: Ofcom research

B.5 There remain significant variations in household internet access across the English regions. In 2009, 96% of South East households with children had an internet connection whereas just 79% of corresponding households in the North East had an internet connection. On this measure, between 2007 and 2008, the South East overtook the South West as the most well connected region.

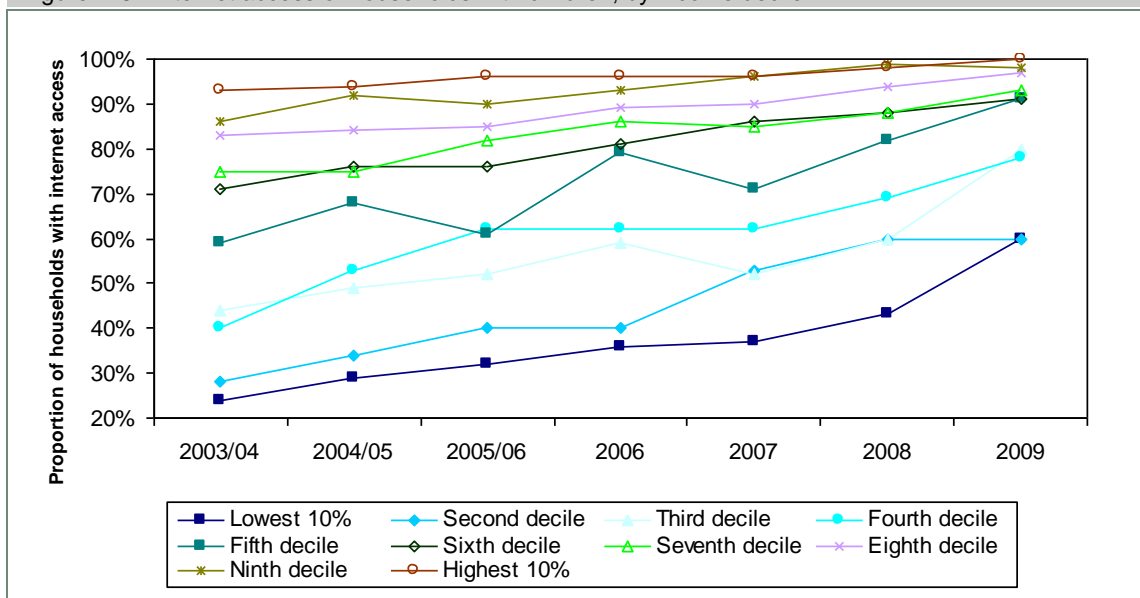
Figure B-4 : Internet access of households with children, by English region



Source: ONS, Living Costs and Food Survey (2008 to 2009), and Expenditure and Food Survey (2003/04 to 2007). Note, a dependent child is defined as a person aged 0-15 in a household or aged 16-17 in full time education and who is not married. From 2006 onwards, reporting switched to calendar rather than financial years.

B.6 Internet take-up remains strongly correlated with household income. Whilst every household with children in the 10<sup>th</sup> income decile had an internet connection in 2009, just 60% of households with children in the lowest income decile did so – though this lowest income group did show quite a substantial increase in internet penetration between 2008 and 2009 (see chart below).

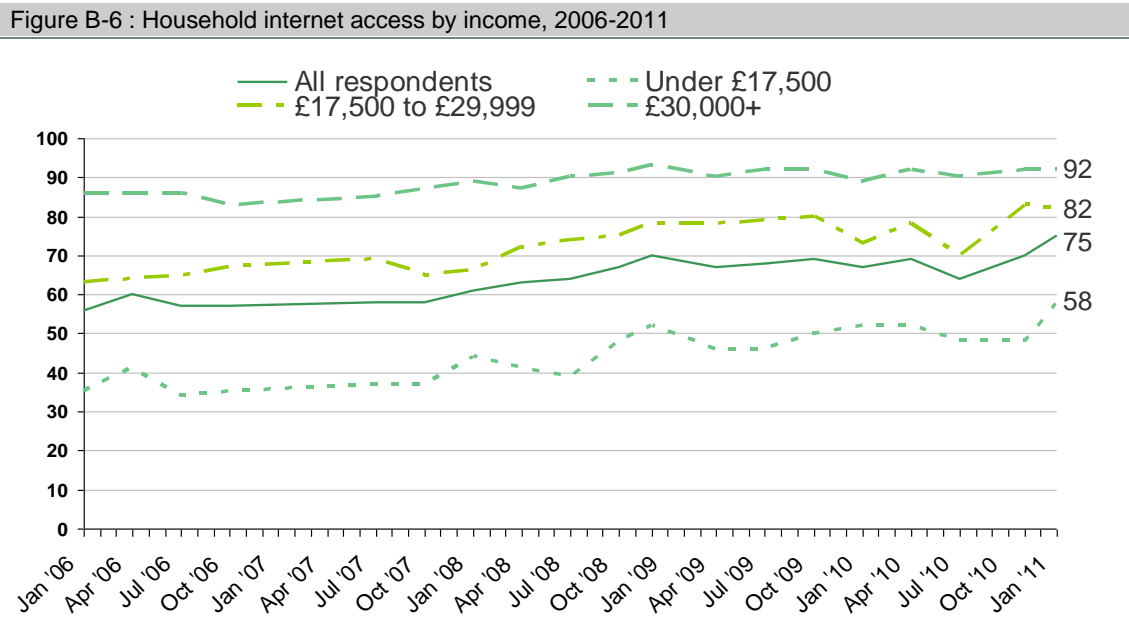
Figure B-5 : Internet access of households with children, by income decile



Source: ONS, Living Costs and Food Survey (2008 to 2009), and Expenditure and Food Survey (2003/04 to 2007). Note, a dependent child is defined as a person aged 0-15 in a household or aged 16-17 in full time education and who is not married. From 2006 onwards, reporting switched to calendar rather than financial years

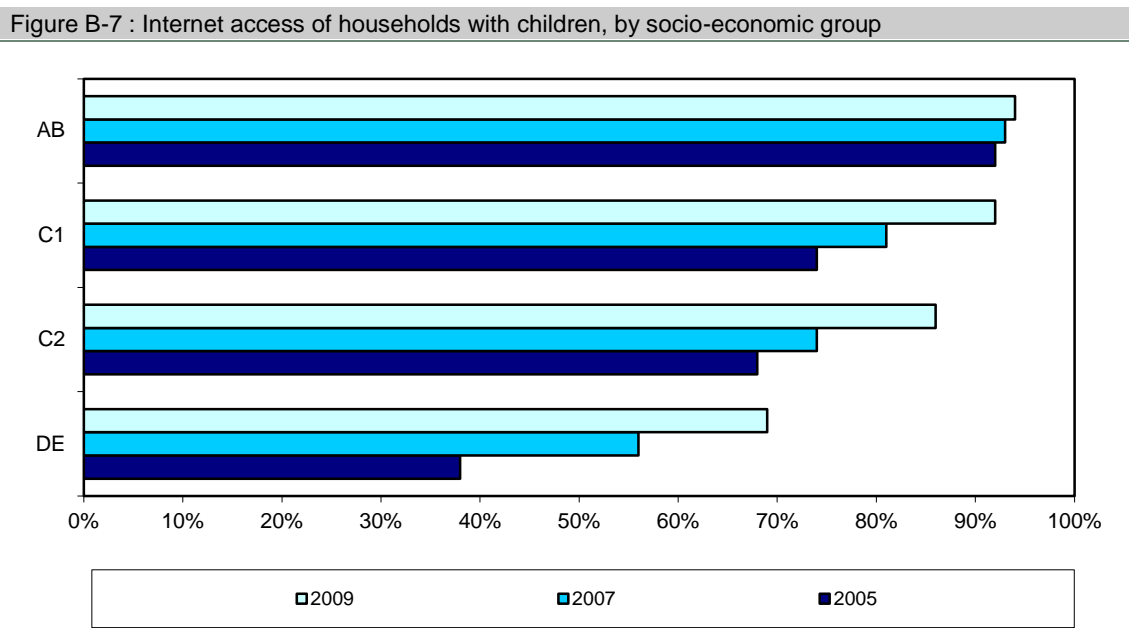
B.7 Primary data collected by Ipsos MORI (see chart below) shows a similar distribution of internet penetration rates and household income – with the richest households having the highest rates of internet access. The very poorest households (i.e. those with incomes under £17,500) experienced falling internet uptake during the first half of 2010, before uptake

rapidly increased during late 2010 and early 2011. This recent rise in uptake rates in the poorest households appears to be quicker than the uptake rises in the other household income categories.



Source: Ipsos MORI Technology Tracker January 2006 – January 2011. Base: circa 2,000 interviews per wave until January 2010, circa 1,000 per wave thereafter.

B.8 Ofcom research confirms that home access has increased over the last couple of years for households with children in the lowest socio-economic groups. Although there remains a clear correlation between socio-economic status and home access, households with children in the lowest socio-economic group (DE) rose from 56% in 2007 to 69% in 2009 (see chart below).

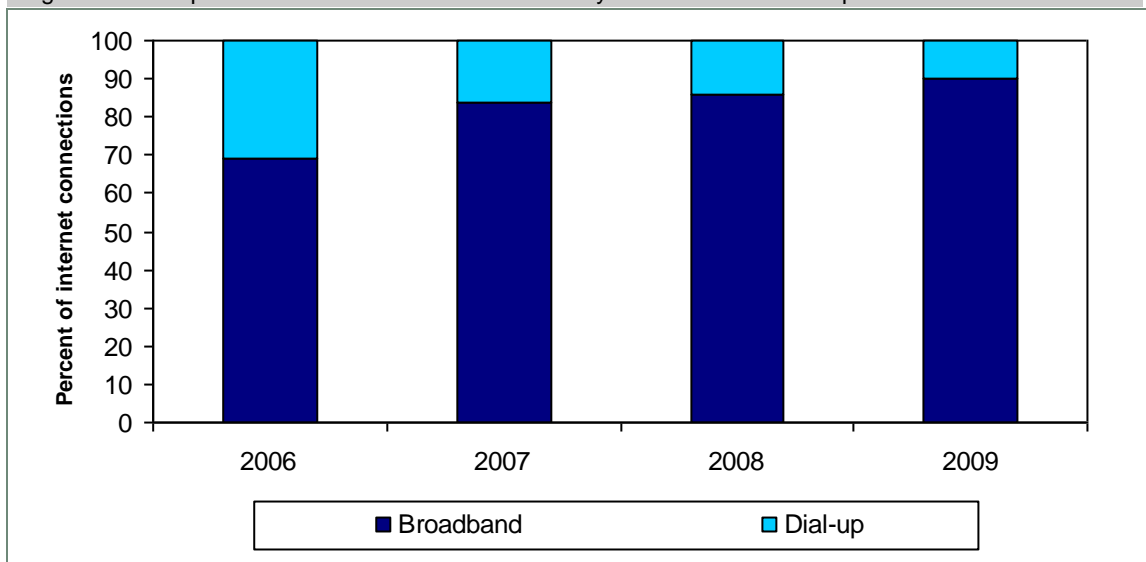


Source: Ofcom UK children's media literacy, March 2010

## Broadband coverage and take-up

- B.9 Over recent years, broadband has increased its dominance as the most popular means of accessing the internet. According to the ONS *Internet Access: Households and Individuals 2009* Statistical Bulletin, 90% of UK household internet connections were broadband in 2009 – a rise of four percentage points since 2008. Note, the 2010 bulletin<sup>23</sup> does not record dial up connections.

Figure B-8 : Proportion of household internet access by broadband and dial-up



Source: ONS, *Internet Access: Households and Individuals 2009*, Statistical Bulletin

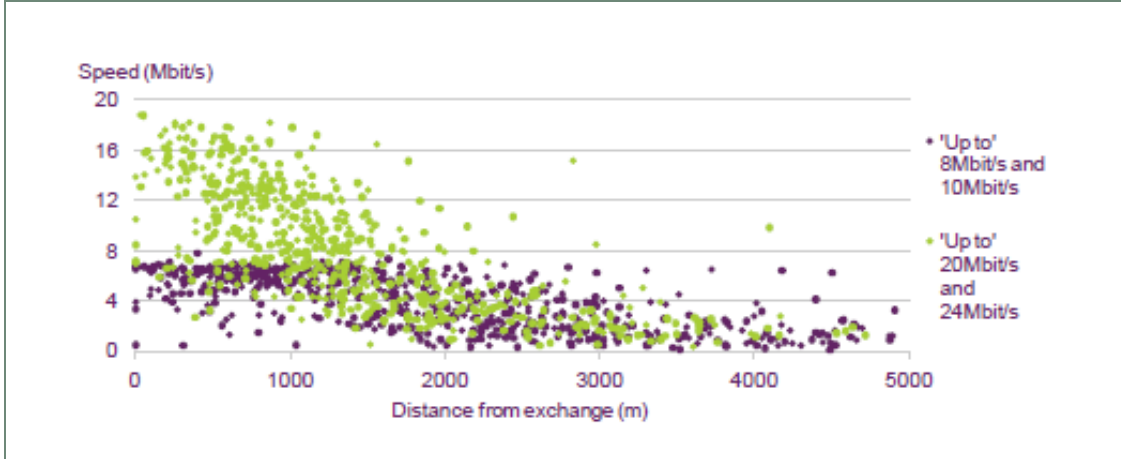
### **Fixed broadband services**

- B.10 The two main technologies used to supply fixed broadband services in the UK are digital subscriber line (DSL), connected to a local telephone exchange, and cable modem technology over a cable operator's network.
- B.11 The Ofcom *Communications Market Report: England 2010 (CMR:E 2010)* noted that almost all of England's homes and commercial properties could access broadband delivered over a standard fixed telephony line. In addition, cable broadband, offering access to a high-speed internet service, is available to 51% of homes in England, the highest among the UK's nations.
- B.12 According to Ofcom's *CMR:E 2010*, broadband take-up in 2009 – at 73% of homes in England – was the highest among the UK nations. This figure rose by three percentage points year on year. Broadband take-up (fixed or mobile) varied by urban and rural locations. Whilst 75% of people living in rural areas had broadband connections, just 70% did so in urban areas.
- B.13 Ofcom notes that the strategic focus of telecoms service providers is shifting towards driving up the availability of higher-speed networks. Nevertheless, Ofcom research found a large variation in existing broadband speeds. Average speeds for consumers in rural areas (3.4Mbit/s) were around half of those in urban areas (7.3Mbit/s) and while some consumers

<sup>23</sup> <http://www.statistics.gov.uk/pdfdir/iahi0810.pdf>

taking high speed cable services were able to receive average download speeds of over 40Mbit/s, the average speed received by those with DSL broadband was just 4Mbit/s. The figure below maps the average speed of 1,500 DSL connections against the (straight line) distance between their home and the local telephone exchange.

Figure B-9 : Average line speeds versus distance from the telephone exchange



Source: Ofcom (November/December 2010) UK Fixed Broadband Speeds.

### Mobile broadband services

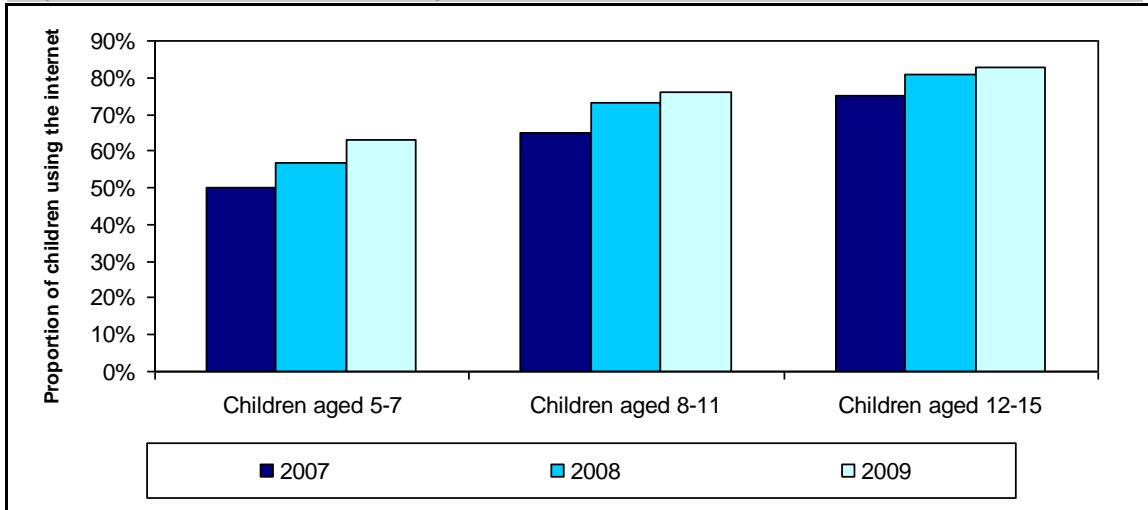
- B.14 As of 2009, 91% of England's population lived in an area with access to 3G mobile services<sup>24</sup>. Ofcom's *CMR:E 2010* notes that within England the postcode districts with highest 3G coverage are most concentrated around London, the East Midlands and Greater Manchester, where population density is greatest (and where the geographic terrain is least challenging). In contrast, there are large areas in the North West and South West, where 3G coverage is scarce.
- B.15 In 2009, the proportion of people claiming access to mobile broadband increased by three percentage points to 15%. Much of the growth in mobile broadband (dongles/PC datacards) is being driven by households which have it as their only broadband connection (6% of households used mobile broadband as their only means of accessing the internet). Moreover, there was also a significant rise in the take-up of 3G mobile connections and increasingly sophisticated smartphones that offer broadband-like connectivity in a handset. Nearly one third of consumers are now using the 3G network's higher-bandwidth capabilities, with one in four claiming to own a smartphone in Q1 2010. This compares to one in five and one in seven respectively in Q1 2009.

### Children's use of the internet

- B.16 Ofcom's research confirms that children's use of the internet increases with age. As the chart below shows, 63% of parents with children aged 5-7 noted that their child used the internet (in 2009) compared to 83% of parents with children aged 12-15.

<sup>24</sup> Defined as the proportion of population living in postal districts where at least one operator reports at least 90% 3G area coverage

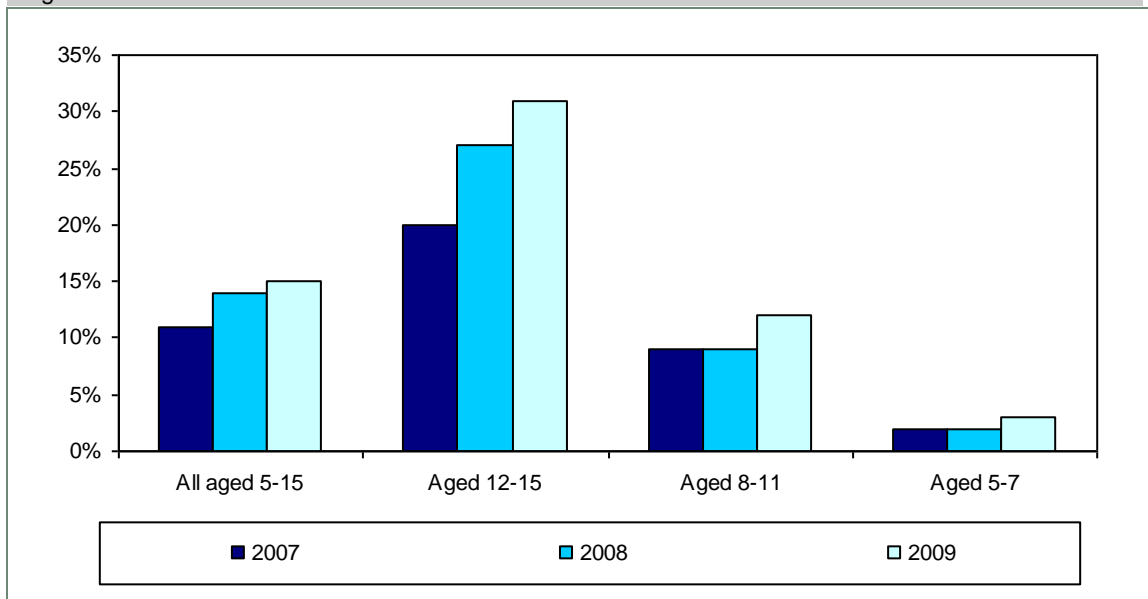
Figure B-10 : Internet use of children aged 5-15



Source: Ofcom Research

B.17 In addition, Ofcom’s research shows that the incidence of having access to the internet in the bedroom increases with each age group; accounting for less than one in twenty 5-7s (3%), but one in eight 8-11 year olds (12%), and one in three 12-15 year olds (31%). Internet access in the bedroom has increased since 2008 for both 8-11 year olds (from 9% to 12%) and 12-15 year olds (from 27% to 31%).

Figure B-11 : Internet access in children's bedrooms



Source: Ofcom research

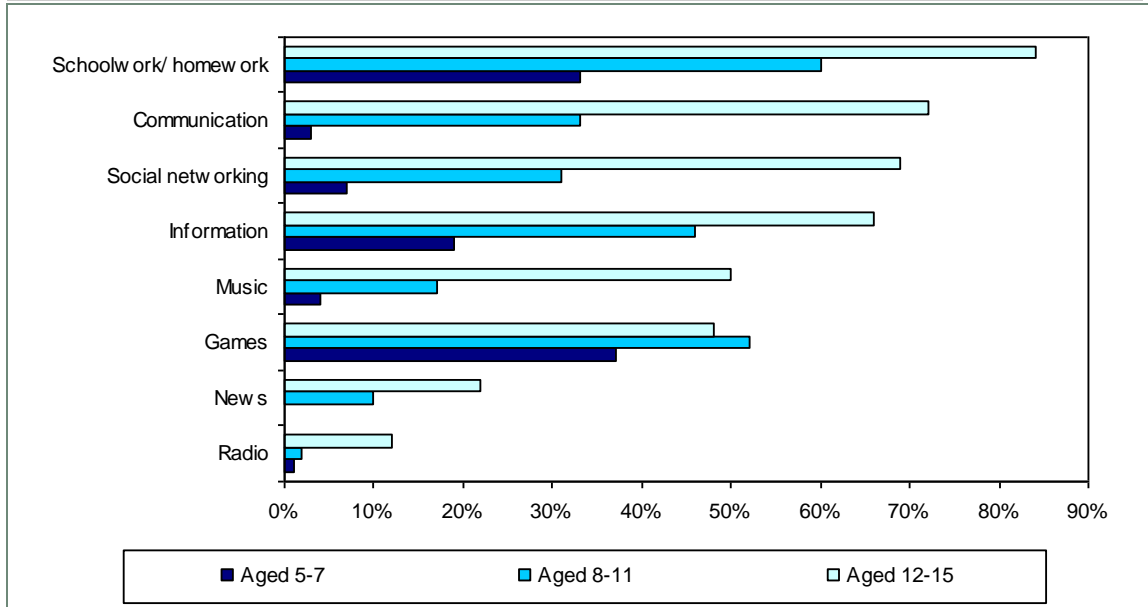
B.18 Ofcom asked children who use the internet to state what type of activities they do online at least once per week.

- Children aged 5-7 mostly use the internet at least weekly for games (37%), schoolwork (33%) and information (19%).
- A majority of children aged 8-11 say they use the internet for schoolwork (60%) and for games (52%) with close to half (46%) also using it for information purposes. Communication and social networking are the next most popular categories, with one

in three 8-11 year olds using the internet for these purposes (33% for communication and 31% for social networking).

- A majority of 12-15 year olds use the internet at least weekly for schoolwork (84%), communication (72%), social networking (69%) and information (66%)

Figure B-12 : Internet activities carried out at least once per week (2009)



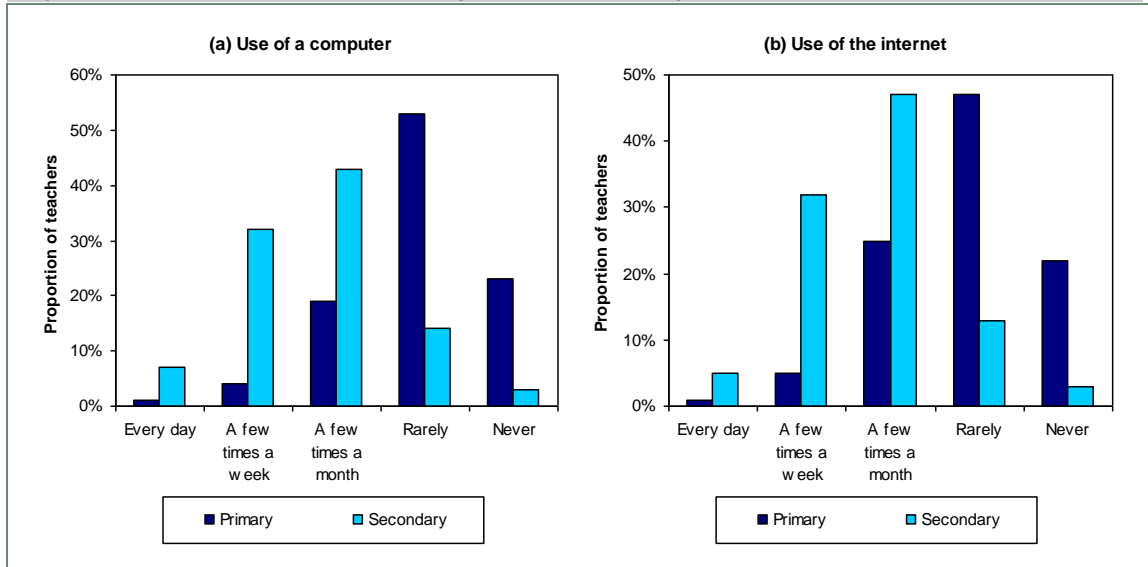
Source: Ofcom research

## Pedagogical uses of home access

- B.19 Becta's *Harnessing Technology* 2010 schools survey found that secondary school teachers were most likely to set homework that requires use of ICT<sup>25</sup>. Almost one in three (32%) secondary school teachers set homework requiring the use of the internet at least 'a few times per week' whereas just one in 20 primary school teachers do so. Staff who most frequently set homework requiring use of the internet teach subjects such as citizenship, science, and ICT.

<sup>25</sup> This is a similar finding to that reported in the previous *Home Access Programme Pilot Progress Report* (2009); however, due to a change in how the responses are recorded, findings from previous *Harnessing Technology* schools surveys can not be directly compared with the 2010 survey.

Figure B-13 : Proportion of teacher setting homework requiring use of a computer/ the internet



Source: Becta 'Harnessing Technology schools survey 2010

- B.20 According to the same survey, the use of learning platforms has soared over recent years. In the space of two years, between 2008 and 2010, there has been a 46 percentage point rise in the proportion of primary schools using a learning platform (from 21% to 67%), and a 33 percentage point rise in the proportion of secondary schools (from 60% to 93%). Schools are using learning platforms for a variety of activities. The most common activity conducted via a learning platform is uploading and storing digital learning resources for lessons and homework. Additionally, learning platforms are often used for delivering lessons and communicating with learners.
- B.21 The majority of both secondary and primary school teachers can access the learning platform from home (69% and 64% of respondents respectively).

