Independent Evaluation of the Aston Pride Phase 3 Computers in the Home Project (2009 to 2011)

Final Report - March 2011

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Schools involved
Aston Manor Secondary School
Aston Tower Primary School
Birchfield Community Primary School
Birchfield Independent Girls' School
Broadway Secondary School
Deykin Avenue Primary School
Manor Park Primary School
Mansfield Green Primary School
Prince Albert Infant and Junior School
Sacred Heart Catholic Primary School
Yew Tree Primary School

Aston Pride personnel involved
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1. EXECUTIVE SUMMARY

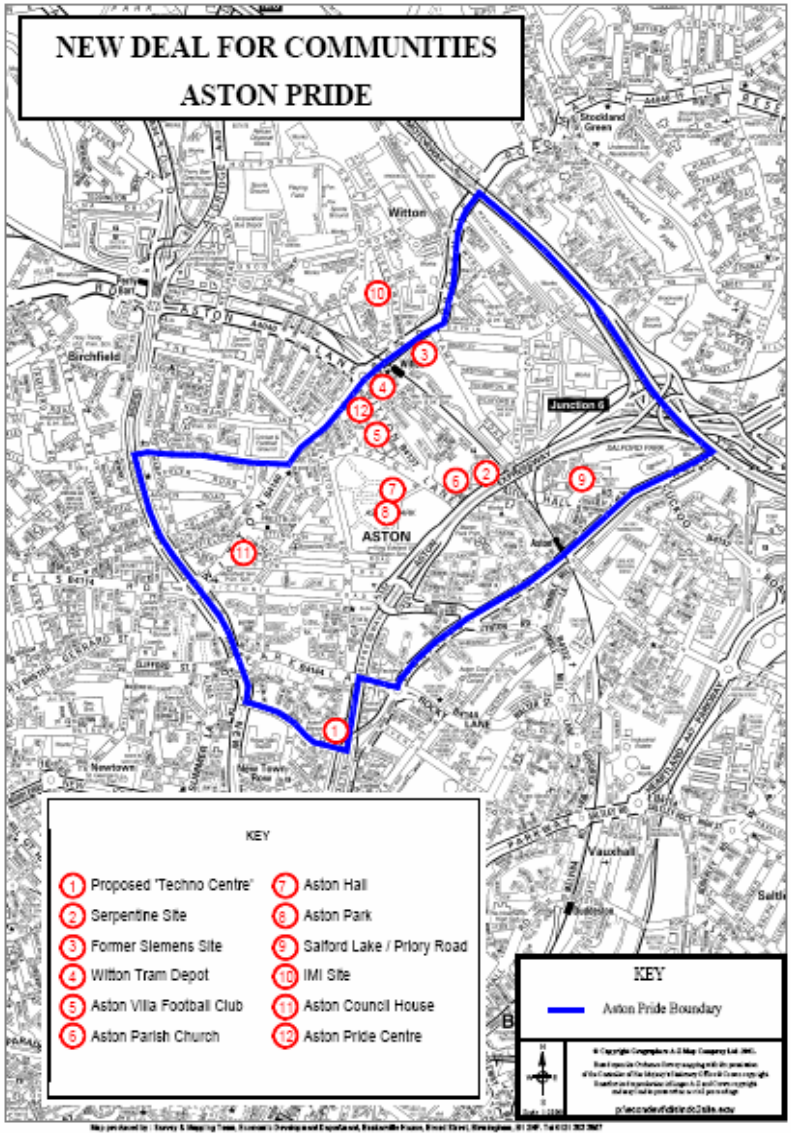
Introduction

The final evaluation report of the New Deals for Communities (NDfC) initiative (Batty *et al.*, 2010) details outcomes for all 39 projects run nationally. It stated that: "There has been considerable positive change in the 39 NDC areas: in many respects these neighbourhoods have been transformed in the last 10 years." The report went on to say, however, that: "education has been one outcome where, not only has it been difficult for NDC partnerships to make an impact, but there are also, albeit weak, negative associations between higher rates of spend and change in general." This has not been the case in Aston Pride NDfC; a strong educational lead was taken at an early stage, schools have increasingly adopted change, and have implemented a model where parents have been involved in using technologies to support and engage with learning activities with their children.

The location

The Aston Pride area was reported in 2005 (in the ICT Vision for Aston Pride, 2005) to have 14,314 residents and 4,500 households, placed in the 10% most deprived areas by Batty *et al.* (2010). The Aston Pride area, located to the north of the central city area of Birmingham, did not cover all of the area of the Aston ward. Figure 1 shows the area covered by the Aston Pride NDfC project.

Figure 1: Geographical boundary and features of the Aston Pride NDfC area



Educational focus

The Aston Pride Information and Communication Technologies (ICT) project was one element within a wider educational support and change initiative. The wider education theme activities, described through a 'Pupil Guarantee', focused on five areas of support and activity – arts and performance; extended learning; physical and experiential; technological including ICT; and environmental and residential visits. At the outset of the initiative, school performance was measured through end of Key Stage 2 SATs results, end of Key Stage 4 GCSE results, and indicators of serious weaknesses from Ofsted inspections. At the outset, those indicators of performance were generally below comparable performance indicators in other similar schools in Birmingham and nationally.

The Phase 3 ICT Project

The evaluation study reported here focuses on the implementation and outcomes of the Computers in the Home (CiTH) Information and Communication Technologies (ICT) project in Phase 3. Prior to this phase, significant prior activity enabled fundamental building blocks to be put in place: schools gained funding to put interactive whiteboards into all classrooms; personal digital assistants (PDAs) were trialled and used in two schools; computers into homes were trialled and deployed through one school; shared training and support were facilitated across primary schools; local community centres were provided with computer facilities; a mobile learning facility with ICT facilities was established; and a pilot wireless network was put in place across parts of the local area.

Outcomes in brief

This Phase 3 project, building on successes and pilots from previous phases, has culminated in a number of significant outcomes:

- A wireless infrastructure across Aston Pride has been completed, and reports indicate that it is robust, that it offers good coverage, and provides for high bandwidth in general (with only a very few localities reporting issues at certain times).
- Intergenerational learning has been a key approach embedded within the implementation of the initiative. Pupils have been trained in using ICT in schools, family members have been able to attend training sessions in schools, and teachers have provided learning activities where parents can be involved at home in working with or alongside their children.
- Using technologies for learning has been a key focus of the initiative. It was known at early stages that many community members were supportive of enhancing education for their children rather than for themselves. This initiative has enabled parents to see the benefits that computers can bring for their children and to their children's learning and they have, as a consequence, also gained interest in using the facilities for their own (employment, training, and leisure) purposes.
- Software available through the initiative has enabled teachers to provide opportunities for children to engage with independent learning activities that the children have enjoyed. These activities have involved, in a range of cases, research-based work, as well as more specific activities, many concerning mathematics using *Mathletics* and *Education City* software.
- The focus through the CiTH project on parental training and involvement has been vitally important. Raising parental awareness of educational practices is useful, but research points out that major benefit arises when parents become involved in more directly supporting their children's learning. This initiative has enabled a focus on activities that has involved parents in this way. Impacts arising from that parental involvement are reported in detail in later sections.

Considering outcomes against agreed revised outputs for the project (Aston Pride New Deals for Communities Delivery Partnership, n.d.), by the end of Phase 3:

- 2,500 pupils were expected to have benefited (700 in 2009-2010, 750 in 2010-2011, and 300 in 2011-2012). In total, 812 computer packages were installed in homes in Phase 3. This means that some 18% of all Aston Pride homes have benefited from installations in Phase 3 alone, with 43% of residents likely to have been reached during this phase (calculated using leverage factors identified during Phase 2, see Passey, 2007). During the Phase 3 Project, 831 laptops were additionally provided for pupils in the Aston Pride area through the *Computers For Pupils (CFP) initiative*, and 337 computers were supplied to homes in Aston Pride through the *Home Access*

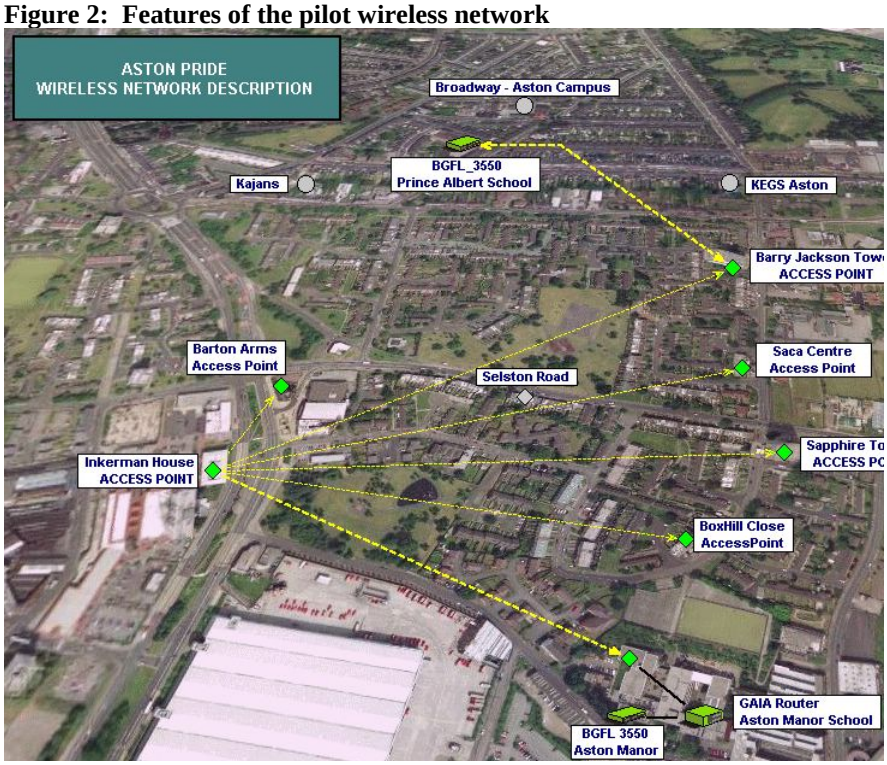
(HA) initiative, with 700 computers previously provided during Phase 2. In total, therefore, 2,680 computers were deployed across the period of the initiative, meaning that some 60% of homes may have benefited, with a possible leverage to almost the entire resident population.

- 11 schools were expected to have benefited and to have been physically improved. This aim has been achieved (see earlier details on page 2 and other details in Sections 7, 8 and 16).
- 1,250 adults were expected to have obtained a non-accredited qualification. In total, at least 1,227 adults (1,171 parents, 47 school staff and 9 advanced learners) have been involved in training (for further details see Section 11).
- 125 adults were expected to have obtained a registered qualification, 12 people with disabilities were expected to have accessed mainstream training, and 60 women were expected to have accessed mainstream training. No records provided have evidenced these outcomes.

The infrastructure

The provision of a wireless network (see Figure 2) has enabled other key features of the initiative to run successfully. During Phase 2 of the project, it became clear that community members were increasingly reliant upon maintained levels of network connectivity. During autumn 2009, it was not clear whether the capacity of the network connectivity provider at that time could maintain reliable Internet connectivity across Aston Pride. A great deal of outage was experienced, and it was necessary to clarify service level agreements (SLAs). To address the issue, Aston Pride agreed a contract with Tempus to extend the network, sites were identified and agreed, wireless surveys were completed to check lines of sight and access, wireless towers were installed, increased line speed was provided for two schools (at 100Mbps), and other hub sites were arranged through commercial contracts. At the same time, each school signed up to develop a Cyber Centre (for further details, see Sections 7.6 and 7.7), and one school was located as the Cyber Centre Hub. By April 2010, 6 out of 8 network sites were fully functional. By October 2010, the entire network and related installation and support services were in place.

Figure 2: Features of the pilot wireless network



Intergenerational learning

An intergenerational and long-term learning approach has been a key focus throughout this phase of the initiative. Aston Pride has strongly supported training programmes for parents, to raise their skills in using the ICT accessible within their homes. These sessions have been run in schools. From the

outset of this phase of the evaluation in March 2009, to March 2011, training programmes for family members have been run in 8 schools (further detail is given in Section 11). At least 1,227 parents were trained, many family members in initial sessions with children in year 3, but with high numbers also in years 4 and 6, and with representation across the entire age range from year R to year 11. Most participants were of an Indian sub-continent ethnic background, and most of them of Pakistani or Bangladeshi ethnic origin. Reported data suggests that numbers of family members involved in ICT training has been increasing, and that the levels of ICT skills across Aston Pride are increasing (earlier reports suggesting that many more beginner level outcomes were identified by proportion).

Leverage and reach

By January 2007, data gathered during the Phase 2 Project, from year 3 pupils in 2 primary schools where the 'ICT in the Home' pilot had been integrated to the greatest extent (reported in Passey, 2007), indicated that 125 computers had been successfully installed into homes, 56 mothers were using the computers (in some cases supporting English language access and practise), and 88 fathers were using the computers (in some cases supporting work needs). Significantly, 945 people in total were using the computers (a leverage factor of 7.6 people per computer, and supporting some 6.6% of the total official 2005 population number through access from only 5 classes of year 3 pupils).

Learning focus

Taking this successful lead, the Phase 3 Project has focused on aspects of learning, and particularly, taking learning home. Teachers (85 in total) describing their practices near the end of Phase 3 reported that the largest change for them was in using online facilities to provide homework activities. This practice shifted the types of homework activity that pupils could be engaged in, and it was clear that some teachers were then asking pupils to undertake tasks such as research at home, which were not demanded of them previously. This heralded a shift in terms of what was demanded of pupils outside classrooms, and was seen to be changing the qualities of learning demands outside the classroom. It was also interesting to note that some teachers noticed a reduction in paper being taken home by pupils, and that their uses of computers in school had consequently risen too.

Online resources and activities

A range of teachers clearly encouraged pupils to engage with online activities at home, enhancing the forms of research-based and project-based activities that they asked pupils to do. In some cases it appeared that teachers started to set homework for pupils for the first time. The software used, which was mentioned most often by teachers (and parents), was *Mathletics* and *Education City*. It appeared that many teachers were focusing on encouraging pupils to do mathematical activities at home.

The importance of parents

The focus through the CiTH project on parental training and engagement with their children's learning was potentially vitally important. As Harris and Goodall (2007), in a research report to the government department for education (DfES), stated when reviewing research into parental engagement with their children and outcomes in terms of learning:

- "Parental engagement is a powerful lever for raising achievement in schools. Where parents and teachers work together to improve learning, the gains in achievement are significant.
- "Parents have the greatest influence on the achievement of young people through supporting their learning in the home rather than supporting activities in the school. It is their support of learning within the home environment that makes the maximum difference to achievement.
- "Many schools involve parents in school-based or school related activities. This constitutes parental involvement rather than parental engagement. Parental involvement can encompass a whole range of activities with or within the school. Where these activities are not directly connected to learning they have little impact on pupil achievement."

Parental engagement

Harris and Goodall (2007) make the point that parents need to be engaged with their children's learning, not just involved in school-based activities. Although some earlier research work in this area

was criticised for its lack of robust approaches, later research studies were considered to be more methodologically robust and generated findings that were more consistent (according to the review undertaken by Desforges and Abouchaar, 2003). They showed that there was a 'powerful association between parental involvement and student achievement'. They showed that 'parental involvement in learning at home throughout the age range is much more significant than any factor open to educational influence'.

Parents' needs and challenges

A description of the focal content of a webinar, run by an educator group in the United States (U.S.) summarises well the issues that are faced in terms of parental engagement by communities such as Aston Pride (Innovative Educators, 2011): "First Generation College Students (FGCS), as defined by the U.S. Department of Education, are those whom 'neither parent had more than a high school education.' Given that FGCS lack parents' experience in preparing for and applying to college, they are at a disadvantage in obtaining information about and admittance to higher education institutions. In addition, FGCS families often do not know where to go to obtain the information or assistance needed to guide their children's education. However, with a strategically organized educational/outreach approach, our colleges can reach out to these families and create strong partnerships to ensure these students receive quality opportunities, as well as to improve their success in achieving educational goals." In essence, Aston Pride CiTH has adopted and implemented a model to address these issues.

Shifts in parental awareness and engagement

While Aston Pride faced considerable initial challenges of the types described above, responses from teachers in Phase 3 (85 in total), indicated that they felt parents had gained higher levels of awareness about educational practices - something in the region of a 72% shift in level of awareness, and in the region of a 34% shift in forms of engagement. When teachers were asked whether they felt this initiative had changed the ways that parents related to their children's work in any ways, responses indicated in the region of a 61% shift in level of engagement of parents with their children's learning.

Educational impact

Impact of this educational programme, on children and adults, has been explored and positively identified through this evaluation; this aspect can be considered to have been achieved successfully. Using standardised tests, and using a series of statistical analyses to check validity and significance of outcomes, both positive shifts in mathematics and reading results were identified in a large population of pupils (over 500 in total) across years 3 and 4 in 7 different schools. Impacts (at highly statistically significant levels) on the mathematical scores for all pupils (but particularly high for girls), and the reading results for all pupils (but particularly high for boys), both indicate potential contributions that would accommodate negative national trends associated with these gender groups. Teachers and parents report widely and positively on educational impact, and these are supported strongly by improvements over the period of the initiative in terms of SATs, GCSE and Ofsted criteria scores.

Impact on regeneration

Impact of this regeneration initiative on addressing the digital divide in the Aston Pride area (the extent the ICT Project has promoted longer-term economic well being) is evidenced in this report, and can be considered to have been achieved successfully by the project. The reach of computers into the community, the increasing uptake of training sessions, the improvements in ICT skills being reported, and the lack of any indication of differences in results across a 'digital divide', all support the view that this initiative is having an impact upon the community in positive ways. Reports from parents indicate the value that this initiative is having on them as individuals, in terms of gaining and maintaining employment, in terms of access to government and local services, and in terms of supporting individuals financially as well as widening access to commercial and retail opportunities.

Effectiveness of the model and its implementation

Effectiveness of the delivery model, including management, implementation and value for money, is evidenced in this report, and the project can be considered to have achieved successfully in these terms. Whilst the current installation of numbers of computers into homes might be less than had been

planned, the impacts of delays and alternative initiatives for parents could not have been foreseen at the outset. These challenges were picked up positively; they were addressed to the extents that parents, pupils and teachers were all able to indicate at the end of the project the benefits they felt had been gained, not just for them, but for the wider community. Reports from teachers, parents and pupils indicated that the value of the project was recognised, and that its contributions were also recognised.

Sharing learning and dissemination of good practice
In order to share learning and the dissemination of good practice, the project has taken a number of approaches to fulfil this aim. During Phase 3, there has been a sharing of practice, taking effective outcomes from previous phases and focused on specific aspects of ICT development. Successful and appropriate prior elements of practice were integrated into the Phase 3 project, and approaches were adopted to share these with all schools in the Aston Pride area (since, in previous phases of the project, fewer schools were involved with the CiTH project). Subsequently, all schools have become actively involved in the initiative, and have supported important learning approaches that have focused both on parental engagement and intergenerational learning. This element of the project can be considered to have been achieved successfully.

Ongoing feedback and response
The evaluation has provided regular feedback, offering an ongoing management tool, to enable the Project Board and delivery team to consider and ensure (as far as possible) continuous improvement of the service for schools and the wider community. The evaluation has reported on a termly basis to Aston Pride personnel. Successes and weaknesses have been identified at each stage, and those taking this initiative forward have responded to these aspects, addressing weaknesses as they have arisen, and enabling successes to be recognised more widely. This element of the project can be considered to have been achieved successfully.

The future - widening ease of access through an Aston Cloud
An Aston Cloud has recently been developed for use by community members. At this stage, the uptake and use of the cloud is not clear, but it is clear that longer-term sustainability of the project will be likely to depend quite largely upon widening levels of involvement and belonging by members of the Aston Pride community that are generated from this time on. Deployment of the Aston Cloud could, in certain ways, support a generation of involvement and belonging, particularly if topics that are of focal interest to groups within the community can be seeded and developed. There are indicators that these features are beginning to emerge (parents are reporting their interests in certain topics), but ways to build on these are likely to be needed for some time in the future.

Sustainability
Sustainability of the model, particularly in relation to generating income, and securing future delivery of activities can be considered to have been achieved successfully at this time (with success measured through a sustainable time horizon of one year or so). By the end of the project a succession strategy had been put in place, there was adequate funding available to allow continued provision of the network facilities over a period of at least a year, there were mechanisms being explored to generate further income, and there was a desire from residents to continue to support the programme through parental contributions. All of these are indicators of the project's success.

The project and 'The Big Society'
During a speech made in July 2010 in Liverpool, the current prime minister said that "groups should be able to run post offices, libraries, transport services and shape housing projects". The current government's desire to support communities in developing appropriate services, facilitated in a 'top-down' way, but undertaken in a 'bottom-up' way, is the approach that this project and working practices have taken. It will be seen from findings presented in this report that this project has supported community ICT developments strongly across Aston Pride, matching the principles of the current government's 'Big Society' plans.

2. BACKGROUND TO THE PHASE 3 PROJECT

2.1 The context of the wider Aston Pride Project

The final evaluation report of the NDfC initiative (Batty *et al.*, 2010) details outcomes for all 39 projects run nationally. It stated that: "There has been considerable positive change in the 39 NDC areas: in many respects these neighbourhoods have been transformed in the last 10 years." The report went on to say, however, that: "education has been one outcome where, not only has it been difficult for NDC partnerships to make an impact, but there are also, albeit weak, negative associations between higher rates of spend and change in general." This has not been the case in Aston Pride NDfC; a strong educational lead was taken at an early stage, schools have increasingly adopted change, and have implemented a model where parents have been involved in using technologies to support and engage with learning activities with their children.

The Aston Pride ICT project has been one element within a wider educational programme. The focus of activities were described through a 'Pupil Guarantee', focusing on five strands – arts and performance; extended learning; physical and experiential; technological including ICT; and environmental and residential visits. At the outset of the initiative, school performance in Aston was measured through end of Key Stage 2 SATs results, end of Key Stage 4 GCSE results, and indicators of serious weaknesses reported from Ofsted inspections. These performance indicators in schools across Aston Pride were generally below those of other similar schools in Birmingham and nationally.

The evaluation study reported here focuses on the implementation and outcomes of the Computers in the Home (CiTH) ICT Phase 3 Project. Prior to this phase, significant implementation enabled fundamental building blocks to be put in place. Schools gained funding to put interactive whiteboards into all classrooms, personal digital assistants (PDAs) were trialled in two schools, implementation of computers into homes were trialled in one school, shared training and support were facilitated across primary schools, local community centres were provided with computer facilities, a mobile learning facility was made accessible to the community, a community support facility with IT facilities was established, and a pilot wireless network was put in place across parts of the local area.

2.2 Past successes and outcomes

Successful implementation of computer access into a range of homes in Phases 1 and 2 of the Aston Pride CiTH Project was described through earlier evaluation findings in previous reports. Passey (2005, 2007) offers summary perspectives of the two previous phases of the project. A number of other reports, which were commissioned and focused on more specific aspects of the project, are listed in Appendix I, together with access details.

Following a report commissioned from Deloitte (n.d.), Aston Pride supported a wider implementation of computers into homes between 2009 and 2011. As a part of this implementation, Aston Pride commissioned an independent evaluation to look at and to define outcomes at a variety of levels. This report provides a background to the 2009 to 2011 Phase 3 project, details the evaluation methods proposed and adopted to address Aston Pride and independent evaluation needs, and presents findings gathered through a range of evaluation methods.