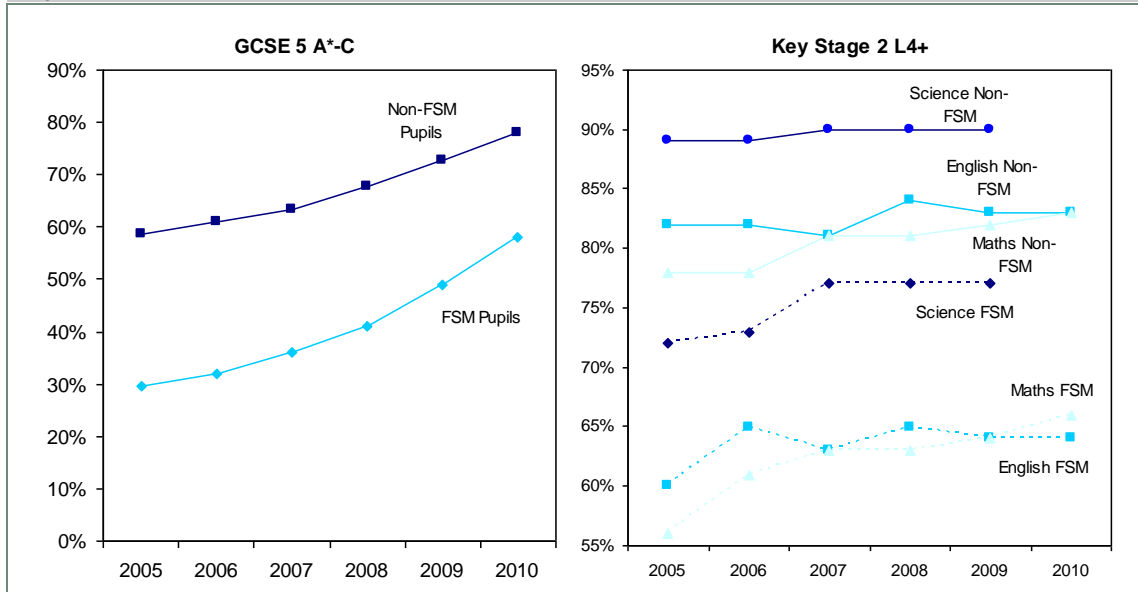
## Educational attainment trends

- B.22 There remains a significant attainment gap between levels of national educational performance of pupils eligible for free school meals (FSM), learners in the target households for the programme, and non-FSM pupils<sup>26</sup> (see chart below). For example, whilst 58% of FSM pupils gain at least 5 A\*-C GCSEs, the figure is 78% for non-FSM pupils.

<sup>26</sup> In 2009 approximately 93,000 KS2 pupils were eligible for free school meals (FSM) in England. This equates to about 16.4% of the total population of KS2 pupils. In KS4, the figure stands at just over 74,000 or 12.9% of the total cohort.



Figure B-14 : Educational attainment of FSM and non-FSM pupils at GCSE (KS4) and KS2



Source: Department for Education

- B.23 However, in recent years the difference in GCSE attainment between FSM and non-FSM pupils has narrowed somewhat. Whilst in 2008 there was a 27 percentage point gap between FSM and non-FSM pupils achieving 5 A\*-C grades at GCSE, in 2009 this had fallen to 24 percentage points and in 2010 this fell further to 20 percentage points.
- B.24 In particular we note that there was a relatively sharp increase in the GCSE attainment of FSM pupils between 2008 and 2010 (as measured by the proportion achieving 5 A\*-C grades). Boys' attainment by this measure improved by 16.9 percentage points (to 53.5%), while girls' attainment improved by 16.6 percentage points (to 62.2%). FSM pupils from Black ethnic backgrounds registered a particularly strong improvement (18.4 percentage points to 67.9%).
- B.25 Although several factors could be at play to drive up GCSE attainment amongst FSM pupils (including changes to the approach to coursework), it is worth noting that there was a substantial increase in home access among households with children in 2008, and schools' use of learning platforms increased during this period too. The theory of change that underpins the Home Access Programme would predict that a significant increase in home access in low income families should be followed by a significant increase in FSM pupils' attainment – and this does appear to have happened between 2008 and 2010, at least in terms of one key GCSE measure (the proportion achieving 5 A\*-C grades).

## Annex C: Case studies

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### Note on case studies

- C.1 These summary reports present perceptions of ICT coordinators, teachers and pupils interviewed at 15 schools in England.
- C.2 In some cases, it could be argued that views are not necessarily fully informed. We have deliberately not attempted to 'correct' interviewees' statements in such cases.
- C.3 Also it must be emphasised that the value of these case studies is in providing *qualitative* insights into what teachers and pupils think. The case studies were not designed to provide *quantitative* data, and they should therefore not be used for this purpose.

## Case study 01 (primary school)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.4 The ICT coordinator had an excellent understanding and high awareness of the Home Access programme, what it offered and its aim to bridge the digital divide and enhance educational attainment. Teachers had a low awareness of the Home Access programme, with only a vague knowledge of the programme, and uncertainty about what it was offering. They were aware of it when letters started to go out last year, but did not attend any of the meetings, and were not involved in any of the details. The general consensus was that the project aimed to allow all children to ‘have access to the wider world for education and research’. Teachers thought parents were aware of the programme as the school worked very hard to make sure that the programme was well advertised. This included simple letters (translated into the parents' languages), four parent meetings (with translators present) and presentations from the e-learning foundation. Parents were supported in school, including the receipt of help in filling out forms which many parents struggled with.
- C.5 More than 100 pupils at the school took up the Home Access grant. This figure was known to the ICT coordinator because of the school's work with the e-learning foundation. The teachers had very little awareness of which, or how many, pupils in their class had benefited from the scheme. Teachers had picked up some information from conversations overheard in class.
- C.6 Overall teachers and the ICT coordinator thought the grant eligibility criteria were fair and ‘understood that the line had to be drawn somewhere’. However this view was not shared by all parents and pupils among those that were not eligible. Some parents had to be turned away, which was extremely difficult for the school. The borderline families thought the criteria were unfair.
- In this school there isn't a clear divide between the ‘haves’ and the ‘have nots’, and so many families who are just above the threshold missed out and see this as being penalised for getting a job. If they did not work then they would have been able to get a laptop.*
- C.7 Those parents asked whether the school would help them get laptops, and they are working with the e-learning foundation to address that.
- C.8 The main barriers preventing eligible families from taking up the offer were language (which was overcome with help provided for form-filling), and a lack of parental experience with computers which meant they could not see any need for the addition of a computer, nor how it would relate to education. Some parents were confused about the eligibility criteria, because they were unsure of the difference between child tax credits and working tax credits. The ICT coordinator had to contact benefit organisations, get Somali translators, send out new letters, personally check details, phone parents and ask them to bring in their child benefit letter. She said ‘the school was not obliged to do that, but if they didn't, then those families wouldn't now have computers’.

- C.9 The school had no communication with the local authority or any other agency with regard to the programme. The ICT coordinator found out about the scheme during a visit to the BETT (British Educational Training and Technology Show) conference and looked into it herself. The local authority didn't notify the school about the scheme. She worked closely with the e-learning foundation after attending a seminar there, and they have provided a good level of support during the roll out of the programme. The school decided to aggregate, but they were unsure about the benefits of doing so.

### **Benefits and risks**

- C.10 All agreed that Home Access was a very good idea, as computer skills were vital skills for learning. They also pointed out that there is an assumption in secondary school that you have access to a computer, and know how to use it – an assumption shared by the wider society – so providing computers to primary school pupils makes sense.
- C.11 The scheme was seen in theory to support sending children home to do research, extending their knowledge outside of their local area and culture: ‘we say that they can do more research if they want to, and we've introduced them to Mathletics, so it's extra work they can do if they want to’. However, despite the high take up of the Home Access scheme, homework was not set on computers by most teachers.
- C.12 The teachers and ICT coordinator did not think that the programme had explicitly shown any benefits to the classroom, since the teachers did not know who it was in their classes who had the Home Access computers. (The ICT coordinator did have some of this information.) Home Access was seen by the ICT coordinator in terms of long-term benefits of ‘getting pupils more digitally literate’, but she also said

*... there's no concrete evidence to suggest anything has come from the programme. ... You can change teaching practice when the majority have got computers, but they [teachers] don't have access to that information and don't want the parents to feel like they need to have a computer, by asking them questions.*

- C.13 Home Access was associated with supporting a general trend in school that children were doing more and becoming more confident with technology but this was not attributed to the Home Access Programme.

*In ICT classes the ones who are really quick at it are the ones that you know have computers at home. There was a massive divide. We'd have to differentiate because of it – you'd be stretching your top ones with ICT club, and you and your TA would be hand-holding with all the simple stuff. It's not so bad now.*

- C.14 The use of ICT was also associated with increased independent pupil research on the internet for projects. The ICT coordinator said ‘they're shown certain things within school, such as fun links, Mathletics, etc. and they probably follow it up at home. But at the moment it's hit and miss and ad hoc’.
- C.15 Teachers did not identify any downsides to the programme. One teacher did suggest that parents may need to be ‘educated about the merits of educational games – rather than allowing their children to spend all their time on other games, such as Hannah Montana’. The

ICT coordinator focused on the logistics of take up: 'you need someone to really support it fully all the way through. The government should have done more to support it. They shouldn't leave you to it'. In addition she said ending the scheme would deny new pupils home access to a connected computer.

- C.16 The teachers did not think the programme has or will help parents' communication with teachers, but the ICT coordinator said the school's effort to support parents applying for Home Access grants had made parents grateful, and may be a platform to build on.

### **Uses of ICT**

- C.17 The school did not have a learning platform, but staff used a school website to post links and information. Year 1 teachers had training on Moodle but were not yet using it, but some courses on basic reading and counting for pupils had been set up in Moodle. The ICT coordinator said: 'there were enough children in Year 1 with a computer at home to justify this'. Year 1 teachers were developing Moodle themselves, but a local web company was being paid to update content on the school website. Teachers and parents were unable to communicate using the school website beyond filling in a 'guestbook'.
- C.18 The school had invested in new pupil tracker software, and it was moving towards online reporting over the next year or two. The ICT coordinator estimated that half (around 360) of the pupils at the school did not have access to a connected computer at home.
- C.19 Teachers had no knowledge of the number of their pupils who did not have access to a connected computer at home. This was considered a barrier to developing the learning platform by the ICT coordinator. However, teachers were against online homework, and the use of computers as they did not connect ICT with the literacy and numeracy skills they were prioritising for learning in the school.

*In our current paper homework system, they are learning literacy, spelling, numeracy etc rather than just ICT skills. For some of our students doing something on the computer and printing it off are not skills that they will need in their life. Spelling, handwriting and numeracy are more important.*

- C.20 The ICT coordinator saw the knowledge and skills of the staff as a potential problem, but the key issues were the mounting pressures on every type of resource in the school, including money and teacher time.

### **Support for teachers**

- C.21 There is a staff intranet. All the resources that teachers use are in folders there, so they have built up their own library, alongside regularly going online to find other resources from Primary resources, Woodlands, BBC, and Google. This has worked well in the past.
- C.22 Teachers have received a variety of in-house training on using technology in teaching and supporting learning including Audacity, Interactive Whiteboards, Mathletics, Windows Movie Maker. The school has moved to an online assessment system, and have had extensive training on that. Teachers have had no training around home/school interactions. All were generally happy with training provision and support, though one said it was difficult for her to

keep up with the increasing pace of change and another commented on the difficulty of one-off training in isolation from the classroom. One teacher said she would like more training on creative applications of video and music editing, in order to make the most of the video evidence collected from children on a daily basis. The ICT coordinator had had half a day training (from e-learning foundation) on supporting home learning, but none of the other staff have.

- C.23 The ICT coordinator described the support and training at the school as ‘difficult’ and

*... constrained by our own lack of technological understanding. I have a vision, but don't really know how to get there. We've really tried, and because we want this for our children we've found ways. It's hard to get answers from anybody.*

## **Learners**

### *The computer at home*

- C.24 All pupils had a Home Access laptop at home which they had had for about six months. Most (15/18) had more than one computer at home, with over half having two computers (11/18) and the remainder three. Nearly all pupils (17/18) lived in families of over five people and most of the computers were located in the living room (15/18) with two kept in the child's bedroom and one in a sibling's bedroom. All pupils shared their computer with siblings and parents.

- C.25 Sharing did create problems for half of the pupils (9/18): ‘we all need to do our homework, my older brothers and sisters too, we don't argue but it's difficult’. Difficulties focused on competing needs and uses of the computer: ‘me and my sister want to go on it, but my dad has to do his work, and my mum goes on the internet looking at celebrities.’

- C.26 The girls in the group seemed to encounter more problems with sharing, specifically that their brothers often tried to get on the laptop first:

*I need to go on Mathletics for my times tables and my brother pushes me off because he wants to play games, and it makes my dad shout.*

*I argue with my brother. It's my laptop! Each of us has one hour each, but my brothers still fight, over the amount of time.*

*I'm saving up in my money box to get my own laptop because my brothers won't let me use mine.*

- C.27 The majority of pupils (14/18) reported that their parents try to control what they can do with a computer at home. This was in the form of time limits (because of religious and other commitments) and content (e.g. not playing games). The parents of some girls (8/18) actively monitored what their children did, telling them what sites they could go on (‘they tell me to play maths games not other games’) and looking at the screen to make sure they are doing homework. Four children's parents expressed concern about e-safety. One pupil said his parents do not monitor him due to the software on the computer: ‘the laptops have already blocked all the bad things, and they let us go on the good things so my parents will let me go on whatever I want.’

*Using the computer*

- C.28 Over two thirds of pupils (13/18) experienced difficulty in using the computer and the internet at home. These problems were mainly connection problems, the computer running too slowly and crashing. All asked older brothers and sisters for help rather than parents or the supply shop.
- C.29 The pupils reported using the computer for a range of activities and there were no differences according to gender or age. All used the computer for homework and school related work, including Mathletics, extra research for homework and BBC Bitesize. Two girls talked about Hotmail and doing their homework with their friends together on chat. All did their homework before any other often religious and cultural activities, such as learning the Quran and prayers, and traditional songs: 'I have to learn about Bosnian music (I go to a Bosnian Saturday school) and so I go on YouTube to learn about the songs.' Pupils also watched CBBC/YouTube, played games (a mixture of educational and non-educational), listened to music online (but not download due to concerns about viruses) and most watched films and TV on their laptop (16/18). About half the pupils used email to talk to friends, a few (3/18) used Skype to talk to family in a different country, but none of the pupils used social networking sites, for which they said they were too young.
- C.30 The school did not have a learning platform, but most of the interviewed pupils went onto the school website to check term times, information on 'snow days', and information on school clubs. Homework was generally not set using the computer, and generally they used the computer for around 10-15 minutes a day for school related work (e.g. looking up information, using Mathletics, researching a project). Two pupils said they go online to clarify their learning in the class: 'sometimes if I'm stuck on something I'll go on the BBC Bitesize website to find out how to do it'.

*Benefits*

- C.31 Three pupils said they used the computer to help with homework more now than six months ago but the majority said it had made no difference, as homework was not set online or on the computer. The differences commented on by the two pupils related to doing extra homework and helping with research for project work, making work neater and quicker due to typing rather than writing. Just over half the pupils (10/18) thought the computer made homework 'a little bit' more interesting and fun, mainly due to the games on Mathletics which all seemed to enjoy. Two girls also used email to discuss their homework with friends.
- C.32 The problems with having a computer at home were primarily connected to technical failures (13/18): speed, reliability and net intelligence blocking appropriate sites. These were considered the worst aspects of having a computer and sources of considerable frustration for the pupils. Two pupils felt the computer meant they were spending less time doing other things, like playing with toys and writing stories. In addition, half of the pupils had experienced family arguments over access to the computer
- C.33 The best thing about having a computer at home for the pupils varied. For some it was help with learning and revision (10/18) or the general freedom of the internet ('you can do anything!') (6/18), whilst for a few it was support with religious and cultural learning (2/18).

**Key messages**

- C.34 The school focus was on pupils gaining home access to technology, rather than using technology to connect the school to pupils' home.
- C.35 Teachers had low ICT awareness and skills and did not see the value of incorporating it into their practice. They did not make use of technology or Home Access at the school, the learning platform was not developed, and homework was not set using computers.
- C.36 Teachers had very little knowledge of pupils' access to technology at home. Learning online at home was considered 'an optional extra' rather than integrated with classroom work. Although teachers and the ICT coordinator support Home Access, they did not identify any benefits from the programme beyond general benefits of technology in the home.
- C.37 The ICT coordinator worked hard to ensure take up of Home Access, yet the school had many parents who just missed out on the scheme but may not have been able to afford a computer. Many parents at the school had low English literacy levels and little experience of technology. There was considerable concern at the school about asking parents about access to computers at home, related to concerns of stigmatizing those without access.
- C.38 There were problems with connectivity, reliability and speed for Home Access beneficiary pupils at this school. Some had significant difficulty negotiating access to computer use in large families with high demand on the laptop. In particular girls found it difficult to get on their Home Access computers due to brothers not allowing them access.
- C.39 Most pupils' parents attempted to monitor and control the time their children spent on the computer at home, and what they do when they are on it. Pupils were independently using the computer for learning, including research and revision. However, in the context of limited teacher engagement with technology, the benefits for homework were low for most pupils.



## Case study 02 (primary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.40 All the teachers were very aware of the programme and had an excellent understanding of its aims, which were discussed in terms of ‘opportunities for all’ especially those who wouldn't normally have access to them. A lot of work had been done by the ICT coordinator and teachers to make parents aware of the scheme, and teachers thought all parents were aware of it. The main barriers preventing eligible families from taking up the offer were identified as low parental literacy levels and confidence leading to them not being able to fill in the forms and make the phone calls, and in some cases parental lethargy - not filling in forms and providing child benefit documentation. About 25% of parents were considered to have been active in relation to the programme, with 80% proactive in coming to meetings but 75% not proactive in getting the paperwork done. The school coordinated a meeting once a week for a month for parents and without this push and support all felt many parents would not have completed the application process. The ICT coordinator noted that many parents did not realise that if they had Sky they also had free broadband: ‘they wouldn’t have worked that out if we hadn't told them.’
- C.41 The school went for an aggregate model and worked with these parents to complete forms. The school has compiled a comprehensive spreadsheet that all staff can access, so everyone knows who has and hasn't taken up the grant in their class. All considered the grant eligibility criteria to be fair. Teachers thought most parents felt the same, however some parents on low incomes took the view ‘why should they get this for free when I go to work so that I can afford to support my children to get things like this, they've done nothing and got this for free.’
- C.42 It is important to note that the school wouldn't have gone ahead with Home Access if they weren't also rolling out a wider netbook scheme across the whole school (with the e-learning foundation) as there would have been so many families who would just miss out, it would go against the school's ethos. Thus Home Access was one part of a larger school initiative. All except eight of the children that were entitled (about 100) benefited from Home Access, and teachers knew this was due to the high level of involvement of the ICT coordinator in rolling out the programme.
- C.43 The ICT coordinator expressed frustration with their communication with the local authority, which was not as advanced as the school in terms of ICT. It has had more positive relations with suppliers and the e-learning foundation.

#### *Benefits and risks*

- C.44 All teachers thought the Home Access programme was a good idea and thought that this view was shared by pupils and parents. Several impacts for pupils in the classroom, as well as in the home, were identified for the school ICT initiatives of which Home Access was a part: learners have become more independent, confident and much more computer literate; learners

making their own choices, and requesting that homework be set electronically; a notable increase in story writing in girls; helping boys with writing ('they'd much rather research things online than in books, we give them the choice'); children doing their own work and research at home without being asked; and giving children more direction to their free time, and they were more likely to do research and school-based work than before. Teachers said: 'they have access to their own targets for spelling and times tables, so their targets are visible and they're trying to work more towards them', they were 'more prepared for learning', and it has helped to make

*... boring rote-learning skills better by playing games, and they compete against each other. Even arrange to play against each other when at home – so its not displacing friendships – actually making learning more sociable.*

C.45 These developments have also led to increased collaboration between pupils, including more peer-to-peer learning, teaching each other skills 'way beyond what would be asked of them in class': 'in the Breakfast club, all children sitting round with their computers in a little team. Given them a focus and a hub – before they were bored and quiet'. The children often have a play with programmes themselves so it makes it more efficient using it in the classrooms, as they already familiar with them: 'they'll often finish their class work off at home so they can work at their own pace.' This has had an impact on curriculum planning as activities planned for Year 5s, the Year 3s can do already. It has also supported differentiation in the class, as teachers can improve their targeted personalised learning activities without other pupils knowing about it. ICT developments at the school have engaged those who have had behavioural issues. Teachers have explored the use of netbooks to encourage children with special educational needs (SEN) to engage in writing where before they were reluctant. The programme has also increased parental engagement. Parents would often come into school to ask for help with computer problems.

C.46 Teachers identified the main downside of the programme as being the need to heighten parental and pupil awareness of internet safety. Some parents were not aware of some of the internet dangers or that it is their responsibility to protect their children against these dangers. The Home Access laptops had security software but the school had to take it off.

*It wouldn't work with the e-learning platform (which has lots of external links) and school system. It was blocking everything. They were not able to use the computers properly at all. The children who still have it on just don't use them. Parents don't have the skills to edit the software settings.*

C.47 The school was focusing on e-safety education and worked closely with CEOP and ChildNet and 'online safety is ingrained in the curriculum'. There have been no incidents, beyond children being on social networking sites and having to speak to parents about inappropriate content and e-safety.

C.48 There was no concern regarding online leisure displacing study time, and after school club take-up was still very high. Another issue raised was the insurance and accidental damage of netbooks, because 10% of the children had dropped them, and the insurance did not cover accidental damage, only theft. The school cannot repair the Home Access laptops. It was

suggested that a six month internet connection and a better insurance policy would have been more beneficial than 12 months connectivity.

- C.49 Teachers had noticed some differences in pupils' homework, principally that the children were actually doing their homework and do not require as much chasing.

*Before the netbooks there was a real problem with completion. Now you can give them a variety of different sorts of homework, and they present it to you in different ways.*

- C.50 The scheme had led to more conversation with parents about learning, as one teacher said:

*I've got a better understanding of what lives the children have got at home, and the lives with their parents. Also the parents want to know more about school. It's a talking point. It's more about the learning, whereas before it was just about reporting what had happened. Productive, positive and focused.*

#### *Uses of ICT*

- C.51 The learning platform, Fronter, was maintained by the ICT coordinator who built subject and form classrooms, and teachers added content. Teachers did use the learning platform although some teachers were more active than others in using it for interactive content such as quizzes and assessments, and using it for submission of homework. Every term there were two or three tasks for the children, but 60% of teachers use it more than that and add other bits of work and activities.

- C.52 In some cases the children themselves pushed the teacher to use Fronter more often, asking for homework or games. It is designed to be outward facing, to help learning, as opposed to teachers communicating with each other. However one teacher said 'parents aren't using it as much as I'd like'.

- C.53 Teachers noted that two or three pupils in each class did not have access to a connected computer at home. This was not considered a barrier to extending the use of technology or the learning platform, because there are spare netbooks for those children to use and there is good access to the recently refurbished local library. The ICT coordinator said:

*The dongles the Home Access provided are so patchy that I wouldn't count that as connectivity. [Pupils] not connected at all, not even a dongle – about 30%; connected with good connection – about 50%.*

- C.54 Staff time was the main barrier to the wider exploitation of learning platforms at this school. The school learning platform was launched in September, so it coincided well with Home Access which had 'Given it a real purpose' to the learning platform and its development.

#### *Support for teachers*

- C.55 Teachers looking for digital learning resources in a particular subject/area of learning turn to Google, TES, the BBC, TeachersTV, other school sites and local authorities. The school changed their curriculum some years ago and are used to always researching and creating their own curriculum and resources. Teachers routinely shared good resources and practice. The main barrier was time.

- C.56 Teachers have received training on using technology in teaching and supporting learning notably the use of IWBs, and Fronter and on new technologies as they come into the school (e.g. Smart table, laptop trolley). A lot is self-taught. The ICT coordinator drove the Fronter training and the focus has been on both technical and teaching aspects. There have been some classes on ICT for parents in the school. Teachers were very satisfied with the quality of support and training they received.

### **Learners**

#### *The computer at home*

- C.57 All pupils had the Home Access computer at home for between ten and 11 months. With the exception of one pupil, all had more than one computer, over two-thirds (11/18) having three and half of pupils living in families of five people or more.
- C.58 The computer used by pupils was most often located in the household living room (11/18) with some (7/18) keeping it their bedroom. All pupils shared their computer with other family members, siblings and parents. For a few (2/18) this caused some arguments but for most it did not create any problems with several getting 'first go' and others having a rota for use.
- C.59 The extent to which pupils' parents tried to control what they can do with a computer at home varied but not according to age or gender. Less than half of pupils (7/18) said their parents exercised no control or monitoring of their computer use, in addition few (2/18) seemed to be on the computer for over four hours each day. Several pupils' parents had a 'school work first' approach (5/18) and some (5/18) barred certain sites (MSN, Facebook). A few parents set time limits (3/18), and one third of pupils reported their parent monitors content (6/18): one parent reviewed the child's Google history, two others 'sneak up behind you to look at what you are doing'.

*She is always watching what I'm doing. She doesn't like me playing games. She doesn't understand that they're for school work. She will close my laptop if she thinks I'm chatting, doesn't believe me if I say I'm chatting to friends.*

- C.60 Physically removing the computer from bedrooms at night was reported by one pupil: 'mum makes sure the computer is downstairs so I don't stay on it at night'.

#### *Using the computer*

- C.61 About two thirds of the pupils found it easy to use a computer and the internet at home, but one third (6/18) experienced difficulties getting online. Pupils reported a variety of problems, including the connection being very slow, the dongle not working (3/18), and having to use codes and passwords that they cannot remember. Most children asked their mum or dad for help if they have any problems.
- C.62 All of the pupils used the computer to do homework and school learning, and they regularly logged onto Fronter. Two thirds (12/18) undertook self-initiated research on the internet to look up topics they were interested in: 'we didn't know that much, we can Google it now. We can find out more'.

- C.63 Almost all pupils also played games (17/18) including on CBeebies, Thriv.com, car games, Vantage, Star dolls, cooking games (e.g. Girlsgo.com), and listened to music on YouTube (13/18), but none were able (due to the blocking software) to download music. A few pupils (4/18) used email and instant messaging but only one used social networking (Facebook) and most seemed aware of the dangers of social networking from parents and school: 'definitely not, my mum doesn't let me, she says you don't know who's on the internet'. Most did not use their computer to watch films or online TV, although some (3/18) did access films via Pirate sites.
- C.64 In a normal week, the majority of pupils spent considerable time doing homework, about a half of pupils spent an hour a week (7/18) and a just over a quarter spent more than two hours (5/18). Each of the pupils spent about the same amount of time on leisure as on school work each day.

#### *Benefits*

- C.65 All pupils reported that they used a computer to help with homework more now than six months ago, and one commented 'I never lose my homework now.' All pupils say they use their computers for homework about twice as much now, as compared to before.
- C.66 Nearly all pupils (17/18) identified some significant improvements that having a computer at home had made to their school work. Pupils found it much easier to find information and revise (11/18) and quicker to do homework (5/18), and most thought their work was better, that the computer helped with spelling, handwriting, and that presentation including the use of images and layout was more fun and interesting (9/18). Pupils also go on Fronter or Vantage to talk about their homework (9/18). The internet was important to pupils, especially those with no resources at home, as one said: 'we have no reading books in the house, but now I can go on to the internet and find things to read.'
- C.67 The problems associated with having a computer at home were few, and primarily technical, such as forgotten passwords and breakages: 'things are breaking, keys are falling off, the hinge is broken - if you're not careful with it breaks very easily, they are delicate.' Most pupils (15/18) were not worried that they may be not spending time doing other things, as they still go out and see their friends/do activities a lot. Although three pupils were concerned that they spent less time reading and playing with siblings, they associated this with the winter: 'I'm not spending any time doing other things. But in the summer time I'm out all the time on my bike.' Three pupils had come across 'inappropriate things' on their computer.

#### **Key messages**

- C.68 The school has invested considerable time and effort in the roll out of Home Access but only felt this was possible on equity terms through the parallel roll out of computers for those who missed out on the scheme. The school would not have found it easy to work with Home Access if all pupils had not been able to be provided with laptops via other means. It actively worked to overcome parental barriers to uptake.
- C.69 Home Access has been used to give purpose to the development of the learning platform and the use of ICT in the classroom and at home. Teachers worked together to support and

develop the use of technologies in the home, and Home Access was linked to the provision of digital homework in the school and encouraging and supporting independent learning.

- C.70 Teachers identified many significant benefits for their pupils' learning that were supported by Home Access. The main downsides were aspects of the specification of the Home Access offer, in particular the use of mobile dongles that provided unreliable connectivity.
- C.71 The pupils greatly valued the learning opportunities Home Access afforded them. They were engaged in active and independent learning via the online resources they had access to in ways that supported classroom learning. Home Access had an impact on completion rates of homework and for many pupils the learning platform and homework were the best things about Home Access.

## Case study 03 (primary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.72 The ICT coordinator had good awareness of the scheme, however, there was low awareness of Home Access among teachers in this school: one teacher had not heard of the scheme prior to our visit. The teachers who had heard of the programme had only a vague knowledge of what Home Access actually provides. One teacher had heard about it in the local newspaper but teachers had not been asked to promote Home Access in the school. All thought that most eligible parents would know about the scheme. They understood that Home Access is a response to the need to get all pupils online to support the equitable use of technologies and especially the use of school learning platforms. Teachers identified the main barriers preventing eligible families from taking up the offer as lack of knowledge of Home Access, low levels of parental literacy and English, and fear of technology. Neither the ICT coordinator nor teachers knew the extent of take-up despite over half of the pupils in most classes receiving FSM. All teachers thought the eligibility criteria fair, but all expressed concerns about ‘borderline’ working families on low incomes who might miss out.

#### *Benefits and risks*

- C.73 All teachers considered the Home Access programme a good idea and thought their view was shared by pupils and parents. The main benefits of the programme were thought to be providing pupils with more regular use of computers outside school, enhanced use of the internet for research, increased use of the school learning platform and other resources, and increased ICT skills and confidence, all of which were seen to enhance the speed and efficiency of using computers in lessons. However, teachers did not think Home Access would improve pupils’ personal and social skills or motivation and behaviour in class.
- C.74 The main downsides of the programme teachers identified were the need to ensure parents know about parental controls on content, and the need to educate parents about computer use. With regard to pupils, concerns were expressed about too much time spent on Facebook which was seen to ‘displace verbal communication’. The use of Facebook was implicated in two incidences of cyber-bullying and was discouraged at the school. Increased plagiarism in homework was not considered to be risk: ‘we are really fussy about copying but they could copy it from their book, the computer doesn’t make a difference’. One teacher expressed concern about the potential for parental misuse: ‘parents may take advantage of it and not allow proper access to pupils’. Concerns were raised regarding the ending of internet connectivity after one year and the need to monitor the use of the computer for education.
- C.75 The main benefit for homework was related to skills and confidence with ICT and independent research online.
- C.76 One teacher commented on the importance of enhancing parental engagement with their children’s learning, evidenced by communications with teachers showing stronger parental engagement with children’s schoolwork. However, overall, Home Access was not considered

to have impacted on home-school relationships and in general parental involvement with their children's learning was considered low. One teacher said that Home Access was supporting parental engagement: 'children have said "me and my mum looked up at this" and "we've looked at this plane with my granddad"'.

#### *Uses of ICT*

- C.77 The school was changing from the use of its learning platform, and developing its website to support school or home-based learning. This was managed by the ICT coordinator and subject leaders. The rationale for this is that the learning platform was not used, pupils faced log-in and access problems: 'we'd sent home pupils with pieces of papers they were losing. The passwords were ridiculous, like "nuclear"'. Children would not access it because of the password and it was also complicated to navigate.
- C.78 The learning platform was primarily an inward facing site for sharing information rather than dialogue with parents or pupils. Science and Maths teachers mainly used the website to set homework and provide links and resources. Other teachers used the website for setting homework, spelling tests, providing links to educational games. The website was also used to 'open up new possibilities' to communicate with parents, to share pupils' work with parents and upload letters and information. The learning platform is not widely used; however, Home Access does appear to have provided the ICT coordinator with some impetus to develop it.
- C.79 Teachers estimated that 5 – 10% of pupils did not have access to a connected computer at home. This lack of access together with low parental ICT skills and confidence were considered to be barriers to teachers extending their use of technology for learning in and out of the classroom.

#### *Support for teachers*

- C.80 Teachers looking for digital learning resources used Espresso and learnt from their colleagues, friends and family. Teachers had received some training on using technology in teaching and supporting learning, specifically on the use of the learning platform, digital microscopes, and the use of interactive whiteboards. Training was provided by the ICT coordinator and was primarily technical, with some ideas on how to use it. Teachers said that they were satisfied with the training but there were some software compatibility issues regarding school and home computers. Teachers raised the need for more training on home-school uses of technology.

### **Learners**

#### *The computer at home*

- C.81 All of the pupils had the Home Access computers at home, but the internet dongle on one pupil's computer did not work. The pupils have had their computer for two to 8 months. Two of the 17 pupils' households had a computer before Home Access. The majority of pupils' computers were located in the living room, with six pupils' computers kept in their bedroom. This was not differentiated by age or gender. The majority of pupils shared their computer with several others (parents, uncles, older and younger siblings), with two pupils sharing with



between five and eight people. Three pupils did not share their computer. Half of the pupils reported difficulties and arguments caused by sharing their computer.

- C.82 The parents of the majority of the pupils, across all year groups, made them do their homework before doing anything else on the computer and placed restrictions on time. One Year 6 boy said his mother told him ‘this is for doing your homework and a little break when you’re bored’. All Year 6 pupils reported that their parents did not try and control the content/what they can do with the computer. Two children, in Year 6, seemed to have unrestricted access to the computer (one girl and one boy) staying online for up to six hours per day. One Year 5 pupil commented that if she did not do her homework and chores she was not allowed to go on the computer. She was allowed to go on Facebook but only to talk to people she knows or she will ‘get nasty messages’ and her dad doesn’t want her ‘to get killed or something’. She noted that her mum opens any attached pictures via email to check they are okay. Most of the pupils in the Year 4 group commented on the net intelligence controls on the computer, and one boy said his mother looks at what he does on the computer. Two girls said that according to their behaviour their parents adjust the time and access on the computer – ‘they unblock Facebook when I’m good, block it when I’m bad’.

*Using the computer*

- C.83 The majority of the pupils found it easy to use a computer and internet at home, about a quarter had difficulties due to problems largely associated with access, viruses, and confusion about pop ups and installation protocols. Pupils asked their parents or older siblings when they needed help.
- C.84 The majority of Year 6 and 5 pupils used the computer to go on Facebook (only two did not). Less than half of Year 4 pupils used Facebook. One girl said ‘you’re actually meant to be more than 16’, and another said ‘Facebook will get you into big trouble’. Half of the pupils use the computer for MSN and email. The majority of the pupils across year groups used the computer to listen to and download music and watch films and TV.
- C.85 The majority of Year 5 and 6 pupils used the computer to research information for homework, for example facts for a school geography assignment, and to play maths games (Mathzone). One Year 5 pupil used the computer to play games such as the Pet Village and Club Penguin. The majority of Year 4 pupils had used Google Earth at home, and about half had used paint.net. One girl described how her mum allows her to buy things on eBay when she has pocket money.
- C.86 Only one pupil had logged onto the learning platform, but the majority of Year 5 and 6 pupils interviewed had logged onto the school website to access Maths and Science resources. Pupils were given little homework by the school, and about half said they used the computer to support homework for between five minutes and one hour a day, with year 5 and 6 pupils doing the most homework. All the pupils used the computer for ‘other things’, most spent one to two hours on the computer each day. Some used the computer less frequently (twice a week) and for less time, and two pupils (Years 5 and 6) spent between four and five hours a day on the computer.

### *Benefits*

- C.87 The Year 5 and 6 pupils said they use a computer for homework more than they did six months ago, although only a quarter of Year 4 pupils agreed with this statement. Most Year 5 and 6 pupils thought this had made finding information for homework easier and quicker, though this was not the experience of Year 4 pupils (this may connect to differences in homework set). About half of Year 5 and 6 pupils agreed that using a computer made it quicker to do homework, although two noted it made them slower. A small number (4) of these pupils thought it made homework look better, and more interesting. About a third of Year 5 and 6 pupils found the computer useful for revision. Overall, Year 4 pupils did not think the use of a computer made a difference to their homework except sometimes making it more interesting or fun.
- C.88 The main problems with having a computer at home identified by the pupils were getting a virus (from downloading music and games), problems with the equipment (the dongle for three pupils). Five pupils reported problems with the network being too slow and unreliable. None of the pupils reported spending less time doing other things due to the computer, but many noted that they were always at home, were not taken or allowed out, and were bored before they got the computer. Indeed the computer was seen as a source of pleasure, entertainment and communication. One Year 5 girl had experienced accidentally accessing inappropriate sexual web content in a pop up, and another had seen images from a horror film that had scared her. Family arguments over access to the computer were a drawback experienced by some pupils, with nearly all of the Year 4 pupils involved in arguments, half with siblings, and the others with parents over access and turn taking. One pupil raised the problem of the cost of the internet access when the year scheme ends.
- C.89 Pupils said the best thing about having a computer at home are games, YouTube, Facebook, keeping in contact with family via email, and surfing the web.

### **Key messages**

- C.90 Knowledge of the programme varied among the teachers, but was low overall. The school seems rather remote from the programme with no sense of take up within the pupil population and little connection with the ICT activities of the school.
- C.91 While eligibility criteria were considered fair there was concern regarding the families who just miss out. The poor education and low literacy skills of parents was seen as a barrier to take up of Home Access. There was concern over the short-term nature of the programme, and the ability to build school policy and work on the basis of it.
- C.92 The key benefits identified by teachers were enhanced ICT confidence and skills which supported lesson time use of technologies to be come more efficient. Due to the limited use of homework and the learning platform within the school, little other impact or benefit was noted by teachers.
- C.93 The majority of pupils did not have a computer at home before Home Access, and were sharing a computer with family members. They did not think the programme had impacted on the quality of their homework (because limited homework was set) although some found it

made homework easier and quicker. Most pupils noted problems with poor internet connectivity and speed.

- C.94 Parents and pupils prioritized homework for home computer use. Parents exercised control with respect to this and time spent on the computer, but limited or no parental control was exercised with regard to content and other use beyond homework.
- C.95 Pupils commented enthusiastically on the benefits of the computer beyond school work. In particular the pupils' comments suggest that time at home after school had been very boring, and that going out of the house was restricted. The computer had given access to games, films, and social networks that they valued and had not had before.

## Case study 04 (primary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.96 Both the ICT coordinator and Head Teacher were aware that some kind of programme offering home access to children was in existence but were not necessarily aware of the finer points relating to how the programme functioned. The other interviewed teachers stated that they had no prior knowledge of Home Access, how it worked, or if any of their pupils were involved in it. Indeed, both the Head Teacher and the ICT coordinator said that they were unaware of which of their pupils were in receipt of the Home Access grant until the research team were in touch with them about it. There was, however, agreement on the perceived goals of the programme amongst all the teachers. All believed the programme was about equality of opportunity, removing the lack of IT access and knowledge as a barrier to educational attainment amongst pupils from more deprived backgrounds.
- C.97 A range of responses were provided by the ICT coordinator and teachers alike as to what barriers might prevent eligible families from taking up the Home Access offer. These included awareness of the eligibility criteria, awareness of the scheme, and parents lacking the literacy skills to complete the form.
- C.98 None of the teachers felt they were in a position to say whether pupils and parents were aware of the programme as they themselves had little knowledge of it. The ICT coordinator on the other hand acknowledged that some parents must have known about the programme and its aims, hence the applications they made. The Head Teacher provided clearer evidence of knowledge amongst parents, stating that some parents had approached him in order to gain help in completing the relevant application form.
- C.99 In principle, teachers generally believed that the eligibility criteria were fair although there was a recognition that those who only just missed out on Free School Meals (FSM) would lose out, even though their families might not necessarily have been able to afford a computer. Likewise, some children in receipt of FSM might already have had access to a home computer. One teacher also commented that pupils who were eligible for FSM still may not apply for FSM (due to perceptions around not wanting to ask for state help) and a similar issue might also impact upon Home Access and reduce uptake amongst those who are eligible.

#### *Benefits and risks*

- C.100 In principle, both the ICT coordinator and the teachers felt that the programme was a good idea, and helped to improve 'equality of opportunity' alongside a range of more specific potential benefits<sup>27</sup>, including:

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<sup>27</sup> Because they had no prior knowledge of who had received Home Access support, the teachers could not attribute changes in behaviour and performance of individual pupils to the programme

- Less embarrassment for children who otherwise would not have had access to a home computer in class
- Knowing that all children in a class have home access made it easier to track and set work
- Potential for increased confidence and motivation (raised by the ICT coordinator)
- Pupils becoming more engaged with the school's e-learning platform
- Being in position to take full advantage of opportunities available at secondary school in terms of e-learning resources to aide pupils development
- Potentially improved communication between the school and parents
- Improved homework and more thorough research.

C.101 Some possible downsides and risks related to the programme were also relayed. These included:

- Increased potential for online bullying
- Using the laptops more for TV, Facebook etc. than for educational purposes
- Parents not allowing children to use the Home Access computer
- Children's computer usage would not be monitored by parents, with associated risks around pupils accessing inappropriate sites.

C.102 Amongst teachers, there was a level of uncertainty as to whether having home computer access had led to noticeable changes in the quality of their pupils' homework. Some teachers did say that their pupils with home internet access would often produce more thorough and detailed research. However, the Head Teacher offered a different perspective, saying that the lack of adequate monitoring and tracking data meant it was impossible to assess whether Home Access had improved educational attainment for those in receipt of the grant.

C.103 There was uncertainty also over the level to which parents' communication with teachers would be improved by greater home access. Class teachers felt there was some potential in improving communication with parents but were not able to elaborate much further. Both the Head Teacher and the ICT coordinator said that Home Access would move communication with parents more along the digital path, but that personal contact through the telephone and face-to-face meeting will remain the primary method for this.

#### *Uses of ICT*

C.104 Learning platforms existed in the school, most notably through Wikis, discussion fora, and access to emails. Amongst the class teachers, use of the learning platforms varied. One teacher used it nearly every day for teaching, while two others used it far more sporadically. One teacher did mention that homework requiring use of the learning platform would be frequently set.

C.105 The ICT coordinator himself acknowledged that take-up and usage of the learning platform amongst teachers had only been progressing slowly and was still used more in school than outside of it for homework. Teachers suggested a variety of barriers that prevented the wider use of the learning platform and other technology for learning. A key issue was that often YouTube video clips they would want to use in lessons were blocked by the school system. The Head Teacher however, expanded on this area and offered further barriers including:

- lack of time
- availability of resources
- unwillingness to adopt new teaching missions
- pupils not having time to use them
- poor broadband infrastructure reliability in school (and cuts to Government broadband funding)
- unreliability of equipment
- conflicts with other government initiatives requiring them to focus on numeracy and literacy.

C.106 None of the teachers could estimate how many of their pupils did not have access to a connected computer at home. Nonetheless, lack of home access was generally not seen as being a barrier to extending the current use of technology for learning in and out of the classroom. The learning platforms were used relatively infrequently by the class teachers anyway, and if anyone without home access needed a computer to complete their work, computer facilities would be made available during lunch and break times.

*Support for teachers*

C.107 A wide variety of digital learning resources were used by teachers ranging from Espresso, LP+, Education City (for learning games), BBC Bitesize, and YouTube. Generally, teachers have been able to find the information they have been looking for but have encountered problems with their school system blocking YouTube.

C.108 A range of training programmes have been made available to teachers. The ICT coordinator leads internal training sessions, disseminates any training material he receives, and also provides technical guidance. In addition, external training sessions on using Espresso (utilising skills rather than improving technical knowledge) were provided to teachers, whilst some class teachers also received INSET and ICT safety training. Generally, class teachers were satisfied with the training received although the Head Teacher felt that there was still insufficient support available for staff in the area of e-learning and where it did exist, advice would sometimes be outdated.

## **Learners**

### *The computer at home*

- C.109 Amongst the ten Year 4 children interviewed, there were a total of 20 computers with three children having three computers in their household. They were generally unsure as to when their household first got a computer although two beneficiaries did say their household had had a computer for at least two years. Most had their computers kept downstairs or in a living room but two said theirs was kept in bedrooms. All the interviewed beneficiaries said they shared their computer with other family members but that this did not result in any disputes. Amongst those in Year 4, there was relatively little parental supervision over computer usage. Pupils were trusted to use the device sensibly and not look at unsuitable material.
- C.110 All of the Year 5 children (seven in total) confirmed that they used a computer at home. There were a total of 13 computers amongst the group, ranging from only one device in the household to three. The age of the oldest device ranged from two months to seven years. Most of the devices were kept in a communal room downstairs although two pupils said that their parents had a computer in their bedroom. Only one child said they didn't share their computer and those that did share said that there were sometimes family arguments over who could use it. There was more parental supervision amongst those in Year 5, with parents watching usage, blocking websites, and not allowing children to download any material.
- C.111 All of the Year 6 children interviewed (six in total) used a computer at home. Collectively, there were 17 computers amongst their households. For all the pupils, their first computer was bought one-to-two years ago. Mostly, the computers were kept downstairs or in a communal area but four pupils did say that at least some of their computers were kept in bedrooms. Although four pupils said they had to share their computer with other family members, only one said that this led to disputes. In four of the households, parents controlled the child's computer usage through regulating time spent on it, checking website usage, or watching what their children were doing.

### *Using the computer*

- C.112 All of the pupils, irrespective of age, said that they found it easy to use the computer and internet at home (where problems existed it was due to devices and the internet being slow). If they had any problems using the equipment, they would normally ask relatives (normally parents, including asking a high proportion of mothers) for help. Two Year 5 pupils mentioned that their parents had used telephone helplines to help resolve IT issue.

C.113 The Table below summarises what home computers were used for across each year group:

	Year 4 (10 beneficiaries)	% of interviewed beneficiaries in Year 4	Year 5 (7 beneficiaries)	% of interviewed beneficiaries in Year 5	Year 6 (6 beneficiaries)	% of interviewed beneficiaries in Year 6	Total (23 beneficiaries)	% of all beneficiaries
Homework	8	80%	6	86%	2	33%	16	70%
Playing computer games / online games	10	100%	6	86%	6	100%	22	96%
Email / instant messaging	6	60%	4	57%	5	83%	15	65%
Social networking	4	40%	3	43%	1	17%	8	35%
Listening to and downloading music	8	80%	3	43%	3	50%	14	61%
Watching DVDs/films/TV	8	80%	7	100%	4	67%	19	83%

C.114 All pupils across the different year groups said that they logged onto the school's website and/or learning platform. Primarily this was in order to take part in discussions, do quizzes, play games, and access wikis and emails.

C.115 Use of a computer at home was comparatively low amongst those in Year 4. Generally, they spent one-to-two hours a day on a computer at home, with very few spending much time on it for their homework.

C.116 Home computer use was higher amongst the Year 5 beneficiaries, spending roughly half an hour each day on their home computer for homework (one claimed to spend three hours a day on homework). Usage of the home computer for other things was generally one-to-two hours a day (the range was five minutes a day to four hours a day).

C.117 Amongst the Year 6 beneficiaries there was little usage of the home computer for homework (primarily as homework was not set for some pupils). The home computer was used for other purposes for one-to-two hours each day.

### *Benefits*

C.118 The general consensus across the Year 4 pupils was that they were now using a computer more to help with their homework than in the previous academic year, although they were unable to quantify by how much. Likewise, four of the seven Year 5 pupils said that they were now using a computer more for homework than six months ago with the extra time spent



ranging from 15 minutes to an additional hour every day. None of the Year 6 pupils said they were using the computer more for their homework.

C.119 The table below summarises the difference that the pupils felt that having a computer at home had made to their school work.

	Year 4 (10 beneficiaries)	% of beneficiaries interviewed in Year 4	Year 5 (7 beneficiaries)	% of beneficiaries interviewed in Year 5	Year 6 (6 beneficiaries)	% of beneficiaries interviewed in Year 6	Total (23 beneficiaries)	% of all beneficiaries
Easier to find information on the web for homework	9	90%	4	57%	5	83%	18	78%
Quicker to do homework	10	100%	4	57%	4	67%	18	78%
Makes homework look better / neater	8	80%	5	71%	4	67%	17	74%
Makes homework more interesting / fun	8	80%	7	100%	5	83%	20	87%
Helps for revision	7	70%	3	43%	2	33%	12	52%
Can ask friends about homework by email / instant messaging	6	60%	4	57%	0	0%	10	43%

C.120 Amongst all the pupils (and regardless of year group) the best things about having a computer were that they were fun and enjoyable to use, particularly in terms of accessing computer games. The worst thing about having a computer for virtually all of the pupils was that devices could be slow, temperamental and regularly crash.

### **Key messages**

C.121 There was relatively little awareness of Home Access amongst teachers, and teachers did not know which of their pupils were in receipt of the Home Access grant. They fundamentally believed the programme to be a good idea but said it needs to be delivered in partnership with the school, and to be better monitored (with monitoring information passed onto schools).

C.122 Some parents had approached the Head Teacher to gain help in completing the application form, and some advertising work was done by the school to promote the programme (e.g. via letters to parents). Without this, the Head Teacher did not know how parents would have found out about the programme (they had no enquiries from parents before the school's letter). Overall, the school would have liked to have had more engagement in the design and

delivery of Home Access, particularly to join the programme up with other activities in the school.

- C.123 In principle, teachers generally believed that the eligibility criteria were fair although there was a recognition that those who only just missed out on FSM would lose out, even though their families might not necessarily have been able to afford a computer. Likewise, some children in eligible for FSM might already have had access to a computer at home.
- C.124 Teachers believed that Home Access had the potential to deliver benefits around improving access to ICT opportunities, increasing pupil's motivation, confidence and homework, and encouraging engagement with the school's e-learning platform and other e-learning resources. However, the lack of adequate monitoring and tracking data meant it was impossible to assess whether Home Access had improved educational attainment for those in receipt of the grant.
- C.125 None of the teachers could estimate how many of their pupils did not have access to a connected computer at home. Nonetheless, a lack of home access was not seen as being a barrier to extending the current use of technology for learning in and out of the classroom. The Head Teacher did not believe Home Access had encouraged the roll out of technology either. Learning platforms were used infrequently by teachers, and if anyone without home access needed a computer to complete their work, computer facilities would be made available during lunch and break times.
- C.126 Many of the Home Access beneficiaries already had a household computer prior to Home Access, and the majority had to share their computer with other family members. Most computers were kept in communal living areas, with some kept in bedrooms (of the pupil or parents). Parental supervision appeared to be low for Year 4 pupils, but increased with age. The Head Teacher believed that Home Access should have been integrated with some e-safety support from parents (children learn about e-safety at school), because parents' ICT literacy and knowledge was low.
- C.127 Over two thirds of pupils interviewed used their computer for homework, and this had increased over the last six months, but a higher proportion used it for games (96%) and watching TV/films (83%). Around three-quarters or more of pupils interviewed said that having a computer at home made it easier to find information on the web for homework, quicker to do homework, and that it makes homework look better, neater and more interesting/fun.

## Case study 05 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.128 The ICT coordinator and learning mentor who assisted in the promotion of Home Access at the school had an excellent knowledge and understanding of the scheme, and understood its aims to raise achievement and provide pupils with the opportunity to learn at home. The teachers had a very limited awareness of the Home Access programme. One teacher found out about it only after enquiring how he could help a pupil doing GCSE PE who didn't have internet access at home. Some pupils had asked them about Home Access but they didn't know enough to answer them. Teachers saw the aim of Home Access as 'Trying to make equal opportunities for all pupils'. The ICT coordinator thought parents and pupils would know of the scheme through school assemblies, letters, and text messages to parents; and he and other staff had helped fill out the forms, and made phone calls on the parents' behalf. The scheme was led by the ICT coordinator and supported by heads of Years who provided checklists and flow charts for families.
- C.129 The main barriers preventing eligible families from taking up the offer were identified as language barriers, in terms of making contact and making the families aware of the scheme. In particular, filling in forms was always a barrier. Further, 'parents might not realise how important a computer is for their child's education, and there are some cultural barriers too'.
- C.130 Teachers were aware of one or two in their class who have benefited from the programme, but they had not received any information from the school about who had taken up the programme. Overall there was no clarity about how many pupils had benefited.
- C.131 Views varied on whether the grant eligibility criteria were fair: two teachers felt it was unfair and three fair. The learning mentor said it was

*... difficult, you have to have a cut off. The criteria were very tight. People missed out who should have got it: children whose parents did go to work, but didn't earn enough. We had a few parents phone us up, and we had to explain that it wasn't up to us.*

- C.132 One teacher felt more flexibility and a case-by-case approach would have been more effective. The ICT coordinator said that 'the free school meals criteria made it easier, in that there were no fuzzy answers – if you're not on free school meals then you can't apply'.
- C.133 The ICT coordinator had received email updates from the local authority on how the programme was going, and reminders regarding the application deadlines.

#### *Benefits and risks*

- C.134 All considered the Home Access programme to be a good idea and felt their view was shared by pupils and parents. Several teachers made the point that a computer and connectivity were essential and not a luxury, to ensure pupils do not fall behind. The Graphic and Design Teacher said:

*The majority of pupils do their best work out of school hours, where they can concentrate for extended periods and follow up any creative ideas they have been inspired by. Without a computer at home, pupils at this level are really missing out. Though they can use the study area before and after school, it's very easy to tell who hasn't got a computer at home because of the quality of the work.*

C.135 The ICT coordinator noted that the study centre facilities were in heavy demand and used by pupils before and after school and in the lunch hour, 'but it's not enough, there's such high demand'. Other teachers commented on the need for internet access to support the use of Fronter and SAM Learning, homework and course work: 'we've just started a BTEC course, and all of the work has to be word processed. Those without computers are really struggling. We set it online and it's handed in online.'

C.136 All the teachers and the ICT coordinator saw benefits from Home Access. Several benefits and impacts of the programme for pupils in the classroom, as well as in the home, were identified. The learning mentor noted an improvement on attendance and school work for a number of pupils.

*There was one particular pupil who didn't come into school because she couldn't do her homework, and didn't want to say why she didn't do her homework because she didn't want to look poor, and now she's got a laptop that has all changed – her attendance and school work has improved.*

C.137 An increase in more independent learning was noted, and the teachers commented that 'pupils online are enthused to know more, it's better for research and discovering more about subject areas'. Home Access was associated with the use of the learning platform and an increase in use of the platform and online communication about schoolwork among pupils and with teachers. The benefits of being online more generally included the use of social networking, which was commented on positively by teachers: 'Facebook is forcing them to write, and communicate and makes them more confident young people'. Teachers noted an increased interest in reading and that pupils prefer to learn from other media – videos, communicating etc.

C.138 The main downsides to the programme were identified as the short-term and limited nature of the one year of internet connectivity, and the inflexible eligibility criteria. Some teachers felt they were better able to evaluate needs than the blanket free school meals criterion affords. Other significant issues raised by teachers were pupils staying on the computer till very late at night and coming into school tired, and on occasion online life spilling into real life: 'last week there was a fight between two boys who had been playing on an online fantasy game, and a fall out online turned into a real fight'. All teachers noted that there is not enough parental restriction on game-playing, especially 18-rated games which 'all pupils played', and the use of Facebook: 'you're supposed to be 13 but all year 7s have it'. Plagiarised homework was an issue the teachers understood and discussed with pupils, and which was not a problem as they could detect it easily and the pupils knew that.

C.139 In relation to the benefits and downsides of Home Access and the effect on homework teachers noted that pupils now try harder to and 'give more depth in their answers' but that increasingly pupils did not know how to use books (e.g. using an index) and that their writing

can become very Americanised. To date the programme has not helped parents to communicate with teachers more or in better ways, but teachers thought it could if ICT training was provided for parents.