2.3 Intentions for the Phase 3 Project

Intentions of the Phase 3 project were set out initially within a project proposal document (Aston Pride, 2008). It was clear from the description in that document that the proposed project was ambitious, and that development was clearly focused on aspects of learning – allowing both short-term developments to be supported (learning about subject content or gaining specific skills by both adults and young people), as well as longer-term developments (learning about approaches and interests that would support lifelong skills and needs across an emerging adult population):

> *"The ICT Phase 3 proposal focuses on rolling out the BECTA award winning 'Computers in the Home Programme' across 11 schools within the Aston Pride area. In doing so it will add an*

additional 1800 homes to the existing 700 connected homes, making a total of 2500 local homes with computers and low cost, secure, safe, broadband connectivity. Families will receive a computer and will pay a subsidised [contribution] of £10 per month, for broadband connectivity and help desk support, through the Birmingham Grid for Learning (The 'Learning Network'). On completion of the roll out of all 2500 computers, collection of the £10 per month fee will contribute to the long-term sustainability of the project.

"All 11 local schools will be engaged in the project as the allocation of computers will initially target those children in year groups who are working towards Key Stage 2 and Key Stage 4 assessments. Through teacher training, the project will maximise the use of ICT in teaching of English and Maths. In exchange for computers, all parents will be encouraged to participate in ICT training delivered through schools."

2.4 Major variations to implementation in the first year

In 2009, at a fairly early stage in the project implementation plan, intentions for the project (those described in 2008) were modified (see Aston Pride News Deals for Communities Delivery Partnership, n.d.). Although overall strategic intentions of the project did not change, implementation activities to support stated overall strategic intentions were varied, and described as follows:

"This ambitious programme plans to add an additional 1700 homes to the existing 800 that are at present connected to the Aston wireless cloud, which provides safe internet access, and home based learning opportunities.

"We are seeking to make three variations to the original bid:

1. *A change in the wireless technology used to ensure capacity, sustainability and compatibility.*
2. *Changes in the adult training model to provide more advanced and accredited learners.*
3. *The development of a new learning hub."*

It was agreed in 2009 that this variation would be implemented, and although it clearly potentially supported the direction of the initiative in a number of ways, it demanded additional time for project personnel, both in terms of discussion and negotiation. Coupled with issues arising in terms of the technical performance and monitoring of the wireless network, and subsequent negotiation of alternative contracts, time delays were incurred. The time delays not only affected implementation of the project, but also had impacts on the evaluation and its implementation. Indeed, it became clear as the project continued to develop that time delays led to impacts on the Aston Pride project when other related projects across Birmingham, but which also included the Aston Pride area (such as the government-supported *Home Access* initiative), were introduced. Implications of these impacts are discussed further in Section 8.

From the beginning of the Autumn Term 2010, the major issues involving changes and variations had been addressed. From that time on, implementation of computers into homes became a focal concern of all involved, and the rate of introduction of computers and internet access into homes was raised in order to meet the targets that were originally set within the Phase 3 proposals (see further details in Section 9.1). Even though changes and variations had been addressed, this did not mean that the project did not face further challenges at that time; it will become clear from the discussion within this report that the nature and quality of those challenges shifted fundamentally for those concerned with implementation, management and forward-thinking sustainability, at that time.

3. EVALUATION AIMS FOR THE PHASE 3 PROJECT

The Aston Pride Computers in the Home (CiTH) Phase 3 project commissioned this evaluation to measure:

- Effectiveness of the delivery model, including management, implementation and value for money for the varying elements, to include equipment, connectivity and access, recommended and supported use, opportunistic use, and specific types of use.
- Impact as an education programme, on children and adult attainment, to also consider length of depth of parental involvement and interactions with their children.
- Impact as a regeneration initiative on addressing the digital divide in the Aston Pride area (the extent to which the ICT Project is promoting economic well being). This aim will need to consider levels of use (gathered through data from questionnaires), qualities of use (gathered through data from case studies), and values of use that might arise from uses of particular websites (for example, value for money and cost saving benefits associated with shopping online through the Tesco web site).
- Sustainability of the model, particularly in relation to generating income, and securing future delivery of activities.
- Sharing the learning arising and the dissemination of good practice.

As well as the requirement to measure the features listed above, it was an objective for Aston Pride to provide through the evaluation an ongoing management tool, to enable the Project Board and delivery team opportunities to consider and ensure continuous improvement of the service for schools and the wider community. This report was preceded by five prior interim reports, as a planned series of feedback reports across the phase of the project, in part to fulfil this aim. This is the final report, which draws together findings from across the entire period of the Phase 3 Project.

4. EVALUATION AND RESEARCH APPROACHES ACROSS THE PERIOD OF THE PHASE 3 PROJECT

It was recognised from the outset of the study that across the two-year period of the project, it would be important to gather evidence for the evaluation at regular intervals, to collate details at regular intervals, and to report them at regular intervals. Gathering of some eight different types of evidence was initially planned (to be supplemented by additional data and reports that the implementation teams would gather to support their needs, which would also be made accessible for the evaluation). Originally it was agreed that ten forms of evidence would be gathered:

1. Pre-access evidence. This evidence would identify whether families had existing equipment or broadband access. It would identify whether their existing equipment was purchased in response to knowing about other families having had access through previous Aston Pride project initiatives, and whether they felt that safe and secure access was a reason for their wishing to be involved in the current project phase. This form of evidence was to be gathered by the installation team when doing preliminary or initial visits, and delivered to the Lancaster team.
2. Delivery and installation evidence. This evidence would identify whether families had been satisfied with the delivery plan, with installation, with initial access, and with any initial follow-up. Administrative support personnel would gather this form of evidence, about one week after installation had been completed, and this evidence would be sent to the Lancaster team.
3. Follow-up management and support. This evidence would identify whether families had found school meetings useful, whether time and planning had worked for them, whether roll-out and working relationships had been successful, whether help calls had been addressed adequately, and perceptions of parents about the quality of technical support and equipment. The Lancaster team would gather this form of evidence, some one to three months after installation.
4. School support for the project. This evidence would identify whether schools had been satisfied with support processes, whether there was evidence of their commitment, expertise, methods to gather feedback, and processes to support shifts in learning and learning links. The Lancaster team would gather this form of evidence.
5. Attainment of pupils in the project. This evidence would identify, at individual and group levels, attainment shifts across the period of the project. This form of evidence would be gathered through periodic testing, using standardised tests (NFER were felt to be likely to be the most usable), undertaken with a time interval of some 6 months, and results reported to the Lancaster team.
6. Engagement of adults in the ICT training programmes. This evidence would identify numbers involved, across a range of sites, and the forms of accreditation arising. Those running the training programmes would gather this form of evidence, and sent to the Lancaster team.
7. Levels of attainment of parents. This evidence would identify progression routes taken by parents, IT attainment levels, language and numeracy involvement, employment and jobs, and creativity and media access. The Lancaster team would gather this form of evidence in the second year of the project (2010 to 2011).
8. Motivation of pupils. This evidence would identify the motivational impacts for pupils, reported through their own perceptions of involvement with computers, with learning and with other areas of self-interest. The Lancaster team would gather this form of evidence in the second year of the project (2010 to 2011).
9. Teacher involvement. This evidence would identify shifts in teacher practice, particularly relating to homework practices, and to engagement with parents. The Lancaster team, at the end of each school year, would gather this form of evidence.
10. Impact on employment, training and government services. This evidence would identify shifts in employment, training, access to information, and to government services by parents. The Lancaster team would gather this form of evidence in the second year of the project (2010 to 2011).

Within the Link2ICT Service Birmingham planning documentation (2009), the number of computer and network installations suggested for installation in homes of pupils in Aston Pride schools across Key Stages 2, 3 and 4 to meet the needs of the project were 1,158. The phasing of implementation, according to the planning document would be: "Installations in the home are planned at 5 per day over a 5 day working week = (25 installs per week), 42 weeks over the working year = (1050 homes)". As this implementation pattern was phased across a two year-long period, arrangements for data gathering for the evaluation of the project were organised in an ongoing way, using questionnaires and surveys that would be mediated by installation support personnel, or through online access at appropriate times. In this way, the data gathering was planned so that it could be responsive to the installation as it rolled out across the duration of the project.

The vital importance for responsiveness of the evaluation to installation and implementation patterns was clear very soon after the outset of the project. Within a matter of months from the initiation of the project, a major variation accepted by Aston Pride (Aston Pride New Deals for Communities Delivery Partnership, n.d.), and uncertainties with the reliability of the network infrastructure, led to shifts in implementation activities and to time delays (described in more detail in Section 7).

5. KEY FEATURES FOR THE REPORT

Using the evidence gathered through the range of elements identified above (and supplemented with additional data and reports provided by the implementation team), it was agreed that an interim report would be produced for Aston Pride at the end of each school term, collating evidence gathered during that term, and accruing it or comparing it with evidence presented in previous terms. Five interim reports of this nature were produced and presented to Aston Pride.

Aston Pride identified a number of key evaluation measures, which needed to be assessed across the period of the project, and reported at the end of the project. To fulfil the requirement to report on these key evaluation measures (which are listed below), evidence from appropriate elements of each of the ten numbered strands above was linked to the evaluation measures. The links between key evaluation measures and strands of evidence were planned as follows:

- Effectiveness of the delivery model, including management, implementation and value for money (was to be achieved through data gathering and reporting of strands 1, 2 and 3 above). The audience for this element would include those who might wish to use evidence of implementation in their own contextual circumstances both more widely across Birmingham as well as elsewhere across the country.
- Impact as an education programme, on children and adult attainment (was to be achieved through data gathering and reporting of strands 4, 5, 7, 8 and 9 above).
- Impact as a regeneration initiative on addressing the digital divide in the Aston Pride area (the extent the ICT Project was promoting economic well being) (was to be achieved through data gathering and reporting of strands 6 and 10 above).
- Sustainability of the model, particularly in relation to generating income, and securing future delivery of activities (was to be achieved through reporting of strands 3, 4 and 10 above).
- To share learning and the dissemination of good practice (was to be achieved through use of reports generated at regular intervals for Aston Pride).
- To provide through the evaluation an ongoing management tool to enable the Project Board and delivery team opportunities to consider and ensure continuous improvement of the service for schools and the wider community (was to be achieved through regular reports). Five reports in this form were produced, and findings were verbally fed back in meetings also.

6. DATA GATHERING ACROSS THE PERIOD OF THE PHASE 3 PROJECT

A table detailing the proposed initial evaluation processes for periods across the Phase 3 Project was presented in an evaluation proposal document that was initially submitted to and accepted by Aston Pride. Due to the ongoing nature of the evaluation, these processes were fulfilled at various points in time across the period of the project.

Processes highlighted within the proposal document are listed in Tables 1 and 2 following. Table 1 shows actions and outcomes initiated in March 2009, which were completed by February 2011.

Table 1: Evaluation process actions and outcomes initiated in March 2009

Process identified	Actions for March 2009	Outcomes by February 2011
Pre-access evidence	Creation of questionnaire	The questionnaire was created in consultation with the installation team, and is shown in Appendix A
	Collection at preliminary visit by installation team	The installation team collected questionnaires at installation, and 812 were returned to the Lancaster team (for the period up to 22nd March 2011)
	Analysis and reporting	The analysis and reporting of the returned questionnaires is included in Section 9
Delivery and installation evidence	Creation of questionnaire	The questionnaire was created, and is shown in Appendix B
	Collection one or a few weeks after installation by administrative support staff	Due to delays in network connectivity implementation, these questionnaires were used at a later stage than anticipated, and 154 were returned to the Lancaster team
	Analysis and reporting	The analysis and reporting of the returned questionnaires is included in Section 10
Attainment of pupils in the project	Collection of NFER data in schools	Collection of NFER data was undertaken by an Aston Pride consultant, and 14 data sets (mathematics and reading results for 7 schools), was returned in March 2010 and in December 2010 to the Lancaster team
	Analysis and reporting	The analysis and reporting of the returned questionnaires is included in Section 15

The processes highlighted within the proposal document that were initiated in August 2009 are shown in Table 2. Table 2 shows outcomes by February 2011 for those actions initiated in August 2009.

Table 2: Evaluation process actions and outcomes initiated in August 2009

Process	Actions for August 2009	Outcomes by February 2011
Engagement of adults in the ICT training programmes	Collection of data by trainers Analysis and reporting	Data gathered up to March 2011 was provided for the Lancaster Team, and findings from these data are included in Section 11
School support for the project	Creation of data gathering schedule Collection of data, analysis and reporting Analysis and reporting	A questionnaire shown in Appendix C was created by the Lancaster team in August 2009, it was shared with the Aston Pride team, was put online in January 2010, and 32 teachers completed it The analysis and reporting of the completed questionnaires is included in Section 12
Motivation of pupils	Creation of data gathering questionnaire Collection of data online Analysis and reporting	A questionnaire shown in Appendix D was created by the Lancaster team in August 2009, shared with the Aston Pride team, was put online in September 2010, an Aston Pride consultant supported pupils in completing it online in the Autumn Term 2010, and 134 pupils completed it The analysis and reporting of the completed questionnaires is included in Section 13

Process	Actions for August 2009	Outcomes by February 2011
Follow-up management and support	Creation of online questionnaire Collection by independent team Analysis and reporting	This questionnaire (shown in Appendix E) was not used, as the evidence gathered from post-delivery and installation questionnaires covered these requirements
Teacher involvement	Creation of data gathering schedule Collection of data online Analysis and reporting	A questionnaire shown in Appendix F was created by the Lancaster team in August 2009, shared with the Aston Pride team, was put online in September 2010, an Aston Pride consultant supported teachers in completing it online in the Autumn Term 2010, and 85 teachers completed it The analysis and reporting of the completed questionnaires is included in Section 13
Levels of attainment of parents	Creation of data gathering schedule Collection of evidence online Analysis and reporting	A questionnaire shown in Appendix G was created by the Lancaster team in August 2009, shared with the Aston Pride team, was put online in September 2010, an Aston Pride consultant supported parents in completing it online in the Autumn Term 2010, and 20 parents completed it The analysis and reporting of the completed questionnaires is included in Section 14
Impact on employment, training and government services	Creation of data gathering schedule Collection of data online Analysis and reporting	A questionnaire shown in Appendix H was created by the Lancaster team in August 2009, shared with the Aston Pride team, and was due to be put online in January 2010, so that pupils could support parents in completing it online in the Summer Term 2010 Due to time pressures arising, this questionnaire was not used with parents However, 20 in-depth interviews were conducted with parents, which covered these requirements The analysis and reporting of the completed interviews is included in Section 14

7. STAGES OF IMPLEMENTATION OF THE PHASE 3 PROJECT

7.1 Initial aims and intentions

The proposal statements within early documents created by Aston Pride indicated that this was to be an ambitious project. Before the start of Phase 3, some 700 computers had already been installed in homes across the community. According to revised outputs for the project (Aston Pride New Deals for Communities Delivery Partnership, n.d.), by the end of Phase 3:

- 2,500 pupils were expected to have benefited (700 in 2009-2010 from Phase 2 installations, 750 in 2010-2011 from Phase 3 installations, and 300 in 2011-2012 from Phase 3 installations).
- 11 schools were expected to have benefited and to have been physically improved.
- 1,250 adults were expected to have obtained a non-accredited qualification.
- 125 adults were expected to have obtained a registered qualification.
- 12 people with disabilities were expected to have accessed mainstream training.
- 60 women were expected to have accessed mainstream training.

7.2 Implementation achieved by September 2009

By September 2009 (six months into the Phase 3 Project), it was stated within implementation documentation (Aston Pride New Deals for Communities Delivery Partnership, n.d.) that a range of key milestones had already been achieved and others had yet to be achieved. Key milestones achieved by that date were:

- A project management office had been established in the APNA Centre.
- A service delivery plan had been finalised.
- All but one of the 11 schools had agreed to work within the terms and conditions of an SLA.
- A complete wireless network survey had been completed.
- All primary schools had run 'Inspire Workshops'.
- All schools had been represented at the two training workshops delivered for the project.

A number of key milestones to be completed beyond September 2009 were:

- The wireless network was to be completed (and following issues arising with the initial set-up, interim use of ADSL was put in place, and a new provider was contracted).
- 1,400 computers were to be installed in homes in Aston Pride (bringing the total number to 2,100 across the period of the entire project).
- Cyber Centres were to be established.
- Cyber Centre training was to become operational.
- The project was to become self-sustainable.

7.3 Key issues recognised in September 2009

During the Autumn Term 2009, two meetings with a number of key personnel in the Phase 3 Project indicated that implementation was progressing, but that a number of important issues and challenges were arising. These issues and challenges, outlined further in this section of the report, can be summarised as:

- Shifts in the scope and scale of the project were affecting its ethos and management.
- When numbers of users of home computers increased, reliability at a network level became a fundamental need.
- Although additional resource to support implementation intentions was highly desirable, time and implementation delays arose when implementation capacity was limited and subsequently stretched.
- Evaluation activities were dependent in this project (as in any other development project) upon implementation activities, and outcomes of the evaluation would be limited if there were limits to implementation outcomes and capacity.

It was clear that the nature and ethos of this project had shifted significantly within only a few years. Initially, the project was a pilot; it focused on support through one school, and provided largely for

one person to engage and support home connectivity and family involvement. By December 2009, the project involved 11 schools, and implementation teams were in place that supported at a management level, a delivery level, and a training level. As one project consultant said, it felt as though the project had developed into a service delivery project rather than a pilot project. Certainly this being the case, there were clear implications; as a project manager said, it felt that expectations for a good service had been raised across the parent population. To manage wider implementation, delivery, support and training, a robust service delivery model needed to be put in place. Within a few years this project had moved from being initially a pilot project, to a wider project in an interim period that needed to take on greater demands of capacity and parental needs, and by December 2009, to the breadth of a project that needed to be implemented and supported through a service delivery model. However, while this shift required all involved to accommodate to differences in ethos, intention and delivery, there were some aspects that remained unchanged. At an individual home level, the form of change was not so clear; parents continued to want a good quality, local and friendly service, in spite of a scaling up of the project from a pilot to a service delivery model. Similarly, at a home level, the concept of finance had not changed. The project still subsidised families and homes, so while sustainability of a service delivery model needed to be considered and accommodated in the long term, it was also clear that there was a need for some continuity of a subsidised provision, since it was unlikely that large numbers of families would shift in terms of their income over the period of this project (2 years from the installation of a computer in the home), especially within an economic period of downturn rather than upturn.

7.4 Issues with the existing network

It was clear over the two years prior to 2010 that community members had become increasingly reliant upon maintained levels of network connectivity. During the Autumn Term 2009, there was uncertainty about the capacity of the network connectivity provider to maintain reliable Internet access and connectivity across Aston Pride. A great deal of outage was experienced with the provision, and it was necessary to clarify service level agreements (SLAs), since the provider was not fulfilling requirements that were expected by Aston Pride. Some computers had already gone into homes when these issues arose. Due to lack of reliable connectivity, this meant that more visits had to be undertaken in order to put connectivity in place at a later time. While it had been possible for Aston Pride to switch provision, to install ADSL rather than relying on wireless access, it was found that this approach also involved additional time, since BT required 6 weeks to put in a circuit before Aston Pride could go into a home to install connectivity. The lack of reliability of wireless provision, the need to negotiate new wireless contract agreements, and the need to revisit homes to install network connectivity, all led to delays and frustrations with regard to fulfilling parents' expectations of facilities.

7.5 Implications of network issues

One consequence of the delays arising from unreliable network connectivity was that follow-up questionnaires to identify family responses to experiences of installation were not undertaken by Aston Pride staff at early stages of the project. The reason for this was largely because of the lack of capacity of Aston Pride staff, since they needed to focus their attention on addressing other issues. Aston Pride staff recognised that there was a need for parental comments and responses to be heard, listened to and addressed. Indeed, Aston Pride staff found that they were using SMS increasingly to communicate with parents to gain feedback and respond to issues. In these circumstances, where it might not have been clear to a parent who was responsible for what (such as failure of access to the Internet), it was felt that it was not an appropriate time to collect follow-up information. During this time, it was clear that Service Birmingham had been proactive, and had responded to needs as they had arisen. Indeed, as high levels of outage had been difficult to handle, a series of actions were put in place to contract a new connectivity provider to start implementation. Initially, it had been hoped that this provision would be in place from October 2009, but by November 2009, although the connectivity was in place, testing was still being undertaken, and while the pilot test had been completed, it was expected that there would be a further 2 week period before wider roll-out could be achieved. Initially, this meant that it was expected that the infrastructure would be completed after a period of a few months, meaning that parents would have connectivity by February 2010. In reality, more delays were

experienced, and by February 2010, wider-roll was expected by April 2010. These continued delays had impacts on parental expectations. Indeed, in December 2009, a number of parents had computers but no connectivity. During this period of time, therefore, it was agreed that there would be no financial charge to those parents; parents would be charged only when they had connectivity and not before.

7.6 A major contract variation in Autumn Term 2009

Additionally, during the Autumn Term 2009, a major contract variation with Aston Pride was negotiated and agreed for the project. This variation sought to support a number of implementation activities that were intended to offer enhanced facilities and opportunities for the community. However, the negotiation and agreement of this variation did take time, and it meant that capacity of project personnel to undertake other activities became limited. Time involved in a review of the variation by external expert and Government Office personnel also led to delays in implementation as some personnel were drawn away from previously agreed work.

By November 2009 the variation was agreed. A key component of the variation was to set up a number of Cyber Centres in schools. Schools were able to bid for funds to implement a Cyber Centre, and receive in the order of £10,000 to £18,000 to do so. This provision could be an enhanced existing provision or a new provision, but the school had to provide a facility that developed and then used the expertise of a number of advanced learners (10 in each school). It was expected that the Cyber Centre would provide a facility for parents, with those parents being supported and supervised in their uses of the facilities for at least 3 hours a week. Advanced learners would be engaged to look at ways they could use and implement a learning platform (based on *Moodle*), enhanced with *MS SharePoint* facilities, in order to develop and create a community-based learning environment (a CLE). The concept was to take elements of school websites or school learning environments, and community websites including the Aston Pride website, and to integrate them through a portal into a CLE facility. One Cyber Centre would act as a Hub, and the others would be linked to it. With 11 schools involved, and 10 advanced learners in each school developing and maintaining a CLE, these facilities would involve 110 advanced learners in total. This facility, providing a learning platform for the community rather than a website, would fit with the wider Birmingham school learning platform development, in which a *Moodle* with *MS SharePoint* facility would replace the *Birmingham Grid for Learning* (*BGfL*). Across Birmingham Local Authority (LA) schools, some 60 schools already used *Moodle* as their learning platform by the end of the Autumn Term 2009.

7.7 Implementation in 2010 and 2011

By February 2010, a number of significant additions and amendments to the project were in progress, rather than being completed. Due to technical issues arising over the previous 12 months, there had been a build up and backlog of support calls. By February 2010, however, there were only 6 support calls outstanding, whereas there had in previous months been as many as 250. In terms of the wireless network, Aston Pride had agreed a contract with Tempus to extend the network, sites had been identified and agreed, wireless surveys had been completed to check lines of sight and access, wireless towers were being put up, increased line speed was being provided at two schools (of 100Mbps), other hub sites were being arranged through commercial contracts with funding agreements being put in place, all required equipment had been ordered ready for installation by the end of March 2010, and the intention was to test and roll out from the beginning of April 2010. In terms of the project extension, each school had signed up for a Cyber Centre, and one school was located as the Cyber Centre Hub.

By April 2010, the network infrastructure was taking shape, and 6 out of 8 network sites were up and running. Planning application was required for one other site, and the infrastructure was in place for the last site. It was anticipated that the entire Aston area would be covered by wireless connectivity by the end of May 2010. In April 2010, computer installations were still being undertaken using USB sticks to provide some levels of connectivity. The wireless cloud was fully completed by June 2010.

By October 2010, the entire network and related installation and support services were fully in place, and more homes had had computers and network access installed. Additionally, feedback from parents was in place (and details of results from their responses are reported in Section 14). Benchmarking data from 7 schools involved had also been collected (and these data are given in Section 15).