#### *Uses of ICT*

- C.140 The learning platform used at the school is Fronter. It was maintained by a specific technical support person, and subject learning content was created by the teachers. ICT and Design and Technology used it the most, all subject areas used it but use varied between teachers. Fronter was primarily used to link with the pupils not the parents. SIMS Learning Gateway was planned to be introduced and this would feed live assessment data to parents.
- C.141 Some teachers used the school's learning platform to support school and home-based learning and teaching, including setting homework, forums, submitting homework and marking, but such use was patchy across the school. Two teachers (P.E. and Graphic Design) said the learning platform was 'integral to their teaching and learning'.
- C.142 The ICT coordinator surveyed his groups, and said that only 3% of pupils do not have access to a connected computer at home: 'each year it gets less - broadband isn't expensive anymore, so it's becoming more common'. Teachers offered the same estimate. He estimated that about 50 pupils in the school remain without home access.
- C.143 The main barriers to the wider exploitation of learning platforms at this school were thought to be staff skills and lack of access to technology in all lessons. The ICT coordinator said that he was not clear what impact the Home Access programme had had on school plans for developing the learning platform.

#### *Support for teachers*

- C.144 Teachers looking for digital learning resources in a particular subject/area of learning, used a range of sites including the BBC, Teach-ICT.com YouTube, Promethean Planet, and were happy with the availability and sharing of resources in the school.
- C.145 The ICT coordinator set up ongoing in-house training for Fronter and SIMS learning gateway, and staff could access an online course for training of IWBs by Promethean (all staff had received training on IWBs). The school has an association with RM to deliver training. Training had been more about technical skills rather than teaching with ICT. The ICT coordinator said: 'we need more time, but the plan is to get departments together to look at how to use them in specific subject areas.' Training was also offered to staff on an individual basis, and after school workshops. Staff were happy with the training received but expressed some concerns, in particular about the availability and training in the use of specialised professional programmes that are used outside of school. The suggested government guidelines on the ICT skills and training required by teachers in particular subjects (e.g. graphics) and basic skills across the curriculum to embed ICT would be helpful.

## **Learners**

### *The computer at home*

- C.146 All pupils had a Home Access computer at home, and had had it for six to seven months. Two pupils' households had one computer, but most pupils had more than one computer at home, six pupils had two computers and three had three computers. Family size was four persons for most pupils. The computer used by the pupils was located in their bedrooms in most cases (9/11) with the others in the living room. Nearly all pupils (8/11) shared their computer with siblings and parents at home. This created problems for some pupils (4/11), mainly arguments between parents and pupils when parents needed to work or study on the computer. The two pupils who did not share said that this caused arguments in the home.
- C.147 All pupils reported that their parents try and control what they can do with a computer at home in a variety of ways, with most stipulating that homework and revision must take priority, and restricting content. One pupil said: '[she] tells me not to go on certain things, mum says don't play games because it slows down the computer'. None of the pupils' parents limited the time they spent on the computer and most appeared to log on when they returned home from school and log off at bed time. Three pupils reported that their parents looked over their shoulder at their computer screens, and one that her brother 'checks my inbox, but I delete my history'.

### *Using the computer*

- C.148 Most pupils had experienced difficulties using the computer and the internet at home, and the majority (7/11) had consistent problems with reliability and speed ('takes ages to load up and freezes a lot'), and a further two had speed problems with some websites. Only one pupil turned to their parent for help with computer problems, whilst others went to older siblings or cousins, or neighbours with specific ICT knowledge for help.
- C.149 Given the problems with connectivity and speed at home, the activities that pupils used the computer to support were perhaps unsurprisingly limited. All used the computer for homework, including internet searching and completing homework primarily in maths, and coursework in PE and ICT. About half occasionally played computer and online games but most used other game platforms for gaming. About two thirds (8/11) of the pupils used email and MSN but experienced problems with the screen freezing. All pupils regularly used social networking sites (Facebook) and listened to music online and about a third (4) downloaded music. One pupil said that her mother did not allow her to play games or go on YouTube as it slowed the computer. All commented that it was not possible to use the computer to watch TV or films: 'can't really because it freezes, it's just not powerful enough'.
- C.150 All pupils logged onto the school learning platform from home to do their homework. Three pupils noted that due to software compatibility issues, they preferred to use the learning platform at school: 'I prefer to use it in school, we're used to the software, and they're easier to use'.
- C.151 In a normal week, pupils estimated that they spent between three and seven hours a week using a computer at home for school homework, and about 14 hours a week on other things.

Two pupils used the computer for leisure, mainly Facebook for extended lengths of time until the early hours of the morning. One pupil had stopped using the computer altogether as it was so frustrating due to connectivity and speed issues.

### *Benefits*

- C.152 All pupils said they used a computer to help with homework significantly more now than six months ago but could not estimate 'how much more'. All commented that having their own computer had made a lot of difference to their homework, giving them more control over their study time, making studying more convenient and easier, without having to wait for older siblings to finish their work, or stay behind at school: 'before I had to go to study centre in the mornings before school, and now I don't have to. I can just do my homework when I get home rather than having to go to school early in the morning.' Most pupils (8/11) said the computer improved the presentation, side stepping poor handwriting and spelling, and one said it actually encouraged him to do and hand in homework. Half of the pupils (5/11) said that having the computer made it easier to find information on the web for homework and admitted that this was because they could copy and paste from Wikipedia. When asked if this was a problem they said to just 'take out the hyperlinks and change some of the words'. Others (5/11) felt a computer introduced new problems, crashing and losing work, slowing down working due to technical problems and 'freezing'. Some pupils (4/11) felt the computer made homework more interesting/fun: 'it's easier to make your work more creative, which is much harder when you're doing it by hand.' Over half the pupils (7/11) found the computer helped them to revise and used sites like BBC Bitesize and some (5/11) used Facebook to talk to friends about homework.
- C.153 The pupils identified a number of problems with having a computer at home. All felt that it meant that they spent less time doing other things including reading, and spending time with their family. One girl said: 'I used to spend time with my mum watching TV and cooking, and though she hasn't said anything, I do think to myself that I don't spend time with her anymore.' Another said: 'I get on it, and I lose track of time, and think what the hell it's 10pm already?!' – an experience over half of the pupils related to. Several pupils expressed concern about their eyesight in relation to their computer use.
- C.154 Computer and internet reliability was an issue for many (7/11) of the pupils with slow internet connection and crashing reported by most: 'the computer is slow, crashes, its difficult to connect to the internet, and lots of sites are blocked'. Three pupils reported issues with spam, and inappropriate web content connected to pop up advertising on websites. Family arguments over access to the computer were experienced sometimes by four pupils.
- C.155 The best thing about having a computer at home for six pupils was the ability to socialise on social networking sites with friends, whilst three others felt the best thing was the support it offered for homework and two of pupils considered the ease with which they could do lots of different things on the internet the best thing about having a computer. The worst thing for all bar one pupil was the computer crashing, freezing and its slowness, while one thought the worst thing that she spends too much time on it, and does not give time to her family.

**Key messages**

- C.156 The ICT coordinator had played a key role in promoting the programme and supporting parents' applications to Home Access, but teachers had little knowledge or awareness of the programme. Language, literacy and cultural issues were barriers to take up of the scheme by parents. The inflexible eligibility criteria were seen as a key downside of the programme.
- C.157 Teachers identified a number of benefits of Home Access for teaching and learning. They regarded having a computer at home as essential for learning, yet Home Access had not been linked into wider school strategies or activities such as the learning platform development.
- C.158 Most pupils had more than one computer at home and shared their computer with other family members. All parents monitored their children's computer use in terms of content but not in time. Most pupils experienced difficulties connecting to the internet related to reliability and speed, and for some this impacted on their use of the computer.
- C.159 All pupils used their computers for homework, spending between three and seven hours on school homework per week. All pupils also used social networking sites, and they said they used a computer to help with homework significantly more than before six months earlier.



## Case study 06 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.160 The ICT coordinator and teachers had a good awareness of the Home Access programme in general, but were less clear on what it offers. Awareness of what it is trying to achieve was generally focused around reducing the digital divide and equity by providing opportunities to access computers at home, which was valued as ‘pupils may find it hard to access IT in the school’. The ICT coordinator noted that the school ‘did a big promotional project and sent out emails and SMS to parents’ but missed the chance to apply as a school.
- C.161 One barrier to parents’ applications raised by teachers was the potential stigma regarding free school meals (FSM), and parents’ suspicion and disbelief that ‘you can’t get something for nothing’. Another was parental literacy and language: ‘when the school promoted the programme we did a pretty good job and again we go back to the issue of parents’ literacy and illiteracy’. A letter was sent to parents but one teacher said that not all parents could read and understand it. All teachers expressed concern about the fairness of the criteria for the working poor who just miss out.
- C.162 There was no sense of overall take up of Home Access in the school, and there has been no communication with the local authority. The ICT coordinator was aware of some pupils who have taken up the grant as they told him, and he has heard via the Head that this school had the highest take up in the area. He estimated that 20-25% of pupils do not have internet access at home.
- C.163 Knowledge of the eligibility criteria focused on FSM, but overall teachers thought the eligibility criteria were fair given that there has to be a cut off point. They assumed this view was shared by parents and pupils.

#### *Benefits and risks*

- C.164 The teachers were all supportive of Home Access, and considered it a good idea: ‘very much, it’s got three thumbs up!’; ‘a fantastic idea, a shame it’ll probably never happen again under the current climate’. The ICT coordinator noted that one positive is that ‘a lot of the pupils tend to respect their own devices more than the school’s property’.
- C.165 Teachers said it was ‘still early days’ in terms of assessing the impact and benefits on pupils in the classroom and the home. However, they had observed emerging benefits: developing ICT skills at home; increased pupil confidence (‘those with laptops at home come back to school more confident, I see more confidence in ICT’); opening up opportunities for learning for their parents; extending learning to the home (‘anything extra that they do with a computer is a plus’); and increasing parental use of computers. More generally one teacher commented ‘maybe the programme will fill the gap and bridge ICT with school subjects’.
- C.166 Teachers commented that the main downsides of the programme were potential exposure to inappropriate content, safety and potential plagiarism. In particular, the school was aware of

six pupils who had met up with somebody they didn't know through Facebook. The ICT coordinator saw the main downside as being out of the loop of the Home Access programme:

*Lack of knowledge of who's got it and what's been happening: if we knew we could intervene and help them, see how they were using it and for what. It would be good if the school knew, because we could further assist those pupils.*

C.167 One teacher expressed concern about the use of the Home Access computers in the home:

*But still I don't know what they are using it for with some the families. I wouldn't be surprised if it ended up on eBay or if they have sold it around. But some of them, hopefully, they are using it legitimately.*

C.168 With respect to the impact of Home Access on homework, the ICT coordinator said that the level of usage of the school's learning platform had increased, and suggested this may have resulted from enhanced access to the learning platform from home. The school does not allow pupils to bring their own laptop to school or their own USB stick (due to concerns about theft and viruses). The ICT coordinator said that 'if pupils have better infrastructure and improve their ICT skills at home, they can transfer these at school.' The school has an extended school day and does not set homework for pupils.

C.169 Parental communication was not a high priority for the school but Home Access had not been employed to develop this.

#### *Uses of ICT*

C.170 Some teachers and pupils use the learning platform (Fronter), but there was an acknowledged need to increase use. The learning platform is described as slow and impersonal, needing constant attention, and underused. Some subject areas do make use of it: Maths, Business, Law, Geography, Science and the school House System uses it to share photographs. It is primarily an inward-facing platform rather than for communicating with parents. The ICT coordinator said that teachers are more receptive to using a website than the learning platform as they find it easier. There's also an innovation team that provides resources within the school and works with teachers to put materials online. No survey has been undertaken to assess the number of pupils' access to a connected computer at home and teachers said they were not able to estimate this. High staff turnover was identified as the main barrier to the wider exploitation of the learning platform.

#### *Support for teachers*

C.171 Teachers looking for digital learning resources in a particular subject/area of learning used the learning platform as a main resource. They also used Teachers' TV and websites such as 'edugeek' and teach-ICT.com. Teachers received training on using technology in teaching and supporting learning with Smartboards and Interactive Whiteboards, and also on e-safety for teachers and pupils and using Excel and SIMS. The ICT coordinator explained that given the context of the school, support in relation to using technology and online resources for teaching and supporting home-based learning for teachers was not a priority. Teachers said they were satisfied with the training and support they received.

## **Learners**

### *The computer at home*

- C.172 The interviewed pupils had had their computers for three to six months, and all only had one working computer at home. Most pupils' computers were located in the living room, but two Year 9 pupils had the computer in their bedrooms. All bar one shared their computer with parents and siblings, and only one boy said this caused arguments.
- C.173 About half of the pupils' parents controlled the amount of time spent on the computer at home, taking turns with siblings, using a control timer, or just monitoring time spent on the computer. Half of the interviewed pupils said their parents controlled what they can do online by using net-intelligence, or stipulating that they can only go on 'school stuff like spelling games' and not being allowed on Facebook. Two pupils said there was no parental control, but one of these remarked: 'I do what I want but I make my own boundaries. I have coursework but it's usually mum who bugs me to go out'.

### *Using the computer*

- C.174 Just over a half of the pupils found it easy to use a computer and the internet at home, while the remainder complained of slow and unreliable connectivity and crashing. When pupils faced problems they asked their parents, a parent's boyfriend, or older siblings for help.
- C.175 All used the Home Access computer to go on Facebook despite some not being allowed to do so by their parents. The majority of pupils used their Home Access computer to play games, watch films, go on YouTube, and to listen to and download music. Even though the school did not set homework (due to extended school day and school policy) over half of the pupils in all year groups used their computers for school and learning-related activities including Internet research for project work (e.g. a history project on wars), spelling games, making PowerPoint presentations and general internet research. All of the interviewed pupils in the Year 9 group used their computer to support school coursework. Yet only one had logged onto the school's learning platform from home ('because there was a photo of me dancing'), and another had accessed the school's website but commented 'but it doesn't update regularly'.
- C.176 In a normal week, the pupils said they spent half an hour to three hours a day using a computer at home on weekdays (most spending one or two hours), with several saying they were on the computer all day at the weekend. School did not set homework, nonetheless half of the pupils interviewed in Years 7 and 8 reported spending between ten and 30 minutes using a computer at home for school 'homework' (i.e. building on what they learned in class, revising, learning times tables, etc.), and pupils from Year 9 said they spent between one and two hours per week on 'homework'.

### *Benefits*

- C.177 One pupil in Year 8 said they used a computer to help with homework more now than six months ago (mainly for spelling games), and the Year 9 pupils reported using a computer more now too. One said 'I use it more because I really need it, I'm dyslexic', and another that

he found the Google online thesaurus useful. All but one said that having a computer at home made a difference to their school work in the following ways: making it easier to find information on the web for homework; making homework look neater ('if you've got bad handwriting it's better than using a pen, you don't get as bored'); helping with spelling ('you can look up difficult words'); for revision and asking friends online for help; and playing maths games. One pupil said using the computer made reading more enjoyable because 'books are dominating, the flat screen isn't you can flick through a book online'. Another pupil said that the computer was 'more updated', making it easier to find information 'than going to the library, they don't have the right stuff'.

- C.178 Only a few pupils identified problems with having a computer at home: one said the worst thing was poor internet reliability and speed; another had arguments with her brother over access to computer; and a third said she had looked up the word 'model' for a school project and inappropriate pictures came up. Pupils' views on what was the best thing about having a computer focused on three areas: communicating and sharing photographs with friends and family (using Skype and Facebook); listening to and downloading music; and using the internet ('when you're bored it gives you something to do').

### **Key messages**

- C.179 Teachers and the ICT coordinator were generally aware of the Home Access programme but were not clear on specifics, what was on offer or the eligibility criteria. The school had not been involved in the promotion of the programme and teachers felt out of the loop, but they understood that Home Access was supposed to help close the digital divide. Teachers said that lack of knowledge about take-up in the school was a problem.
- C.180 Poor parental education, low literacy levels and bad parental experiences of schooling were seen as the key barriers to Home Access. There was a real sense of uncertainty regarding the role of ICT and future funding in the current climate, and ICT developments at the school appeared to be 'on hold'.
- C.181 The learning platform required development, but Home Access was thought to enhance the possibilities for its future use. In the view of teachers, the main benefits of Home Access were enhancing pupil ICT skills and confidence and extending learning in the home, including parental learning. There were strong concerns in the school over e-safety and inappropriate use of Facebook by pupils.
- C.182 All pupils interviewed had only one (Home Access) computer in the home and all shared it with others. Parental control of home computer use varied: some parents restricted computer time, others content and activities; some pupils had no parental restrictions, but one pupil set their own boundaries.
- C.183 There was a marked difference between how teachers imagined pupils use computers and internet at home and how the pupils reported using it: predominantly for leisure, but also for home learning and 'homework' (even though the school did not set homework). The pupils used the computer to support their learning in the classroom in ways which compensated/supported areas of learning they recognized as difficult (e.g. Maths, spelling).

C.184 The proactive character of the pupils' use of home computers stood out in the interviews. Boredom appears to have been a key feature of home life which having a computer alleviated, with pupils taking pleasure in having a computer for entertainment and communicating with friends and family.

## Case study 07 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.185 The ICT coordinator and the teachers were aware of the Home Access programme. The teachers recalled the marketing campaign and they knew that the programme was trying to provide 'kit and connectivity to pupils who did not have home access in deprived areas'.
- C.186 At school the scheme was promoted to pupils via assemblies and leaflets to take home. The school also invited parents to attend sessions at school where they were provided with support in filling in application forms and checking that the right supporting documents were attached. The school also offered to send the applications off on the parents' behalf. Acknowledging language barriers as a potential factor prohibiting eligible parents to apply, they also provided translations of the information letter.
- C.187 The school's ability to promote the scheme actively to parents was mainly down to the resources and personal motivation of the ICT coordinator. In this school the ICT coordinator did not have teaching responsibilities so he was able to spend time on arranging and providing support to parents even on one-to-one basis.
- C.188 The teachers and the ICT coordinator believed that like any means-tested benefit, the eligibility criteria used for the Home Access grant potentially missed a whole series of other important variables, and potentially excluded low income families without connected computers at home. The school had received a small number of calls from parents asking about the criteria and some were disappointed they did not qualify for the grant. The ICT coordinator mentioned that he was relieved that the school was not administering the scheme itself, as being seen to have control over who gets the computers might have put the school in a difficult position with the parents who criticised the criteria used. However, the teachers and the ICT coordinator recognised that the criteria were practical for distinguishing eligible parents.
- C.189 Being a specialised ICT Academy in a deprived area the school had considered the home access issues prior to the programme starting. They surveyed the parents two years ago to identify the proportion of pupils without access to computer and internet at home. Then the proportion of pupils without home access was highest among Years 7 and 8, at around a quarter of pupils in each year group. In Year 9 it was around one fifth, whilst it was 18% for Year 11 and only 3% for Year 10. They had also looked at home access among pupils eligible for free school meals (FSM), and found just over 100 FSM pupils across Years 7 to 11 who did not have home access.
- C.190 In light of these findings, the school got involved in the e-learning foundation's grant scheme, which provides schools with grants towards affordable computers and connectivity for pupils without home access. The grant amounted to one third of the costs whilst the other two thirds were expected to come from parents and the school. The parents could contribute on a monthly basis, and although the recommended contribution for computer and connectivity

package was £15 a month, the parents could contribute as little as they wanted. They were, however, encouraged to contribute at least something to avoid the grant becoming unsustainable, and to create a sense of ownership and responsibility. This scheme was initially made available to Year 7 pupils but was later opened to all pupils.

- C.191 In addition to this buy-in scheme, the school offered a laptop bank where pupils could check out laptops for overnight use at home. More recently, they have handed out old laptops which became redundant following the upgrade of their computer stock. Consequently, Home Access was certainly not the first programme in this school addressing the lack of home access. However, according to the teachers and the ICT coordinator it was seen to fit well with the e-learning foundation's grant scheme as it was plugging the gaps with low income parents who were not eligible for the Home Access grant.
- C.192 The possibility that some children and families at the school had benefited from both schemes was acknowledged. There were at least 100 known Home Access beneficiaries in the school but the school was not aware of the total number of pupils with the Home Access package. The teachers did not think it was important for them to know which pupils had received these computers. However, the ICT coordinator admitted that the school was not able to cross-check in any way whether one pupil had received a computer from both Home Access Programme and the e-learning foundation grant scheme. The school assumed that the parents would only apply for one but there were no mechanisms in place to make the two schemes mutually exclusive.
- C.193 The school had not had any involvement with the local authority regarding the Home Access programme and they had only dealt directly with Becta. The ICT coordinator believed the scheme would have benefited from a more extensive marketing campaign, and commented that Becta's campaign seemed rather last minute and somewhat disorganised.

#### *Benefits and risks*

- C.194 All teachers and the ICT coordinator were positive about the Home Access programme and agreed that it was a good idea. They believed that this view was generally shared with parents, and they had not heard any negative comments about it. They also believed that even though they had other means of addressing the lack of home access among their pupils, the Home Access programme was needed as some of the parents would not have been eligible for the other schemes due to location or the contribution being a barrier for them.
- C.195 The main benefit of the Home Access programme for the teachers was perceived to be the reduction of barriers for setting homework which involved using the computer. The teachers believed that Home Access and the other schemes providing pupils with home access to technology had given them greater confidence to set homework which involved either online research or other types of computer use.

*You could comfortably assign research tasks in confidence that everyone could do them.... I can remember a time when you would think 'Can I set this task, will you all have access?', but I don't even think about asking that now. It is sort of a given now.*

C.196 On the other hand, the Home Access programme was also perceived to have reduced the disadvantage and stigma of deprivation and lack of home access. One of the teachers mentioned that whilst before he would not want to ask about computer access at home in the fear of pupils from disadvantaged households becoming uncomfortable or getting bullied, this was no longer a concern.

C.197 The teachers had anecdotal evidence that the pupils were using the computers for homework. Since general home access became more prevalent, pupils more frequently email their teachers late at night to ask about specific tasks, suggesting they were doing online research in the evenings.

*The amount of emails you get at 10-11 o'clock at night asking 'Sir, I don't quite understand this history essay'.... It has increased hugely.... Previously they would only ask you online during the day and you could bet with your life, if you looked at their timetables, it was always after their ICT lesson.... That did start changing around two, three years ago. Then there was a definite change.*

C.198 Some teachers commented that when pupils were finishing school tasks on computers at home the quality of the work and the representation improved.

*Sometimes when they send documents from home, they are much richer than the ones that they were working on at school. They have more hyperlinks and animations, sometimes perhaps too many.*

C.199 Greater home access was also seen to have improved engagement with parents. The school launched a parent portal in summer 2010. The parents can access curriculum resources to see what their children study but also other information, such as data on attendance, targets, assessments and behaviour. Around a third of the accounts have been set up so far, which is a larger proportion of parents than they previously got in teacher/parent evenings. More parents also wanted to discuss their child's attendance or performance, suggesting that they had used the portal where this information is displayed.

*We have five terms and the second Friday of every term is a performance review day. Every time you get some parents who come in saying that 'can you check into my kid's attendance because I noticed that he has only 86% attendance'...so you do get questions.*

C.200 In terms of disadvantages, some teachers reiterated that the Home Access eligibility criteria did miss out some low income parents who would benefit from the scheme. The teachers also suspected that pupils were using the computers for leisure. They did not have direct concerns about leisure time replacing study time, however, and acknowledged that things like social networking, games and surfing might be a large part of the computer use at home. One teacher said: 'They spend their whole day at school. You can't assume they would spend their whole evening doing that too'. Another drew the following analogy: 'If you give them a blank paper to take home, someone might write an essay on it but the majority will make paper airplanes or a snowball'.

C.201 E-safety was not a major concern for the school because they had an e-safety programme for pupils and they had also run a workshop for parents to explain how they could enable protection settings on their home computers.



*Uses of ICT*

- C.202 The school has a Learning Gateway which is based on Microsoft Sharepoint rather than an off-the-shelf virtual learning environment (VLE) product. Being a Microsoft Academy led them to develop their own bespoke Microsoft based Gateway. The pupils were able to access the Gateway from both school and home. The procedure of using and saving documents to their Gateway My Documents is exactly the same wherever they log on. The pupils can also save documents they work on at school on their Gateway My Documents folders which are then available to them anywhere they use it.
- C.203 The VLE planning and maintenance was part of the responsibilities of the Network Services team which employed around seven to eight people. The main maintenance work was carried out by the web developer in the team. The ICT coordinator was also part of this team and in this school the coordinator did not have teaching responsibilities.
- C.204 The school has been known for its extensive use of ICT in the classroom and they have very good ICT facilities. For instance, the school has laptops for pupil work in nearly all class rooms. The ICT coordinator believed that the status of being a Microsoft Academy meant that the teachers were expected to use ICT in supporting teaching and learning. His view was that generally teachers at the school were reasonably confident in using ICT, although there are certain individuals who find it harder than others.
- C.205 The school had an observation system by which the members of the Senior Leadership Team would occasionally observe teaching. The use of ICT was one key focus area in these observations. The use of ICT was also part of teachers' performance management targets.
- C.206 According to the ICT coordinator, ICT and 'rich tasks' (cross-curricular projects) used ICT perhaps more than other subjects. Nonetheless, he was aware of teachers in subjects which traditionally were perceived to be less ICT intensive using it in a very innovative way. For instance, the PE teacher had developed a treadmill competition 'Race around the world'. The pupils were asked to log the distances they ran on treadmills at school and use Google maps to select routes and map the distances as a journey across the world. Another example was the photography teacher who had set up a website-building project for the photography class which he used to communicate with the pupils and parents.
- C.207 Teachers used the VLE to distribute learning resources as well as to set homework. The extent to which the homework was set online, however, varied from teacher to teacher. According to the ICT coordinator, homework was often available also on paper, in case pupils do not have access. The uses of ICT in homework varied from doing wider learning and research online to prepare for the next class to finishing ICT intensive learning tasks at home.
- C.208 The discussions with teachers revealed that general home access was no longer considered to be a barrier for setting homework online or using the VLE, but it had been an inhibiting factor a few years ago. Based on a survey conducted by the ICT coordinator in May 2010, around 89% of all pupils had access to computers and 84% had internet connection at home. However, the survey revealed that the pupil uptake of the Learning Gateway was much lower, with only 67% of pupils having accessed the Gateway from home.

### *Support for teachers*

- C.209 The ICT coordinator believed that the resources that teachers accessed varied from subject to subject and each of the faculties had their own internal processes to ensure their teachers were aware of the relevant ICT resources available to them.
- C.210 Both the teachers and the ICT coordinator believed that the school provided its teachers with sufficient training opportunities to learn to use the VLE as well as to improve their basic ICT skills. For instance, they had recently received training in Office 2007. One teacher noted that new teachers now come into teaching with fairly good levels of ICT skills, and developing basic ICT skills for teaching has become less of an issue for staff training.
- C.211 The teachers were not able to identify any areas of need for further training and development. However, the ICT coordinator mentioned that they, with the Network Services team, would continue to look at training opportunities both at the school as well as faculty level.
- C.212 The ICT coordinator stated that the school had continuous plans to develop and embed the use of the Learning Gateway. The Home Access programme had not had an impact on these plans. The aim was to increase the ownership of the VLE among teachers and to embed the use of it, both in in-class activities as well as homework.

### **Learners**

#### *The computer at home*

- C.213 All of the 15 pupils interviewed had computers at home and only two had access to just one. Most of the pupils (eight) had two computers but nearly a third (four) had four computers at home. Most of the pupils had had computers for around three years, suggesting that the Home Access computer was the first in the household for only a small minority.
- C.214 Most of the pupils kept their computers in their bedrooms, but they were able to use them anywhere in the household (all were laptops). Three pupils said their computer was kept in their parents' bedroom and one (with only one computer) said it was connected to the television screen in the living room. However, for many pupils the other family computers were kept in the living room.
- C.215 Most of the pupils had to share computers with other family members, and (despite multiple computers in most homes), only three had a computer for themselves. Many pupils sharing computers admitted that sharing could cause problems or family arguments.
- C.216 Two pupils out of the 15 did not think their parents tried to impose any controls over their computer use whilst the majority thought their parents tried to at least observe or look over their shoulder at what they were doing. Two pupils said their parents had enabled security settings on their computers to limit what they could do, or they were known to check the internet history. One pupil said the whole family could observe everything she did on her laptop as it was connected to the television screen.

*Using the computer*

- C.217 All of the pupils found computers easy to use. Only two mentioned technical problems, and these related to their home broadband connection. One had experienced severe technical issues as a result of a virus but had since managed to fix the computer. If problems arose, most pupils sought help from either their parents or their older siblings. Two said they fixed their computers themselves, and only one said they would seek technical support from the shop where they bought the computer.
- C.218 When asked what they used their computers for, the pupils mentioned social or leisure uses first. Only two mentioned homework independently without prompting, though most said they did use their computer for homework when prompted. However three pupils said they did not use the computer for homework at all because they did not get any homework. Social and leisure uses of computers at home included online gaming, Facebook, email, downloading music and films, and internet surfing.
- C.219 Most (12) pupils used computers for homework for between 30 minutes to an hour a day. Social and leisure time spent using computers varied from 30 minutes up to seven hours per day, with some pupils saying they would go on and off the computer the whole afternoon and evening. Most pupils said social and leisure uses of the computer took up around one to two hours per day, and some said they also used their phones more than computers for Facebook.
- C.220 The pupils said they used a computer for homework now more than six months ago. For some this was because they now got more homework that involved computer use. Examples of subjects with homework requiring a computer included Maths, English, ICT and 'rich tasks'. However, the majority of interviewed pupils had not logged on the Learning Gateway VLE from home at all, and only two said they did this regularly to catch up on lessons that they had missed due to attending class or school representative meetings.

*Benefits*

- C.221 The pupils generally thought that using computers had made a difference to their school work. The main benefits were that it made doing homework easier because typing was faster than writing and because pupils could finish tasks that they had started in school at home. Pupils also mentioned that finishing tasks at home had an effect on grades because finished tasks would get better marks than unfinished tasks. Other benefits cited by pupils included:
- faster or easier searching of information, which they could do at home instead of staying at school or going to an internet café
  - one pupil said it is easier to search the internet than books
  - being ahead of other people and getting better marks
  - spending more time on homework
  - having more time to absorb information than in class
  - homework looking better if it is done using a computer at home because more time could be spent on it.

C.222 One pupil said that by using the computer she was able to gain a more in-depth understanding of a subject as well as develop a better appreciation of other areas that a specific topic relates to:

*I like using the computer because when you are searching for information you can come across something else you didn't know about. So when you are reading about something, something else catches your attention... so you are learning more.*

C.223 One disadvantage of using the computer in homework was the increased time spent on searching. One pupil mentioned that whilst a book would have a section on a given topic, it could be difficult to find the same quality and quantity of information by searching the internet. Books were also seen to be easier to understand whilst internet resources could include words pupils did not know. Other disadvantages with having a connected computer at home included the following:

- having the responsibility for taking care of it
- technical issues with the internet or viruses
- spending less times with friends going out
- fights or arguments with family members about who gets to use the computer.

C.224 The best things about a connected computer at home included the following:

- ability to communicate with family members in other countries or when they are at work
- entertainment when the weather is bad or otherwise to alleviate boredom
- access to a variety of knowledge on different topics that one would not come across if reading a book
- ability to access what they want and when they wanted it.

### **Key messages**

C.225 As a specialist ICT Academy the school is well known for its use of ICT in classrooms and for its excellent ICT facilities and equipment. However, as a school in a deprived area teachers recognise that lack of home access is a barrier to online learning for some pupils. Teacher awareness of the lack of home access previously held back the school from setting homework requiring a connected computer at home.

C.226 To address the issue of variable home access, the school has proactively sought of ways of providing home computers for their pupils. Home Access is just one of several initiatives providing free computers and connectivity for pupils. However, as teachers did not know which pupils benefited from Home Access computers, they were unable to prevent families from benefiting from more than one scheme.

- C.227 Teachers have observed increasing access to computers and the internet at home over the last two to three years (i.e. before Home Access began). It was estimated that after the arrival of Home Access, just over 10% of pupils lacked access to connected computers at home.
- C.228 Teachers have become more confident in setting homework involving ICT, and do so either using the Learning Gateway or by asking pupils to do wider research in preparation for their lessons. The ICT coordinator anticipated that growing teacher confidence will help to embed the use of the VLE; however, pupil interviews revealed that few had accessed the school's VLE from home.
- C.229 Nearly all interviewed pupils had computers at home before the Home Access programme began. For some having their own computer had improved personal access at home, but some still had to fight with siblings for their time on the computer.
- C.230 Most of the pupils used the computer at home for homework, but the social and leisure uses exceeded time spent on homework. Teachers said that rather than set 'homework' (which pupils perceive negatively, especially given the long school day), they sometimes ask pupils to finish school learning tasks before their next lesson. Some pupils said they finish such tasks at school, others at home.
- C.231 The main benefits of using computer at home identified by pupils included being able to finish tasks at home and getting better marks, and getting ahead of other people. Two pupils mentioned wider learning and personal learning, but one also highlighted difficulties that came with wider research, for instance coming across difficult terminology or spending more time searching than actually reading.
- C.232 Parental controls over computer use were in place in the homes of most interviewed pupils, and there were no major concerns expressed by the teachers about e-safety as the school ran e-safety programmes for pupils.

## Case study 08 (secondary)

### **ICT coordinators and teachers**

#### *Awareness and take-up*

- C.233 Teachers and the ICT coordinator had a high level of awareness of the programme, eligibility and its goals. Teachers had been briefed and involved in prompting pupils' families to apply. The aim of the programme was described as working to close the digital divide between communities by giving all access to the internet, using ICT to enhance learning and pupil achievement. Access to the internet was described as a necessity rather than a luxury. Parents reportedly did know about the programme, as Home Access was actively promoted by the school through a school assembly and letters home.
- C.234 The main barriers to take up were associated with the school intake predominantly from the Bengali community, and included language barriers and a reluctance to call for support, and also cultural issues concerned with the internet 'going against religious and cultural traditions'. Low ICT literacy and confidence amongst parents were also considered a barrier. Most parents at the school knew the basics of computer use but lacked knowledge and skills and were not motivated, interested or see the relevance of using ICT: they 'don't see it as something they should get involved with'. More practically, one teacher said parents do not understand the 'system' and do not know whom to call, or speak to, and they find such programmes intimidating. There was limited school contact with the local authority.
- C.235 The school conducted a survey amongst pupils to find out about ICT and identify families which need connectivity, and invited those parents to a school meeting, with 100% attendance by 200 identified families. The school then supported all pupils' families without computers and internet to complete the form. As a result teachers know who has a Home Access computer and connectivity, and pupils have told teachers they were now using internet at home.
- C.236 Teachers said the eligibility criteria were fair: 'fair as long as family doesn't necessarily have computers already – don't want system abused' said one teacher; 'only one computer at home in families with many children is still lack of equity based on cultural and other factors' said another. Teachers thought their views were shared by parents and pupils.

#### *Benefits and risks*

- C.237 All teachers thought Home Access was a 'brilliant idea' and that parents would agree with them. One also said 'pupils think it is a good idea, appreciate it, and they can do more work'. Teachers and the ICT coordinator saw the main benefits of the programme to be ensuring that pupils have equality and ease of access (as opposed to visiting the library or staying after school) to knowledge, new opportunities for learning and continuity of learning. Home Access also enables ICT to be more integrated across the curriculum rather than just an add on.
- C.238 Pupils reportedly use the internet to research coursework, and two teachers said has led them to 'look, inquire, question more' and to undertake:

*... independent learning, not just learning that is put in front of them by teachers.... It should also be about what they want to learn, more directed in their independent learning.*

- C.239 Using the internet was thought to improve pupil motivation to learn: for example, pupils regularly set up discussion groups online to discuss work. More specifically, Home Access was thought to ‘allow families on lower incomes to progress up the social ladder – not just ICT skills, but the social experiences the internet gives them that are not available without a computer’. One teacher said it has ‘opened their world up a bit, especially for girls’.
- C.240 One problem with the programme is the lack of funding continuity. All the teachers expressed disappointment that it was not more long term and that offering connectivity only for one year was problematic. Teachers were aware of several pupils whose parents have not continued with the internet connection. There were problems in managing parental expectations with respect to technical support the school could provide. The end of the scheme also means that new Year 7 pupils cannot access the programme.
- C.241 Many of the disadvantages of computer use displacing activities were not seen as relevant to this school population, and the role of parents in monitoring and controlling was identified by the teachers. Girls access to shared computers was considered an issue in larger families, although parents did ensure girls got access to the computer for coursework. Alongside the advantages of the internet for learning, especially learning and undertaking research, issues of quality (e.g. spelling, grammar, writing style, critical thinking) and the need to use a diversity of resources beyond Google (including books) were noted.
- C.242 While some teachers said that communicating online had improved pupils’ confidence and sociability, they also identified drawbacks and the need for educating pupils on how to manage a new world of issues, raised by the inappropriate use of social networking sites (e.g. difficulties between friendship groups, and entering into inappropriate friendships). The quality of the school firewall and school training for pupils on the use of Facebook and cyber-bullying policies were seen to alleviate many concerns about the risks of the internet. The school had an incident concerning Facebook and YouTube but have taken a strict response on cyber-bullying and this seems to have had an impact.
- C.243 The school monitors usage of Fronter, the school’s learning platform, and teachers attributed increased usage to Home Access. Teachers felt more able to set digital homework and this has increased across the school, especially in Maths. One teacher said ‘I can set homework without having to worry that pupils can’t access it– it removes that barrier’. Teachers noted an increase in the completion of coursework and improvements in ICT skills. The digital ‘turn it in’ function on the learning platform has helped pupils meet deadlines for homework. A school survey of Year 9 pupils showed that ‘every single pupil went on the computer to do homework when they got home, even if just for an hour’.
- C.244 The teachers and ICT coordinator noted an impact on parental engagement with learning. Registers have recently gone live on a server so parents can access these online. As a result one teacher had a call from a parent asking why her daughter had been marked late. She anticipates increased levels of interaction with parents and increased communication and sharing of information. One teacher noted that Home Access ‘gives parents access to a world they didn’t have before as well, e.g. bills, getting cheaper rates and things’. The ICT

coordinator, however, commented that it is early days and also noted that many parents' educational level and knowledge of ICT is quite low. The school has put some workshops on for parents, for instance, when the school launched SIMS learning gateway they put a workshop on for parents to see that works so pupils can talk about attendance and assessment data. Pupils are teaching parents how to use the computer.

#### *Uses of ICT*

- C.245 The learning platform (Fronter) is in place and is well used but usage remains patchy across with the curriculum, with some departments preferring to use other technologies. The school has a Fronter manager who maintains it, creates resources, uploads files and works with teachers. It is more of an inward facing learning platform and is well used within Maths, Science, Religious Studies, PSHE and some of vocational areas. The platform is used to set and submit homework, provide resources, and some teachers mark pupil work electronically using track changes which teachers said pupils like.
- C.246 The school estimated that nearly all pupils currently have access to the internet following Home Access, but all noted 'the extent to which it works or the quality of the connection might be much lower'.
- C.247 The main barrier to the wider exploitation of the school learning platform is that it is competing with other initiatives, and the lack of teacher time. It was reportedly difficult to use Home Access as a lever in the development of the learning platform due to the short-term nature of the programme and its uncertain future.

#### *Support for teachers*

- C.248 When looking for digital learning resources in a particular subject area teachers accessed resources remotely on the school intranet. They develop and share resources within departments and create links to Fronter as well as YouTube and a range of websites.
- C.249 The school has an ICT working party that identifies teachers' training needs and new areas for training. Developing teachers' knowledge of ICT and its integration with teaching and learning is embedded in this. Teachers have received a range of training on using technology in teaching and supporting learning including workshops on the use of the learning platform, SIMS, interactive whiteboards, the use of SAM Learning, and Home Access. This was provided within the school and sometimes with external consultants. The school technicians also provided technical support to teachers via a help desk and in-class support. Departments organised demonstrations, for instance on how to use voting pads. Teachers and the ICT coordinator also contributed to training by demonstrating to Departmental meetings. The local authority offered training to the school on a range of technologies for teaching and learning including videoconferencing for Modern Foreign Languages. More support was wanted on how to use innovative technologies for learning (e.g. scratch animation), and training parents on how to monitor and use the internet. Teachers are very satisfied with the quality and range of support and training at the school.



## **Learners**

### *The computer at home*

- C.250 More than half of the interviewed pupils (6/10) in Years 9 and 10 had two computers at home. The two Year 11 pupils did not have a home computer prior to Home Access. Over half (7/12) of all interviewed pupils kept their computers in their bedroom, one third (4) kept it in the living room, and one kept it in their parents' bedroom.
- C.251 Just over half (6/10) of Year 9 and 10 pupils shared their computers with between five and seven people in their family. The rest shared with one or two siblings.
- C.252 The majority of Year 9/10 parents (7/10) tried to control the pupils' computer use through blocking sites or looking over their child's shoulder, and siblings are Facebook friends who monitor their posts. Parents stipulate 'homework comes first' and place time limits on leisure use. Year 10 parents also stipulated homework first but were less controlling regarding time limits. Year 11 parents did not exercise any control over the use of the computers.

### *Using the computer*

- C.253 One girl found it easy to use and get online, all others reported problems with speed and reliability and poor internet connectivity and expressed disappointment with the kit. One girl's family were not going to continue to pay for the internet. Pupils said their parents had little or no knowledge of computers and they did not turn to parents for help, rather they sorted out problems themselves or turned to older brothers, or in one case an uncle.
- C.254 Pupils used a computer at home primarily for homework and internet searching for course work. None of the pupils played games on a computer, but over half used one to socialise using email, Facebook and other social networking sites, and most did listen to and download music and watch films on YouTube and movie sites (although several did not have speakers on their computers).
- C.255 All pupils occasionally logged on from home to school to send work by email, hand in homework and visit subject websites. All Year 9 and 10 pupils spent one to two hours, two or three days a week, on school work, with year 11 pupils spending two to three hours every day on school work. Pupils spent half an hour to an hour each day on other activities on the computer.

### *Benefits*

- C.256 All pupils reported using a home computer about three to four times more for their homework than six months previously. A key benefit noted by all pupils was access to a computer at home made homework easier and quicker to do. Before Home Access pupils often went to the library, friends' houses or neighbours, or accessed a computer at lunch time or after school. Most said that using a computer makes their work look neater and 'more sophisticated'. Several pupils said that using a computer made homework more interesting and gave access to resources to support spelling and vocabulary. They improved their understanding of subjects by searching and using internet sites with over third of all pupils using the internet independently of the school to revise (using BBC Bitesize and online tests). All said that

having a computer had made their parents more involved with their homework. The internet and websites were interesting to their parents and they ‘can see other things, we can show them things, teach them things, find things – not like with a school book’. Some parents were using online dictionaries and learning English.

- C.257 The pupils identified a number of problems with having a computer including slow and unreliable internet connectivity. Having to share the computer with a large number of family members meant limited time online and led to some arguments. A few pupils mentioned that going on Facebook could be distracting and waste time. None of the pupils had experienced problems with spam or inappropriate content.
- C.258 Pupils considered the best thing about having a computer to be the freedom of the internet, homework and socialising particularly using a webcam to see friends and family from other countries.

### **Key messages**

- C.259 Teachers at the school had a high level of understanding and awareness of the Home Access programme. They had all been involved in promoting the scheme in different ways and supporting applicant families. There was very strong support for the scheme, which fitted well with the priorities and mission of the school.
- C.260 However, there was concern that the short-term nature of the scheme would reduce its potential benefits, and a strong sense that the restriction of one laptop per family was problematic in a school whose population included many large families. This concern was evidenced by pupil comments on having to share their computer with family members leading to restricted short periods of computer access.
- C.261 The main barriers identified by teachers were low parental education, poor literacy and ICT skills and confidence. All pupils experienced problems of internet connectivity and reliability/speed with their Home Access computer. All had increased their use of computers to support homework and learning in the home over the past six months. The main use of the computer was for homework, with half of pupils using it for leisure, in particular communicating with other friends and family abroad. Pupils valued the ease and convenience of working at home rather than having to visit friends or the library to get online.
- C.262 Teachers had evidence (from learning platform statistics) of increased completion of homework, increased pupil motivation and independent learning. However, concerns regarding an emerging ‘cut and paste’ culture and the need to teach pupils to be more critical in their use of sources were identified. Parental control of the use of the computer appeared high, with a focus on ‘homework first’, but with restrictions lessening with pupils’ age.
- C.263 There was a sense from teachers and pupils that computers in the home were opening up options for pupils and their parents. Parents were becoming more engaged with their children’s homework, and teacher–parent communication had improved. Parents were making use of online resources independently of their children, including learning English.

## Case study 09 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.264 Teachers and the ICT coordinator were aware of the Home Access programme. They understood it was trying to provide ICT access to those in underprivileged and challenging circumstances by providing computers and an internet connection for one year. They believed the programme was trying to overcome social divisions by engaging the hard to reach in a more technologically focussed school environment.
- C.265 The school learnt about Home Access through their local authority which held an awareness event for all schools in the area. The local authority advertised it as an opportunity to develop and to get in quickly as there was only a limited funding available. From here the school adopted a systematic approach to get parents involved in the programme. They informed all eligible families by letter and follow-up phone calls (a staff member came in at the weekend to call the eligible 270 families). The staff member that carried out the phone calls said many parents were unbelieving when they heard about the scheme. The school did not know how many Home Access applications had been granted.
- C.266 Teachers said the criteria used were on the whole fair but there was an opinion that those just above the entitlement level were unfairly treated: 'the disengaged are well covered but not those just above this level'. Also it was an awkward time to do it based on free school meals (FSM) as the criteria were changing at the time, with some families coming off benefits and others going on. The FSM indicator is an unstable measure of deprivation.
- C.267 The ICT coordinator identified language as a potential barrier for families not applying. However, to alleviate this risk, as well as the letters and phone calls to families, the school also held three evening clinics to assist with application forms. Unfortunately only one person attended these clinics. The school has not received comments from parents about the eligibility criteria apart from one parent who queried why her friend received a computer when she had not.

#### *Benefits and risks*

- C.268 Just before the programme was introduced, the ICT coordinator completed a survey about ICT use. In one Year 7 class he discovered about 25% of pupils without a computer at home. He felt this demonstrated the need for Home Access at the school.
- C.269 The teachers said the programme was a good idea because it has the potential to increase pupil performance where pupils have increased access to learning materials. As yet the school has no hard evidence of the impact on learning. One of the main benefits reported by teachers is the ability of pupils to do independent research by having a world of information at their finger tips. Teachers have found pupils are more willing and eager as it is a different type of homework. The teachers could not have done this type of homework 12/18 months ago, as lots of the pupils would not have had internet access. Teachers now consider a broader range of teaching approaches.

- C.270 Teachers had noticed a change in Year 12 learners. They were picking up the concept of home access to work and swapping documents between home and school. Pupils were steered away from using memory sticks, relying on school servers to store their work instead. Learners' skills and confidence have increased as they find their way around the learning platform and become more familiar with it. One teacher noticed positive differences in Year 9 where pupils became much more enthusiastic to email homework. Out of a class of 30, about 15-20 pupils were emailing homework to their teacher. This recent change was thought to be attributable to increased home access to technology.
- C.271 It is difficult to comment on the impact on social skills. The chat facilities had to be turned off on the learning platform as the pupils were spamming the system. However, the ICT coordinator felt that pupil behaviour is always helped by something that helps them work on tasks and keeps them attentive.
- C.272 One issue with Home Access is that some course work needs to be done in a controlled way, so it can be observed by teachers to verify it is done independently. For this reason the ICT coordinator felt that promoting class work tasks at home can be tricky.
- C.273 The ICT staff were pleased that they had no involvement in the upkeep of the hardware. The external support provided by the supplier was a huge benefit.
- C.274 One teacher particularly noted Facebook as a danger. Although it is good for communication there is a risk that pupils are making themselves vulnerable. This is why the school is currently focusing on e-safety.
- C.275 The limited time period of the dongle could cause problems as some families may not be able to afford any other internet access. Other risks that the teachers highlighted were increased plagiarism through more 'copy and paste', the stigma of getting a free computer and exposure to inappropriate content.

#### *Uses of ICT*

- C.276 In the school every Department had an ICT champion to promote the use of ICT in learning. Teachers received support from the web manager, ICT coordinator, e-learning coordinator, independently between staff, and from learning centre staff that visit the school.
- C.277 The school was rolling out its new virtual learning platform (VLP) FROG, supported by a full-time VLP manager. It was still in its infancy in terms of materials, and was not yet widely used by teachers to support home learning, yet pupils were accessing it to get homework or links to resources and materials. The platform was particularly used in November when many pupils were snowed out. More staff were beginning to use the platform and develop it. Teaching staff confidence using FROG needed to be increased, especially among older members of staff. The greatest subject users of the VLP were teachers in the Science, Technology, English and Maths departments.
- C.278 All teachers expected the use of the VLP to increase in the coming months. They had no expectations about how long pupils should spend on their computer completing homework, and they thought it was important that all homework should not be typed as pupils need to keep practising their handwriting for exams.

C.279 Barriers to developing ICT use in the school included the school being judged to be successful, which - coupled with the time needed to create the learning resources - resulted in little motivation for teachers to change. The next big step for the school is to focus on parents and communication and the role that ICT can play in this. They want communication to be continuous (formative and not summative) so parents understand what their children are doing at every stage.

#### *Support for teachers*

C.280 Teachers were supported through departmental inset and whole school inset. In the past, the school completed European Computer Driving Licences with the staff, and from this they learnt that one-to-one support works best. The e-learning coordinator was available for all staff members, and demonstrates what is possible and deliverable in e-learning.

C.281 The school has held e-safety awareness events for pupils, staff and parents. A concern for the e-learning coordinator was the many children who keep connected computers in their bedrooms, rather than in a communal setting. Although it may compromise an optimal learning environment, it is preferable for children to have the computer in a room where an adult could supervise use.

C.282 In terms of providing training support for staff, the school vision was that 'every pupil has access to the best learning resource we can give them'. This is a huge challenge but one the school is addressing. However, the e-learning coordinator would like progress to be quicker. The main problem is that ICT changes so quickly, so whatever they do they are always behind.

#### **Learners**

##### *The computer at home*

C.283 Many of the interviewed pupils in Years 8 and 9 had two or three computers at home, and some had as many as six. Most kept their computers in their bedrooms and did not experience much parental control, with some saying their parents knew very little about computers. Some pupils had to share a computer with siblings and this sometimes caused arguments. None reported any problems or difficulties using their computer at home.

C.284 All Year 8 (Group 1) pupils had had more than one computer at home for a number of years. All kept their Home Access computer in their bedroom. Only one pupil had to share her computer with her brother but this did not cause problems. Parents did not control what the computer is used for – none of the pupils reported any sort of parental supervision. None of the pupils reported any problems or difficulties using their computer at home. If the pupils did have problems they would ask their father for help or go back to the shop.

C.285 All Year 8 (Group 2) pupils had had computers at home for over a year, and for two pupils their Home Access laptop was their only computer. Some had to share with their siblings and this caused problems as they had to wait to get on the computer. The older sister of one pupil used the laptop for college work and this meant the pupil went a long time without access. All the pupils kept their computers in their living rooms or some other communal area. None

of the parents supervised computer use. All of the pupils thought the computer was easy to use. Most said if they did have problems they would ask their parents, although one pupil said he would 'have to try fix it myself as no one else knows'.

- C.286 All Year 8 (Group 3) pupils had laptops at home for varying time periods, some only five months and others over four years. They all had more than one computer at home. Some kept their computers in their bedrooms while others kept them in their living rooms. Some parents did control their use of computers by monitoring the websites their children visit. One parent gave their child advice about using Facebook and another advised against visiting 'violent websites'.
- C.287 All Year 9 pupils had had access to computers at home for between one and six years. All the pupils had more than one and up to three computers at home. Only one kept a laptop in the living room while the rest kept them in their bedrooms. Some of the pupils had to share with siblings and this caused friction about who got to go on the computer first. One pupil shared his laptop with up to six family members and friends. There was limited parental control with some pupils saying their parents just did not know anything about computers. One parent gave advice on using anti-virus software and another told their child the best websites to visit, such as BBC Bitesize. Most would seek help from a family member if they were having difficulty.

#### *Using the computer*

- C.288 The foremost use of the computer by all pupils was for social networking, in particular Facebook. The pupils spent around one hour per week on the computer for homework. This was mainly to check assigned tasks or to email homework to teachers. The pupils spent on average four to five hours per day using the computer for other activities such as social networking, games and watching DVDs. Some said they spent 10 to 12 hours per day on non-learning activities. Many pupils had connectivity problems with their dongles and had moved to a broadband connection where available.
- C.289 All Year 8 (Group 1) pupils used their computer for Facebook, music and watching DVDs/TV. Only two used their computer for homework, spending about half an hour to one hour per week using the computer for this compared to around six hours per day doing other things on the computer. The pupils who did use their computer for homework reported problems accessing the school's learning platform: one said 'a lot of crosses come up on the screen when I try to go on the school site'. Other problems included slow computer start up, the battery not lasting very long, and the laptop getting hot. One pupil did not like how the computer could be addictive, and another said it was easy to spill food on.
- C.290 All Year 8 (Group 2) pupils used their computer for Facebook. Some also used the computer to play games. There was limited use of the computers for homework. One boy logged into FROG to check his timetable and a girl used her computer to write to her French pen pal. Pupils spent about half an hour to one hour per week doing homework on the computer and there was wide variation of the times spent doing other things on the computer. One pupil spent about 12 hours a day on Facebook, and others reported spending two to five hours per day doing other things than homework on their computers. The dongle was an issue for pupils as it often snapped and was slow, and most pupils had switched to their home Wi-Fi.

- C.291 The Year 8 (Group 3) pupils mainly used their computers for games and music. One girl liked to use her laptop to type stories. Only one pupil used the Home Access laptop for homework, for about one hour per week. For this he logged into FROG to see what tasks they had been assigned. The pupils spent between three and five hours a day doing other things on the computer. Some had problems with connectivity and where possible had connected to Wi-Fi instead. One pupil could only use her laptop late at night as she said it was the only time her dongle would work.
- C.292 All but one of the Year 9 pupils used their computer for homework. They spent between one and three hours a week on this. They use FROG to check homework and to send homework to teachers. They also use FROG to save homework so they can print it when they come into school. All the pupils used the computer for Facebook and watching DVDs. One used Facebook to find out what homework is assigned. There was considerable variance in time spent doing other things than homework: one pupil spent four hours per week, while another said she spent 80 hours per week. Internet connection was the main barrier the pupils experienced. One pupil could only access the internet at the weekend when he went to a family member's house because the Home Access internet connection contract had been terminated and his mother could not afford to renew it.

#### *Benefits*

- C.293 Most of the pupils did not believe that having a computer had made any difference to their school work. Many thought the best thing about having the computer was Facebook and keeping in touch with friends. A few believed that having a computer at home was good because it made their work neater and they could do more research online.
- C.294 Year 8 (Group 1) pupils thought the best thing about having a computer was Facebook. Pupils liked the privacy and freedom they got by having their own computer and the ability to play games without getting interrupted: one boy said 'my parents can't spy on me with my own computer'.
- C.295 The pupils in Year 8 (Group 2) did not believe that the computer had made any difference to their school work. They said the communication and social networking aspects (Facebook, MSN) were the best elements of computer ownership.
- C.296 For Year 8 (Group 3) pupils one of the greatest benefits was typing rather than writing. They thought it was easier and quicker to type rather than handwrite. One pupil thought the computer was 'a quicker way of finding things out such as Wikipedia'.
- C.297 Some of the Year 9 pupils said they used the computer more now for homework than before. They thought it made a difference to their school work because they could print out assignments, making their school work look neater. Also now their hands did not hurt so much after writing long essays because they were able to type them. Another benefit was the ability to research any topic they liked. One pupil no longer needed to bring a bag to school as he was able to email his homework instead. Another said the computer had made his school work worse because typing takes much longer and the process of turning on the computer and printer is time consuming. Overall the pupils thought the best thing about having a computer

was keeping track of friends on Facebook and the ability to look at anything they liked on the internet.