Near the end of the project, evidence gathering for the evaluation was being supported by an Aston Pride consultant, to ensure that details could be gathered within the time frame of the project end. By March 2011, 812 computers had been installed in homes, and evidence had been gathered from 154 parents post-delivery and installation (reported in Section 10), sets of test data had been gathered and analysed from 7 schools (reported in Section 15), 134 pupils completed a questionnaire about their experiences with home computers (reported in Section 13), 85 teachers completed a questionnaire about their experiences (reported in Section 13), and 20 parents provided evidence through in-depth interviews and 20 through online questionnaires (reported in Section 14). In terms of parental training needs for the project, by March 2011, schools had provided and run training opportunities for a large number of parents and family members. Records of 1,171 parents being trained through the schools are reported in Section 11.

8. EMERGING CONCERNS, ISSUES AND IMPLICATIONS

8.1 Implications for schools, teachers and learners

Apart from the impact of delays on the installation and evaluation processes, it was also important to identify how far the delays due to the need for key personnel to focus on infrastructure and contract issues, amendments to contracts, sustainability and succession strategies, might have taken away a focus of the project on learning, and supporting schools and teachers in appropriate ways to gain learning benefits from the initiative. By February 2010, there was some concern raised about how teachers were being trained and supported in helping parents and pupils with home use, and how the project was maintaining its focus on learning. This was a key issue that was picked up in subsequent evaluation meetings, and from April 2010 project personnel focused much more on these aspects (and at the same time the network was completed and in place to support their needs and those of schools). Overall, however, this did mean that shifts in learning at home and its impacts on attainment could only be measured at later stages in the project.

8.2 Concerns with succession and sustainability

From a succession strategy point of view, there had been some early discussions about possible future directions by February 2010. Elements of the discussions at that stage were focusing around the position of ICT, and how it would be integrated with the other themes, how a central team within Aston Pride would be maintained, and how funding would be held and handled. The roles of Cyber Units within succession were being discussed, with some focus on the ways that 'advanced learners' from the community would be identified, supported, and then drive initiatives further. Involvement of some 110 advanced learners was being considered, as was their role in terms of training parents. It was recognised in discussions that parental contributions would be vital to sustainability and the succession of the project, but also of importance would be to take on board an appropriate concept and practice of involvement. The succession would seek to place the project on a basis of community participation rather than community delivery. So, rather than the project being delivery focused (providing computers, internet access and resources), the focus would be on participation (by identifying community members who would provide, deliver, support and use facilities).

An important concern with sustainability for project personnel was around issues of finance. Two aspects of concern raised were the need to ensure that there was a financial flow, and that the finances were held in ways that would allow sustainability over periods of time as long as possible. With regard to what families gained from their involvement in the project, the installation package provided a new PC, *MS Office*, technical support, a 1 year agreement, learning software (so that access to resources was the same at home as it was in school), and internet access for a fee of £10 per month over three years. After three years, the project was unlikely to want any more money or the computer back. However, ensuring that the funds came in from families became an increasing priority for the project. As a part of longer-term financial concerns, financial handling was moved in June 2010 from the E-Learning Foundation to the Titan Partnership.

Discussions about financial aspects of the succession strategy included concerns about the levels of funds that would be needed to run the network for a year beyond March 2011 (the end of the NDfC project), and the amount of income generated from past financial contributions. The Titan Partnership actively sought other funding and development opportunities in order to maintain the running of the network for a longer period of time. At the same time, it recognised that income had been reduced severely due to the delays and interruptions with network provision.

Developing a concept of participation with residents across Aston Pride was clearly important to ensure longer-term involvement, but of importance also was the recognised need to foster feelings within the community that they had gained support and had seen Aston Pride's contribution as being reliable and valuable (and concerns with network reliability and interruptions with provision had clearly had potential impacts). One of the consequences of delays in implementation was the impact of the *Home Access* (Becta, 2010) project. This government-supported project provided families with low

socio-economic income and who were willing to apply, to gain a free computer and internet access. Given this opportunity, some families in Aston Pride decided to apply through this route. Consequently, those families did not support the subsidised model that had been devised by Aston Pride. It was clear, however, that parents were concerned, when taking up this option, with their short-term finance rather than a longer-term sustainable provision. Certainly by July 2010, school presentations undertaken by Aston Pride staff during the previous month suggested that computer provision in homes was either moving to a point of saturation for families opting for *Home Access*. It was known that some 250 to 280 computers had gone into homes in Aston Pride through the *Home Access* route (which connected to 3G for Internet access, rather than through the Aston Pride wireless network). As a consequence of the decline in interest in the *Home Access* initiative, Aston Pride decided to focus its awareness of the Aston Pride package on parents with younger families (those with children in years N and R), and to encourage those involved in training to apply for the Aston Pride package for computers (even though these community members might not have children at school).

Whilst the shift by some parents to gain from *Home Access* meant that lower numbers of computer installations had been undertaken by Aston Pride, it did raise the question of how far these two models were sustainable. The *Home Access* model had no agreed follow-on strategy, and it was not known how sustainability would be considered or achieved. The Aston Pride model, however, was built on the basis of subsidising families, but to the extent that families would become self-sufficient through the funds that they were providing on a regular basis. It is clearly important that the implications of these two models are considered beyond the period of the project, but more fundamentally perhaps, it will be important that families in Aston Pride are enabled to gain continuity of a provision, given the fact that the *Home Access* initiative may not continue into the future. The question of sustainability may well rely in the future on enabling families to engage with the Aston Pride model as time moves forward; wider family participation will clearly be an important feature that will need to be sustained, if the model (and associated finance) is to be sustained.

8.3 Moving from a delivery to a participation model

Part of the way that enhancing participation was considered during April 2010, was the deployment and use of online learning environment facilities. The use of *Google* applications (Apps) within cloud computing was considered, so that members of the community could create and share documents, create questionnaires, collate findings, create and share web pages, use calendars, and create and share video. The intention was to develop a community group or business group that would open source software applications for the Aston Pride community, and introduce adults to this software and its uses. Initially, the 110 advanced learners would be targeted and involved. By April 2010 a company was involved with some community members in creating ‘passion pieces’, which offered an initial range of community voices. Another company helped with the development of the community website front end. Although this intention was laudable, the difficulties of involving community members in website creation and uses of facilities through websites and learning environments is documented and recognised in other contexts (such as the evaluation of the BBC *WebWise* initiative, for example). Means to engage the community, to gain their participation, and to look at evidence of participation, are all aspects that are likely to be needed as key focal areas of concern if such an initiative is to be fully supported and effective.

8.4 Engagement and participation of the various stakeholders

Participation of residents as a desire is unlikely to be achieved without engaging the various stakeholders in what Wegerif (1998) referred to as the need to develop ‘belonging’; this feature was identified in his study as essential, if involvement in communities of practice was to develop. Aston Pride has sought to increase feelings of belonging by supporting meetings and events, and these are clearly important as precursors for online interactions. The development of a dedicated community learning platform and web cloud, under discussion in April 2010, was also intended to support the engagement of individuals within wider communities of practice to further their interests.

In terms of engagement of stakeholders, it has been clear from discussions in meetings and from survey feedback that teachers and schools have not always been engaged easily with this project or with its evaluation (even though schools and teachers have called for evaluation evidence of its outcomes). For example, a teacher was seconded from a school specifically to support other schools in their Aston Pride developments, but this teacher was not called on or used by other schools to any real extent at certain times. In other respects, however, positive outcomes of the project in terms of wider engagement have been recognised. The project manager, in April 2010, for example, reported that he felt that parents were now more confident in approaching schools (although it was possible that this effect might have arisen as parents were of an age when they had been fully educated in the UK). Another indicator of engagement was a shift in the patterns of mobility in and out of schools; since the start of the project, pupils come into Aston to attend schools, rather than going out of the area.

8.5 Associated technologies to support involvement and belonging

By April 2010, the school-based Cyber Units were already up and running. Only a few issues had been found when these were being set up. As an element of enabling schools to develop their abilities to sustain ICT and support within the school and its Cyber Units for community purposes, schools were encouraged in June 2010 to apply for the ICT NAACE Mark. It was agreed at that time that Aston Pride would pay the fee (£500 + VAT), and that this would provide a way for schools to be able to share their wider ICT vision with others. When seeking this qualification, the ICT Mark assessors looked for embeddedness (for example, uses of VLEs to support pupils at home if they were off ill).

In terms of ensuring parent engagement in terms of their being satisfied with aspects of safety and security, Aston Pride encouraged schools to look at use of *Cybersentinel* software and practices. This system provided for e-safety for the home, with adults becoming the administrators of the system. Birmingham LA purchased vouchers for all parents, the voucher covered a year of use from the time that it was installed, and there was an online presentation available for schools to use with parents when they were being trained. The system could disable internet access at certain times for any individual user.

8.6 Developing access to a web cloud

As a means to continue to enable wider engagement of stakeholder groups, and to consider the longer-term sustainability and viability of the project, technologies were developed at alter stages of the project to support different forms of online interaction for residents. The development of a web cloud was seen as being an important step in this respect – access to the original Aston Pride website was not easy, and its administration was not easy. The development of an Aston Cloud with a specific developed website was intended to cater for 3,500 community users. As one means of engaging parents from the community into the cloud, a film company, Trilby, created six videos of ‘passion pieces’ with parents from one of the schools.

By June 2010, the Aston Cloud development had progressed to the point where a pilot version had been set up. This was set up as a collaborative tool, free of charge to all Aston Pride users. It required a log on and password access, and allowed the creation of a range of forms of document that could then be shared with others. Teachers who tried out the pilot version had varying initial success with it. Many teachers found access very difficult initially, while one teacher was able to create a new site, create a name for the site, create a home page, enter an announcement, and complete a page and a links page.

Certainly, early versions of the home interface that were developed for the community learning platform lacked features that would be likely to engage members of the wider Aston Pride community. For example, menu buttons were positioned so that text was displayed vertically across the top of the screen rather than horizontally. For users who are beginners, and for those whose first language is not English, this would have been unlikely to have enabled ease of access. Similarly, images were not crisp, so that users were not able to clearly identify features. However, responses from a teacher who was involved in the development did highlight an important challenge for developers in this respect; it was clear that different users might well ‘see’ different features as being useful or interesting. As the

teacher said, ‘the system has been piloted here with our 6th formers and they think it's fantastic. Really it's so far ahead of expectation for the teaching staff and students - all, from what I understand now use it as their preferred network both at home and at school - even over our £200,000 Citrix system. I've had sight of the appraisal document the teacher is doing with the students and it makes brilliant reading - *a real flag ship Aston Pride project*.’ But, it was also clear that individual developers could make significant impact on the appearance and design of interfaces, and that these would need to be checked with different users. As the teacher also said, ‘I have to admit it's down to an individual taste to a certain point of view.’ Certainly the cost of developments, the management of those developments, and the endeavour of companies involved all needed to be considered. As the teacher said, ‘it's already been rebuilt five or six times, with feedback ... as each build went live for testing. As far as value for money goes, I do feel the £2,000+ we paid for the front end is a drop in the ocean compared to what it’s cost them as a company to build so far, *but as ever they do want us to be happy* - frankly they want people to see and use the cloud, then go to them to buy one for themselves.’ In June 2010, it was agreed that the front end would be redesigned, with a layout to make it more attractive, user friendly and very easy to navigate for those with little or no PC or Internet experience, and ‘exciting to such an extent it keeps users hooked in.’ It was agreed that the cost for the front end redesign and likely time scales to go live would be identified, so that Aston Pride could move quickly on the redesign, as the CLE was already at that time being advertised on flyers and communicated to schools and residents in Aston.

In June 2010, the Aston Cloud (www.Aston-Cloud.com) was accessible to the community. Arrangements had been made to allow provision on the cloud for 3,500 users, from *Google* (allowing a great many more users free access than was normally the case). This ‘community website’ would allow community access without a fee. It was intended that ‘advanced users’ connected with the Cyber Units would police the site. By July 2010, 50 to 60 people were registered on the Aston Cloud. Although some ‘passion pieces’ were available on the Aston Cloud, take up suggested at that time that the facilities did not engage the community. It was not clear whether there were, for users, language or structural issues that they faced when using the site.

9. EVIDENCE FROM THE COMPUTERS IN THE HOME INSTALLATION QUESTIONNAIRE AND CHECKLIST

9.1 Installations to date associated with schools involved

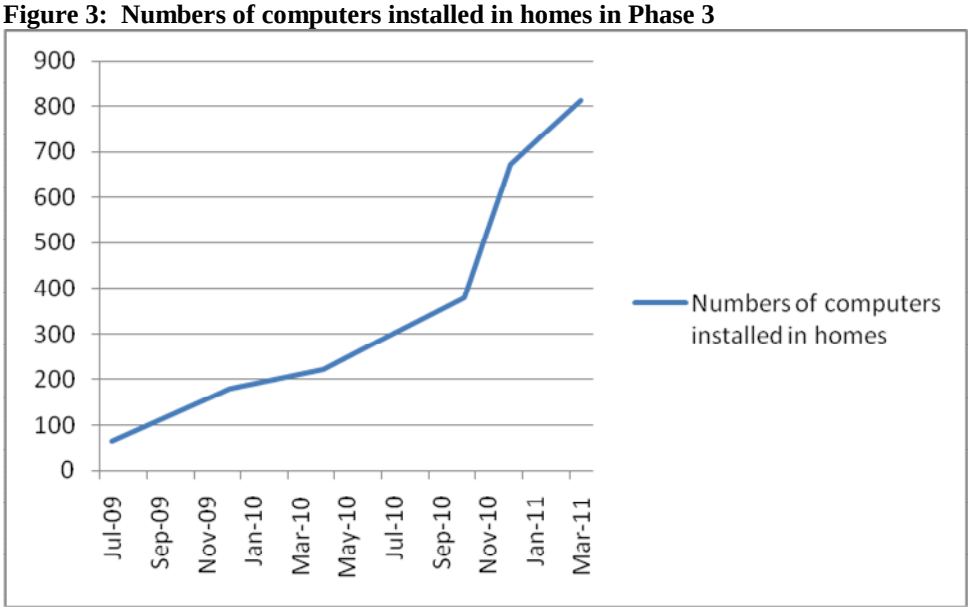
From the outset of the evaluation in March 2009, installation questionnaires (see Appendix A) were returned to the Lancaster team regularly; 64 installation questionnaires with checklists were returned by July 2009, 181 were returned by December 2009, 222 by April 2010, 381 by October 2010, 673 by December 2010, and 812 by March 2011 (including all installations up to 22nd March 2011). Table 3 shows, using these records, the numbers of installations in homes associated with each school.

Table 3: Installations associated with each school at times across the period of the Phase 3 project

School	Installations by July 2009	Installations by December 2009	Installations by April 2010	Installations by October 2010	Installations by December 2010	Installations by March 2011
Secondary School 1	0	1	2	4	7	10
Primary School 1	5	7	7	12	30	34
Primary School 2	29	40	45	72	107	119
Secondary School 2	9	10	11	11	11	11
Secondary School 3	2	3	3	3	37	44
Primary School 3	2	25	26	44	55	60
LA Centre 1	0	0	0	4	6	12
Special School 1	0	0	1	1	1	1
Special School 2	0	0	0	1	1	1
Primary School 4	0	0	0	9	30	43
Primary School 5	0	6	13	17	32	46
Special School 3	0	0	3	4	5	5
Secondary School 4	0	0	0	0	1	1
Primary School 6	2	10	13	42	61	76
Primary School 7	0	0	6	14	21	27
Primary School 8	0	0	0	1	1	1
Special School 4	0	0	0	1	12	16
Primary School 9	15	79	86	110	146	159
No school name stated	0	0	6	31	109	146
Total (n)	**64**	**181**	**222**	**381**	**673**	**812**

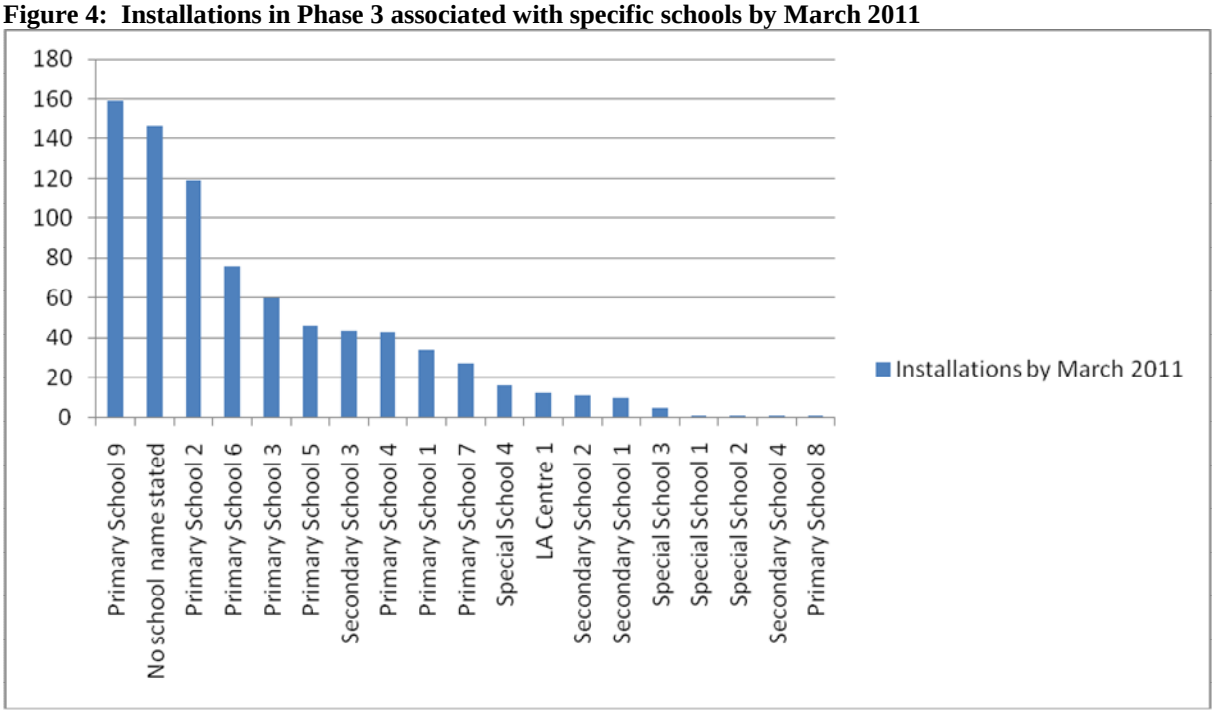
It is clear that the numbers of installations increased after September 2010 (see Figure 3), and that they varied from school to school (see Table 3 and Figure 4). There has also been variation across schools in terms of the increase of numbers of installations over the period from July 2009 to March 2011.

Figure 3: Numbers of computers installed in homes in Phase 3



Most installations were associated with four of the schools involved (see Figure 4) - Primary School 9 and Primary School 2 with 100 or more installations, and Primary School 6 and Primary School 3 with 50 to 99 installations.

Figure 4: Installations in Phase 3 associated with specific schools by March 2011



At earlier stages in the CiTH project, the focus within schools was in particular year groups (years 3 and 4). This enabled a more specific learning focus to be taken across the schools, so that a specific range of teachers could be initially involved, and a specific focus on learning activities and subjects could be taken. At later stages of the project, and particularly during this Phase 3 stage, parents from other year groups have been encouraged to take part much more. There has been a widening of the approaches taken to making the initiative known, and to marketing to specific year groups.

By October 2010, the coverage of computers in schools was identified and known. As a consequence, those families without computers were targeted. It was found, for example, that 66% of year 7 pupils in Secondary School 3 did not have a computer provided through Aston Pride. The much higher rates

of installation following that targeted approach in that school are shown in Table 3 above. Similarly, parents with pupils across years 2 to 6 were targeted, rather than only certain year groups being selected (years 3 and 4 only were targeted in the 2009 to 2010 school year). Indeed, a letter going out to parents in October 2010 stated: "If you already have internet access this does not prevent you from applying for this educational package which will enhance your child's educational opportunities. We are now also extending this offer to all families with a child in an Aston school in any year group even Nursery." In parallel, there was a focus on raising teacher awareness to the initiative, as it was recognised that some teachers did not know about it, or did not think it was pertinent to their year groups. Overall, these changes in targeting approach emphasised the move of the initiative from a project provision to a service provision.

Certainly by December 2010, the number of pupils with an Aston Pride computer in years 4 and 5 (who had been targeted to be involved in the project when they were in years 3 and 4) in many of the schools was known. In descending order, Primary School 6had 68% of pupils with an Aston Pride computer; Primary School 1 had 62%, Primary School 8 had 62%, Primary School 3 54%, Primary School 5 40%, Primary School 7 25%, and Primary School 4 25%. Across the schools, the project led to 51% of pupils in years 4 and 5 gaining an Aston Pride computer. It is worth noting at this stage that the three schools with lowest proportions of pupils with an Aston Pride computer were affected by different factors, but the resultant outcomes were similar; Primary School 4 had network problems concerned with its local tower blocks, Primary School 7 was a small school on the border of the Aston Pride region, and Primary School 5 was involved in head teacher change.

In Table 3 above, it should be noted that increases in installations where there was no related school name was due to more residents being given access to the initiative (residents who did not need to have a child in a school). A targeted approach was taken to increase the number of installations for residents in the community. Marketing was undertaken, for example at a Tesco community fair where leaflets were handed out at checkouts, and also 3,500 leaflets were dropped through the post-boxes of homes. An Aston Pride team leader went into shops and surgery reception areas to alert them to the initiative, bringing attention to the community through a range of routes, rather than relying on a single route.

The service provision approach also considered its relationship and provision to other initiatives that had provided computers, but had not necessarily provided safe or filtered Internet access. Across the period of the Phase 3 Project, 831 laptops were provided for pupils in the Aston Pride area through the *Computers For Pupils (CFP) initiative* by the Birmingham E-Learning Foundation (BELF), largely to pupils in the secondary schools (Secondary Schools 1 and 2), with £6 per month charged for the device. During the same period, 337 computers were provided to homes in Aston Pride through the *Home Access (HA) initiative* (across the 11 schools involved). Aston Pride agreed to provide connectivity for these devices, possibly using 3G technologies. (It should also be noted that a *Home Access Update* dated 27th September 2010 indicated that home take-up across Birmingham as a whole totalled 11,530 machines, some one third of the total take-up number across the West Midlands.)

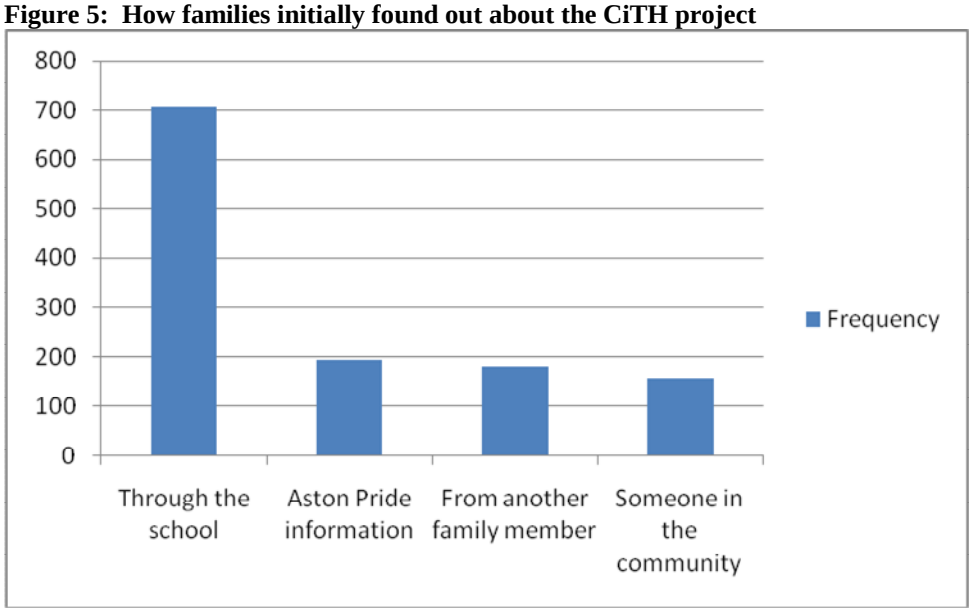
In summary, this meant that by March 2011 Aston Pride supported connectivity to a community network, offering links to the Internet, to its wireless cloud and the CLE, for 700 homes prior to Phase 3, to 812 homes in Phase 3 (both with computers provided by Aston Pride), and could potentially provide additional connectivity (although no evidence of this was available) to 831 homes gaining computers through the CFP initiative, and 337 homes gaining computers through the HA initiative. If all these homes were connected by Aston Pride, this would total 2,680 homes.