### **Key messages**

- C.298 Staff displayed a good understanding of the programme aims which they believed was shared by parents and pupils. The school had been alerted to the programme by the local authority, which worked with all schools in the area to encourage take up. A member of school staff spent one weekend phoning all eligible families asking them to apply, and the school has held clinics to help families fill in the application form (but with very poor attendance).
- C.299 Teachers thought the eligibility criteria were fair, but said FSM is an unstable measure of deprivation because eligibility changes. Home Access was needed by the school. Before the programme, a school survey of Year 7 pupils revealed 70% without connected computers at home. Teachers were unwilling to set computer-based homework before Home Access but were more willing afterwards, when they had greater confidence that doing so would not disadvantage some pupils.
- C.300 Teachers were unable to report any hard evidence of the impact of Home Access on pupils' learning, but they have noticed growing confidence in using ICT. Concerns were raised about the impact of Home Access on coursework which must be completed in a controlled environment, which it is not possible to do from home. Teachers identified Facebook and exposure to inappropriate internet content, as well as increasing levels of plagiarism, as potential negative effects of the programme. They also raised concerns about the short contract time for free internet access.
- C.301 The school was well resourced with ICT facilities and support staff, and teachers were becoming more confident in using the learning platform as more than just a platform for teaching materials. The school provided a range of formal and informal ICT training opportunities for staff and these were well supported. Pupil use of the learning platform was expected to grow with teacher confidence, but using the VLP for communicating with parents was still in its infancy. Already being a successful school was identified as a barrier to motivating teachers to change their teaching practice and do more with technology.
- C.302 The school was working with pupils to raise awareness of e-safety. The e-learning coordinator expressed concern over pupils accessing the internet unsupervised at home, and thought computers should be kept and used in communal spaces to safeguard children.
- C.303 Many pupils had two or three computers at home, and most kept them in their bedrooms and used them unsupervised. Some shared a computer with siblings and this sometimes caused family arguments. Other than reporting difficulties with the Home Access dongle (which most resolved by switching to home broadband), none reported any difficulties using their computers at home. Most said they would seek help from family members if they did.
- C.304 The foremost use of the computer by all pupils was for social networking, in particular Facebook. Some spent around one hour per week on the computer for homework, compared with an average of four to five hours per day using the computer for other activities such as social networking, online gaming and watching DVDs. A few pupils said that having a



computer at home made their school work neater and helped them to do research. Apart from these, none thought it made any difference to their school work. For most the best thing about having a computer at home was going on Facebook and keeping in touch with friends.

## Case study 10 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.305 The teachers and ICT coordinator were aware of the Home Access programme. Among the teachers the form tutors were most aware of the programme because they have played a role in promoting it to pupils and parents. Teachers believed that the aim of the programme was to provide computers to those pupils who did not have access to a computer at home.
- C.306 The promotion of the programme was largely driven by the Deputy Head Teacher, who had arranged for it to be advertised to pupils through assemblies and their form tutors. The school sent letters to parents informing them of the programme and offering them support in completing the application form through meetings with the Special Educational Needs Coordinator (SENCo). Acknowledging language barriers to be a general issue in communicating with parents, the school provided translated versions of the letters and also made follow-up phone calls to parents to discuss their questions. Some parents sought the school's support at the application stage and arranged meetings with the SENCo to discuss and fill in the application form.
- C.307 Teachers and the ICT coordinator were aware of the Free School Meals (FSM) eligibility criteria. The teachers did not have any major concerns about the criteria, but they did say it would be a shame for families who do not qualify for the grant and do not have a computer not to get one through the scheme. However, they had not received any complaints from parents about the criteria.
- C.308 Prior to the Home Access programme, the school had run a similar scheme providing computers and connectivity to around 10% of their school's pupils without a computer at home. The Home Access programme was useful for the school as it enabled it to provide free computers and connectivity to a larger group, since the proportion of FSM eligible children in the school was around 35%. Due to the financial pressures the school would not have been able to support such a large proportion of pupils.
- C.309 Teachers did not know which pupils who had benefited from Home Access. Nonetheless, according to the ICT coordinator this was a problem because the teachers believed that most pupils had computer and internet access at home even before the programme. Even if they didn't, pupils were still expected to fulfil their homework requirements using the school's ICT facilities. Hence, the teachers did not consider access issues when setting computer-based home work.
- C.310 The school had had some contact with the local authority about the Home Access programme. The lead contact the authority had been in touch with the Deputy Head to discuss the programme and the deadlines for applications.

*Benefits and risks*

- C.311 The teachers believed the Home Access programme was a good idea because the school drives much of the learning and teaching using computers and those without home access might feel disadvantaged. The school offered good ICT facilities so the pupils were able to do their homework on the school computers before school, during lunch breaks and after school. However, teachers said that having access to a computer and the internet at home provides pupils with flexibility and makes doing homework easier.
- C.312 The main benefit of the programme for pupils was perceived to be the flexibility for doing homework at home rather than at school. This was particularly important to pupils who attended mosque after school, or whose parents were protective of them and would prefer them not to be in school before or after normal school hours.
- C.313 According to the teachers, Home Access had made a difference in the pupil's homework hand-in rates. It appears that pupils handed in homework more regularly after Home Access began. However, the school was unable to analyse changes to homework hand-in rates before and after pupils received Home Access computers.
- C.314 Other benefits of the programme to pupils were perceived to be improved self-confidence, due to some pupils no longer being disadvantaged, and improved motivation. Some of the pupils receiving the Home Access laptops had decided to do double awards in GCSE ICT. The teachers believed that the ownership of Home Access computers may have influenced their decision as pupils were more confident and familiar with computers and enjoyed using them.
- C.315 The ICT coordinator and the Deputy Head Teacher found it difficult to identify the difference that the Home Access programme had had on the school more widely because they had been pressing for greater use of ICT in learning and teaching before the programme began, and they had tried to address known access issues through their previous laptop scheme. However, Home Access had enabled the school to build on their existing work and supported their push for setting ICT-based homework.
- C.316 The level of parental engagement was not seen to have changed as a result of the programme as the parents were already very engaged in their children's schooling. Although using a virtual learning environment (VLE) for pupils, the school has not yet launched a parental portal so most of the interaction with the parents was still done through parent evenings or one-to-one parent meetings. However, individual teachers were known to have successfully collected the email addresses of nearly all of their pupil's parents and were communicating with them by email.
- C.317 In terms of disadvantages of the programme, the teachers and the ICT coordinators admitted there have been some technical issues with the Home Access computers and the pupils had also tended to bring the computers to school to get help with these problems. However, on the whole the technical issues had been fairly minor and the number of cases with malicious or poor treatment of the Home Access computers was also very low.
- C.318 The Deputy Head Teacher envisaged that potential connectivity issues might occur once the year's connectivity package came to an end and the families were expected to pay for the

connectivity themselves. Another potential issue related to access to the computer at home. Although they did not have any evidence of this, the Deputy Head Teacher mentioned that it is possible that in some large families the beneficiary pupil might not get to use the Home Access computer as much as they would need or like to as the other family members, such as older siblings, might take it over.

- C.319 The school had not encountered issues with pupils displacing study time with leisure time and they believed this was demonstrated by the pupils with the Home Access laptops always handing in their homework. Neither had they faced any issues with plagiarism or e-safety because they run an e-safety programme in the school which provided guidance and information to all pupils and staff about safe use of the internet. For instance, they recently ran an assembly session on Facebook safety with Year 8 pupils to ensure the pupils were sensible in using social networking sites and tools.

#### *Uses of ICT*

- C.320 The school is currently using a VLE called Fronter. The VLE has been structured into Year group sections as well as subject sections. Handouts for pupils are available through the VLE and there is also a testing suite which contains past papers and in-class multiple choice exams to be used as part of their assessment. Teachers also offer other resources through the VLE, including careers advice and links to external sources of information on colleges.
- C.321 The senior leadership team (SLT) and especially the Deputy Head have been driving the use of the VLE and setting homework online across the school. The ICT coordinator has advised the Deputy Head on the structure of the VLE but the ICT Technician was responsible for the technical maintenance of it. New content was added organically by teachers and they have been trained on how to do this. The responsibility for embedding the use of the VLE among teachers and ensuring the relevant sections are populated with material and resources rested with Department Heads. However, each staff member had targets relating to the use of the VLE and ICT in their performance management objectives. The Deputy Head Teacher also monitored the online home work setting. Consequently the use of the VLE was becoming less top down and more embedded across the school.
- C.322 The VLE could be accessed by pupils within the school as well as from outside the school but the parents did not have their own log in details. Plans for implementing a borough-wide SIMS Learning Gateway with a parental portal element were underway but these were delayed due to the Borough Council having some technical implementation issues. The parents could, however, view their children's homework and teacher feedback on Fronter by using their children's log in details.
- C.323 Subject areas where the VLE was used and online homework set regularly include ICT (where all home work was always computer based), science subjects and Geography. Some departments found it hard to see where the VLE fits with what they are doing, and both the Deputy Head and the ICT coordinator acknowledged that it does lend itself to some subjects more than others. The ICT coordinator has worked, for example, with the Art department to find ways of integrate the VLE into teaching. Some subjects have also had technical difficulties getting the system to work for their specification. For instance, the system was unable to display Bengali script, so the Bengali language classes were not able to use it until

very recently. In other departments, other platforms fitted better with their teaching than Fronter, such as Maths which used MyMaths or SAM Learning.

- C.324 There were no notable barriers for use of the VLE or greater integration of ICT to teaching and learning. Some teachers were less willing than others to use ICT in teaching, but the school was trying to address this through training. Access does not seem to be a problem. A survey the school conducted prior to launching their own computer scheme (i.e. before Home Access) showed 90% of pupils had access to computers and the internet at home. The ICT coordinator commented:

*It is surprisingly high, considering this is not a well-off area. But I think it is something that people view it as an entitlement, you know, like a nice pair of trainers.*

- C.325 The ICT coordinator and the Deputy Head said the Home Access programme has not had a major impact on the school's plan to use the VLE because they have been fairly progressive and driven in this area anyway.

#### *Support for teachers*

- C.326 Because there has been such a big push towards using ICT in teaching and learning the school has provided a notable amount of ICT training to staff on a range of topics. They have provided multiple rounds of Fronter VLE training at different levels, including Departmental training and whole school training days, to make sure the teachers have the skills to use it. Most recently, the school has trained staff on Office 2007 and they have also had cross-curricular projects training teachers to use Movie Maker. Due to offering an extensive training schedule, the school has not seen the need to provide additional training for Home Access.
- C.327 Teachers did not identify any requirements for further training but the school will offer it as the need arises. In addition to formal training, sharing good practice was discussed at Department Head meetings to cover staff development or training topics or issues. The messages from these meetings are then cascaded down to the teachers via their Heads of Department.

#### **Learners**

##### *The computer at home*

- C.328 All of the pupils consulted had received a Home Access laptop, but all had previously had a computer at home. The number of computers they had ranged from two to four, with most pupils having access to two computers at home. They found it hard to remember how long ago they had received their first computer, but in all cases the Home Access computer was the newest one.
- C.329 The family computers tended to be kept in the living room or front room whilst the Home Access computers tended to be kept in children's bedrooms, and in one case the Home Access computer was kept in the parent's room. The laptops were used where ever they needed them but most of the pupils also used them in their bedroom. One pupil packed the computer away

after each time using it: 'I basically have to hide it away from my younger ones so I keep it under my bed with some stuff surrounding it.'

- C.330 Six out of seven pupils had siblings. Prior to the arrival of the Home Access computer they shared the existing household computers with their siblings. Since getting their own, all of the pupils said they were given priority use of the Home Access computer. However, some of them still needed to share the computer with other family members when the other household computers were out of use.

*There are eight kids and six of us need the computer so when the family laptop breaks down, they tend to use mine a lot, and that is most of the time.... I get annoyed when they constantly need it because I am thinking we have a family laptop but it just isn't working.*

- C.331 All pupils said their parents or older siblings check up on what they do on the computer. However, they also felt their parents trusted them to use the computer safely. The pupils believed their parents (or at least their oldest siblings) did have sufficient skills to be able to impose controls over their computer use, but only a few pupils said their parents had changed the computer settings or blocked certain websites.

#### *Using the computer*

- C.332 The pupils were very confident in using the computer at home, and they said it was easy to use. Only two reported technical issues, with one identifying problems with the website-blocking software because it had started to block 'normal' websites. She sought help with this from the technical support telephone line but she was told that she could not make any changes to the security software until the end of the year-long contract period. Other pupils had no experience of dealing with the technical support service, and they tended to ask their parents or older siblings if they encountered any technical difficulties.
- C.333 The pupils all said they used their computers mainly for homework. They said they would always do the homework first and any spare time left over might be used for leisure. Leisure use would include the use of MSN, YouTube, Facebook or downloading music. However, most of the pupils (five out of seven) said they used MSN and Facebook more on their mobile phones than on their computers.
- C.334 The amount of computer time pupils spent on homework varied from three to five hours a week, with most doing homework on a computer for about one hour per school day. They logged onto school's VLE on average a twice a week from home to do their homework. They also accessed Fronter at school around five times a week to use it in lessons or access the homework material. In addition to the school-related computer use, they said they spent on average two of hours a week for leisure use.

#### *Benefits*

- C.335 All of the pupils agreed they used a computer more for homework than six months ago, because they did not have to share one so much with their siblings. The main benefits of having their own computer was that it has allowed them to spend more time on homework or

it was more convenient to do the homework at home because staying at school after hours was not always easy. It had also made doing homework quicker.

C.336 Pupils noticed their homework generally becoming more ICT based over time. Subjects where they used ICT most in homework included the following: ICT, for which all homework was on Fronter; Science and Geography, where they used it for research which was perceived to be easier to do at home than at school; and English, because all of their homework had to be typed up. Subjects for which they never used ICT in homework or in learning at school included Art and Drama.

C.337 The pupils highlighted the following issues in using the computers at home:

- technical issues, including slowness of the computer, which could be frustrating
- having to remember to go through a different process of saving homework to Fronter when logging on from home than when doing it from school; on a few occasions some of the pupils had been reprimanded because they had not remembered to save homework using the right process
- computers causing arguments between the pupils through the use of ‘stickies’ on Fronter; when logging in from home pupils could issue ‘stickies’ with comments to other pupils without being identified, and these ‘stickies’ could cause arguments if the comments were nasty or there were misunderstandings of who had sent them
- spending too much time on the computer and computer use becoming addictive and taking time away from being with the family; however, most of the pupils agreed that their parents tried to limit the time they spent on the computer.

C.338 When asked what the best thing about having a computer at home was, the pupils said aspects such as being able to do homework at home, having a right to use the computer when they needed it, and privacy to use it as they wanted.

### **Key messages**

C.339 The school was progressive in driving the use of ICT in teaching and learning before Home Access. They have pushed for school-wide use of the VLE through extensive training of teachers and by including the use of VLE as part of teachers’ performance management. This has led the use of the VLE to be slowly embedded among staff.

C.340 The school had not considered restricted home access to technology a barrier when setting homework online because they offer pupils sufficient opportunities to complete homework using the school computer facilities outside school hours. Indeed lack of access did not seem to be a major issue because a survey conducted before Home Access showed 90% of pupils had access to a computer and the internet at home. The school targeted the remaining 10% of pupils without access by funding their own computer access scheme, providing very similar packages to those offered through Home Access (i.e. a computer and connectivity).

C.341 The school found that Home Access had not impacted their plans to set homework online or push for greater use of the VLE because they were heading in this direction already. Hence,

the programme was mainly beneficial by supporting their ICT strategy for teaching and learning, and building on the work they had done prior to the programme.

- C.342 The school had promoted Home Access to all pupils and parents through assemblies, form tutors and sending letters home. They had also been proactive in trying to address known language barriers by offering parents support in completing the application form. Consequently, the take up of the grant was thought to be high.
- C.343 All of the pupils consulted already had computers at home before receiving their Home Access grant. There was some evidence that pupils with a Home Access computer had handed in homework regularly since receiving their laptop, and that they had used the Home Access laptop mainly for homework. However, the responses from the pupils suggested that they had already been using computers at home for homework before Home Access. The main benefit of having their own laptop was guaranteed access as well as flexibility to do homework when they wanted.
- C.344 The teachers, ICT coordinator, Deputy Head Teacher and pupils did not find any notable negative points arising from the Home Access programme. Some technical issues had occurred but these were not identified as a major concern for the pupils or the school. Parental control seemed to be operating fairly well although in some families the role seemed to fall upon the older siblings. E-safety issues were also proactively addressed by the school before the Home Access programme began.



## Case study 11 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.345 The ICT coordinator had a high awareness of the Home Access programme and what it offered, as did two teachers who had helped pupils to fill in the application form. One teacher had heard of the programme but had only limited awareness of what it offered, although he was aware that it was targeted at people whose children were eligible for free school meals (FSM). All agreed that the focus was on equity of access and ICT skills. As one teacher said, Home Access aimed ‘to support them with studies at school and to promote IT literacy. It’s equivalent to being able to read and write.’
- C.346 The ICT coordinator and two teachers thought parents and pupils knew about the scheme, and one other teacher was unsure. Home Access was promoted in the school by giving a leaflet to parents at a parents evening and discussing it with pupils in tutor time. However, none thought parents were aware of what Home Access was aiming to achieve. As one teacher said: ‘I think the parents knew that they could get a free computer for their son or daughter, and less highly prioritised the educational reasons.’
- C.347 A number of barriers preventing eligible families from taking up the offer were identified, including language and literacy barriers and an overly ‘wordy’ application document’:

*The application process was long and complicated; they had to present all sorts of ID; some people were a bit scared of using the bank card because they thought they were being given a credit card, for example that they might lack financial control over what it did. The families that I dealt with had been British for a few generations, or were mixed – it was more related to living in a low socioeconomic culture, so financial and class issues rather than culture. They found it difficult to set up and use, and I myself had to work out how to use it in order to help them. It was a major barrier.*

- C.348 Teachers also commented that some families might not understand why you might need or want a computer at home, or do not see the internet as a priority when they are dealing with other bills and debt. They knew of some pupils they teach who had taken up the grant because they had told them to, but no school level information was available on take up. The ICT coordinator and teachers noted that they had ‘facilitated it’ but that the school chose to distance itself from the administration of Home Access in the light of the experience of a local academy, where the school’s association with the scheme had led to parent perceptions that school staff would maintain the computers and troubleshoot technical problems.
- C.349 Teachers and the ICT coordinator varied in their views on the fairness of the eligibility criteria. One teacher felt it was fair so long as it was based on eligibility for FSM, rather than uptake of free school meals. But another teacher and the ICT coordinator felt that while ‘the underlying premise is good, it should have been handled in a more equitable way, based on the fact that all children need it [access to a computer and internet]’. Some parents found the

criteria unfair, especially low income families. Some parents of eligible children with large families had complained that the grant was restricted to one computer per family.

#### *Benefits and risks*

- C.350 All thought the Home Access programme was a good idea and that generally other teachers, parents and pupils would agree. The main benefit of the programme identified by the teachers was to support technology use in the home for extended learning, and to participate more fully in the digital world. The Maths teacher saw benefits for learners having home access to school website activities, including MyMaths and a website called Achieve, which has an adaptive facility.
- C.351 However, the main use of technology was for monitoring work online. Some parents used the school portal to check that their child is completing their homework. Technology, in the words of one teacher, was ‘probably more administrative; we don’t use it so much in a way that is actually enhancing learning’. One teacher said that ‘completion rates of homework have picked up this year but it’s hard to say if there is a connection with the scheme’. Beyond this, teachers did not consider Home Access had resulted in any benefits.
- C.352 The main downsides of the programme were considered to be its expense and short term nature compared to other local schemes (e.g. providing recycled computers at low cost), and the low value pupils and families may give to free laptops. As one teacher said: ‘if you can’t afford a computer, then after a year you can’t afford anything after it goes wrong’, a comment supported by interviewed pupils who reported broken computers which had not been repaired. Other downsides included the lack of use of local school knowledge and flexibility to respond to the varied needs of families (e.g. number of children), software incompatibility between home laptops and the school (including updates), and risk of theft on the journey to school and in school (meaning that pupils could not bring their laptops to school).
- C.353 No teachers said they had noticed any differences in their pupils’ homework, or any other changes which may be related to recently getting access to a connected computer at home. In part this was because the school provides access to computers within school premises outside classroom time and after school. One teacher commented that they could not be certain if the computers are used for ‘the purposes they are intended’ and would have preferred funding to keep the school open for an extra hour every day. The school has limited contact with most parents, and none of the teachers felt that Home Access had helped them communicate with parents more and in better ways.

#### *Uses of ICT*

- C.354 The school uses the Frog learning platform, which is maintained by the ICT coordinator with subject staff uploading content to specific subject areas. It is used to collate resources and it hosts surveys and subject knowledge quizzes. Some subject/learning areas make more use of it than others, notably Maths and Science. All Maths coursework and homework was on Frog, and pupils could submit work through Frog as well as access revision videos (like mathswatch), past papers, handpicked games from other websites, and links to other websites (with logins embedded in the VLE so children don’t have to remember them). The school also

had an online version of testbase embedded in the VLE so staff could use it to create surveys, and share collaborative documents.

- C.355 There was a reluctance in some departments to engage with ICT, and the ICT coordinator was working with staff in order to change the culture. The learning platform was outward facing and primarily aimed at pupils. School monitoring data showed high weekend usage of the platform. The development of the learning platform and the roll out of Home Access happened at the same time, so monitoring the impact of Home Access was not possible. The teachers and ICT coordinator did not know how many pupils had access to a connected computer at home but estimated about 10% do not. This was not seen as a barrier to the development of the learning platform as pupils have access to computers in school and after school, with in excess of 300 computers on site. The main barriers to the wider exploitation of learning platforms at the school were considered to be time and teachers wanting 'to do things in the way they are used to' (e.g. using textbooks rather than ICT).

#### *Support for teachers*

- C.356 Teachers looking for digital learning resources in a particular subject/area of learning used a range of sites including shared school and independent resources, for example examination board websites. The ICT coordinator has provided training on a range of issues including Web 2.0 and whole-school training for pupil-tracking, but expressed concern that 'technology is falling off the political agenda' and therefore the school agenda.
- C.357 The interviewed teachers had not received training on using technology in teaching and supporting learning but were all computer literate and self taught. They felt the training was focused on technical issues: 'how to use ICT to support a lesson is probably not highlighted here, we probably don't emphasise that'. Training was primarily team based, or whole school and offered by the ICT coordinator. Teachers were satisfied that the general courses across the school were good, but one suggested that a different approach to training might be more effective: 'one-to-one and small groups, with more emphasis on teaching and learning, rather than skills of using ICT. Seeing what goes on in the classroom would be good.'

#### **Learners**

##### *The computer at home*

- C.358 All pupils have access to a computer at home, and they have had computer access for about seven months. Almost all pupils (10/11) had more than one computer at home (half of these had three or more computers), and most (7/11) lived with five or more people. Five pupils kept their computer in their bedroom, one was kept in the parent's bedroom, and four were kept in the living room.
- C.359 All pupils share a computer with a sibling or parent. This caused problems for several pupils (3/11): one said his mother is often on the computer and 'I can't get on it', and two others reported arguments with sisters and mothers over access to the computer.
- C.360 Pupils reported some parental discussion about computer use, with parents asking what they were doing. Two pupils' parents told them to do their homework first, and one said her

mother warned her about viruses and downloading files. Overall, parents did not appear to exert control over what pupils could do with a computer at home and none had time limits set on their usage.

#### *Using the computer*

- C.361 Nearly two thirds of pupils (7/11) found it easy to use a computer and the internet at home, with two reporting connectivity and speed problems, and two reporting broken computers. Pupils asked their parent, uncles or sisters, for help when they had a technical problem.
- C.362 Several pupils had mobile dongles from the programme but had stopped using them ('the dongles are annoying, and very slow, so we just don't use it'), and one pupil's family then got wireless. Over half of the pupils (6/11) had dongles, but used Sky and Virgin Media packages.
- C.363 The pupils used computers for a range of activities at home. Nearly two thirds (7/11) used computers for homework. Those who did use computers to support homework visited the school's websites, Achieve and MyMaths, and had used computers to research a geography project. One girl also said she likes to read online. Yet the use of the computer for school homework and learning was low and restricted to school set work, as opposed to independent research and learning using the internet.
- C.364 Most pupils (9/11) were on a social networking site (Facebook), listen to music online and go onto YouTube. Some played online games (4/11), three watched films or TV on the computer and use MSN/email, and a few (2/11) downloaded music or games.
- C.365 Pupils (7/11) did log onto school from home to access homework and to go on 'Achieve'. In a normal week, these pupils estimated that they spend 50 minutes to five hours using a computer at home for school homework, including one girl who spent over two hours a week online for her BTEC course. Pupils spent and between five and 10 hours a week on other things, with one girl reporting she regularly used the computer from when she gets home from school until 1 o'clock in the morning.

#### *Benefits*

- C.366 Most pupils (8/11) saw no benefits or difference to having a computer at home for their homework. A few pupils (3/11) said they used a computer with homework 'a lot more' now than six months ago. These pupils stood out across the groups in the beneficial differences they identified for their learning and engagement with schooling. One boy said: 'I use it more for homework than before, and I got higher scores on resilience and responsibility' which he attributed to showing he could work on his own at home and revise for tests at home. Another pupil said the computer made his homework look better or neater: 'the computer does help if your handwriting is not that good'. The pupil working on her BTEC said it had improved her completion rates. More generally these pupils said the computer word processing packages made homework quicker, and the internet gave them more freedom – being able to work when they wanted and search for information. One girl said the computer made homework more interesting as she could listen to music while she does her homework.

- C.367 The best thing about having a computer at home identified by some of the pupils was that it is easier to do homework at home (3/11), Facebook and socialising (2/11) and overcoming boredom (1/11). Some of the pupils (4/11) interviewed appeared negative about their computers and many could not identify anything ‘best’ about them.
- C.368 Pupils identified a number of problems with having a computer at home. Three considered the unreliable and poor internet connectivity and slow speed of the computer the worst thing and not being able to get help to resolve these problems: ‘when I go on Facebook or something it crashes or freezes. I haven’t got anyone who could help’. Two pupils said the worst thing is breakages: ‘the charger is broken, we haven’t tried to have it fixed’ (due to cost). Concerns about robbery were raised by one pupil, who said ‘I wouldn’t trust bringing it into school in case it got robbed’. Several pupils (3/11) considered themselves to be spending too much time on their computers, as one said: ‘it’s addictive, I can’t get off my laptop’. One pupil complained about the short term nature of the Home Access programme, ‘only supposed to do a year with them’.

### **Key messages**

- C.369 Teachers thought Home Access in principle was a good idea, but some felt the criteria should have been more flexible and taken local knowledge into account. There was a sense among the teachers that parents and pupils saw this as a free laptop and internet but did not understand what it was trying to achieve in educational terms.
- C.370 Financial literacy and understanding, and fears of credit and debt were a barrier to some parents applying. Some teachers expressed concerns regarding the equity and fairness of the eligibility criteria. The school supported parents in their applications on an ad hoc basis, and facilitated Home Access. However, the school did not want to raise expectations that school staff would provide continuing technical support.
- C.371 The school had not incorporated Home Access into its strategic policies. School use of the learning platform was well developed in Maths but was embryonic in other areas. Technology use (and training) was focused primarily on administration and monitoring and assessment, rather than teaching and learning.
- C.372 Teachers did not consider Home Access had resulted in many benefits for teaching and learning, and doubted that all pupils would be using the computer for homework and learning. Concerns regarding the cost of maintenance and repairs were raised by teachers and pupils.
- C.373 Overall, parents did not appear to exert control over what pupils could do with the computer at home and none had set time limits on home computer use. The use of the computer for school homework and learning was low and restricted to the school set work.
- C.374 Most pupils saw no benefits or difference to having a computer at home for their homework. A third of pupils experienced problems using the computer and getting online. Some of the pupils interviewed were negative about their computers and many could not identify anything ‘best’ about them. Others considered themselves to be spending too much time on their computers.