9.2 Finding out about the project and receiving installations in homes

From evidence gathered through installation questions, when asked how the family initially found out about the Computers in the Home Project, 706 family members reported finding out about it directly from the school, 194 from Aston Pride information, 181 from another family member, and 158 from someone in the community (see Figure 5). It is clear that schools have been the most major source of information about the project, but that information through other routes has also led to significant

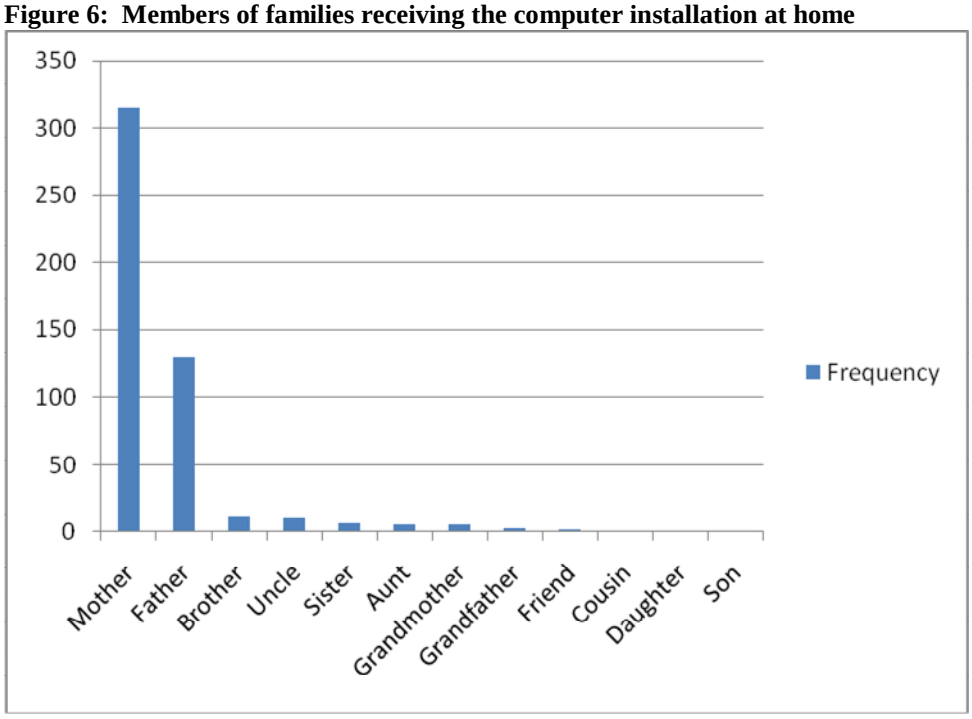
uptake. There are clearly a number of families that have gained information from different sources also.

Figure 5: How families initially found out about the CiTH project



Engineers who had gone into homes to install the computers were received by different family members (see Figure 6). In most cases this was a mother, or (at a lower level) a father: in 315 cases it was a mother; in 129 cases a father; in 11 cases a brother; in 10 cases an uncle; in 7 cases a sister; in 6 cases an aunt; in 6 cases a grandmother; in 3 cases a grandfather; in 2 cases a friend; in 1 case a cousin; in 1 case a daughter; and in 1 case a son. In all other cases the relationship of the person to the child was not specified.

Figure 6: Members of families receiving the computer installation at home



9.3 Background experiences of ICT of those receiving the installations

When asked about their background experiences, those present at the installation reported that:

- Most had used a computer before; 140 had not used a computer before, but 654 had.

- Most did not have a computer or laptop already in the home; 445 reported they did not have a computer or laptop in the home previously, while 340 reported they did.
- Most had used the Internet before; 567 reported they had used the Internet before, while 216 reported they had not.
- Most felt they did not need training to help them work with their child on the Internet; 581 felt they did not need training, while 194 indicated they needed training.

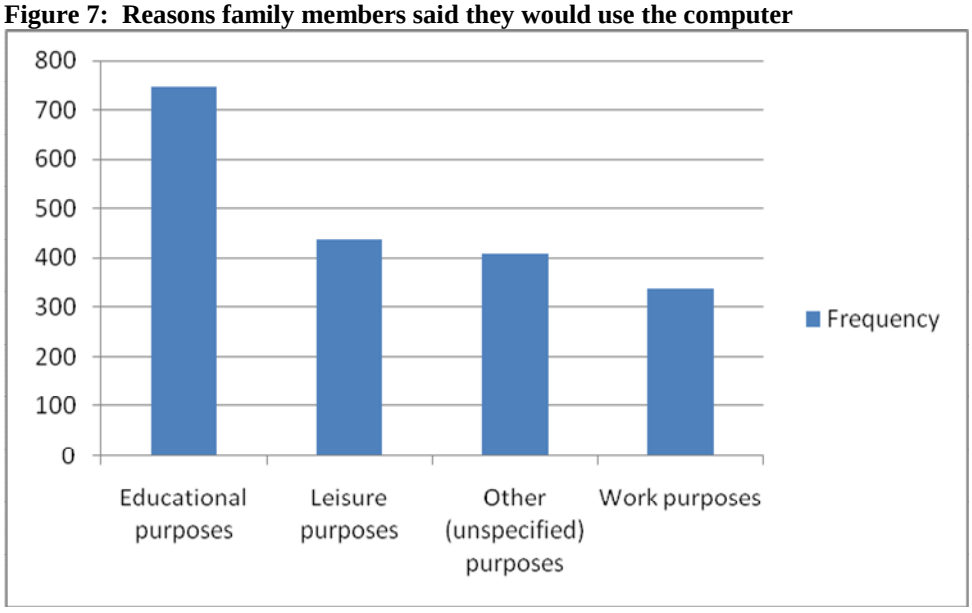
9.4 Initial intentions for the home computers

Although many of those receiving the equipment in homes had used a computer before, many had not had a computer or laptop in the home already, but many had used the Internet before. About a quarter felt they needed training to help them work with their child on the Internet. When asked what the family members might use the computer for:

- 745 said it might be used for educational purposes.
- 437 said it might be used for leisure purposes.
- 409 said it might be used for other (unspecified) purposes.
- 339 said it might be used for work purposes.

An overview of responses is shown in Figure 7. The interest shown by families in using the computers for educational purposes has been an important facet of this entire project. The form of evidence here, while being indicative or intentional, is supported by evidence from other sources also. Parent interviews detailed in Section 14 and attendance at training workshops that were focussed on work at home with children reported in Section 11, as well as findings from earlier parent and community representative reports (Passey, 2007), all confirm the strength of interest in this community in supporting their children's learning and education.

Figure 7: Reasons family members said they would use the computer



9.5 Features of the installations

It was clear that educational endeavour was a major stated intended use for the equipment at home for many of those who received the equipment. Other details from the installation checklist indicated that:

- 756 family members received a PC starter pack.
- The engineer completed 753 PC set-ups.
- 708 family members knew how to turn the PC on.
- The Internet was working in 641 cases.
- Email was set up and working in 570 cases.
- The home-school agreement was read and understood in 737 cases.
- The PC was installed in a family room in 541 cases.

In many cases the engineer was able to complete PC set-ups, to provide working Internet, and email. However, it was clear that in a number of cases this was not the case. It was also clear that the home-school agreement had not been read and understood in some cases, and that the PC was installed in a room that was not a family room in about a third of the homes. It is also of note that many of the installations completed after April 2010 gained more positive responses to these questions, probably as a consequence of the network capacity being accessible when engineers were installing equipment.

Maintaining online internet safety was a continuing aspect of concern to the Aston Pride team. In a Service Birmingham Bulletin dated February 2009, Avtar Dhillon, Link2ICT Project Manager, said: "The project is not just about box shifting and hardware delivery. The model used delivers a learning package which includes safe, secure and filtered internet connectivity, learning software and parental control software. The work being done within this community has helped to close the 'digital divide' that exists between Aston and the other areas of Birmingham". The article went on to say that: "Through Link2ICT's commitment to this project, CiTH has empowered the young people of Aston by supplying learners' families with a home based desktop computer and wireless internet access linked to the Birmingham Grid for Learning (BGfL)." Digital Birmingham in June 2008 identified a range of software that was deployed on the BGfL for filtering, reporting and monitoring purposes at that time. This included the *Web Washer* filtering system from Secure Computing, which categorises websites (as red, amber or green) so that up to 90 different types can be blocked or allowed according to the local policy. *Web Washer* logs can be interrogated by a Content Reporter, so that regular reports can be tailored to meet requirements. Reports are configured so that they are automatically generated at regular intervals. *Web Washer* monitors Internet usage to a limited extent; it can show usage against IP address, an indication of the address and associated pupil, subject to confirmation of the configuration of the network.

10. EVIDENCE FROM THE COMPUTERS IN THE HOME POST-INSTALLATION QUESTIONNAIRE

10.1 Questions asked

The purpose of a post-installation questionnaire (see Appendix B) was to offer families opportunities to give feedback about their experiences with installation and early uses of the equipment. In total, 10 questions were asked of families (by Aston Pride staff, over the telephone). Question responses were submitted via an online questionnaire, and held securely on the Lancaster University server. The questions asked were:

1. Were you happy with the date and the plan for the delivery of your home computer?
2. Did the delivery happen on the date planned?
3. Was the installation successful?
4. Did you also receive internet access at the same time?
5. Has the computer worked successfully since it was installed?
6. Has internet access worked successfully since it was installed?
7. Have you needed to contact anyone about the computer or internet access?
8. If so, was it easy to contact someone?
9. If you did contact someone, has your question been resolved?
10. Do you have any comments you would like to offer at this time?

10.2 Responses gained

Not all families were contacted following their installations, and not all responses were recorded within the online system. As a consequence, the results are from a random sample, which was neither knowingly biased either by the Aston Pride staff who made contact with the families, nor by the system that did not record certain entries.

In total, by December 2010, 154 questionnaire responses were collected. Responses gained are recorded in Table 4 following.

Table 4: Responses to post-installation questionnaires (n=154)

Question	'Yes' responses	'No responses'
1. Were you happy with the date and the plan for the delivery of your home computer?	139	2
2. Did the delivery happen on the date planned?	139	2
3. Was the installation successful?	153	0
4. Did you also receive internet access at the same time?	136	15
5. Has the computer worked successfully since it was installed?	150	4
6. Has internet access worked successfully since it was installed?	125	28
7. Have you needed to contact anyone about the computer or internet access?	41	108
8. If so, was it easy to contact someone?	42	2
9. If you did contact someone, has your question been resolved?	39	5

These data indicate for the sample of families who responded (154 out of the 812 total installations), that in all cases (one response being a null response) the installation was successful, in the vast majority of cases they were happy with the planning and date involved, that the delivery happened as planned, and that the computer worked since that time. Most indicated that the Internet was installed at the same time, and that the Internet had been working since installation (but considering the need for a new network to be installed, the slightly lower number here was to be expected).

Some families (about a quarter) contacted a helpline following installation, and when this happened it appears that this was easy and that in most cases (39 out of 41) problems were resolved. Overall, this is a positive picture, representing 23% of the total installation population.

Interestingly, comments received from some families suggested that they were not contacting a helpline, even when they were experiencing problems. Comments from all families indicated a range of issues that arose, and the responses of families indicated that these were largely addressed:

- Having problems with the internet (slow, intermittent or not working) at the moment - advised to log the call with the helpline (in 11 cases).
- At install the server was down therefore the internet was not connected, but the customer rang a few days later and the internet was connected (in 5 cases).
- Ongoing issue with the internet (in 4 cases).
- Due to a new installation team (Omega) there have been some problems with scheduling installs but the problem has mainly been resolved now (in 4 cases).
- Customer says they have been ringing the helpline, and rather than having someone answer the call or going to voicemail, it has been ringing out (in 2 cases).
- Customer having occasional problems with the computer, so advised to ring the helpline (in 2 cases).
- Customer not happy with the fact that they did not receive the internet on the day of installation (in 2 cases).
- The internet was slow so the customer has installed his own USB internet on the PC after being told by Aston Pride that the speed of his internet cannot be increased due to line of sight problems.
- Customer has moved and is awaiting USB install.
- Customer said engineers were very friendly.
- Customer has been on holiday, therefore advised to log the call again.
- Insufficient notice given before the PC delivery – the customer would have liked to have had more than one hour's notice.
- Internet started working again.
- Customer has not contacted the helpline yet about the problems with the computer and internet but has said that they will do so now.

Overall, these comments indicated that:

- Some families were not contacting the helpline when they had problems, and this form of follow-up was clearly valuable in making contact with those families to ensure they were aware of the system and contact numbers that were in place.
- Some of the earlier issues of Internet connection had been resolved.
- There still appeared to be some Internet issues, in spite of the new network being in place.
- When installation teams were changed, monitoring of their procedures for installation needed to be put in place to ensure that installation would run smoothly for families involved.

11. EVIDENCE FROM TRAINING RECORDS

11.1 Training programmes and sessions

Aston Pride strongly supported training programmes for parents, to raise their skills in using the ICT accessible within their homes. These sessions were run in schools. A key incentive put in place at the outset of this initiative was, for every household trained, the respective school would receive £200 in order to further develop its internal ICT infrastructure. The training was funded from parental payments.

The training used two different models across the period of the Phase 3 project. The initial training model offered parents an opportunity to improve their skills by working alongside their children, or on their own. This training was usually covered in 4 sessions, but some schools offered 6, and some parents attended 6 sessions, while others offered 2 or 3, and parents completed 2 or 3 sessions. From records provided, it appeared that in some schools, parents and family members attended only two training sessions in any one year, while in other schools they attended up to 6 sessions. As data were recorded in different ways in different schools, it was not possible in all cases to identify the number of training sessions that individuals attended. The training focused on supporting the parents' skills and their use of the Internet. One of the sessions focused on Internet safety, parents were introduced to using the internet, and a school project was shared with the parents or, alternatively, software used in the school by children. In this way the parents had access to the kind of work that their child engaged in. During the training, teachers were asked to identify which parents were advanced, intermediate or beginners in terms of their ICT skills. Beginners were given some basic instructions to help computer usage.

While a number of schools in Aston Pride provided this form of training, other schools, including Primary Schools 2 and 7 also ran their own extensive adult ICT training. Parents involved in these sessions in these schools were not included in any Aston Pride output reports, as they were organised separately from the Aston Pride initiative.

A review of training by an Aston Pride lead teacher at the end of the 2008 to 2009 school year in one school indicated that parents were 'very happy' with the ICT training package they had received. Parents indicated at that time that they wanted further training to be held in school, and most felt that 9.00am was a useful starting time. Discussion on what training might be provided suggested that two very different areas were being requested: basic computer training; and workshops where parents worked with their child using ICT. Some parents indicated that they wanted to come and work alongside their children, 'not particularly to improve their own ICT skills but to be more aware of what ICT is used for in school and what their children do so they are able to support their children at home'. Parents already reported that they had gained certain things from the workshops, including being able to help their children more at home, being more aware of how ICT was used in school, improved ICT skills, time to talk to staff in school, and being able to work alongside other parents.

As a consequence of this form of feedback, supported by evidence from the Phase 2 ICT Project (reported in an earlier evaluation report by Passey, 2008, and presented in a series of meetings and workshops in 2007), training at a later stage in Phase 3, from November 2010 onwards, was run through 'INSPIRE' one-hour long workshops. These were organised as one-off workshops, where parents came into school and worked directly with their own children, looking at uses of online resources such as *Education City* and *Mathletics*, which would be selected by teachers for pupils to work on at home. These sessions were led by the class teacher or the ICT co-ordinator in the school. Different teachers approached this in different ways; the ICT co-ordinator at Primary School 6, for example, systematically worked through the school class by class. The take-up of these sessions was strong; 800 parents attended workshops in the last 4 months of the project. This level of take-up and the focus of the workshop both support the view that parents are particularly keen when training relates to them helping their children with homework, rather than the training being for their own direct benefit.

For the purposes of this report, training records provided up to and including 29th March 2011 are included, although it was anticipated that more training would be reported at a slightly later time. Projected 'INSPIRE' workshop training numbers were provided by some schools, in anticipation of completed training delivery prior to March 31st 2011. In total, 6 schools projected additional training numbers of 162 that were not included in this report.

In the data evidenced in this section, every attempt has been made to identify individual parents, to avoid double counting. In total, therefore, at least 1,171 individual parents received some training. Since the outset of the evaluation in March 2009, up to March 2011, training programmes for family members were run in 9 schools. Some schools ran training sessions in the 2009 to 2010 school year (using the initial training model), others in the 2010 to 2011 school year (using the 'INSPIRE' workshop model), and others in both years. In the 2009 to 2010 school year, 416 parents were trained in total, while in the 2010 to 2011 school year, 755 parents were trained in total. Overall, 1,171 parents were trained across both years (see Table 5).

Table 5: Numbers of parents trained by school

School	Number of parents and family members trained in the initial programme run over two to six sessions	Number of parents and family members trained in the 'INSPIRE' workshop programme in single sessions
Secondary School 1	17	0
Primary School 1	30	15
Primary School 2	71	235
Secondary School 2	62	88
Primary School 3	41	0
Primary School 4	10	63
Primary School 5	47	0
Primary School 6	129	211
Primary School 9	9	143
Total	**416**	**755**

Of the 1,171 family members involved, 308 were recorded as being referred to the Aston Pride Learning Shop located in the Aston Library (where they might find appropriate or relevant follow-on training or support). Records that might provide indications of follow-on activities have not been explored as a part of this study.

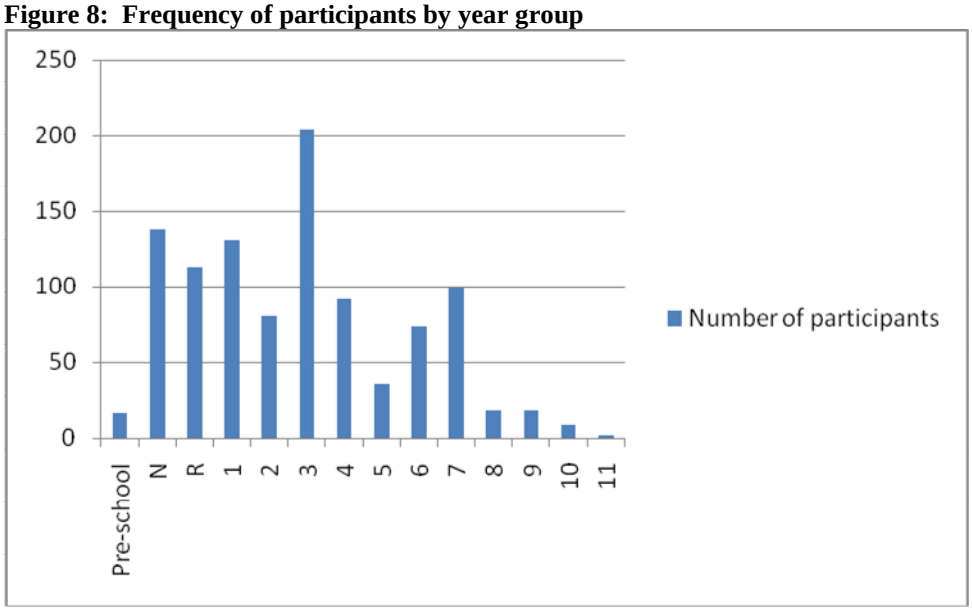
11.2 Family members attending the sessions

Many trainers running the sessions, or family members attending the sessions, indicated the year group of the family member's child. Numbers according to year group are shown in Table 6 and in Figure 8.

Table 6: Numbers of participants involved according to year group of their child

Year group of the child	Number of participants
Pre-school	16
N	138
R	113
1	131
2	81
3	204
4	92
5	36
6	74
7	99
8	18
9	18
10	9
11	2

Figure 8: Frequency of participants by year group



Most family members attending had children in year 3, with high numbers also in nursery and years R and 1, but with representation across the entire spectrum from pre-school to year 11. Family members also indicated their ethnic background in many cases. Numbers attending training according to ethnic background are shown in Table 7 and in Figure 9.

Table 7: Numbers of participants involved according to ethnic background

Ethnic background	Number of participants
Afghan	1
African	15
Albanian	2
Algerian	1
Arabian	2
Asian	16
Bangladeshi	312
Bengali	27
Bermadana	1
Black	7
Black African	11
Black Caribbean	10
British	10
Caribbean	13
Chinese	2
Congolese	1
Czech	1
European	3
Gambian	1
Gujarati	3
Gypsy Roma	3
Hinko	1
Indian	103
Iranian	1
Jamaican	1
Kashmiri	28
Malaysian	5
Mirpuri	12
Mixed	22
Muslim	7
Pakistani	369
Punjabi	1
Saudian	1
Somali	51
Vietnamese	2
Yemeni	1

Figure 9: Frequency of participants by ethnic background

The training supported a wide range of individuals from different ethnic backgrounds. Most participants were of Indian sub-continent ethnic background, with most of those of Pakistani or Bangladeshi ethnic origin. The proportions of ethnic background groups in the Aston B6 postal area, according to the 2001 Census reported by the Office for National Statistics indicates that 25% were Pakistani, 21% Bangladeshi, 22% White British, and 15% Caribbean. Training has, therefore, been both inclusive, and has catered for residents from different ethnic background groups within Aston Pride.

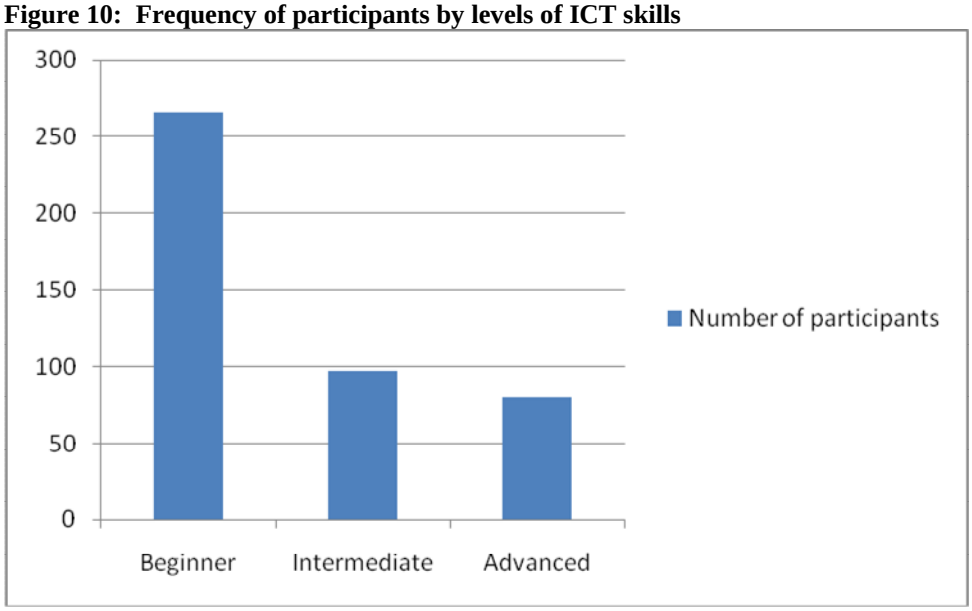
11.3 Outcomes of training sessions

Records taken in training sessions indicated whether family members had achieved beginner, intermediate or advanced status with regard to ICT skill level. Numbers according to level reached are shown in Table 8 and Figure 10.

Table 8: Numbers of participants achieving particular ICT skill levels

Skill level	Number of participants
Beginner	266
Intermediate	97
Advanced	80

Figure 10: Frequency of participants by levels of ICT skills



Participants in the sessions clearly started with different ranges of ICT skills. These were not recorded initially, but their skills at the end were largely judged to be at a beginner level, with a substantial number judged at both intermediate and advanced levels. These data suggest that the levels of ICT skills across Aston Pride are increasing, as earlier reports suggested that many more beginner level outcomes were identified by proportion.

12. EARLY EVIDENCE FROM TEACHERS IN SCHOOLS

12.1 Background features of respondents

By the end of March 2010, 32 teacher responses had been received through the online questionnaire system. Responses to individual questions (see Appendix C) are detailed in this section of the report. Responses were received from a wide cross-section of the schools involved in the project: 1 from Secondary School 1; 2 from Primary School 1; 16 from Primary School 2; 1 from Secondary School 2; 4 from Primary School 3; 2 from Primary School 5; 2 from Primary School 6; 3 from Primary School 7; and 1 from Primary School 9. Responses also came from a wide cross-section of staff, involved in different ways in the schools: 1 from an attendance officer; 8 from classroom teachers; 1 from a deputy head teacher; 4 from ICT co-ordinators; 1 from an ICT development worker; 2 from ICT leaders; 3 from ICT network managers or technicians; 2 from ICT teachers; 1 from an ICT support assistant; 1 from a CiTH leader; 1 from a learning mentor; 1 from a business manager; and 6 from teaching assistants.

12.2 Satisfaction with and commitment to the project

Most respondents indicated that they were satisfied with the project at that time. Of 32 responding, only 3 indicated that they were not satisfied, while 28 indicated satisfaction. When asked whether they had received enough information about the project and how it worked, 6 indicated that they had not, while 26 indicated that they had. When asked what other information they would have liked, they said:

- More about the project and how it works - although information has been cascaded, the finer details are not known.
- A reference for information, so that after presentations and meetings it is possible to get some details, as there is nowhere to find this information at the moment.
- Who the scheme is open to and any terms and conditions.
- Confirmation about whether laptops for parents are possible.
- A PC that the parents were given, so that training planning would have been more appropriate.
- More analysis of data about progress across the schools - although it is recognised that it may be impossible to disaggregate the other initiatives that take place to measure the impact of ICT alone.

Most respondents indicated that they were committed to the project. None indicated that they were not committed, 6 indicated part commitment, and 25 indicated full commitment. When asked how they perceived the likely benefits of the project, they said:

- Increase the ICT knowledge and capabilities of wider school communities (in 11 cases).
- Getting computers to families that cannot afford them, coupled with secure Internet connection (in 7 cases).
- To involve parents in helping their children learn through the use of ICT (in 7 cases).
- More computer access for children and parents (in 5 cases).
- Improved teaching and learning for all children and parents' increased learning will benefit the children further (in 5 cases).
- Enhanced opportunities for personalised learning and access to software that supports learning outside school (in 3 cases).
- Support with children's homework (in 2 cases).
- To improve skills, employability and life chances (in 2 cases).
- Parents understand more what children are doing in school (in 2 cases).
- If used effectively, improvements in pupils' academic progress.
- Improved communication with parents.
- Having Internet access at home for a variety of purposes.
- Helping school with resources for children.
- Changing the attitude to ICT in the community.
- Parents being more confident in supporting their children's work.

12.3 Monitoring impacts of the project

Some schools were at that stage putting methods in place to gather evidence of what was happening as a result of the project. When asked about this, respondents indicated the methods they had in place:

- Questionnaires (in 12 cases).
- Verbal feedback (in 12 cases).
- None/not yet as only just starting (in 6 cases).
- Sampling evidence of homework accessed and completed (in 4 cases).
- Records are in place showing who has taken up the opportunity (in 3 cases).
- Feedback sheets (in 2 cases).
- Meetings with parents.
- NFER testing each year.
- Photographs.
- Yes (unspecified).
- Working on strategies to successfully execute our methodologies.

12.4 How teachers and learners were using the project

When asked whether respondents felt that learners were taking advantage of the facilities they had, all indicated some level of positive response. Twenty-six thought they were taking advantage fully, while 6 felt they were partly taking advantage of facilities available. However, when asked what made them think that this was the case, there were no responses.

When asked whether as a teacher they felt they were taking advantage of the facilities that learners had, responses were more varied. Two felt they were not taking advantage of the facilities (they were not teachers), 11 felt they were partly taking advantage, and 18 felt they were taking advantage of them. When asked what made them think that this was the case, respondents said:

- Homework is regularly set for pupils, based on online software and monitored (in 12 cases).
- Parents are able to support their children with their homework (in 2 cases).
- They are aware of what other teachers do (in 2 cases).
- There have been discussions about how to increase levels of communication and homework accessibility.
- Some lessons take account of the fact that a whole class has access to a computer at home.
- Wider ranges of resources to create an interactive learning environment are used.
- It is helping parents to learn.
- Children are more motivated by computer-based homework.
- It is suggested that children use the same sites at home as well as in school.
- It is easier to teach children ICT as they have prior knowledge about it.

12.5 Ideas about future uses of the project

When asked in what ways in the future learners and teachers should use the facilities to gain most advantage, respondents said:

- Parents and teachers can use these methods to communicate and discuss their children's progress and homework (in 7 cases).
- Use online homework with tasks seen by parents, and work can be returned online (in 5 cases).
- More access to better programs to support learners, such as an improved learning platform (in 3 cases).
- Providing resources for parents relevant to their children's work (in 2 cases).
- Keeping up-to-date about children's learning (in 2 cases).
- Communication through emails and shared community sites (in 2 cases).
- Teachers taking this resource into account in their teaching.
- Providing more information online for parents about lesson planning (in a suitable form for parents).
- More video-conferencing and use of Skype.
- Parents deciding what they would like to learn.

- Parents and teachers can use these methods of communicating to discuss children's behaviours.
- Virtual learning and sharing reports.
- Three-way communication with pupils and parents about progress.
- Tracking and marking of homework can be automated so there is less work for teachers.

12.6 What else was needed from the project at that stage

When asked whether anything more was needed at that stage to support their endeavours, respondents said:

- Nothing (in 7 cases).
- More training opportunities for all staff users (in 6 cases).
- More sessions need to be planned so that everyone involved is fully engaged and up-to-date with details about progress and information on funding and resources (in 3 cases).
- A laptop for all parents as a reward (in 3 cases).
- Time (in 2 cases).
- Developing a better learning platform (in 2 cases).
- Increase in online information and improvements in its organisation (in 2 cases).
- Parent, teacher and Aston Pride discussion forums.
- Additional hardware for schools to run parent training.
- A possible award scheme, where schools nominate a parent who has done exceptionally well in their learning and working with their child using ICT, to encourage more parents to apply for the scheme.
- The ability to track all work done at home by children, perhaps through learning platforms.
- More funding.

12.7 Subsequent responses

Aston Pride continued to respond to feedback throughout the project, but response within Phase 3 has been particularly important, taking into account the major issues that arose early in the phase (see Sections 7.3 to 7.6). Two particular responses from Aston Pride are highlighted here, as both of these emerged from early evidence gathered from teachers (shown in sub-sections above).

The first of these responses concerned the issue of raising awareness of teachers, and focusing on certain training aspects. Four school staff training days were run across the period of the Phase 3 project, and in total 86 teachers or support (including administrative) staff were involved. Some attended more than one session, but in total 47 individuals were involved. Regular teacher training meetings were also held, on 2nd March 2009, 29th June 2009, 16th October 2009, 25th January 2010, and 16th June 2010. These meetings were supplemented with regular contact through Aston Pride consultants, who went into each of the schools, and talked to head teachers, teachers and support staff about progress and imminent needs of the project.

The second of these responses also concerned raising awareness, but this time, for members of the community. Aston Pride put in a place a mechanism to ensure that a greater sharing of information about the project was in place for members of the community and those involved. In February 2010 a text information service was launched. Some text from a letter that went out to members of the community described this service:

> *"Free text information service: The Aston Pride ICT Project is launching a new Text Information Service to keep adults and families up-to-date with what's going on with The Computers in the Home (CiTH) Project and the wider Aston Pride NDC Projects. We want to improve how we communicate with you and let you know what's going on straight away! All we need is your Name, Address and Mobile Phone Number and we can set you up to receive FREE text information alerts about Aston Pride."*

13. LATER EVIDENCE FROM PUPILS AND TEACHERS

13.1 Further evidence from pupils and teachers

Online questionnaires were provided by the evaluation team in the Autumn Term 2010, so that pupils and teachers could complete these and provide details about their experiences. The questionnaires were accessible through the following URLs:

- http://www.lancs.ac.uk/fss/data/sw/astonpride2/pupil1.htm.
- http://www.lancs.ac.uk/fss/data/sw/astonpride4/teacher2.htm.

A consultant to the Aston Pride project supported completion of these questionnaires prior to the end of December 2010. Results are reported here.

13.2 Evidence from pupils

In total, 134 pupils completed the online questionnaires (see Appendix D). Pupils represented a range of the schools involved. Of the 134, 18 were from Primary School 1, 22 from Primary School 2, 11 from Primary School 3, 64 from Primary School 6, and 19 from Primary School 9. The pupils ranged across years 4 to 6 (and it should be noted that when the Phase 3 Project started, the focus of the initiative was on pupils in years 3 and 4). Across the year groups reporting, 20 were in year 4, 69 were in year 5, and 44 were in year 6. Of these, 67 were boys and 66 were girls.

13.3 Pupil access to the computers at home

Pupils were asked in the survey whether they had enjoyed having the computer. In total, 126 said they did, while 7 said they did not.

They were asked how often they used it. Their responses are shown in Table 9 following.

Table 9: How often pupils used the computer at home

How often	Frequency
Every day	38
Most days	71
Once a week	14
Less than once a week	11

Most of the pupils used the computer at home most days, and many used it every day. Pupils were also asked how long they used it for. Their responses are shown in Table 10 following.

Table 10: How long pupils used the computer at home

How long they use it for	Frequency
Less than 10 minutes at a time	7
About 10 minutes at a time	19
About half an hour	28
About an hour	37
More than an hour	42

It was clear from these responses that an increasing number of pupils used the computer at home for increasing periods of time, with the majority using it for an hour or more. Pupils were asked whether they used it mainly during weekdays, or at the weekends and holidays, or both. Their responses are shown in Table 11 following.

Table 11: When pupils used the computer at home

When	Frequency
Weekdays	12
Weekends and holidays	31
Both	88

Most pupils used the computer at home on weekdays, weekends and during holiday periods. It was clear from this range of responses that many pupils gained wide access to use of a computer at home.

13.4 Reasons pupils used the computers

Pupils were asked whether they used the computer at home mainly for learning (school work), or for things they wanted to do with it. Their responses are shown in Table 12 following.

Table 12: Reasons pupils used the computer at home

What for	Frequency
School work	56
Things I want to do	77

Many clearly used the computer for school work principally, but more used it for purposes other than school work. Pupils were asked how much schoolwork they needed it for. Their responses are shown in Table 13 following.

Table 13: How much school work pupils used the computer for at home

Amount of school work on the computer	Frequency
A lot	22
Quite a bit	74
Not much	38

Most pupils (96 in total) clearly relied on the computer for their school work. This suggested that many teachers were asking pupils to do school work that involved the use of the computer at home. Pupils were asked which subjects they used it for. Their responses are shown in Table 14 following.

Table 14: Subjects pupils used the computer for at home

Subject	Frequency
English	103
Mathematics	132
Geography	37
History	47
Art	44
Music	36
Others	58

Clearly the subjects that teachers were encouraging pupils to use the computers for at home were mainly English and mathematics. Pupils were asked what sorts of learning activities they used the computer for. Their responses are shown in Table 15 following.

Table 15: Learning activities pupils used the computer for at home

Learning activity	Frequency
Researching	95
Writing	87
Looking at websites	81
Other things	76
Watching videos	68
Sending emails	64
Drawing	44

Teachers were clearly encouraging the uses of the computer for a range of learning activities. Although researching and writing were most commonly reported, it was also clear that the other activities listed were being undertaken at significant levels. Pupils were asked why they enjoyed using a computer at home. Their responses are shown in Table 16 following.

Table 16: Why pupils enjoyed using the computer at home

Why pupils enjoy using it	Frequency
Because it has good things on it	95
Because it makes working fun	95
Because you can use it easily	79
Because you find out what you know	70
Because you can see how to work better	66
Because you can contact people with it	53

Pupils indicated a range of reasons why they enjoyed using the computer at home. It was clear that the most commonly reported reasons concerned what pupils could access, and it making work enjoyable. However, all the categories were important for a wide range of pupils. Of note, perhaps, is the fact that 'finding out what you know' and 'seeing how to work better' could be indicators of pupils working at more metacognitive levels. If this was the case, then the outcomes were clearly potentially important to the development of learning skills, rather than subject knowledge alone.

13.5 Evidence from teachers

In total, 85 teachers completed the online questionnaires (see Appendix F). Teachers represented a range of the schools involved. Of the 85, 11 were from Primary School 1, 18 from Primary School 2, 4 from Secondary School 2, 11 from Primary School 3, 14 from Primary School 6, and 26 from Primary School 9. The teachers taught classes across a wide range of year groups. Across the responses, 2 teachers taught in year N, 6 teachers taught in year R, 8 teachers taught in year 1, 13 teachers taught in year 2, 9 teachers taught in year 3, 12 teachers taught in year 4, 11 teachers taught in year 5, 16 teachers taught in year 6, 1 teacher taught in year 8, 1 teacher taught in year 9, and 1 teacher taught in year 11.

13.6 Perceptions of use

Teachers were asked whether they had found the initiative to be useful. Of the 85 teachers, 76 said they had found it useful, while 3 said they had not. Clearly the majority felt that the initiative was supportive. Teachers were asked whether they felt it had helped pupils in any ways. Of the 85 teachers, 79 said they felt it had, while 3 said not. Teachers were asked in what ways they felt the computers at home were helping pupils. Their responses are shown in Table 17 following.

Table 17: How teachers felt computers at home were helping pupils

How computers are helping pupils	Frequency
Researching topics at home	23
Completing homework	23
Gaining computer skills and ICT awareness	15
Support from Mathletics and Education City	8
Independent learning at home	7
Using the same websites at home that they use in school	6
Receiving, checking and requesting homework	6
Extending learning	6
Practising key skills	4
Confidence in literacy and mathematics	3
Research skills	2
Supports those without books at home or who would not go to a library	1
Motivation	1

Teachers reported a wide range of ways in which they felt and recognised benefits for pupils. The most commonly reported benefits were pupils being able to research topics at home, being able to complete homework, and gaining computer and ICT awareness and skills.

Teachers were asked if the initiative had helped them in any ways. Of the 85 teachers, 66 said they had benefited, while 10 said they had not. Teachers were asked in what ways they felt the computers at home were helping them. Their responses are shown in Table 18 following.

Table 18: How teachers felt computers for pupils at home were helping them

How computers are helping teachers	Frequency
Can set homework or tasks for pupils to do using them	23
More competent with computer use	7
Can set extra activities to consolidate learning	7
Can set more interesting and challenging homework	4
Pupils can continue their learning more easily	3
Supports differentiation	3
Can monitor homework	2
Enjoyable to use	1
Homework has improved	1
Can communicate via email	1
Can discuss things that are seen on the internet	1
Can prepare lessons and demonstrate work more easily	1
Increases confidence with work covered in class	1
Pupils can pre-read on topics	1

Many teachers saw the main benefit being the ability to set homework tasks, and a number said that research tasks could then be set for pupils to do at home. A number of teachers also referred to the increased competences with computers that pupils gained, as well as the teachers' abilities to set activities that consolidated learning that happened in lessons, or to prepare for lesson topics, or to differentiate home activities for pupils more, or to enable a greater continuity of learning.

13.7 Shifts in practices

Teachers were asked whether they then did anything differently from what they did before. Of the 85 teachers, 52 said they did, while 22 said they did not. Clearly more teachers felt that pupils' home access to computers had supported a change in their practices. Teachers were asked in what ways they then did things differently from what they did before. Their responses are shown in Table 19 following.

Table 19: What teachers then did differently

What is now done differently	Frequency
Set homework knowing pupils can access it	22
Set homework using Education City	9
Include research as part of homework	6
Monitor homework online more	4
Use laptops and computers in class regularly	3
Use less paper	3
Encourage pupils to access websites at home	1
Show pupils how they can access programmes	1
Put resources online	1

The largest change that was reported was in using online facilities to provide homework activities. Clearly this had shifted the types of homework activity that pupils could be engaged in, and it was clear that some teachers were then asking pupils to undertake tasks such as research, which were not demanded of them previously. This potentially heralded a shift in terms of what was demanded of pupils outside classrooms, and could be changing the qualities of learning demands outside the

classroom. It was also interesting to note that some teachers noticed the reduction in paper being taken home, and that their uses of computers in the school had consequently risen also.

Teachers were asked whether pupils having access to computers at home had changed what they asked pupils to do in school at all. Of the 85 teachers, 52 said they did, while 26 said they did not. Clearly more teachers felt that pupils' home access to computers had supported a change in terms of what they asked pupils to then do in school. Teachers were asked in what ways they were asking pupils to do things differently in school. Their responses are shown in Table 20 following.

Table 20: What teachers asked pupils in school to then do differently

What teachers ask pupils in school to now do differently	Frequency
Find information or research on the internet more	8
Access to websites and online activities to complete more	4
Show them software in school they can then access at home	4
Able to ask more of them	2
Able to build more on the research they do at home	1
More science experiments	1
Able to write more responsively following their research	1

Interestingly, for some teachers it appeared that pupil home access had brought about a shift towards more research-based and independent learning approaches. It did appear that more was being asked by some teachers as a consequence. It should also be noted that many teachers in their responses indicated that they did not read this question accurately, as they referred to what they were setting as home use rather than what they were doing differently in school.

Teachers were also asked if it had changed what they asked pupils to do at home. Of the 85 teachers, 66 said they did, while 12 said they did not. Clearly more teachers felt that pupils' home access to computers had supported a change in terms of what they asked pupils to then do at home. Teachers were asked what they then asked pupils to do at home. Their responses are shown in Table 21 following.

Table 21: What teachers asked pupils at home to then do differently

What teachers ask pupils at home to now do differently	Frequency
Use websites	21
Research	15
Setting homework	7
Setting projects	3
Independent learning tasks	2
Spelling	1
Type up some work	1

A number of teachers clearly encouraged pupils to engage with online activities at home, and enhanced the range of research-based and project-based activities that they asked pupils to do. In some cases it appeared that teachers started to set homework for pupils for the first time. Teachers were asked whether these shifts had changed their views of pupil abilities in any ways. Of the 85 teachers, 44 said it had, while 34 said it had not. Clearly a wide range of teachers felt their views of pupils' abilities had shifted as a result of this initiative. Teachers were asked in what ways it had shifted their views of pupils' abilities. Interestingly, no teachers provided a response to this question.

13.8 Contact with parents and their involvement with pupils

Teachers were asked whether it had made a difference to their contact with parents. Of the 85 teachers, 32 said it had, while 41 said it had not. Clearly a wide range of teachers felt that this initiative had shifted their contact with teachers. Teachers were asked whether this was to do with how contact with parents was made. Their responses are shown in Table 22 following.

Table 22: Shifts in ways that contact was made with parents

Shifts in forms of contact	Frequency
Parents can now see the work their children do and how successful they are	5
Parents have access to email and website now	5
There is more discussion about work at home	3
Parents are more involved with planning and asking about homework	3
Parents can be involved with and check their children's work more easily	3
Parents come to workshops more	3
Parents now use computers with their children	2
Parents now have access to computers	1
No excuse for pupils not doing homework	1
Getting to know parents more	1

Teachers responded widely to this question, but a key point they raised was that visibility had increased - their children's work was more visible, the school intentions were more visible, and means of discussion were more visible. Teachers were also asked if the shift in terms of parent contact was with a shift in the number of parents that contacted the teacher. Only two teachers responded to this question, and indicated that there was greater parental contact, but did not indicate that the number of parents contacting the school had increased.

Teachers were asked whether it had altered the sorts of things that parents asked or contacted the teacher or school about. Of the 85 teachers, 29 said it had, while 44 said it had not. Responses to questions above suggested that some teachers had noted shifts in terms of questions about homework, and amounts of homework being set. Teachers were also asked whether this had changed parental awareness of the school and what was being done in any ways. Of the 85 teachers, 61 said it had, while 8 said it had not. These responses indicated that teachers felt that parents had gained higher levels of awareness - something in the region of a 72% shift in level of awareness, and in the region of a 34% shift in forms of engagement. Teachers were asked whether they felt this initiative had changed the ways that parents related to their children's work in any ways. Of the 85 teachers, 52 said it had, while 15 said it had not. These responses indicated a shift in the region of a 61% shift in level of engagement of parents with their children's learning. Teachers were asked how they noticed these shifts. Their responses are shown in Table 23 following.

Table 23: Ways teachers recognised more involvement of parents with their children's learning

Ways that teachers recognised more involvement of parents with their children's learning	Frequency
Parent works with child on set tasks at home	14
Parent can see what the child does in school	9
Parent can take more interest in their child's work	5
Parent is more aware of the school's expectations	3
Parent can see the results of their child's work online	3
Parent finds it easier to help their child	1
Parent can find information from the school website	1
Parent asks if child is unsure about something	1

These responses indicated that some teachers were aware of parents being more involved with their children in undertaking learning tasks. In other cases it was more to do with teachers recognising enhanced awareness, rather than more direct involvement. Nevertheless, it was clear that some parents were engaging more directly with their children when they were learning. This was clearly an important element that could lead to enhanced learning outcomes. As Harris and Goodall (2007) stated, in a research report to the government department for education (DfES), in reviewing research into parental involvement with their children and outcomes in terms of learning:

- "Parental engagement is a powerful lever for raising achievement in schools. Where parents and teachers work together to improve learning, the gains in achievement are significant.
- "Parents have the greatest influence on the achievement of young people through supporting their learning in the home rather than supporting activities in the school. It is their support of learning

within the home environment that makes the maximum difference to achievement.

- "Many schools involve parents in school-based or school related activities. This constitutes parental involvement rather than parental engagement. Parental involvement can encompass a whole range of activities with or within the school. Where these activities are not directly connected to learning they have little impact on pupil achievement."

14. LATER EVIDENCE FROM PARENTS

14.1 Further evidence from teachers, pupils and parents

An online questionnaire was provided by the evaluation team in the Autumn Term 2010, so that parents could complete it and provide details about their experiences. The questionnaire was accessible through the following URL:

- http://www.lancs.ac.uk/fss/data/sw/astonpride5/parent2.htm.

A consultant to the Aston Pride project supported completion of these questionnaires prior to the end of December 2010. Results are reported here.

14.2 Evidence from parent online questionnaires

In total, 20 parents completed the online questionnaires (see Appendix G). Of these 20, 3 were fathers, 15 were mothers, and 2 did not specify their relationship to a child in a school.