## Case study 12 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.375 As an aggregated school, the case study site has been closely involved in helping parents to apply for Home Access and in the purchase of the computer and connectivity bundles on parents' and pupils' behalf. They therefore are well aware of the programme and what it is trying to achieve. Teachers also believed that parents and pupils at the school knew about the programme due to strong marketing done by the school.
- C.376 The Deputy Head Teacher thought that families were 'overwhelmingly positive' about Home Access and what it was trying to achieve. The ICT teacher also felt that word of mouth and wider marketing was effective (national papers, websites). The local authority, Becta and e-learning foundation also made the school aware of Home Access, and the ICT coordinator found the e-learning foundation particularly supportive.
- C.377 It is also important to note that the school had their own internal universal access programme to ensure that all pupils in Years 7 and 8 had netbooks. This local scheme was funded by the e-learning foundation and parental contributions. It was geared around Home Access so that Home Access pupils did not stand out (they all had the same device, something made possible due to being an aggregated school). The local scheme did not have sufficient funds to cover all pupils in Years 7 and 8, and teachers said that lower income parents would not be able to make the parental contribution required. Therefore Home Access was perceived to be filling a gap left by the local scheme.
- C.378 The local scheme was piloted for Year 7 pupils prior to rolling it out to all of Year 7 and 8 pupils before to Home Access. This enabled the school to test out how best to design lessons around the use of ICT and netbooks prepared the ground for Home Access, helping the programme to run more smoothly.
- C.379 Another advantage of the local scheme is that the school received better discounts with the suppliers when purchasing bulk supplies, and could ensure that all pupils (Home Access and those on the local scheme) received the same equipment and software. The resulting consistency across the school overcame hardware and software compatibility barriers to accessing the school's network. One teacher said that Home Access was supposed to be a consumer-driven model, but that in reality each family does not have much choice or buying power when purchasing equipment on an individual basis. For them, this raises questions around the value for money offered by the standard Home Access package, particularly as the number of providers of Home Access equipment is limited (to two) so each provider can 'mark up' their prices. The aggregated school model has helped to overcome this, and offers better value for money to the school, families and the Home Access programme.
- C.380 Access to technology for learning is important for the school. The Deputy Head Teacher argued that ICT it is essential to improve life chances, and this ethos was embedded across all aspects of school life. The teachers have weekly briefings on ICT developments and uses, and parents are informed by the school on new ICT opportunities for their children.

- C.381 However, the Deputy Head said that encouraging parents to apply for Home Access has been a real challenge. The school held Home Access awareness raising events (e.g. after parents' evening) and offered parents appointments to help them fill in the application forms. One teacher said that the provision for parents to apply for Home Access online is likely to be ineffective given that the programme targets those without a computer. The school also held meetings every six weeks with parents, providing them with the opportunity to ask questions about accessing and using technology at home and ICT in general.
- C.382 The teachers consulted generally thought the eligibility criteria were fair, but noted that some families just above the Home Access threshold would struggle to make the parental contribution required for the school's own universal access programme (including a requirement that they commit to this contribution for three years). There was anecdotal evidence to suggest that some parents will not apply for Home Access if it is seen to be linked to free school meals (FSMs), which is stigmatised. If this stigma was removed, teachers said that uptake of the Home Access programme would increase.
- C.383 Teachers were not aware of how many pupils had benefited from the Home Access programme, and the dongles they saw on laptops were the only indication they had.

*Benefits and risks*

- C.384 The interviewed teachers were generally positive towards the Home Access programme, and thought it would provide access to technology at home for children who would otherwise not have access. The knowledge that all pupils in Years 7 and 8 had a computer at home enabled teachers to set online homework, and enabled pupils to do additional research online in their own time rather than having to stay late at school to use school computers. The teachers observed improvements to motivation (especially with homework), team work skills, problem solving skills, and ICT skills and confidence. Also, better quality and more accurate work was observed (e.g. pupils use spell checkers) and pupils took more pride in the presentation of their work. Using ICT seems to 'take the fear out of making mistakes' and as a consequence, pupils were 'more creative', according to the interviewed teachers. However, teachers said it was too early to tell whether grades have improved, but they did think that increasing use of ICT had 'raised the standard of teaching'. These changes are attributable to wider ICT developments at the school of which Home Access was one element.
- C.385 There is some evidence to suggest that Home Access has helped to improve parental engagement with the school. Parents of beneficiary children sent teachers emails. However, teachers believed that parents' lack of ICT skills remained a barrier to parents becoming more engaged with their children's school work.
- C.386 Teachers said that Home Access would not work well unless schools were very involved in the programme. For example, one teacher said that 'just giving them a computer doesn't bridge the digital divide'. Pupils/parents needed help in applying for the laptop, and pupils needed help to use the laptop effectively and get the most out of it. The school provided the necessary support, but doing so resulted from local decisions rather than programme requirements.

C.387 The teachers and the ICT coordinator highlighted a number of downsides and problems with the Home Access programme, including the following:

- Home Access equipment lacks some software (e.g. movie maker) – it would have been helpful if Becta had asked schools what kind of packages they would find most useful, and built the Home Access packages to meet those needs.
- The school invested a lot of time helping parents apply for Home Access – both face-to-face and on the phone. Being an aggregated school has involved a lot of time and administration resource, and the ICT coordinator said it ‘has been tough at times’ to deliver.
- A lack of ICT capability at home, which meant the school’s ICT staff have provided additional support to parents above and beyond their day-to-day work.
- Home Access provides insufficient support for parents (e.g. for completing forms and about e-safety). Some teachers said that Home Access puts a lot of pressure on parents to be responsible for the e-safety of their children, but provides insufficient support in this area, and that the programme should be linked more closely to school training on e-safety.
- The Home Access helpline can arrange repairs, but teachers noted that the cost of collection of the laptop can be £50, which many beneficiary families can ill afford.

C.388 The teachers said that many of the problems associated with ICT use (e.g. displacing time, inappropriate content, plagiarism) are general risks associated with increasing ICT use by school children and not specific to Home Access. Also, at the outset, parents had concerns that Home Access computers would be stolen if taken into school, but this has not taken place.

#### *Uses of ICT*

C.389 The school had a learning platform mainly for in-school use, but pupils could access it at home. The school was planning to engage parents in the learning platform in the near future.

C.390 According to the ICT coordinator, Home Access (alongside local ICT developments at the school) had encouraged teachers to set online homework for Years 7 and 8. The Deputy Head Teacher said that Home Access had ‘enforced our vision for e-learning’. For years 7 and 8, Home Access had made it easier to get parents on board who couldn’t afford a computer. However, the ICT coordinator said that, whilst Home Access had ‘eliminated’ these tricky issues, the school would have rolled out its own universal access scheme anyway if they were successful in securing funding from the e-learning foundation.

C.391 The learning platform was used for class and home work. The ICT coordinator estimated that 80% of homework was set/disseminated on the learning platform, but only 40% of homework was assessed online (pupils still had the option to produce homework by hand). A template had been set up for all lessons to reduce the workload for teachers in setting online work, and to increase the quality of ICT materials. Staff also shared lesson plans and good practice with



regard to using technology for teaching and learning. The ICT coordinator said that cost and time were the main barriers to the wider exploitation of the school's learning platforms.

- C.392 The ICT coordinator estimated that 5% of pupils did not have access to a computer at home (at most), based on a survey undertaken by the school two years ago.

#### *Support for teachers*

- C.393 The school had a strong culture of sharing learning resources in the staff room and on the school's portal. They held 'teacher toolkit days' where staff presented on the use of digital learning resources to other staff. Learning resources used include youtube, BBC, Wiki, Moodle, My Maths, Open Source material, and the school's examination board e-resources.
- C.394 Shared learning amongst staff was considered to be very important. Teachers said training and knowledge transfer on ICT 'should start in the class room' on an informal basis rather than being imposed by the school. Experienced teachers were asked to train new teachers, and learning and practice spreads quickly. Externally, the school was one of a group of 'leading edge' schools where teachers share good practice with teachers from other schools.
- C.395 In-house training has taken place on netbooks, the learning platform and teacher toolkits. According to the ICT coordinator, training focused on the exploitation of ICT for learning, rather than on technical issues.

### **Learners**

#### *The computer at home*

- C.396 Most of the 15 interviewed pupils had had a computer at home for around two years. Only one pupil had had a computer for less than two months, and a small number had had a computer for five to ten years. Most had two or three computers at home, a few had four or five computers, and only a small minority had only one computer (i.e. the Home Access computer).
- C.397 The location of computers in the home varied, but most pupils said they had some computers downstairs in communal rooms (e.g. living room, hall) and one computer in their bedroom. More than half of pupils interviewed shared their computer at home with siblings and/or parents, and this caused problems for the small number who had to share (e.g. falling out with siblings).
- C.398 Just over half of those interviewed (53%) said that their parents did not control what they do with the computer. Where parents did supervise usage, this generally involved blocking websites, setting parental controls, and checking what their child does on the computer.

#### *Using the computer*

- C.399 All pupils interviewed were confident in the use of their computer. If help was needed, they would ask parents and siblings or their school, or just solve the problem themselves (usually by Googling). Only one had used the helpline to fix the internet connection, and this had been useful in addressing the problem.

C.400 All of the interviewed pupils used their computer at home for homework and also social networking. The majority also used it for email/instant messaging, listening to music and computer games, as the following table shows.

<b>Computer uses</b>	<b>% of pupils interviewed (n=15)</b>
Homework	100%
Computer games/online games	73%
Email/instant messaging	93%
Social networking	100%
Listening to/downloading music	87%
Watching DVDs/films/TV	47%

C.401 Most pupils were able to log onto the school's learning platform from home, and do this regularly to access and submit homework, email friends and access reports/documents from the school network.

C.402 The amount of time spent on homework ranged from 10 minutes to one hour per day. Time spent on using home computers for things other than homework ranged from zero (one case) to five hours a day; most spent two to three hours per day.

C.403 Most pupils used a computer at home for homework more now than they did six months ago. For those who were able to quantify the increase, it ranged from a 50% increase in time to a threefold increase. Fewer than half (40%) of pupils said they did not spend more time using a computer at home for homework.

#### *Benefits*

C.404 When asked what difference having a computer at home has made to school work, all found it easier to search for/find information, and most pupils said it was quicker to complete homework and that it was easier to make homework look better/neater. Unprompted, pupils also appreciated greater flexible when they did their homework.

<b>Benefits</b>	<b>% of pupils interviewed (n=15)</b>
Easier to find information on the web for homework	100%
Quicker to do homework	80%
Makes homework look better/neater	93%
Makes homework more interesting/fun	47%
Helps for revision	27%
Can ask friends about homework by email/instant messaging	67%

C.405 Some of the pupils experienced problems with the Home Access computer at home. These included technical issues (such as the dongle not working, slow internet and download speeds) and wider issues such as family arguments over the computer, and not being able to

access the computer due to parents using it. One pupil was cut off from the internet because a parent could not pay the bill once the year of free internet access had expired. Pupils also complained about blocked web pages on their laptops, but some knew how to unblock these, or simply used other computers at home that did not have protection. Spending less time doing other things, spam and inappropriate content were not considered to be major problems.

- C.406 Overall, the best things about having a computer at home were games, social networking (messaging, Facebook, talking to friends), and homework being easier and quicker to do (compared to writing by hand and going to the library for books).

### **Key messages**

- C.407 Improving access to technology was a priority for the school. The school has actively promoted Home Access, encouraging uptake amongst parents and providing intensive support to assist with the application process. Alongside Home Access, the school also operated a local universal access scheme to ensure all pupils in Years 7 and 8 had netbooks. The piloting of this local scheme helped the introduction of Home Access. The role of the school in bulk-buying equipment for Home Access (and their local scheme) meant that better value for money was achieved, and the school has been able to ensure that Home Access equipment is compatible with the school's central systems/software.
- C.408 These factors have meant that Home Access operated more quickly and effectively than otherwise might have been the case. Home Access would not have worked so well without this level of school involvement: 'just giving them a computer doesn't bridge the digital divide' because providing support on how to use computers effectively is essential.
- C.409 The teachers consulted were generally positive about the Home Access programme, and had observed improvements to pupils' motivation, team work skills, problem solving skills, and ICT skills and confidence. All pupils found it easier to find information, and most pupils said it was quicker to complete homework, easier to make homework look better/neater, and they appreciated the flexibility home computers afforded for doing homework when and where it suited them.
- C.410 Most of the interviewed pupils already had more than one computer at home, but more than half shared their computer with siblings or parents. Parental control was mixed, and around half of the pupils interviewed had no parental controls over their computer and internet use.
- C.411 Learning platforms were used to set homework in a large proportion of classes (80%), and teachers said that increasing use of ICT had 'raised the standard of teaching'. The school had a strong culture of sharing learning resources and knowledge on how to exploit technology for teaching and learning.

## Case study 13 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.412 The ICT coordinator and two of the three teachers interviewed were very aware of the programme and what it offered; one knew little of the programme and had not been involved in its promotion. The programme aim was interpreted by all in terms of equity of access to learning tools to ensure equity of educational advantages across pupils and to raise standards. The ICT coordinator says parents are aware of the programme (the school promoted Home Access with leaflets circulated to parents via pupils, conversations with pupils via year heads and tutors, and information posted on the school website) but doubted they would be aware of what it is trying to achieve rather seeing it as ‘a free computer and internet’.
- C.413 Teachers thought barriers to parental take up included low parental engagement and prioritization of educational issues, language barriers – English as an Additional Language (EAL) especially among Somalian families, low technical skills and confidence, and the lack of money to continue connectivity after the first year. Most were not aware of pupils they teach having taken up the grant. One teacher (head of year) was aware of a few pupils as one had needed help with the form.
- C.414 The criteria were considered generous and fair and reaching the ‘hard to reach’, although two teachers noted difficulties of cutting off the ‘working poor’ from the scheme. They assumed parents agreed the criteria was fair and had not heard of any parental complaints to the contrary.

#### *Benefits and risks*

- C.415 The ICT coordinator felt Home Access went beyond being a good idea, to being ‘essential – pupils need hardware/software/capacity – otherwise they will fall behind and that will be divisive’. All teachers considered Home Access to be a good idea as they are ‘increasingly accessing IT and making assumptions that pupils can access it at home for homework; this programme helps remove ethical dilemmas’ for teachers. They felt this view was shared by parents and pupils.
- C.416 The ICT coordinator considered the main benefits of the programme to be its potential to enhance the use of the virtual learning environment (VLE). Currently setting digital homework has been limited due to concerns regarding access (although pupils have had access to computers via the library, ICT catchup) but for a successful VLE it was considered essential that all pupils have home access. The school has plans for the VLE including setting all homework on it, calling tasks in, marking online, assessing portfolios online, and to become more paperless. Teachers had experience that the use of the internet enabled pupils to ‘get excited about a topic and take it further, doing research and stuff; internet opens doors, opens minds to subjects they’re fascinated by’ and supports ‘the kids who want to know more’. One teacher noted that:

*Many parents seem to enjoy it [home access], incredibly useful in all sorts of situations – especially where kids are stuck at home – being able to access the internet is a lifeline sometimes providing continuity of learning – when they are at home for medical or other reasons; parents want children to carry on learning – would be harder without the internet – we set work at home via the internet on Snow Days’.*

- C.417 Home Access was seen to ‘impact hugely’ on pupil confidence and ICT competence. Benefits for homework within Maths and PE were regularly seen in relation to learning motivation, and the computer promoting conversations with parents. The potential benefits were seen, however, to depend on how Home Access is used, and other factors within home that can’t be controlled (e.g. location and use of PC).
- C.418 The main downsides of the programme experienced by the school pupils were related to technical issues and the families’ lack of technical expertise, needing help getting set up, the computer not working, software incompatibility, viruses, and poor internet connectivity . Another was the ending of the scheme funding of internet connectivity, because it was not seen as feasible for all beneficiaries to reprioritise their finances to afford the internet. One teacher asked if it is ‘sometimes, better not to have had, than to have, then have it withdrawn?’. Online leisure was not seen as a problem in relation to displacing study, rather ‘it will probably enhance the social side of things for them’.
- C.419 However, in general (i.e. not specifically related to Home Access), it was noted that there was an issue regarding pupils’ excessive game playing and social networking resulting in pupils falling asleep in class and affecting studies. Some parents reported difficulties in supervising and controlling their child’s computer use. While plagiarism was occasionally an issue, a more common issue was an emerging ‘cut and paste’ culture (including the use of internet translators) among pupils, which was viewed by all teachers as impacting on the quality of homework: ‘instead of seeking out information, the temptation is to just ‘bang a button’ there’s my answer without having to think’. Teachers also commented on pupils’ lack of criticality in the use of computer sources.
- C.420 Most teachers, however, concluded that Home Access had had some limited impact on homework. One thought the quality of research had improved. Several teachers noted a positive impact on pupil engagement ‘with 12 pupils, you maybe got homework from two, but [this increased to] six when it is a computer – they like going on computers – login, its there, you don’t need books – at least more do it (especially the lower ability pupils)’.
- C.421 Home Access was seen to have contributed to an increasing and improved communication with parents, and was seen as supporting parents in helping their child. As one teacher said: ‘we can suggest websites, give a disk copy of a textbook – so they don’t need to take a book home which can save the class textbooks from loss/damage’. However, another teacher was concerned that the computer may be used as a ‘baby sitter’ and remove parental responsibility to be involved in homework. In contrast, another teacher thought that computer access at home raised the ‘expectation that work has to be done outside of school, and contributes to pupils’ work ethics/practices’. One teacher cautioned, however, that ‘[we] press a button and assume we’ve communicated which isn’t always the case’.

### *Uses of ICT*

- C.422 The school is currently switching to Frog Learning Platform, to be introduced in Spring 2011. This is maintained and developed by the ICT coordinator and team. It is currently inward facing but it is looking to develop communications with parents. The learning platform will replicate the school intranet which provides resources, departmental shared areas, and staff shared areas. The platform is being piloted within Maths, ICT, and science and all departments are keen to be involved with some staff needing additional support to put their work online. A survey of the school, using the school admissions form (completed by 66% of pupils) suggests that 3% of pupil families do not have access to a computer and the internet, while the teachers interviewed estimated this to be between 5 and 10% of pupils. This was not considered a barrier to the wider exploitation of learning platforms due to alternatives (e.g. school library).

### *Support for teachers*

- C.423 Teachers used the online school resources (e.g. MyMaths, SAM Learning) as well as subject-specific internet sites. Training has been provided to support teachers use of technology for teaching and learning on the use of SIMS for learning and assessment, FROG, e-safety, and IWB use. This training has primarily focused on technical issues. There are plans for provision of training for parents on ICT and facilities to bring in parents to train them alongside children on using the learning platform. Issues for Home Access were raised with respect to support and training for parents including how to use the kit, how to troubleshoot.

## **Learners**

### *The computer at home*

- C.424 All the pupils have a Home Access computer at home and have had them for between two and six months, with most having had it for two to three months. All year 8/9 pupils have more than one computer in the household, although some are old and very slow. For most pupils (9/13) computers are located in their bedrooms, with four located in the living room. This was not related to age. A third of pupils had sole use and two thirds shared their computer with three to five siblings, and parents although they had 'first turn'. Sharing was not a problem for any of the pupils although occasionally the source of mild arguments.
- C.425 Parental control of the pupils computer use can be characterised for all pupils as a 'homework first' approach, and additional usage was restricted to an hour and limited by the need to share. One pupil's parents restrict the computer only for school work and learning. Over half of the pupils only use the computer for school work and tend to go out rather than go online.

### *Using the computer*

- C.426 With the exception of one pupil, all pupils reported difficulty getting on line and they all reported slow and unreliable internet connectivity, slow downloading times, regular crashing and freezing, and excessive filtering of sites (e.g. YouTube). The majority of pupils worked out problems themselves, whilst those who did ask for help (3/13) asked parents or older brothers.

- C.427 Pupils used the computer at home primarily for homework including working with MyMaths and SAM Learning, undertaking research online and revision. Use of the computer for things other than homework varied according to age (this appeared to be connected to the range of devices in the household, with year 8 and 9 pupils appearing to have access to a broader range of devices).
- C.428 Just over half of the pupils (8/13) did not use the computer for leisure. None of the Year 8 and 9 pupils used the computer to play games or listen to music (rather they used other platforms and devices (e.g. Xbox for games, ipod for music). Only two year 8/9 pupils used it for leisure – a pupil who went on Facebook and another who just went online, both went online for about one hour a day. A couple of pupils said they went on Facebook at first but now they don't bother. As one said, 'I prefer to go to my friend's house'.
- C.429 Year 10 pupils differed from the other years and used the computer for school work and leisure, including playing games, Instant Messaging, and all were on Facebook and listened to music. However, leisure use was relatively short, for between 15 minutes and an hour a day.
- C.430 Pupils spent between half an hour and 3 hours a day on their schoolwork and homework, with most working 1.5 hours a day.

#### *Benefits*

- C.431 Year 10 pupils noted that they used a computer to help with their homework more than six months ago. This was not the case for the majority of the year 8 and 9 pupils due to the problems associated with the low quality of internet connectivity (and in a few cases as they had more access to a computer before Home Access). The majority of all the pupils noted that the computer made their work look neater, made it more interesting and fun (especially the use of maths games) and over half said they preferred the computer to reading books. It was easier and quicker – especially in relation to finding information and being able to work at home rather than at lunch times or in the library. The year 10 pupils thought that the quality of their homework and revision had improved.
- C.432 The majority of pupils identified problems with having a computer at home related to the technical issues of connectivity and speed. A couple had had problems with spam/junk email, pop-ups and viruses. One pupil (year 10) said she thought she spent too much time on MSN during the week. A key problem raised by over half of the pupils was the cost of printing both in relation to the expense of the hardware and cartridges and printing in the school library (40p per page) and pupils noted that only about 25% of teachers allow digital submission of homework.
- C.433 The best thing about having a computer at home was overwhelmingly agreed to be the ease of studying at home. 'It's easier than going out to cafe or staying after school or at lunchtime'. 'In Winter – it's good for getting home more quickly – when dark' and 'easier to study using GCSE Bitesize'.

**Key messages**

- C.434 Awareness of Home Access varied among the teachers, with limited knowledge of the details among most and very little sense of the take up among pupils at the school. There was strong support for the scheme which was aligned with discussions of equity of access and the link between ICT and raising educational standards. ICT was considered an essential part of learning and home access to the internet was no longer seen as a luxury.
- C.435 The programme was strongly linked to the development of the school learning platform, particularly in Maths and Science, which is currently in process leading towards a full launch across all aspects of schooling planned. Home access was seen as increasing independent learning and pupil motivation. The completion rates of homework had increased and pupils reported increased internet research, revision, and the use of school resources. They also reported a preference for reading online rather than on paper.
- C.436 However, concerns about the downsides of computer use for learning were raised regarding the quality of homework, most notably an emerging ‘cut and paste culture’ and the need to teach pupils to be more critical in their use of sources. For the majority of pupils Home Access was primarily associated with school work and learning, with only a half of pupils using it for other things.
- C.437 Younger pupils (years 8/9) appeared to have a wider range of digital devices in their home and appeared to split homework and play across these. Overwhelmingly the pupils valued the ease and convenience of working at home, as opposed to having to go to internet cafes or stay behind at school. Comments on not having to travel home in the dark suggest that this may also be related to issues of street safety.
- C.438 Home Access was positioned as central to raising expectations concerning learning, engagement and communication with parents. The realities of parental low literacy and ICT skills were acknowledged by the ICT coordinator and teachers, and this was informing the development of training for parents.
- C.439 Many technical problems had been faced by pupils using Home Access, regarding poor connectivity and reliability. Serious concerns about the cost of printing hardware and print-out costs were raised by a number of pupils.



## Case study 14 (secondary)

### **ICT coordinator and teachers**

#### *Awareness and take-up*

- C.440 The ICT coordinator heard about Home Access through a Special Schools Conference and he had also read about it on the Becta website. There were no direct approaches about Home Access to the school from Becta or the local authority. He understood the programme is trying to achieve broader access to learning and broadband. About 100 families in the school have taken up Home Access grant, but he was surprised by this as the school did not usually get that level of parental engagement. The ICT coordinator felt that teachers were very unaware of Home Access and should know more about it.
- C.441 He believed that the eligibility criteria were fair as there has to be some form of measure. However the school has seen a lot of families that are eligible for free school meals (FSM) not claim them as they are afraid this might affect their eligibility for other benefits. He thought this might have been a barrier to uptake of Home Access.

#### *Benefits and risks*

- C.442 According to the ICT coordinator, the main benefit of Home Access is that it engages more children to learn and allows children to keep up more with the world around them. It may also develop the ICT skills of pupils, but he felt most have the required skills anyway, developed through their use of other devices such as mobile phones. He hoped in the future that the school could use ICT more to impact on literacy and numeracy. He did not think that the programme improved behaviour in the classroom.
- C.443 The main downside of the programme was parental misuse. He suspected that parents may be using the computer when the pupils want to access it. And there is also an issue of social etiquette online. There have been issues in the school of parents making inappropriate comments online about school pupils leading to frictions.
- C.444 The ICT coordinator estimated that about 10% of pupils did not have access to a computer at home. He believed that without Home Access beneficiaries would find a way to access learning platforms, although for some this might involve staying longer in school to use on-site facilities. The ICT coordinator thought that not having direct access to a computer could potentially hinder pupil development.

#### *Uses of ICT*

- C.445 The school used the Kaleidos and Real Smart learning platforms for pupils, but planned to open them up to parents in September 2011. The main barriers to increasing the use of learning platforms included the following: some pupils' lack of interest in learning; staff ICT skills; and keeping up with rapid technological and online content changes. According to the ICT coordinator, Home Access has not impacted on the rolling out of ICT plans in the school.

C.446 Home Access was not associated with higher levels of plagiarism any more than the general increase in ICT usage by pupils. Staff used a system of modernization and standardization to detect plagiarism in pupils' school work.

*Support for teachers*

C.447 Only 40% of staff used the learning platforms because many were reluctant to embrace technology. Subjects with the strongest use included PE, Performing Arts, ICT and Design Technology.

C.448 Some teachers made use of digital learning resources. These included Future Labs, Times Educational Supplement Site, Educational City, Cool Tools for School, and Edutube (developed by the University of Hull).

C.449 Teachers received training on how to use the learning platform. The school has a dedicated Apple Trainer who provides support to teachers. Some also take part in action research projects around applying Web2.0 to learning, with accreditation by the University of Hull.

**Learners**

*The computer at home*

C.450 We spoke to pupils in Years 6, 7, 8, 9 and 10. Many pupils had two to three computers at home. It was noticeable that all the pupils in Year 6 reported having three to four computers at home. One girl in Year 8 had two computers but she sold one of them on receipt of Home Access computer. Most pupils reported no difficulties with having to share their computer.

C.451 The pupils in Years 8, 9 and 10 said their parents did supervise their computer use, and many said their parents had removed the security locks on the computers. The pupils in Years 6 and 7 were much more supervised by their parents, with many having time limits and supervision of who they added as friends on Facebook (evidently evading the Facebook age limit of 13).

C.452 The detailed findings for each year group are summarised below:

- All Year 10 pupils had had computers at home for several years. Most of the Home Access computers were kept in pupils' bedrooms, others in communal areas. Some had to share their computers and this caused arguments with siblings. Parents did not control what the computer is used for and many parents had removed the security locks.
- All Year 9 pupils had had access to computers at home for over three years. All had more than one computer at home. Only one pupil kept their laptop in their living room, while the rest kept them in their bedrooms. Parents controlled the use of computers, only allowing their children to view 'sensible stuff' (so as not to get viruses), and some pupils had time limits placed on their computer use.
- All Year 8 pupils had had their Home Access laptops for one year, and had other computers at home (except one pupil, who sold her second computer). Some had to share with siblings and this caused problems. Some parents did not control the use of

computers and many parents removed the security locks. In some cases, the parent sat beside their child to watch what they were doing on the computer.