14.3 Uses of the computer at home for their own learning

The parents were asked whether they had used the computer at home to support their own learning. Of the 20 parents, 9 indicated that they had, and 11 that they had not. Of those that had, one indicated that this had been used for CLAIT, one for Learn Direct literacy and numeracy, one for learning English and one for internet use. Nine of the parents indicated that they had used the computer to take a course, and 8 indicated that they had used the computer to help them with language learning (in one case an English and mathematics course was taken, and in another case to practise writing). Five of the parents indicated that they had used the computer to help them with mathematics or number work, and one parent indicated that this had been achieved through a Learn Direct course.

The parents were asked how they would rate their abilities with the computer. Of the 20 parents, 10 indicated that they felt their abilities were poor, 7 that they were medium, 3 fairly good, and none advanced. When asked if they were involved in any learning to develop their computer abilities at that time, 5 indicated that they were, and 7 that they were not. One parent indicated attending the APLA Centre in Saathi House, and another attended computer classes at Primary School 2.

14.4 Access to jobs and creative areas

Parents were asked if they were using the computer at that time to look for jobs. Of the 20, 5 indicated that they were. One parent indicated that this had not been successful at that time. Parents were also asked if they were using the computer to help with paid work, but this was not indicated as being the case with any of the parents responding.

Parents were asked if they were using the computer for any creative activities (making music, design, art work, or writing of any sort). Of the 20 parents, 5 indicated that this was the case. One parent indicated that the computer was used for typing their curriculum vitae (CV) and cover letter, and creating party invitations, and another that it was used for music.

Parents were asked if they were using the computer to gain access to different media (video, images, or audio). Of the 20 parents, 6 indicated that they were. One parent indicated using the computer to access YouTube movies, another had used compact discs (CDs) provided through Saathi House, and another had used it to access photographs, CDs and television.

These responses, while not being sufficiently high enough to indicate any wider generalisation, do indicate that some parents are using the computers at home to support a range of activities. These activities cover aspects of their own learning, seeking employment, and accessing creative areas. These forms of access and support will be detailed further in the section following, which takes in-depth evidence from a range of parents.

14.5 Evidence from interviews with parents

In December 2010, interviews were conducted with a number of parents, to explore their uses and experiences with having a computer and connectivity in the home. The interview schedule and questions used are shown in Appendix J.

The twenty parents had children who attended five of the schools. Four parents had children at Primary School 1, four at Primary School 2, three at Primary School 3, four at Primary School 4, and five at Primary School 6. Of the twenty parents, thirteen were mothers (one was also a parent governor), and seven were fathers (one was also a learning mentor, and another was a caretaker). The parents gave views about their children – in total their responses gave insights into home practices with 44 children (the number of children in different year groups is shown in Table 24 below).

Table 24: Number of children in different year groups

Year group	Frequency
Nursery	2
Reception	2
1	10
2	6
3	3
4	7
5	3
6	4
7	3
8	1
9	2
In school previously, but now left	1

When asked about the basic use of the computer in the home, parents gave a number of different responses. Some indicated that the computer was the sole computer in the home, while others indicated that the computer was for their children's use rather than for the parent's or family's use. The responses about the uses of the computer that parents gave were:

- The sole computer in the home for all the family (in 8 cases).
- The computer is for children's use, and there is another for parents' use (in 5 cases).
- The computer is for children's use, and other family members use it when possible (in 3 cases).
- The computer is to support the younger children, and there is another for the older children (in 2 cases).
- The computer is not an Aston Pride computer (in 2 cases).

The parents interviewed covered a broad spectrum, both in terms of their backgrounds, and in terms of their experiences with computers. Some parents indicated that they had been in the country for short periods of time only, many parents reported that they had attended training sessions, while the length of time they had had an Aston Pride computer varied (although a number had other computers previously). Parents overall reported that:

- They attended training classes in the school (in 8 cases).
- They had been in the country for only a limited time of 2 years or less (in 2 cases).
- They had been in the country for between 2 and 10 years.
- They have had an Aston Pride computer for one year or less (in 9 cases).
- They have had an Aston Pride computer for one to three years (in 3 cases).
- They have had an Aston Pride computer for more than three years (in 5 cases).

14.6 Perceptions of and experiences with the project

All parents' responses indicated that they felt that the Aston Pride project had been useful and worthwhile. Additional comments from some parents indicated particular areas where they felt the project had brought value to them:

- "It's helpful for children, and good value at £10 per month."
- "It was very useful for me personally, I came to Aston penniless, and the computer made it easier for me to find a job, and to send CVs."
- "Aston Pride has provided it so that children can use it, and it's safe."
- "As an Asian community we are now getting up-to-date."
- "It has done wonders for my daughter who is now speaking in an intellectual way – talking like a website."
- "Children love it for doing homework."
- "Space is at a premium, so being provided with a dongle to fit into laptops would help additional access."

It is clear that while parents see value in the initiative, their individual circumstances have meant that they have often benefited in more specific ways. Few parents identified problems, and where these were identified, it was clear that the vast majority had been resolved quite quickly. A sample of parent responses indicated that:

- "The [wireless] signal was a problem, so we needed to wait for a dongle, which was provided after 2 weeks."
- "There was slow internet at times, we needed to call the helpline and arrange for them to come."
- "Internet was slow, we found this generally, and it has not been solved."
- "Two problems only."

Across the entire range of parents interviewed, only two major issues were reported. One mother said that her eldest son was involved the previous year in a 'chat' issue. He thought he was talking to a girl online, but found out it was a (much older) boy. He gave his school name away, but being suspicious of the contact, he told his aunt about it, who also told his mother's brother and his mother. Fortunately the aunt was able to intercept the man at the school and avert any issue. The mother now monitors what her other children are doing more. Another mother described how her bank card had been cloned.

14.7 Perceptions of outcomes related to the project

Parents gave a range of responses when asked about their perceptions of benefits of the project. Most of these related to their children being able to undertake educational activities at home:

- The computer is good for the children – they use internet, email and Skype.
- Children can go onto secure educational sites.
- It is possible to work and study online.
- Useful for children for homework or to find information.
- It is possible to sit with the children, and see what they are doing.
- For homework it is a major benefit – we used the library before, but now it is all on the computer.
- Children get their homework done, and information for parents is easy to find.

Parents were asked whether they used the facilities to support communications with others. A number of parents indicated that they did, and that they also gained from these forms of communication not only financially, but in wider personal ways too:

- One father used to use a telephone calling card to call Pakistan, costing £5 per week, but now can use Skype at no cost. He has wanted to keep in contact with his family, who live in Pakistan, in a troubled area only some 200 yards from an incident that had happened shortly before (a house bomb blast that damaged his family's window and door). The family can now use a video call system, so that they can see each other, so the father does not feel the need to go to see them so much, as he can see them through video call. He has now not visited Pakistan for 2 years, as he can see his family every day – his mother, father, sister, and 2 brothers in Pakistan. He can contact them often, as there is only a 5 hour time difference, and usually calls in the evening at about 5pm.
- One mother comes from Somalia, and she has 4 siblings still in Somalia. She uses the internet or email every day to contact them in Mogadishu, and is also able to keep in regular contact with her two brothers in Canada, and other family members in London.

- One mother uses the computer for email and for online chat.
- One mother uses it for email and to order shopping online.
- One father uses it for telephone banking and for online shopping.
- One mother's daughter uses it chat to friends via *MSN*.
- One mother's son has used the webcam quite a lot, to communicate with a relation in Bradford who is a teacher, and the mother's son and her daughter have used email a lot too.
- One father records meter readings online.

When asked whether the facilities supported their interests in any ways, parents did indicate some areas where the computer access had been used in this respect. Parents reported using the facilities to:

- Access free online courses, and to complete a course in study skills from Oxford University.
- Learn English by accessing films in Holland (although this was prior to living in Aston).
- Search for cheap flights online.
- Shop online, look for sales items, and browse for items instead of going into town.
- Look up information to find an answer to a question.
- Search for property, and look for sales and bargains.
- Shop online to have access to a greater variety, which can more easily provide for what children want.
- Compare prices, save time doing it this way rather than browsing through shops, and save costs with purchase of e-tickets.

Parents also described different ways in which the facilities had supported employment or training. Parents reported using the facilities to:

- Look for jobs, on Job Centre Plus, Job Search, and Gum Tree websites.
- Send CVs via email.
- Support a job. One mother uses internet for work every day. She works as an interpreter, in Somali, Dutch and English. She does this via telephone, but needs the internet to find terms and definitions for specific words or concepts that she might not be fully familiar with, when talking with doctors or surgeons or about tax or benefits. She can check terms and ideas, such as the definition of 'prostate cancer', which is a term with no equivalent word in Somali, so when interpreting, she needs to explain it. She works for a company that contacts her, and asks her to interpret in specific circumstances, at times when she is available. In this work, she is likely to be involved in a 3-way call - client, customer and interpreter. She is paid per minute when she is online.
- Monitor and send documents. A father accesses and completes forms from the Home Office when seeking asylum and can check their status online.
- Start an online childcare course, accessing information for the course, and finding details of companies online.
- Access and complete risk assessment forms for work.
- Access and complete an outdoor education course, picking up items from the internet, to do with risk assessment and health and safety.

When asked whether parents thought their children were taking advantage of the facilities available to them, they gave a wide range of positive responses. Parents indicated that the facilities were used by their children to:

- Complete homework every day.
- Engage with educational activities without being asked, playing games on an educational site, looking for information on planets, or filling in the blanks.
- Count numbers, do additions and subtractions, for half an hour to an hour at a time.
- Access mathematics activities on a site provided by the teacher, with puzzles and games that are educational, accessed an hour or so twice a week.
- Complete homework and download games, on mathematics using *Mathletics* or *Education City*.

- Complete homework quickly, on sites such as *Mathletics* and *Education City*. The work is clear, and it is also fun and enjoyable.
- Do activities on phonics or spelling.
- Access BBC programs and complete mathematics games, for example, on addition.
- Access educational programs and games, on mathematics, or science, as well as CBeebies and other BBC sites.

14.8 Perceptions of the involvement from teachers with the project

When parents were asked whether they felt teachers were taking advantage of the facilities that the learners then had, they varied in their responses, but most felt that teachers were supportive. Parents indicated that teachers:

- Gave a lot of websites to use in school and at home.
- Gave homework and encourages children to use the computers from a young age, to find information.
- Encouraged children to do certain things on the computer.
- Encouraged children to use a range of programs, such as *MS PowerPoint* as well as *MS Word*.
- Asked children to do online homework.
- Encouraged children to use *Education City*.
- Asked children to do tasks that they could take more notice or interest in, noting times to do tasks like *Mathletics* activities.
- Did not give things to do on the computer, and only asked for written homework to be done at home.

Parents were asked in what ways they thought learners and teachers should use the facilities in the future. Parents gave a variety of responses; they indicated that they thought that learners and teachers should:

- In some cases give more homework online, and encourage homework more.
- Continue to encourage children to do homework online, but recognise that parents might not always be able to help their children.
- Recognise the need to build in work when children come back from the mosque at 6.30 or 7.00 in the evening.
- Continue with the good start that had been put in place.
- Have regular meetings of parents and teachers.
- Gain signatures from parents as a way to indicate their desire for further future support.

14.9 Ideas for taking the project further

Parents were asked if there were any other things that at this stage would continue to support their uses of the facilities. Parents generally indicated their appreciation of the initiative, what had been done and achieved, and would want to be able to continue in some way with what had been put in place already. Responses from some parents indicated that they felt that it would be helpful to:

- Have more time to complete things in computer classes.
- Have access to laptops in homes.
- Have access to dongles, to give access for other children via laptops.
- Have access to a file of what children are learning to keep up-to-date with what children need to do.
- Maintain the very good value package, which includes the computer, anti-virus software, and repairs, at £10 per month.
- Be able to access certain websites that are blocked at the moment.

15. EVIDENCE FROM PUPIL TESTS IN READING AND MATHEMATICS

15.1 Data for a statistical review

The purposes of the statistical review reported in this section are to explore:

- If mathematics and reading results have improved for those pupils who received a computer and Internet access.
- If the dates that computers and Internet access were received related in any way to improvements in attainment.
- The extent of any improvements in attainment.

Aston Pride retained a range of records relating to computer installations. For the purposes of this evaluation, Aston Pride made sets of data available, so that independent statistical analysis could be undertaken. The data provided did not include any personal details or details that allowed any identification or tracking or linking to individuals. The data were provided by Aston Pride in *MS Excel* spreadsheet form. Each spreadsheet contained data from a specific school, and provided test results for mathematics and for reading separately, taken on two occasions across the year. The columns in each spreadsheet provided the following details:

- Pupil code (showing school and number, where the identity of the individual was only known to consultants in Aston Pride).
- Age (in years and months).
- Gender (male or female).
- Year group (using National Curriculum standards).
- Cultural and ethnic background.
- Postcode (an identifier that would allow other data from other sources with postcodes to be related and analysed).
- Installation date (of the home computer from Aston Pride).
- Standardised test scores in March 2010, for mathematics and for reading.
- Standardised test scores in December 2010, for mathematics and for reading.

15.2 Tests and testing regime

The tests were organised and were run in schools by a consultant to Aston Pride. Head teachers agreed to the tests being conducted on two occasions across the year, in March 2010 and subsequently in December 2010. This provided a gap of some 9 months between the two tests, and these test times did not coincide with the schools' own testing (usually with tests such as those provided by the Qualifications and Curriculum Development Agency (QCDA), run at the end of June each year).

Analyses were undertaken so that results were not provided at an individual school level. Results in this section are reported in aggregated forms, although specific year groups, gender, cultural groups, and ages are separated out for analytical and reporting purposes.

The tests used within the schools were:

- *Progress in Maths 9* (GL Assessment, 2004).
- *Suffolk Reading Scale 2* (GL Assessment, 2002).

15.3 Data received by February 2011

By February 2011, full sets of data had been received from 7 schools. Test data records received for both March 2010 and December 2010 are summarised and shown in Table 25.

Table 25: Description of test data received by February 2011

School	Numbers of test data for pupils in Year 3 in March 2010	Numbers of test data for pupils in Year 4 in March 2010	Numbers of test data for pupils in Year 3 in December 2010	Numbers of test data for pupils in Year 4 in December 2010
Primary School 3	30	26	27	23
Primary School 1	55	47	43	37
Primary School 5	51	54	38	43
Primary School 4	66	44	28	29
Primary School 6	95	91	80	68
Primary School 7	30	29	25	22
Primary School 9	60	60	43	48
Total	387	351	284	270

The data received were in a form that allowed comparative analyses to be run. It should be noted that the numbers of test returns in December 2010 were all lower than the numbers of returns in March 2010. These smaller numbers were due to some pupils leaving the school, some not being present on the day of the test, and some not achieving scores that came within standardised ranges. For the purposes of the statistical analyses run, data were included for pupils only where there was matched data for March and December 2010, and where pupil scores lay within standardised ranges.

15.4 Mathematics test results

For this element of the study, mathematics tests were completed initially by pupils in years 3 and 4 in March 2010 in 7 primary schools. These pupils took the test again in December 2010 (by which time they were in years 4 and 5). In total, 738 pupils were involved, across 7 schools. The mathematics test used was *Progress in Maths 9* (GL Assessment, 2004). This test was selected because of its long history of use, and because it is age standardised; this means that if a pupil does not progress, the score will remain the same, irrespective of age. The tests were run in classrooms, by class teachers, with instructions and oversight from an Aston Pride consultant. The papers were marked by the consultant, and the standardised scores were made available for evaluation purposes.

For the purposes of the analyses, the data were aggregated and not split or analysed in separate school sets. Data in an *MS Excel* spreadsheet detailed the following variables for each pupil:

- Whether the pupil was in year 3 or 4.
- Whether gender was female or male.
- The test score in March 2010.
- The test score in December 2010.
- The difference between the two scores
- Whether the pupil had an Aston Pride computer.
- The number of months the pupil had had the computer by December 2010.

The content of the test itself is worthy of some description; it covers a very wide range of mathematical topics. It is not a multiple choice test, and it does not focus on a single range of mathematical topics (such as just number, or algebra, or shape and space). The test paper has 31 questions in total, and the topics cover number sequencing, data table interpretation, direction and orientation, weight and its measurement, using a tree diagram, number values, lines of symmetry, multiplication, mental mathematics, time, patterning, money, addition and subtraction, interpreting graphical forms, fractions, shape and space, sorting, position value, and missing numbers.

Across the set of 738 pupils, 542 pupils completed tests at both times, providing matched test scores for March and December 2010. For this full matched set, and for certain selected sub-sets, average scores in March 2010 and in December 2010, and average differences were calculated. These are shown in Table 26 following.

Table 26: Average scores and differences between mathematics test results in March and December 2010

Description of the set	Number of pupils (N)	Average score in March 2010	Average score in December 2010	Average difference
All pupils with matched data	542	86.6	89.5	3.0
Year 3 pupils	262	85.9	88.8	2.9
Year 4 pupils	280	87.2	90.2	3.0
All girls	289	86.9	90.8	3.8
All boys	252	86.2	88.1	1.9
All pupils with an Aston Pride computer	288	87.5	90.8	3.2
All pupils without an Aston Pride computer	254	85.5	88.1	2.6

It should be noted that for those pupils with an Aston Pride computer, the average number of months that they had had the computer by December 2010 was 28.9. It should also be noted that:

- Between March and December 2010, all groups gained in scores, showing gains in mathematical attainment.
- The average difference in scores for girls was much higher than the average difference in scores for all pupils.
- The average difference in scores for boys was much lower than the average difference in scores for all pupils.
- The average difference in scores for pupils with an Aston Pride computer was higher than the average difference in scores for all pupils.
- The average difference in scores for pupils without an Aston Pride computer was lower than the average difference in scores for all pupils.

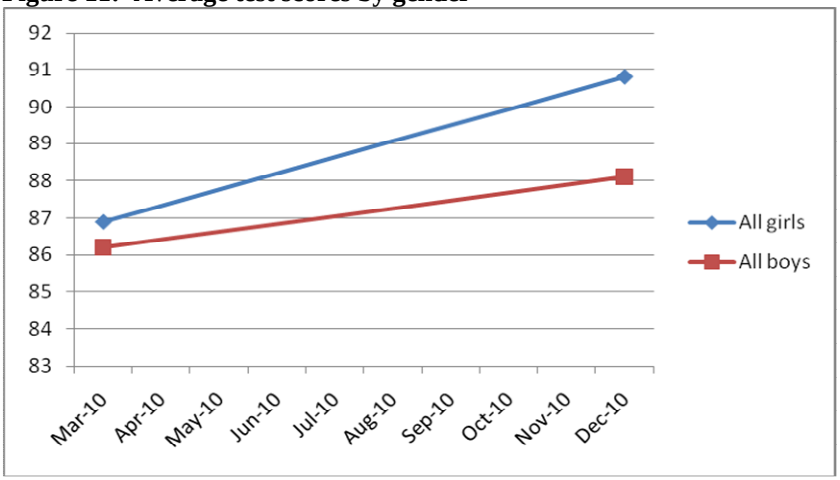
Further analyses are used here to explore whether there are levels of significance associated with these differences. Certainly the differences between average March 2010 and December 2010 test results are large. For all matched pupil results, a paired sample t-test shows that the difference between the March and December 2010 scores is highly statistically significant (t=-8.58, p=.000). This means that, overall, mathematics results have shifted positively and strongly across this period of time. This is perhaps not surprising, given the schools' focus on interventions to raise mathematics attainment, and the specific focus on homework activities involving mathematics practice using resources such as *Mathletics* and *Education City*. Even so, the shift in results over a 9 month period is large.

A Pearson's correlation analysis is used to see if there is any potential relationship between the test score differences and the number of months that a pupil had had a computer by December 2010. This test generated a neutral result (r=-.064, p=.278). The level of test score differences is not related to the amount of time that pupils have had the computers provided by Aston Pride. So, although having an Aston Pride computer does mean that those pupils have gained more on average than those without, the amount of time they have had the computer does not appear to play a part. This suggests that the enhanced differences are not due to length of time of the computer being used, but are related to the presence of the computer. Given evidence from pupil, parent and teacher responses, (see evidence detailed in Sections 13.3, 13.4, 13.7, 13.8, 14.5 and 14.7), it appears that the differences are likely to be due to what is reported by teachers, parents and pupils as increased levels of parental involvement with their children, particularly in terms of parents' taking notice of their children's learning activities and learning outcomes in the home. It seems likely that the focus of the Aston Pride project on learning in the home (which was not restricted to parents with computers sourced from Aston Pride alone), on training of parents in school environments with their children (irrespective of the source of the computer), on the presence of the computer from Aston Pride with associated software focusing on educational practices, and on ease of access through a robust wireless infrastructure (for those who had not had these facilities previously), have all brought about higher attention from and engagement with

parents with their children's learning (taking notice of what their children are doing, checking their work, and encouraging them in terms of gaining positive outcomes).

One-way analysis of variance (ANOVA) tests allow differences between different sub-groups to be explored. In terms of the different year groups (years 3 and 4), an ANOVA test generated neutral results (for March scores, F=1.232, *p*=.268, and for December scores, F=1.237, *p*=.267). In terms of gender groups (girls and boys), an ANOVA test shows that there is no difference in test scores between these groups in March 2010 (F=.397, *p*=.529), but there is a statistically significant difference between these groups in December 2010 (F=4.577, *p*=.033). This result indicates that the difference between these two groups has widened across this period of time. Girls have gained more in terms of mathematical abilities to complete the tests over this period of time (see Figure 11).

Figure 11: Average test scores by gender

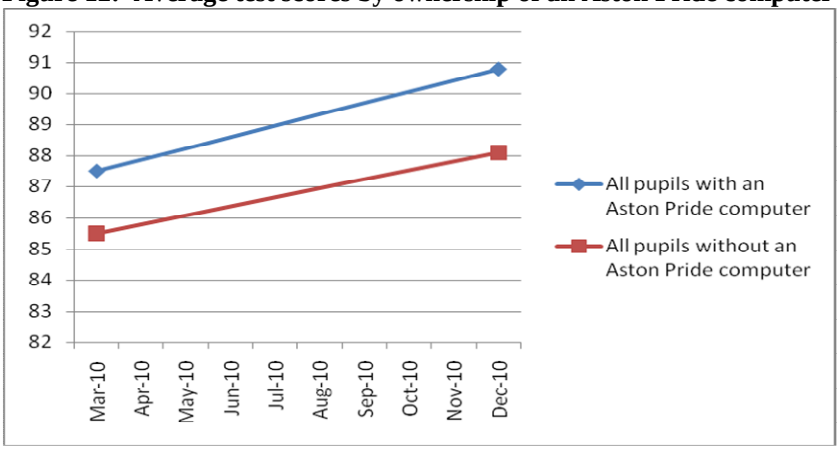


In 2008, a National Audit Office report (summarised in an article by Helen Ward in The TES, 21 November 2008, entitled 'Poor results for primary maths') stated that the gap between children from disadvantaged backgrounds and their peers had narrowed slightly during the three years before 2008, while girls were at risk of being left behind, with boys making better progress at Key Stage 2. The TES article (2008) went on to say that "Girls' progression in mathematics between Key Stage 1 and Key Stage 2 is lower than for boys and the gap is especially marked for girls starting from a lower level in mathematics at age 7." The National Audit Office report (2008) stated that "The outcomes for both girls and boys are improving with boys doing slightly better than girls at Key Stage 2, in contrast to their performance in other subjects." This trend is clearly not shown in these Aston Pride results, which identifies an opposite and therefore compensatory outcome that could address this form of issue. The National Audit Report went on to recommend that: "there is a further need to increase pupils' enjoyment of the subject." It appears that the entire initiative (that is, all Aston Pride interventions associated with enhancing improvements in mathematics, and outlined further in Section 16.1) has succeeded in that respect (although evidence reported in the sections of this report above relate largely to the computers in the home initiative more specifically).

In terms of potential effects of having an Aston Pride computer, an ANOVA test on the two different groups (those with an Aston Pride computer, and those without) shows that there was a statistically significant difference in test scores both in March (F=3.860, *p*=.050) and in December (F=5.172, *p*=.023). However, these data also show that this difference is stronger in December 2010 (see Figure 12); those with an Aston Pride computer have gained more in terms of mathematical abilities to complete the tests over this period of time. Having said this, an ANOVA test that looks at the difference in levels of test gain (differences between March and December results) for these two groups, however, shows that there is no statistical significance associated with that higher gain (F=.745, *p*=.389). This result should not be unexpected, since all parents were able to be involved in home learning training, irrespective of the source of their home computer. The ANOVA test also

shows that there is no difference in gain associated with year groups (F=.033, *p*=.856), but there is a statistically significant difference when gender is considered (F=7.926, *p*=.005).

Figure 12: Average test scores by ownership of an Aston Pride computer



On average, girls have had an Aston Pride computer for slightly longer (29.4 months on average) than boys (28.5 months on average). When ANOVA tests are run, these show that for girls, there is no statistical significance when differences in test scores are considered for those who have had an Aston Pride computer and those who did not (F=.011, *p*=.916). This is also the case for boys (F=1.149, *p*=.285).

The t-test and ANOVA test results are supported by results from multiple regression analyses. These tests identify likely levels of predictive impacts of different factors when variable factors are considered in either isolated cases, or when grouped together. If predictive impacts on the December 2010 scores are considered, then levels of likely impact (indicated by R^2 scores) are shown in Table 27 below. It is interesting to note that these data indicate that the four factors together (having an Aston Pride computer, gender, year group, and the baseline March 2010 test score) are likely to account for 70% of the differences noted by December 2010, while other groupings (of three of these factors, or two of them, or only one of them) give a much smaller predictive value. The likely levels of significance of the individual factors (indicated by *p* values) when grouped in these ways are shown in Table 28 below.

Table 27: Levels of likely predictive impact of factors on December 2010 scores

Factor(s)	R^2 scores
Having an Aston Pride computer	.009
Having an Aston Pride computer and gender	.018
Having an Aston Pride computer, gender and year group	.021
Having an Aston Pride computer, gender, year group and March 2010 score	.701

Table 28: Levels of likely statistical significance of factors on December 2010 scores

Factor(s)	Individual factor within the group	*p* scores
Having an Aston Pride computer	Having an Aston Pride computer	.023
Having an Aston Pride computer and gender	Having an Aston Pride computer	.023
	Gender	.034
Having an Aston Pride computer, gender and year group	Having an Aston Pride computer	.024
	Gender	.029
	Year group	.227
Having an Aston Pride computer, gender, year group and March 2010 score	Having an Aston Pride computer	.265
	Gender	.003
	Year group	.639
	March 2010 score	.000

These results suggest that whilst having an Aston Pride computer predicts a small but statistically significant impact on differences in test results in December 2010, when the four factors (having an Aston Pride computer, gender, year group, and March 2010 scores) are all taken into account, these have a much stronger predictive impact on differences (contributing to 70% of the differences noted). While the contribution of having an Aston Pride computer within that grouping is not statistically significant, the contributory impacts of gender and baseline test score in March 2010 are statistically significant. These results are supported by other forms of evidence gathered from teachers, pupils and parents, relating across the March to December 2010 period of time to the facts that:

- The networking infrastructure was completed, became reliable, and children could access resources for learning at home as well as in school.
- Teachers focused on providing homework activities provided by resource banks allowing a focus on mathematical tasks, such as those from *Mathletics* and *Education City*.
- Parents with Aston Pride computers and those from other sources were encouraged to work with their children on learning tasks at home; they received joint training and were involved in school meetings that focused on aspects of learning at home.

Overall, the differences in test results across this time period are large and statistically significant. Importantly, these data indicate that significant shifts are independent of year group, that girls have improved more than have boys, that those pupils with an Aston Pride computer are not disadvantaged, that differences according to 'digital divide' cannot be identified, and that the initiative might indeed be giving them a slight advantage (and certainly the qualitative evidence would support this latter conjecture also).

15.5 Reading test results

For evidence for this element of the study, reading tests were completed initially by pupils in years 3 and 4 in March 2010 in 7 primary schools. These pupils took the test again in December 2010 (by which time, they were in years 4 and 5). In total, 738 pupils were involved, across 7 schools. The reading test used was *Suffolk Reading Scale 2* (GL Assessment, 2002). This test was selected because of its long history of use, and it is age standardised. Being age standardised, if a pupil does not progress, then the pupil's score will remain the same, irrespective of age. The tests were run in classrooms, by teachers, with instructions and oversight from an Aston Pride consultant. The papers were marked by the consultant, and standardised scores were made available for evaluation purposes.

For the purposes of the analyses run, data were aggregated rather than being split or analysed in separate school sets. Data in an *MS Excel* spreadsheet listed for each pupil the following variables:

- Whether the pupil was in year 3 or 4.
- Whether gender was female or male.
- The reading test score in March 2010.
- The reading test score in December 2010.
- The difference between the two test scores
- Whether the pupil had an Aston Pride computer.
- The number of months the pupil had had the computer by December 2010.

The test itself is divided into two papers - Form A and Form B. In each of these two papers, there are 86 sentences, with a word missing in each sentence. The pupil is given a choice of five alternatives, and must select the word that is missing. Sentences and words are graded in order of difficulty.

Across the set of 738 pupils, 508 completed tests that were totally matched for both March 2010 and December 2010. For this fully matched set, and for certain selected sub-sets, average scores in March 2010 and December 2010, and average differences were calculated. These are shown in Table 29 following.

Table 29: Average scores and differences between reading test results in March and December 2010

Description of the set	Number of pupils (N)	Average score in March 2010	Average score in December 2010	Average difference
All pupils with matched data	508	93.0	94.2	1.2
Year 3 pupils	249	94.5	94.7	0.3
Year 4 pupils	259	91.7	93.8	2.0
All girls	275	92.4	93.4	1.0
All boys	233	93.8	95.2	1.4
All pupils with an Aston Pride computer	281	93.3	94.5	1.2
All pupils without an Aston Pride computer	226	92.7	93.8	1.2

It should be noted that for those pupils with an Aston Pride computer, the average number of months that they had had the computer by December 2010 was 29.0. It should also be noted that:

- All selected groups gained in test scores between March and December 2010, showing gains in reading attainment.
- The average difference in test scores for year 4 pupils was much higher than the average difference in test scores for all pupils.
- The average difference in test scores for boys was higher than the average difference in test scores for all pupils.
- The average difference in test scores for year 3 pupils was much lower than the average difference in test scores for all pupils.
- The average difference in test scores for girls was lower than the average difference in test scores for all pupils.
- The average difference in test scores for pupils with an Aston Pride computer was the same as the average difference in test scores for all pupils.

Further analyses explored in more detail the levels of significance associated with these differences. The differences between average March 2010 and December 2010 test results for all pupils were checked for statistical significance. For all matched pupil results, a paired sample t-test shows that the difference between the March and December 2010 scores is highly statistically significant (t=-3.778, *p*=.000). This means that, overall, reading results have shifted positively and strongly across this period of time. Given the schools' focus on interventions to raise literacy attainment, and the specific focus on homework activities involving the need to read, using resources such as *Mathletics* and *Education* City, this is perhaps not surprising,. Even so, the shift in results over a 9 month period is large.

The difference between average March 2010 and December 2010 test results for boys is higher than the average for all pupils. For all matched pupil results, a paired sample t-test shows that the difference between the March and December 2010 scores is highly statistically significant (t=-3.141, *p*=.002). This means that, overall, reading results have shifted positively and strongly across this period of time for boys. This is encouraging, given the fact that boys generally score lower in literacy tests than girls (although writing is often an area that is particularly weak, and reading rather than writing was the aspect of literacy that was tested through this regimen). The difference in score between March 2010 and December 2010 is also statistically significant in the case of girls. The t-test generates a lower result, but it is still within the realm of statistical significance (t=-2.302, *p*=.022).

In the case of year groups, the difference in test results between March and December 2010 for year 3 pupils is not statistically significant (t=-.592, *p*=.554). In the case of year 4 pupils, however, the shift is highly statistically significant (t=-4.714, *p*=.000). This difference might be explained by year 4 pupils having longer exposure to home learning through computers.

In terms of effects of having an Aston Pride computer, for the two different groups (those with an Aston Pride computer, and those without), an ANOVA test shows that there was no statistically significant difference in test scores in March (F=.246, *p*=.620), in December (F=.297, *p*=.586), or for the difference in scores across these months (F=.006, *p*=.940). Although the presence of an Aston Pride computer divides the group in some respects in terms of mathematics scores, it does not divide in the same way when reading results are considered.

Overall, the differences in test results across this time period are large and statistically significant. While these significant shifts are dependent on year group, boys have improved more than girls (although the shift in girls' results is still statistically significant). It is clear from these results that pupils with an Aston Pride computer are not disadvantaged when measured using these tests; differences according to 'digital divide' associated with pupils receiving an Aston Pride computer are not indicated by the statistical tests that have been run.

16. THE WIDER PICTURE OF EDUCATIONAL ACTIVITY AND SUPPORT ACROSS ASTON PRIDE

16.1 The wider picture of educational support and the integration of the ICT Phase 3 Project

It should be noted that this section of the report relies heavily on text provided by a consultant to Aston Pride. Although the original text has been shortened and edited to ensure that it matches the remainder of the context of this report, the vast majority of its focus and content has been retained.

The three Aston Pride ICT projects, ICT Phase 1, 2 and 3 Projects, have been integrated within a wider set of educational approaches, aimed at enhancing opportunities for pupils in schools across Aston Pride. This set of wider opportunities was termed the 'Aston Pride Pupil Guarantee'. The overarching set of approaches within this Guarantee was designed to enhance the achievement of pupils, supporting physical, emotional, cultural and technological development, and supporting acquisition of a wide range of skills. The Guarantee was brokered between participating schools and the Aston Pride NDfC initiative, to provide access to a range of activities that would offer tools and experiences to support choices for developing more highly employable and contributing citizens within the Aston community.

The process to implement this Guarantee was supported through a strategic group, the Aston Pride Education Group (APEG), composed of head teachers (or a nominated representative from each of the schools), Aston Pride NDfC officers, and support personnel representing the extended schools cluster. Meetings of this strategic group were chaired by John Bridgman from the Titan Partnership (a charitable trust). A range of community representatives and officers from other Aston Pride NDfC theme groups were also invited to this group as and when appropriate issues or topics were raised on the agenda. The APEG made recommendations to the Aston Pride NDfC education theme group. APEG met each half term from 2006 to 2010, meetings were well attended, and a strong corporate bond was reported to have been developed between the schools and the Aston Pride team. This was felt to be a key factor in the success of the whole programme. As a key Aston Pride consultant said, "The unlocking of the 'craft knowledge' of the schools, the levels of trust and mutual respect shown for all participants, the shared expertise and the willingness to be fully involved in the programme and the strong leadership of the APEG are important contributory factors to the successful outcome of the pupil guarantee".

16.2 The Pupil Guarantee itself

The Guarantee was intended to ensure that all pupils had access to a basic entitlement of planned activity, for pupils of all ages including children of nursery age. The Guarantee was made up of a number of strands of activity:

- Strand 1 - Arts and performance:
  - An entitlement to access diverse cultural activity in Birmingham.
  - Experience of working with experts in specified, artistic, cultural fields.
  - Entitlement to formal visits each year to enhance a performing Arts tradition.
  - Opportunities to develop art and design work.
  - On-site arts events linked to the Titan Partnership Arts festival.
  - Development of musical talents including performance and group and individual tuition.
- Strand 2 - Extended learning:
  - Family group work in literacy and numeracy.
  - Cross phase liaison between primary and secondary partners.
  - Membership of a library.
  - Access to a wide range of learning activities beyond the normal school curriculum designed to raise attainment at all Key Stages.
  - Homework clubs.
  - Weekend and holiday learning provision.

- Strand 3- Physical and experiential:
  - Access to high quality sports and a physical activity centre.
  - Provision of basic equipment to ensure safe access to physical activity.
  - Upgrading of external facilities to allow extended community access.
  - Community access to garden areas.
  - Opportunities to access high level coaching in physical activity.
  - Attendance of the Aston Olympians annual sporting event.
- Strand 4 - Technological including ICT:
  - The national e-government award winning Computers in the Home project aiming to place 2,500 connected computers in family homes in the Aston Pride area.
  - Primary schools receiving extensive funding for interactive white boards and projectors in all classrooms.
  - Schools funded to develop Cyber Centres for community and pupil usage.
  - A community hub funded for dual usage at Primary School 6.
  - Secondary School 2 receiving an upgraded network.
  - Schools provided with training, community licenses and a range of educational software for use in the school and the home.
- Strand 5 - Environmental and residential visits:
  - Maximising the extension of existing school facilities to provide wider extended opportunities at different times of the day and week.
  - Working in coordination with the health theme group to provide breakfast clubs for pupils in primary schools.
  - Organising a series of subsidised one day experiences and extended residential visits.

Additionally, The Outdoors Against Drugs (TOAD) programme was established as a cross theme programme, running parallel with the Pupil Guarantee, introducing pupils to new outdoor activities that they would not normally experience through school or family life. The aims of the programme were to:

- Prevent young people from becoming involved in drug abuse or drug related activity.
- Improve school attendance and behaviour.
- Support young people in making healthy life choices.

In the overall Phase 3 Project that supported all educational activities, schools received targeted funding to improve standards of attainment in English and mathematics. It was noted in December 2010, that schools had continued to support the principles of the Guarantee, to promote the achievement and attainment of pupils in core skills through promotion of young people's physical, emotional, cultural and technological development. This meant that there had been an embedding of the existing range of enrichment activities developed within Phases 1 and 2 within individual school budgets, an introduction of cross-school programmes aimed at promoting pupil exchange and cooperative working across Aston Pride schools, an extension of the " language of mathematics" project, support for individual schools in managing their own programmes to raise the attainment of "hard to move pupils and students" and development of improving writing strategies, and support for the development of a flexible Key Stage 3 curriculum at Secondary School 2 (a programme that focused on the acquisition of learning and thinking skills through an integrated thematic approach).

16.3 Attainment across the period of the Aston Pride NDfC initiative

It is clearly difficult to disaggregate the different interventions and strategies that schools in Aston Pride have adopted in order to raise standards of achievement and attainment. Feedback from APEG and comments from head teachers, senior leadership and teachers indicates how the members of that group have valued the initiative overall:

- "The Guarantee funds projects and experiences often out of reach of some members of our community.
- "There is flexibility for personal development and targeting of individuals and groups.

- "It takes the gradient out of the challenge.
- "The value of the Guarantee in supporting breadth of the curriculum is seen in the improvement of basic skills.
- "The Guarantee has helped to improve self esteem and aspiration.
- "There has been improved teamwork and cooperation.
- "Curriculum enrichment feeds into speaking and listening and then into children's writing.
- "It helps to provide a broad range of experiences, which subsequently improves English language acquisition.
- "The Guarantee is now embedded; environmental activities and external visits are now part of the SDP.
- "Funding support for the SKATE programme has made a marked difference in improved attendance.
- "The APEG, chaired by the Titan Partnership, has led to improved networking between the schools.
- "The Pupil Guarantee has helped to level the playing field.
- "Children have moved on across the board not only those groups traditionally measured by exam performance.
- "Assertive mentoring of individual students by the leadership team has led to improved performance.
- "Funding in the early days of the Guarantee enabled the schools to establish breadth in the curriculum, which was later supported by school budget share.
- Schools were able to share their expertise and 'craft knowledge'."

The notion of an Aston Pride Pupil Guarantee was first introduced in the 2004 to 2005 school year, and schools were allocated funding in subsequent years to promote a breadth of curriculum and experiences which would support pupils' language development. It was anticipated that exposure to a range of opportunities that would be a matter of course to some pupils in less economically challenged areas would have a significant impact upon pupils' attainment.

In 2003, the attainment of primary schools in the Aston Pride area at the end of Key Stage 2 was low when compared to both national and Birmingham levels. This was not in itself surprising, given the high levels of economic deprivation in the area, but subsequent high level outcomes set by the NDfC that related to raising these attainment levels were clearly challenging. By March 2008, the research and statistics manager for the Birmingham Children, Young People's and Families Directorate reported to the education theme group on the relative performance of Aston Pride schools. He reported that over a four year period performance in English had improved by 16% (from 50% to 66%) and by 8% (from 56% to 64%) in mathematics. At that stage it was recognised that improvement in mathematics had reached a plateau and subsequently a decision was made to introduce a mathematics intervention to help to raise standards directly.

SATs performance in 2010, at the end of the Pupil Guarantee period, was encouraging. Individual schools had put in place a wide range of strategies to improve attainment. In 2010, the level of attainment in mathematics had reached 74%, and in English it had reached 73%. By the end of the Pupil Guarantee period, the variation between Aston Pride schools and the local authority (LA) average had been halved. Over the period, no school in the Aston Pride area had been placed in a category of serious weakness by Ofsted inspections. Analysis of improvement in Aston Pride schools between 2006 and 2010 revealed that 88% of pupils achieved two levels of improvement or more in mathematics and 89% of pupils achieved two levels of improvement or more in English. This was an important indicator, as it mapped the performance of pupils from the end of Key Stage 1 to the end of Key Stage 2, and also helped to map the progress of pupils with special educational needs. The overall local authority improvement rate in 2010 using this same measure was 87% in mathematics and 90% in English. Over the period of the NDfC initiative, therefore, Aston Pride schools had shifted their levels of attainment in mathematics and English – from a low level of comparison with LA results, to a comparative level with LA results.

In the final year of the Aston Pride NDfC initiative, interventions designed to raise attainment of key groups of pupils were put in place and managed by schools directly, to secure attainment in mathematics of a targeted group, to secure attainment of a group of pupils identified as "hard to reach", and to support writing achievement in a specified year group. The first two strategies were based upon principles used by participant schools that had been used previously: an identification of target groups of approximately ten children in individual schools, in-house analysis of baselines of performance using assessment analytical tools, ongoing monitoring and moderation by a teacher co-ordinator and the project manager, regular review and information exchange through the course of the programme, analysis of performance and improvement, linkage to the end of Key Stage national performance, and evaluation of the impact of the programmes.

The aims of the projects were to ensure that the targeted pupils made at least two sub-levels of improvement (above national expectations for annual progress), and to maximise the confidence, knowledge and performance of pupils in preparation for end of year testing. Project leaders used in-house assessment regimes to establish baseline pupil levels at the beginning of the project. Teachers were required to level the pupils' abilities at the beginning of the programmes. Pupils' subsequent levels were then compared with performance at the end of the school year.

The performance of 157 primary pupils selected for these interventions was analysed by Aston Pride. In terms of mathematics attainment, 86 pupils achieved a total of 224 sub-levels of improvement, averaging 2.6 sub-levels, and 78 of these 86 pupils achieved two sub-levels or more of improvement. In terms of the raising attainment of 'stuck' or 'hard to move' pupils, 71 pupils achieved 159 sub-levels of improvement, averaging 2.24 sub-levels of improvement, and 59 pupils of these 71 pupils achieved two sub-levels or more of improvement. The benefits arising were believed to be due to intensive, small group teaching.

16.4 Measures of success of the ICT Phase 3 Project

Within this wider picture of initiatives and measures of success, it was the remit of the evaluation reported here to identify where possible the impacts of a specific project, the ICT Phase 3 Project (following its two earlier phases). Taking the original areas of measures of success that were set by Aston Pride for this evaluation, and using the range of evidence accrued within the report above, success relating to each area of measure will be considered in turn.

Effectiveness of the delivery model, including management, implementation and value for money can all be considered to have been achieved successfully. Whilst the number of computers installed in homes has been less than had been planned, the impacts of delays and the need to put in place alternative initiatives to support pupils, parents and residents could not have been foreseen at the outset when implementation planning was established. The challenges that arose at early stages were picked up positively, and addressed, so that parents, pupils and teachers were all able to report by the end of the project that there were benefits that they could identify, not just for themselves, but for the wider community.

Impact as an education programme, on children and adults, can be considered to have been achieved positively and successfully. Using tests that are age standardised, and a series of statistical analyses to check validity and significance of outcomes, positive shifts in both mathematics and reading results were identified across a wide range of pupils in years 3 and 4 in 7 different schools. Impacts on mathematical scores for girls, and reading results for boys, both indicate that the practices involved could offer potential contributions that would accommodate negative trends associated with these gender groups. Teachers and parents have reported widely and positively on educational impact, and these reports are supported strongly by improvements over the period of the initiative in school SATs, GCSE and Ofsted performance criteria.

Impact as a regeneration initiative, on addressing the digital divide in the Aston Pride area (the extent the ICT Project is promoting economic well being), can be considered to have been achieved

successfully. The reach of computers into the community, the increasing uptake of training sessions, the widening use of computers for educational, work and employment activities, the improvements in ICT skills being reported, the positive view of the initiative from parents and residents, and the lack of any indication of results based on a 'digital divide' between groups of pupils associated with specific sources of equipment, all support the view that this initiative has had impact upon the community in positive ways.

Sustainability of the model, particularly in relation to generating income, and securing future delivery of activities (for a specific future period of time) can be considered to have been achieved successfully. By the end of the initiative, a succession strategy had been put in place, funding to allow continued provision of the network facilities over a period of at least a year, and means being put in place to generate further income, and to continue to support the programme through parental contributions, are all indicators of this success.

The aims to share learning and the dissemination of good practice can be considered to have been achieved successfully. During this phase of the project, there has been a sharing of practice from previous phases that have focused on specific aspects of ICT development. These have been integrated into the Phase 3 project, and successful approaches have been adopted so that all schools in the Aston Pride area have become actively involved in the initiative, and have supported learning approaches that have focused both on parental engagement and intergenerational learning.

The aim to provide through the evaluation an ongoing management tool to enable the Project Board and delivery team opportunities to consider and ensure continuous improvement of the service for schools and the wider community can be considered to have been achieved successfully. The evaluation has reported on a termly basis to Aston Pride personnel. Successes and weaknesses have been identified at each stage, and those taking this initiative forward have responded to these aspects, addressing weaknesses as they have arisen, and enabling successes to be recognised more widely.