- Year 7 pupils had been using Home Access laptops for six months, and all had other computers in the home. Computers were kept in a variety of places (including parent's bedroom, sitting room, dining room). All pupils had to share their computers with siblings, and one parent often used Home Access laptop when the pupil was not working. One pupil reported his parents do not care what he did on his laptop while all the others reported strict supervision.
- Year 6 pupils had had access to computers at home for 'as long as they can remember'. All had access to three-to-four computers at home. Some had to share their laptops and this caused problems; the brother of one pupil was 'downloading stuff' which made the computer slow. All parents controlled computer use by a variety of means, such as blocking YouTube, monitoring Facebook friend requests, and checking browsing history.

#### *Using the computer*

C.453 The foremost use of the computer by all pupils was for social networking, in particular Facebook. Pupils spent between 30 minutes and one hour per week on the computer for homework. This was mostly for Maths homework, but some computer use for English and Science was also reported. Older pupils (Years 8-10) spent on average four-to-five hours per day using the computer for social networking, online gaming, downloading music and watching DVDs.

C.454 The findings on a year-by-year basis were as follows:

- Year 10 pupils predominately used their computer for Facebook and music. Pupils spent between four and six hours on the computer per day, but only spent about half an hour per week doing school-related work on the computer.
- Some Year 9 pupils used the computer to submit Maths homework or Science quizzes. Others logged into school from home to access their timetable. Pupils spent about half an hour per week doing homework on the computer and about two hours per week doing other things with it. All made the point that they mostly use their mobile phones to access the internet.
- One Year 8 parent had to call the helpline twice to get the security blocks taken off the computer. Most Year 8 pupils logged into school from home for about 20 minutes a week to do Maths homework but spent about two hours per day doing other things such as Facebook and watching DVDs.
- One Year 7 pupil never used the computer for homework and the others used the computer for Maths homework and research for about 20 minutes a day. All thought they used the computer a little bit more now than they did in the past.

- Year 6 pupils used the computer for homework for between two and three hours per week. They used the computer for about one hour a week for other activities such as games.

### *Benefits*

C.455 Some of the pupils in Year 6 and 7 reported increased grades in Maths because they could now practise at home. One pupil in Year 6 said they had gone up two grades in the last six months because she could now practise on her computer at home. Many pupils thought the best thing about having the computer was Facebook and keeping in touch with friends. A few believed that having a computer at home was good because they did not have to stay behind at school to finish tasks. A Year 7 pupil thought that by using his computer during the summer holidays to play Maths and Science games, it had stopped him from forgetting school work in the holidays.

- Year 10 pupils did not use a computer more now than six months ago for school work. One pupil did not see having access to a computer as making a difference as they could go to their extended family or friends homes to access a computer. Very few of the pupils used their dongles as they had access to wireless which performed much better for websites such as YouTube. The pupils didn't believe that having access to the computer had stopped them doing other things.
- Year 9 pupils said using a computer could make their homework look much better especially adding pictures to text. They thought the best thing about having a computer at home was that they did not have to stay back after school to finish school work or feel rushed in class time.
- Year 8 pupils liked doing homework on the computer because the games format made it more interesting than class. Revision was also easier as there were fewer distractions on the computer compared to the classroom.
- For Year 7 pupils there were a number of benefits, including increased grades because they could practise at home, information easier to find, neater presentation and in general school work is more fun on the computer. Pupils were spending less time doing other activities than on their laptops. Two pupils had not been to the park since they got their Home Access laptops in August, and another used to play every afternoon but had not since they received their own computer.
- All Year 6 pupils used the computer more now for homework than before especially because they could now finish their homework without having to share a computer with siblings. They thought that it made a difference to their school work because if they were having difficulties they could do extra research at home to help them understand. They also believed that learning on the computer was more fun because it was not as boring as in the classroom. Three pupils had gained better grades and put this down to using their computer for revision (one pupil had gone up two grades and another had gone from 'red' to 'green' in assessments). The pupils spent less time doing other things because of their computers: one pupil did not go on their bike as

much and another was now inclined when it is cold outside to stay inside and do homework.

### **Parents**

- C.456 We spoke to two parents who had received computers through Home Access, one with a child in Year 4 and the other with a child in Year 10. One parent learnt about the programme through an article in the paper and the other through the community officer in the school. They believed that awareness of the programme was strong in the area with most people hearing about the programme through word of mouth. Both thought the application procedure was easy, although one did not want a laptop and preferred a desktop (the reason for this was the parent's poor eye sight, and her preference for a larger screen).
- C.457 Both parents believed that Home Access was a good programme but there should be more policing of it. One parent knew of seven other parents who got computers and 'five of them had sold the computers around the doors'.
- C.458 Both parents believed that their IT skills had improved due to the computer. The parents gave the impression that they owned the computer and it did not seem to be used very much by their children. One mother said 'it gives me something that is mine. I like that feeling'. The main benefit of having access to a computer at home for children was that they did not need to stay behind after school to finish assignments.
- C.459 The parents did not believe that a lack of access to computers was an issue as they believed that every home in their local community had a computer. These parents' children had access to the internet through a variety of sources such as mobile phones, iPads, netbooks and other devices already in the home. They thought that a maximum of 30 minutes per week was all that their children spent on their computers for homework. One parent was aware that their child used the computer for maths games and thought this worked well.
- C.460 One parent provided online supervision as the Home Access dongle blocked any content that would be classed as inappropriate, but the parents believed that children should be made aware of the risks online. It was pointed out that the school used Mac computers and Home Access PCs, creating incompatibility barriers to pupils accessing the school network from home. Both parents noted that their children spend less time 'doing social things' as they were 'texting not talking'.

### **Key messages**

- C.461 Awareness of Home Access appears to have been high amongst local residents, but low within the school itself, with the ICT coordinator suggesting that most teachers were unaware of the programme. The eligibility criteria was considered to be fair, but the labelling associated with FSM has meant that some parents have been reluctant to take up support even if they are eligible as they are afraid it might affect their eligibility.
- C.462 Ownership of a computer at home before Home Access appears was high. The school estimated 10% of pupils did not have access to a computer at home. Most of the pupils interviewed had two or three computers at home, and the parents also commented that a large

number of families in the area already had a computer before Home Access. Also, some pupils and parents talked about pupils having access to the internet on their mobile phones. Parents reported that some Home Access laptops had been sold to other families in the area, and they would like to see more ‘policing’ after laptops are purchased.

- C.463 Only 40% of the staff used the school’s learning platforms, despite receiving training on how to exploit technology to support learning and teaching. The ICT coordinator did not believe that Home Access had impacted on the rolling out of ICT plans in the school.
- C.464 There were mixed views on the benefits of Home Access. From the ICT coordinator’s perspective, having access to a computer at home had improved ICT skills, but it was argued that because most families have a computer at home anyway, this would have occurred to some extent without Home Access. However, the ICT coordinator thought that not having direct access to a computer might potentially hold back pupil development.
- C.465 The pupils interviewed identified a range of benefits from having a computer at home. Benefits appear to be greater for the younger pupils at the school. For example, a small number of pupils have seen their Maths grades increase because they have been able to practise using Maths games on a computer at home, and one pupil had used their computer during the summer holidays to play Maths and Science games. Also, pupils appreciated the flexibility a laptop at home gave them to follow-up work at home (rather than having to stay behind after school). They felt it had made a difference to their school work because if they were having difficulties they could do extra research at home to help them understand. Parents also felt that their own ICT skills had improved due to use of a computer at home.
- C.466 A number of disadvantages were also identified. These included parental misuse, a lack of parental control for pupils above Year 7, pupils spending less time doing other things, and the tendency for pupils to use computers more for social networking and other non-educational purposes (especially those in older age groups).

## Case study 15 (secondary)

### **ICT coordinators and teachers**

#### *Awareness and take-up*

- C.467 The ICT coordinator was aware of Home Access and its offer to pupils, and understood the programme provides underprivileged pupils with access to a laptop computer and the internet at home. The programme aims to ensure universal computer and internet access, regardless of background. Teachers agreed that they had some knowledge of Home Access and its aim to provide low income families with a laptop computer and internet connectivity.
- C.468 The school initially learned about Home Access through an email from the e-learning foundation to the ICT coordinator. The school then sent letters and emails to parents to alert them to the programme, targeting families eligible for free school meals (FSM). The school has also benefited from the Computers for Schools programme, which was run alongside Home Access. Teachers agreed that parents and pupils were aware of Home Access as a result of open days and flyers sent home to families. Staff in the ICT department also noted that they had received questions from pupils about the programme, indicated levels of awareness.
- C.469 Up to 84 pupils have benefited from Home Access according to the ICT coordinator, in line with expectations. The e-learning foundation facilitated the tracking of uptake amongst pupils. In addition, the school conducts a regular survey of pupils which contains a question on home access to technology. The survey revealed that home access had not increased as a result of Home Access as the majority of beneficiary families already had a computer at home (only 5-10% of pupils did not have a computer at home despite relatively high levels of deprivation).
- C.470 The ICT coordinator said that limiting the number of computers available to one per family had restricted uptake. In addition, the length and complexity of the application form was seen as a barrier to access for some families. Open door sessions were held with staff to help parents fill in the forms. Furthermore, one teacher said that being defined as families on benefits may have caused some parents to feel embarrassed and therefore reluctant to apply to Home Access. Teachers also agreed that the good ICT access provided by the school and availability of computers through other schemes – such as Computers for Schools – could have limited Home Access uptake.
- C.471 Teachers agreed that knowledge about those pupils benefiting from the Home Access had remained confidential. However, one teacher reported that a letter stating that a laptop was ready for one of his pupils to collect had come to him (as a form tutor) making him aware of the pupil's involvement in the programme. Another teacher said that a pupil had asked about where to get ICT support with regards to the use of a Home Access laptop. The school has been discreet about which pupils have benefited from Home Access, and pupils engaging in the programme would only become known to teachers if they themselves mentioned ownership of a Home Access laptop.

C.472 In the opinion of the ICT coordinator the eligibility criteria are fair insofar as those families with the least income are targeted. However, tensions were reported around that fact that low income working families (falling just outside the eligibility threshold) without home access could be denied entry to Home Access, whilst out of work families with existing home access could be supplied with an additional computer. Teachers also said that the eligibility criteria are fair as low income families are targeted. Despite this, they suggested that pupils with special needs should also be targeted as access to a computer in the home would increase the speed at which such pupils could work. However, teachers acknowledged that more support in the home around setting up the computer, for example, may be needed for such pupils, particularly as parents in general have often been found to have low ICT skills.

C.473 The school had very little communication with the local authority about Home Access, and had not been in touch with any other organisation apart from the e-learning foundation regarding the programme.

#### *Benefits and risks*

C.474 The ICT coordinator felt that Home Access was a good idea and was particularly beneficial to larger families where existing computers were shared between siblings. However, it was thought that the one computer per family criterion – which doesn't account for family size – could limit the benefits to this cohort. The ICT coordinator said that, in general, pupils, teachers and parents understood Home Access and agreed that disadvantaged pupils should be targeted. However, concerns around denying access to working, but relatively less well-off families without computers at home, were thought to exist. Indeed, the ICT coordinator said that pupils from such families were the hardest to reach group. Teachers agreed that Home Access is a good idea and thought that this view would be shared more widely.

C.475 The ICT coordinator said that prior to Home Access pupils at the school were very ICT literate. A number of benefits from access to technology at home were highlighted:

- Pupils enter Key Stage 2 and Key Stage 3 pupils with improved ICT skills.
- Increased the use of, and confidence in using, email by pupils. For instance, pupils are able to finish off work at home and then email it to their teacher.
- Pupils are able to login remotely and use the school's software, meaning that those without the necessary software at home are not disadvantaged. This system currently benefits older pupils who have greater need for a wide variety of software for completing coursework. In addition, access to a laptop at home has meant that pupils are able to learn a piece of software in their own time and then complete their homework.
- The presentational standard of work had improved. For instance, pupils now prefer to design posters on the computer as opposed to by hand.
- In terms of changes to pupil motivation, the ICT coordinator found it hard to make any concrete observations when those who benefit from Home Access at the school remained unknown to the school.



C.476 In addition, teachers at the school reported the following benefits had been derived from access to technology at home:

- Increased access to a computer in the home resulting from a decrease in the need to share computers with siblings.
- Teachers have become increasingly able to set computer-based learning activities.
- Increased pupil confidence in the use of computers (noted by ICT teachers in their classes).
- Increased independence as pupils can work on their laptop and complete a task by themselves.
- Pupils are able to email their teachers questions and receive answers even in the school holidays.
- Increased pupil motivation as pupils have a greater understanding of the tasks they're asked to complete.
- One teacher said parent/child interaction had increased as, for example, mothers are able to help their child research a topic on the internet.
- One teacher said a computer made it easier for pupils to conduct research because they don't have to go to a library to investigate a topic.

C.477 Teachers also said their pupils had become more creative as a result of the access to a computer in the home. For instance, in Art, year 10 and 11 pupils were said to be deriving greater value from their research. More widely, pupils were thought to be gaining from the ease with which they are able to receive comments on their work and make amendments without the need to start again (which would have been the case when producing a paper-based output). Teachers agreed that pupils' grades had increased and on average their work had become neater. However, these benefits related to access to a computer in the home in general, and not necessarily the benefits from Home Access alone. Teachers did not feel able to comment on the impacts of Home Access as they were unaware of which pupils had joined the programme.

C.478 Levels of engagement amongst parents in pupils' homework were not thought to have changed since the rollout of Home Access. Teachers confirmed that the majority of feedback from parents was still received at parents' evenings. However, the school was building a parents' page on their website which it was hoped would increase parent/teacher interactions in the future. The ICT coordinator estimated that around half of parents engage with their children's homework.

C.479 In the opinion of the ICT coordinator, Home Access has had no impact on parent teacher engagement. This view was supported by teachers, who argued that telephone and parents' evenings remain the main methods through which parent/teacher interaction occurs.

C.480 The ICT coordinator and teachers listed the following disadvantages of home access to technology:

- Pupils spend a greater amount of time using chatrooms, social networking sites such as Facebook and downloading/listening to music (ICT coordinator).
- Pupils substitute 'offline' activities for online leisure time. However, spending greater amounts of time online was recognised as a growing trend across all age groups (ICT coordinator).
- Increased cyber bullying.
- Increased amount of time spent social networking.
- Online time displacing other offline activities.
- Increased opportunity to plagiarise.

C.481 Teachers agreed that such disadvantages would have occurred in the absence of Home Access given that the majority of children already had access to a computer at the home. Further to this, teachers said that the benefits of home access outweighed the costs outlined above.

C.482 Although some plagiarism did occur in the school, the ICT coordinator said that pupils are taught to source and reference correctly. In accordance with this, pupils were becoming increasingly aware that plagiarism is not acceptable. The school does use anti-plagiarism software to monitor Key Stage 4 coursework, but the ICT coordinator said that often instances of plagiarism are easy to spot without specialist software.

C.483 In terms of reducing pupil exposure to inappropriate content, the school has taught pupils how to use search engines correctly and has held e-safety sessions for parents (however attendance at these sessions was low). It was hoped that these measures would go some way to reducing exposure to inappropriate content in the home. Monitoring by parents was regarded as essential, because only so much can be done in school to safeguard pupils at home. In addition, the ICT coordinator said that, as the majority of pupils already had access to a computer at home prior to Home Access, exposure to inappropriate content was not likely to have increased because of Home Access.

#### *Uses of ICT*

C.484 Currently the school uses a number of learning platforms but is in the process of moving to a single platform called Realsmart. All teachers confirmed that they use the school's learning platforms to support both school and home-based learning. ICT, Humanities, Science, PE and French were the subjects cited to exploit ICT to the greatest extent, although the use of ICT was becoming more widespread through the implementation of e-learning days. ICT was the only subject in which it is compulsory for pupils to complete their work on a computer. Other subjects were reported to use a mixture of paper and computer-based activities.

C.485 A website technician maintained the school's learning platforms whilst the ICT coordinator provided strategic leadership and the school was building capacity in this area. The school has an outward facing learning platform environment, ensuring everything that is available to pupils in school is also accessible in the home.

- C.486 School policy dictated that compulsory homework should be paper-based as it could not be guaranteed that all pupils have access to a computer and the internet at home. However, the school was increasingly moving towards a dual approach where some homework tasks could be completed using a computer/the internet. Providing homework materials online was thought to be advantageous because resources/homework cannot be lost as easily.
- C.487 The school ran e-learning days where pupils work from home for a day, making use of online resources and learning to manage their time. Such days are thematically focused. For instance, past e-learning days have focused on careers, PE and revision. Teachers also made use of Personal Learning Projects, and although related homework was paper based, there were plans to move all required resources online.
- C.488 The ICT coordinator was aware, from surveys of pupils, that 5-10% did not have access to a computer in the home. Teachers also commented that on e-learning days very few pupils were unable to work from home, and therefore it was assumed that most had a computer at home to work on. Teachers were confident to set homework requiring the use of ICT due to the schools excellent computer facilities.
- C.489 The main barriers to wider exploitation of learning platforms at the school were described by the ICT coordinator to include pupils' need for ICT support when their computers aren't working. In addition, the use of different operating systems and versions of software has led to compatibility issues in the past. However, this difficulty could be bypassed if pupils remotely logged onto Realsmart and used the software provided through this channel.
- C.490 In the opinion of the ICT coordinator, Home Access had very little impact on the school's plans for developing its learning platform because the school has always been progressive in this area. This is evidenced by the high level of ICT literacy amongst pupils.

*Support for teachers*

- C.491 The ICT coordinator was aware that teachers had access to the following whole-school digital learning resources:
- EducationCity
  - Linguascope
  - Realsmart
  - Atomic Learning
  - ClickView
  - SAM Learning
  - Daydream Education
  - Boardworks.
- C.492 Teachers also used Teach.co.uk, the Times Educational Supplement, Art.com and gallery websites and YouTube for videos.

- C.493 In addition, departments had access to their own specialist digital learning resources and to a flexible budget for procurement. The ICT coordinator was unaware of any issues with regards to access to digital learning resources: departments were seen to be aware of their needs and able to fill any gaps that might arise.
- C.494 The school's ICT team delivered training sessions for teachers focused on exploiting software for teaching and learning throughout the school year. Training was provided in-house because training delivered by software providers was thought to be too technically focused. The school also held a 'shared learning focus' session once a week. Here a member of staff will share their knowledge on how technology can be exploited for teaching and learning. Should teachers require technical training this is usually delivered by external suppliers. For example, teachers in the Art department received training from an external provider on Adobe Photoshop. Trained teachers then cascade their knowledge to other staff in the school.
- C.495 ICT staff received external technical training and in addition, the school planned to develop pupil leaders as ICT technicians with in-house training. None of the training provided to teachers had been specific to Home Access. In addition, external training on SAM Learning had been delivered to some staff. In those cases where training (internal or external) had been delivered, knowledge was cascaded through staff to those who had not benefited from direct training. The ICT coordinator did not think there were any significant gaps in ICT training in the school. This view was supported by the teachers, who were highly satisfied with ICT training provided, which they said was ongoing and up-to-date with no significant gaps.

## **Learners**

### *The computer at home*

- C.496 All of the pupils consulted used a computer at home, and had access to between one and four (average of three computers per pupil). Although they found it challenging to recall how long there had been a computer at home, responses ranged from just two months up to three and a half years. For those pupils able to answer the question in quantitative terms, a computer had been in the home for an average time period of just under three years.
- C.497 The majority of pupils kept a computer in their bedroom whilst other popular locations included in the living room (or similar communal room) or their parents and/or a sibling's bedroom. The majority of pupils had access to a computer of their own. Indeed, just four of the 19 pupils interviewed had to share a computer at home. Sharing a computer caused arguments for just two of these pupils, whereas for the remaining two, sharing did not lead to any difficulties.
- C.498 Just four out of 19 pupils reported that parents tried to control what they did on their computer at home. For example, one mother was reported to check a pupil's internet history whilst two pupils said that parental controls meant they couldn't access some content such as YouTube videos. However, the majority of pupils (15 out of 19) were not restricted in the use of their computer by any parental control. Furthermore, four of these pupils said that either they or a siblings had removed the parental controls from their computer. However, pupils reported some monitoring of shared computers in the home as opposed to their own laptop computer.

*Using the computer*

C.499 Pupils were extremely confident in the use their own or a shared computer. Despite this, a number of pupils mentioned problems with the following:

- *Internet.* Around 2/5ths of pupils reported that they had had some difficulties with accessing the internet on their Home Access computer (i.e. a slow connection, a slow download speed, an intermittent connection or complete lack of internet access). Although some of the pupils reporting such problems were using the Dongle provided by Home Access others were using an alternative method of connection (existing WiFi or fixed connections) making the cause of such difficulties unclear.
- *Access to specific sites.* One pupil mentioned a lack of access to Facebook which was thought to be due to parental controls. In addition, another pupil said that when trying to watch videos online the programme would close. However, the cause of this (parental controls or a sub-standard internet connection) was unknown to pupils.
- *Insufficient memory.* One pupil planned to buy a hard drive to increase the size of memory available.

C.500 If pupils did require help with their computer they would ask their parents, siblings or extended family, use Google or talk to a friend. Furthermore, although one pupil said that the computer had been returned to the shop from which it was purchased to be fixed, another said they simply switched to using the communal family computer when their laptop stopped working. None of the pupils consulted had used the Home Access helpline.

C.501 When asked what they used computers for pupils gave the following responses:

- homework – all pupils
- playing computer/online games – 17 out 19 pupils
- email/instant messaging – 15 out of 19 pupils
- social networking – 16 out of 19 pupils
- listening to and downloading music –16 out of 19 pupils
- watching DVDs/TV/films – 13 out of 19 pupils.

C.502 When doing homework on their computers pupils reported undertaking research for History, ICT, RE, English and Art projects. For instance, one pupil produced an art graffiti project on the computer. Pupils also reported using computers to complete Personal Learning Projects which crosscut all subjects. For this, pupils stated that they had used websites to undertake research and then type up the findings.

C.503 When asked if they use their computers to log onto school from home, 14 out of 19 pupils confirmed they had done so. These pupils said they connected to the school for the following reasons:

- to complete homework (11 pupils) including coursework, ICT and English homework, RE and Citizenship assignments (both requiring the use of PowerPoint), Science research (e.g. to answer questions such as ‘what is static electricity?’) and to complete Personal Learning Projects
- to email teachers (three pupils)
- to complete accelerated reading tests (two pupils)
- to access information about the school (two pupils).

C.504 The remaining pupils did not log onto the school from home (five out of 19 pupils). Three of these pupils had tried to access the school via their computer but had faced various difficulties including software incompatibility and viruses. One pupil had not tried to log on whilst the final pupil had succeeded in logging on once but had not done so since.

C.505 In an average week pupils reported spending an average of 50 minutes per day on homework (ranging from 10 minutes to two and a half hours) and three and 3/4 hours per day on other activities (ranging from 1/2 an hour to six hours per day).

#### *Benefits*

C.506 All pupils consulted said they were using the computer to do their homework more now than six months previously. Although they found it difficult to articulate how much additional time they spent doing homework than six months ago, eight of the 19 pupils thought that all the time they now spent using the computer for homework was additional, another said that all research work was additional and another that double the amount of time was spent doing homework on the computer than six months earlier. For those who were able to provide a numerical value, four pupils reported doing around 1/2 an hour more per day, another around 10 minutes more per day and one pupil an hour more per day.

C.507 When asked what difference having a computer at home had made to their school work, pupils (without being prompted) said they found it quicker to complete work because, for example, they were able to type quickly. Pupils perceived their work to be neater, which resulted in better marks for presentation. Further, pupils found it easier to check for mistakes in their work as they could conduct research on the internet. This also made them feel more confident when presenting their work to their teacher. For instance, one pupil said it was easier to check dates for a history project. Another pupil said that having a computer reduced the need to remember/write down information as it is all stored on the computer – lost worksheets can easily be reprinted whereas without a computer, pupils said they would need to go back into school, visit the library or go round to a friend’s house. Finally, a pupil said it was easier to complete homework at home as there was more space and less distraction compared with school.

C.508 Pupils were also asked about the impact of Home Access on the pre-defined topics:

- easier to find information on the web for homework – all pupils agreed
- quicker to do homework – all pupils agreed

- makes homework look better/neater – all pupils agreed
- makes homework more interesting/fun – 12 out of 19 pupils agreed
- helps for revision – 13 out of 19 pupils agreed
- can ask friends about homework by email/instant messaging – all pupils agreed.

C.509 Following on from this, pupils were asked to describe any problems they had experienced with their computer at home. Although the majority had experienced few problems one did say it was difficult to finish off IT or English tests at home as they could not log onto the school remotely. Another pupil said that their internet connection was slow which made watching videos online challenging. A handful of other pupils also mentioned difficulties connecting to the internet.

C.510 The majority of pupils felt the time they spent on their computer at home did not displace other activities. Indeed, one pupil said they still attended a boxing class in the evening and another that although they might be spending more time on the computer this was because it was winter. That said, two pupils did say that they played out slightly less than before.

C.511 When asked about specific problems that might have occurred, pupils gave the following responses:

- spending less time doing other things – two out of 19 pupils
- how well the computer/internet works – four out of 19 pupils
- spam and inappropriate web content – no pupils reported issues here
- family arguments over access to the computer – no pupils reported issues here.

C.512 Pupils were asked what the best thing about having a computer at home was. They said it was easier to do their homework, and they valued the fact that the internet could be used to make sure homework was correct, leading to better marks. In terms of further education, one pupil had used his computer to research possible post-secondary music colleges. Pupils also said it was beneficial to have their own personal computer as this negated the need to use the school's computers at break or lunchtime, or to wait until someone else at home had finished using a shared family computer. Linked to this, pupils found it was helpful to be able to access resources quickly at home, avoiding the need to wait until school hours. The availability of resources online was also a benefit as it reduced the need for pupils to remember information. Other highly rated benefits of having a computer at home included the ability to talk to their friends and play games.

### **Key messages**

C.513 The school was progressive in its use of ICT to support teaching and learning, and teachers regarded pupils to be highly IT-literate before Home Access. The programme has had little impact on the school's plans for developing learning platforms.

C.514 The school could not implement an ICT-based homework policy because 5-10% of pupils still did not have a computer at home, even after the national rollout of Home Access. School

policy dictated that compulsory homework must be paper-based, the school was moving towards a dual approach where some homework tasks could be completed using a computer/the internet. Low income families excluded by Home Access eligibility criteria were believed to be in this group of children without any home computers. Also, the one computer per family restriction could limit home access for pupils in large families. More support was required in the home around setting up the computer, particularly as parents in beneficiary families generally were thought to have low ICT literacy.

- C.515 When asked if they use their computers to log onto school from home, 14 out of 19 pupils confirmed they had done so. Teachers had observed benefits arising from increased use of computers in the home: for example, pupils had become more creative and confident, the use of email has increased, ICT skills have improved, the presentational standard of work has improved and pupil motivation has increased. However, these benefits relate to access to any computer in the home and not to Home Access alone. Teachers did not feel able to comment on the impacts of Home Access as they did not know which pupils had benefited from the programme.
- C.516 Most of the interviewed Home Access beneficiary pupils had access to more than one computer at home. They spent only a quarter of their home computer time doing homework, spending an average of three and 3/4 hours per day on social media networking, downloading videos and music and other non-educational activities. Pupils reported very weak parental controls over their home computer use. Parental controls were greater when a single home computer was located in a communal space and used by other family members, but most Home Access computers were located in children's bedrooms. Teachers expected parents to be responsible for controlling home computer use, but few parents attended sessions on safe computer use offered by the school.



**Ref: DFE-RR132**

**ISBN: 978-1-84775-942-9**

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**June 2011**