17. CONCLUSIONS AND IMPLICATIONS

17.1 Conclusions

A range of conclusions can be drawn from the evidence reported here:

- The Aston Pride New Deals for Communities initiative sought to support residents in an area of high socio-economic deprivation. Reported to number a population of some 14,314 residents in 4,500 households in 2005, many come from a variety of different ethnic backgrounds, with some 25% Pakistani, 25% White British, 21% Bangladeshi, and 15% Black Caribbean.
- The ICT Phase 3 Project was an element within a wider Phase 3 Project supporting the education theme across Aston Pride, and focusing on an enhancement and widening of the curriculum and longer-term opportunities for pupils in schools.
- These widened curriculum opportunities, defined in the Aston Pride Pupil Guarantee, have supported aspects of arts and performance, extended learning, physical and experiential learning, technological and ICT-based learning, and environmental and residential visits. Across the period of the Aston Pride NDfC initiative, schools have improved in terms of performance measured by Ofsted performance and subject attainment result criteria.
- Former phases of the ICT project led to a range of prior positive achievements. By January 2007, data gathered from year 3 pupils in 2 primary schools where the 'ICT in the Home' pilot had been integrated to the greatest extent indicated that 125 computers had been successfully installed into homes, 56 mothers were using the computers (in some cases supporting English language access and practise), 88 fathers were using the computers (in some cases supporting work needs), but, significantly, 945 people in total were using the computers (a leverage factor of 7.6 people per computer, and supporting 5.5% of the total official population number at that time through access from only 5 classes of year 3 pupils).
- The Phase 3 project has taken forward and built on this success, as well as building on successes related to installation of interactive whiteboards in all classrooms, personal digital assistants (PDAs) trialled in two schools, shared training and support across primary schools, local community centres provided with computer facilities, a mobile learning facility accessible to the community, a community support facility for IT facilities, and a pilot wireless network across parts of the local area. The evaluation reported here has focused on the elements of technological and ICT-based learning within the education programme as a whole. Key measures against which to consider the success of this project were set by Aston Pride at the outset of the evaluation.
- From the outset of the evaluation (March 2009) to date (March 2011), 24 months have elapsed. According to the planning document schedule for installations it would have been anticipated that some 2,100 home installations would have been completed. In total, 812 initial questionnaires returned. This indicates that the rate of installation has been lower than had been anticipated (1,050 was anticipated at the outset). It should be noted, however, that the 812 installations do not include home access provided through connections alone, where machines have been provided through alternative routes (*Home Access* and *Computers for Pupils* initiatives), or the 700 installations prior to the Phase 3 project.
- Lower than expected installation rates were determined at fairly early stages of the project by low levels of reliability of network connectivity. This issue created issues and challenges for the project teams, as well as leading to some delays with evaluation feedback.
- Due to the need to negotiate and arrange new contracts and variations in contracts, time was an issue for some project personnel across crucial time periods. Capacity issues arose at those times, and consequently these led to increased time demands on certain personnel, and delays in certain aspects of implementation and evaluation. Capacity issues were exacerbated by the need for key personnel to also focus on contract variations, learning environment issues, and sustainability and succession.
- A secondary consequence of the delays was a shift towards wider uptake across Aston Pride of the *Home Access* package (free of charge to eligible families). The numbers involved (some 337 or more) reduced the potential uptake of the Aston Pride package at a crucial stage in the project.
- Within the Aston Pride Phase 3 CiTH project, there has been a range of computer installations undertaken in homes. In those homes, children have attended 17 different schools in the locality,

although most installations have been associated with 4 of these schools. The 17 schools involved have been primary, special and secondary, as well as state and independent schools. The provision offered and available has been inclusive in this respect (in terms of age, gender, special educational needs, and school attended).

- In most cases computer installations in homes were received by mothers of children in the schools, and to a large, but lesser extent, by fathers. In most cases, families found out about the project through their children's schools, but in some cases information came through Aston Pride information or from other family members.
- Well over a half of the homes did not have a computer or laptop already, and about one fifth of those family members receiving the installations had not used a computer before and about one quarter had not used the Internet before. While about one quarter of those receiving installations indicated a need for training to help them work with their child on the Internet, this figure might well have been lower than the figure that actually might have been required. It is quite likely that some family members perceived access as being the only need in this respect, whilst in reality a range of support practices might have been of importance or value but might not have been initially recognised. The take-up of 'Inspire' workshops, where pupils and parents work together to explore home uses of online educational resources, has indicated the large number of parents who have felt latterly that this form of training would be of benefit.
- Most family members reported that the installed computers and Internet access would be used for educational purposes, whilst less than a half felt they would be used for work purposes, and over a half for leisure purposes.
- In most cases, homes receiving computer installations received a PC starter pack, and the engineer completed the PC set-ups. It is assumed that in those cases where this did not happen, that there were extenuating circumstances, and that a follow-up visit to complete installation would have been required.
- In over four-fifths of the installations, family members knew how to turn on the PC, and the Internet was working in about three-quarters of the cases. Follow-up support for families where these were not the case was put in place, following the completion of a full network installation.
- In most cases the home-school agreement had been read and understood. It is assumed that family members were alerted to its contents and implications where this was not the case.
- In about two-thirds of the homes, installation of the computer was not in a family room. It is assumed that families would have been alerted to issues that might arise as a consequence of this, either through material offered to them at earlier stages of the process, or at the time of installation.
- From post-installation questionnaires (154 in total, representing a random sample of follow-up calls), responses indicated that in all cases (except one, where a response was not provided) the installation was successful. In the vast majority of cases, respondents were happy with the planning and date involved, that the delivery happened as planned, and that the computer had worked since that time. Most respondents indicated that the Internet was installed at the same time, and that the Internet had been working since installation (but considering the need for a new network to be installed, the slightly lower number responding to this question at early stages was to be expected).
- Some families (over a third) contacted a helpline following installation, and when this happened it appeared that this was easy and that in most cases (39 out of 41) problems were resolved. Overall, responses post-installation provided a positive picture in terms of implementation.
- Comments provided by respondents post-installation indicated that some families were not contacting the helpline when they had problems, and this form of follow-up was clearly valuable in making contact with those families to ensure they were aware of the system and that they had access to the contact numbers that were in place. Some of the earlier issues of Internet connection had clearly been resolved at later times, but there appeared to be some later Internet issues, following completion of the new network.
- From other comments received, it was clear that when installation teams were changed, monitoring of their procedures for installation should have been put in place to ensure that installation ran smoothly for families involved.

- Training programmes for family members were run in nine schools across the two year period. Initially training was offered through a number of school on-site sessions. From records, it was clear that family members attended programmes with different numbers of sessions, from two sessions to six sessions. From November 2010, schools offered one-off 'INSPIRE' workshop sessions, that focused on parents working with their children using online resources that teachers would set for homework activities. In total, including both forms of training, 1,171 family members received training.
- The children of most family members attending training sessions were in year 3, with substantial numbers also in nursery, and years R and 1. Most family members who attended had an Indian sub-continent ethnic background, mainly Pakistani or Bangladeshi ethnic origin. Many family members at the end of the training programmes were still judged to be at beginner level, but with substantial numbers reported at both intermediate and advanced level.
- Evidence from a wide range of teachers and school support staff was gathered by March 2010, from across most of the schools involved in the project. At that time, most of these respondents indicated satisfaction with the project. However, there were a number of respondents who felt that more information was needed, that more information needed to be accessible through a learning environment following meetings, and that a more accessible learning environment needed to be developed to support wider communication of all parties involved across the project. In parallel, there were respondents who felt that more training events were needed, and that more detail should have been provided by Aston Pride to clarify certain issues or requirements.
- Most school respondents indicated commitment to the project. They recognised a range of benefits that could arise – increased skills and capabilities for pupils and parents, a narrowing of the digital divide, enhanced involvement and communication with parents, improvements to learning and attainment, and increased opportunities for a personalisation of learning.
- Some schools had put methods in place to monitor the progress of the project. The use of parent questionnaires, verbal feedback from parents and pupils, and records of online access and homework completion were the most common examples cited.
- Some schools were using facilities they had in place to set online homework, to monitor homework, and to encourage parental engagement in homework activities. Many school respondents expressed clear ideas of how they could develop further uses of the facilities.
- School respondents who indicated that there were additional needs to help move the project further forward indicated that more training opportunities, more detailed information available, time for them to develop practice, reward systems for parents, and the development of an easy-to-use learning platform would all have been beneficial.
- Aston Pride personnel picked up the issues identified at that time, and a number of subsequent mechanisms were put in place to improve awareness raising and sharing, and a focus on learning activities involving parents.
- Evidence about outcomes of the project was gathered from pupils, parents and teachers in December 2010. From pupil feedback (134 pupils across 5 schools and across years 4 to 6), the vast majority indicated that they had enjoyed using the computer at home. Most (109 in total) used it most days or every day. Most (79 in total) used it for an hour or more at a time. Most pupils (96 in total) clearly relied upon the computer for their school work at home, and were encouraged to use it by their teachers. Most use was for English and mathematics, but there had been a clear shift in terms of activities requiring them to research and to write at home.
- Teachers reporting at the same time (85 in total from across six schools, teaching across years R to 11), indicated that the initiative had been useful (in 76 cases). Importantly, many teachers felt that pupils' home access to computers had supported a change in their own (teachers') practices. The largest change that was reported was in using online facilities to provide homework activities. Clearly this had shifted the types of homework activity that pupils could be engaged in, and it was clear that some teachers were then asking pupils to undertake tasks such as research, which were not demanded of them previously. The practices involved heralded a shift in terms of what was demanded of pupils outside classrooms, and it could be that these practices were in themselves changing the qualities of learning demands outside the classroom. It is also interesting to note that some teachers noticed the reduction in paper being taken home, and that their uses of computers in

the school had consequently risen also. Interestingly, for some teachers, it appeared that pupil home access had brought about a shift towards more research-based and independent learning approaches. It appeared that more was being asked by some teachers as a consequence.

- In terms of teacher contact with parents, a key point raised by teachers was that visibility had increased - their children's work was more visible, the school intentions were more visible, and means of discussion were more visible. Some teachers noted shifts in terms of questions about homework being raised by parents, and questions about amounts of homework being set. Responses from teachers indicated that they felt that parents had gained higher levels of awareness about what their children did - something in the region of a 72% shift in terms of level of awareness. Importantly, responses also indicated a shift in the region of a 61% in terms of level of engagement of parents with their children's learning.
- Parents providing evidence through questionnaires (20 in total, and most of them mothers), indicated that about a half had used the computers themselves to support their own learning (CLAIT, Learn Direct courses, and English language learning were quoted as examples). Most of these parents thought their ICT abilities were medium or poor. About a third of them had used the computer to look for jobs, or to access creative materials.
- A range of in-depth interviews were undertaken with parents (20 in total, from five different schools, with children covering the age range from nursery to year 9). In many cases the Aston Pride computers they gained were intended for use by the whole family, while in other cases they were intended largely for their children's use. Many parents attended training sessions in the schools, had had an Aston Pride computer for varying lengths of time, and some had been in the country for a matter of a few years only.
- Overall, parents reported three main outcomes: the support gained for their children; the computer package being good value for money at £10 per month; and support for employment and training. There were few issues identified, and where these issues related to internet access, they had largely been addressed. Two major issues were reported: a contact with a boy via an internet site leading to a potential safety issue (averted by family members); and a bank card being cloned.
- These parents highlighted particularly the benefits associated with homework for children, with being able to be engaged and being able to monitor what their children were doing in their learning (also in the context of use of online programs such as *Mathletics* and *Education City*).
- Cost benefits and wider social and personal benefits were reported by a range of parents. Being able to keep in contact with widely dispersed family members, regularly, at no cost, was clearly of wide benefit to some. For others, seeking jobs, and supporting the needs of jobs were clear. Uses for online shopping, for seeking sales items, and for a wider variety of goods, were all highlighted by parents. Some parents reported using internet facilities to access and complete training courses online.
- Parents who were interviewed reported that they felt that the Aston Pride initiative had been of major value to them. Most felt (with some exceptions) that teachers had embraced this initiative, and were supporting their children appropriately and encouraging them to do online homework at home. It is clear that parents would like to see a continuation of this initiative, that they would value its continuation, and that they are beginning to see other technological opportunities that would provide them with further future benefits.
- Benchmarking test data (March 2010) and final test data (December 2010) from year 3 and 4 pupils (in March 2010) who had moved to be in years 4 and 5 in December 2010 from 7 schools were collated and analysed, to identify shifts in test scores across that period of time. The data included age standardised test scores for mathematics and reading for pupils in years 3 and 4, and, for the same pupils, in years 4 and 5. Comparative statistical analyses were run to look for potential impacts of computer and Internet access. The tests showed that, for 542 matched pupil results in mathematics, test scores shifted significantly and positively across the time period. Most of this shift was associated with higher gains in test results by girls (statistically significant across the period of time), and with those having an Aston Pride computer (statistically significant at the end of the 9 month period of time). However, when multiple regression analyses were undertaken, while having an Aston Pride computer did give a small level of difference gain, this was not statistically significant when considered in context with the other main three influencing factors

(gender, year group, and starting scores). The data indicated that there was no 'digital divide' in terms of test result differences between those with an Aston Pride computer, and all other pupils. Indicators suggested that impact of having an Aston Pride computer was growing, and that increased parental engagement, reported by teachers and parents alike, was likely to have been a factor that was having more impact than the presence of the computer alone.

- Benchmarking and subsequent testing in reading (across the March to December 2010 period) showed statistically significant differences in pupil scores. Boys' scores had increased more than had those of girls across that period and year 4 pupils had gained more than year 3 pupils. However, differences associated with having or not having an Aston Pride computer was not identified. The enhancement in boys' reading scores was a particularly positive indicator, as boys' scores in literacy tend to decrease over time, and the lack of difference between those with an Aston Pride and those without one indicates an absence of 'digital divide' in this respect.
- The Aston Pride ICT project was one element within a wider educational programme. The focus of activities was described through a 'Pupil Guarantee', focusing on five strands – arts and performance, extended learning, physical and experiential; technological including ICT; and environmental and residential visits. Across the period of the initiative, school performance improved significantly. Both end of Key Stage 2 SATs results and end of Key Stage 4 GCSE results improved, and there were no reports of serious weaknesses in any schools assessed through Ofsted inspections.

17.2 Implications

A range of implications arise from the evidence reported here:

- The Computers in the Home Phase 3 Project has clearly supported computer provision and online access for a number of homes that have previously not had such provision. This provision supported families who wished to gain access to computer and online opportunities inclusively, irrespective of their children's age or school attended.
- The rate of implementation was much lower than had been anticipated initially. Low reliability of network connectivity was a major factor affecting implementation rate.
- The need for project personnel to focus on contractual, variation, and sustainability matters led to capacity issues, to time delays, and to a weakening of focus on learning impact at central times in the project.
- There was an increasing take-up of the *Home Access* package by some families, which happened at the same time as the project delays occurred. As the *Home Access* initiative did not have any long-term sustainability built into the project, Aston Pride will need to consider how users of this model might become integrated into a longer-term provision that does have strength of sustainability included.
- An Aston Cloud has been developed for use by community members. At this stage the uptake and use of the cloud is not clear. Longer-term sustainability of the project will be likely to depend upon levels of involvement and belonging that are generated from this time on. There are indicators that these features are beginning to emerge, but ways to build on these are likely to be needed for some time in the future.
- Effectiveness of the delivery model, including management, implementation and value for money can all be considered to have been achieved successfully. Whilst the number of computers into homes might be less than had been planned, the impacts of delays and alternative initiatives for parents could not have been foreseen. These challenges were picked up positively, and addressed, so that parents, pupils and teachers were all able to indicate at the end of the project the benefits they felt had been gained, not just for them, but for the wider community.
- Impact as an education programme, on children and adults can be considered to have been achieved successfully. Using tests that were age standardised, and a series of statistical analyses to check validity and significance of outcomes, both positive shifts in mathematics and reading results were identified across years 3 and 4 in 7 different schools. Impacts on the mathematical scores for girls, and the reading results for boys, both indicated potential contributions of intervention practices in place that could accommodate negative trends associated with these gender groups. Teachers and parents reported widely and positively on educational impact, and

these were supported strongly by improvements over the period of the initiative in SATs, GCSE and Ofsted performance criteria scores.

- Impact as a regeneration initiative on addressing the digital divide in the Aston Pride area (the extent the ICT Project is promoting economic well being) can be considered to have been achieved successfully. The reach of computers into the community, the increasing uptake of training sessions, the improvements in ICT skills being reported, and the lack of any indication of results based on a 'digital divide' using measures involved in this study, all support the view that this initiative has had impact upon the community in positive ways. Residents want this initiative to continue, rather than it being lost.
- Sustainability of the model, particularly in relation to generating income, and securing future delivery of activities can be considered to have been achieved successfully. By the end of the initiative a succession strategy had been put in place, funding to allow continued provision of the network facilities over a period of at least a year, and means being put in place to generate further income, and to continue to support the programme through parental contributions, are all indicators of this success. Sustainability of this project is desired by both residents and project personnel. Whilst the project has clearly been successful, sustainability will not depend on maintaining a status quo, however; the needs of the community have been matched by this project over the period of the initiative, but in essence the key outcomes have not been numbers of computers in homes, but higher levels of engagement of parents with their children. A continued focus for the future that brings together intergenerational learning and technological access would appear to be of likely benefit to the longer-term needs of this, and other, communities.

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Appendix A: Aston Pride (CiTH) Installation Questionnaire and Checklist

Client Questionnaire

Who are You? (Mom, Dad, grandmother etc.)			
Address		**School**	
1	**How did you first find out about the computer in the home programme?**		
	• from another family member.		
	• through the school.		
	• someone in the community.		
	• Aston Pride information.		
	• other.		
2	**Have you used a computer yourself before?**	Y	N
3	**Do you have a computer or laptop in the home already?**	Y	N
4	**Have you used the internet before?**	Y	N
5	**Do you need training to help you work with your child on the internet?**	Y	N
6	**Do you think you will use the computer for:**		
	• work purposes (letters, accounting, record keeping).		
	• educational purposes (homework, research, local council or national government services).		
	• leisure purposes (games, music, newspapers)		
	• other purposes (such as, email, telephone, buying goods).		

Installation Checklist:

1	Received PC Starter Pack?	Y	N
2	PC Set-up satisfactorily completed by the engineer?	Y	N
3	Do you know how to turn the PC on?	Y	N
4	Is the Internet working OK?	Y	N
5	Is your email set - up and working?	Y	N
6	Have you read and do you understand the home school loan agreement?	Y	N
7	Is the PC installed in a family room?	Y	N

Appendix B: Post-Delivery and Installation Check Questionnaire

Client Questionnaire

This call is to find out how satisfied you have been with the delivery and installation of your home computer and internet access (a week or more since this was completed). The questions you will be asked are to find out how satisfied you have been with the delivery plan, with installation, with initial access, and with any follow-up that has been needed.

Address		**School**			
1	Were you happy with the date and the plan for the delivery of your home computer?		Y	N	
2	Did the delivery happen on the date planned?		Y	N	
3	Was the installation successful?		Y	N	
4	Did you also receive internet access at the same time?		Y	N	
5	Has the computer worked successfully since it was installed?		Y	N	
6	Has internet access worked successfully since it was installed?		Y	N	
7	Have you needed to contact anyone about the computer or internet access?		Y	N	
8	If so, was it easy to contact someone?		Y	N	
9	If you did contact someone, has your question been resolved?		Y	N	
10	Do you have any comments you would like to offer at this time?		Y	N	If Y, record below

Appendix C: Data gathering instrument 1 – Autumn Term 2010
Teachers 1: School support for the project

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Teachers 1: *School support for the project*

You are involved in an exciting community development that has recently supported pupils and their families in gaining a computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 School

Q3 Your role in the school

Q4 You have been involved with the Aston Pride CiTH project. Have you been satisfied with the project so far?
- *Yes*
- *No*

Q5 Have you received enough information about the project and how it works?
- *Yes*
- *No*

Is there any more information that you would have liked to have had?

Q6 Would you say that you are committed to the project?
- *Yes*
- *Partly*
- *No*

Q7 What would you say are likely to be the benefits of this project?

Q8 Do you have any methods in place to gather evidence of what is happening as a result of the project?

Q9 Do you think that learners are taking advantage of the facilities they now have?
- *Yes*
- *Partly*
- *No*

What makes you think this?

Q10 Do you think that you as a teacher are taking advantage of the facilities that learners have?
- *Yes*
- *Partly*
- *No*

What makes you think this?

Q11 In what ways in the future do you think learners and teachers should use the facilities to gain most advantage?

Q12 Is there anything more that you think is needed at this stage to support your endeavours?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

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Appendix D: Data gathering instrument 2 – Autumn Term 2010
Pupils 1: Motivation of pupils

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Pupils 1: *Motivation of Pupils*

You are involved in an exciting community development that has recently supported you and your family in gaining a computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 School

Q3 Your year group

Q4 Gender
- ○ *Male*
- ○ *Female*

Q5 Address (postcode)

Q6 You have recently acquired a computer with internet access at home. Have you enjoyed having the computer?
- ○ *Yes*
- ○ *No*

Q7 How often do you use it?
- ○ *Every day*
- ○ *Most days*
- ○ *Once a week*
- ○ *Less than once a week*

Q8 When you use it, how long do you use it for?
- ○ *Less than 10 minutes at a time*
- ○ *About 10 minutes at a time*
- ○ *About half an hour*
- ○ *About an hour*
- ○ *More than an hour*

Q9 Do you use it mainly during weekdays, or at the weekends and holidays, or both?
- ○ *Weekdays*
- ○ *Weekends and holidays*
- ○ *Both*

Q10 Do you use it mainly for learning (school work), or for things you want to do with it?
- ○ *School work*
- ○ *Things I want to do*

Q11 How much school work do you need it for?
- ○ *A lot*
- ○ *Quite a bit*
- ○ *Not much*

Q12 Which subjects do you use it for?
- ☐ *English*
- ☐ *Mathematics*
- ☐ *Geography*
- ☐ *History*
- ☐ *Art*
- ☐ *Music*
- ☐ *Others*

Q13 What sort of things do you use it for?
- ☐ *Writing*
- ☐ *Drawing*
- ☐ *Researching*
- ☐ *Sending emails*
- ☐ *Watching videos*
- ☐ *Looking at websites*
- ☐ *Other things*

Q14 Why do you enjoy using it?
- ☐ *Because it has good things on it*
- ☐ *Because it makes working fun*
- ☐ *Because you can see how to work better*
- ☐ *Because you can contact people with it*
- ☐ *Because you find out what you know*
- ☐ *Because you can use it easily*

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

Appendix E: Data gathering instrument 3 – Autumn Term 2010
Parents 1: Follow-up management and support

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Parents 1: *Follow-up management and support*

You are involved in an exciting community development supporting computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 Address (postcode)

Q3 Your relationship to the child receiving the computer

Q4 Gender
- *Male*
- *Female*

Q5 You, or a member of the family, went initially to a meeting at the school. Did you find the meeting useful?
- *Very useful*
- *Useful*
- *Not very useful*
- *Not at all useful*

Q6 Was the time of the meeting suitable for you?
- *Yes*
- *No*

Q7 Was it well planned?
- *Yes*
- *No*

Do you have any suggestions that would make the meeting better for others in the future?

Q8 You have received a computer and internet access. Did the installation go smoothly?
- *Very smoothly*
- *Smoothly*
- *Not very smoothly*
- *Not at all smoothly*

Q9 Were you told what would happen?
- *Yes*
- *No*

Q10 Was the person who did the installation courteous and helpful?
- *Yes*
- *No*

Q11 Has the equipment worked well since it was installed?
- *Very well*
- *Not very well*

If not, what sorts of problems have there been?

Q12 Have you needed to contact anyone at Aston Pride since then, to ask the help desk for support?
- *Yes*
- *No*

Q13 Has the problem you talked about been solved?
- *Yes*
- *No*

Q14 Was the person on the help desk courteous and helpful?
- *Yes*
- *No*

Q15 Is there anything else that could be done at the moment to support you?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

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Appendix F: Data gathering instrument 4 – Autumn Term 2010
Teachers 2: Teacher involvement

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Teachers 2: *Teacher involvement*

You are involved in an exciting community development that has recently supported pupils and their families in gaining a computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 School

Q3 Your class group

Q4 Pupils in your class have recently acquired a computer and internet access at home. Have you found that this has been useful?
- *Yes*
- *No*

Q5 Has it helped pupils in any ways?
- *Yes*
- *No*

If so, in what ways has it helped?

Q6 Has it helped you in any ways?
- *Yes*
- *No*

If so, in what ways has it helped you?

Q7 Do you now do anything differently from what you did before?
- *Yes*
- *No*

If so what specifically do you do differently?

Q8 Has it changed what you ask pupils to do in school?
- *Yes*
- *No*

If so, what do you now ask them to do?

Q9 Has it changed what you ask puipils to do at home?
- *Yes*
- *No*

If so, what do you now ask them to do?

Q10 Has it changed your views of pupil abilities in any ways?
- *Yes*
- *No*

If so, in what ways has it changed your view?

Q11 Has it made a difference to contact with parents?
- *Yes*
- *No*

If so, has this been to do with how contact with parents is made?

Or is it to do with the humber of parents that contact you now?

Q12 Has it altered the sorts of things that parents ask or contact you about?
- *Yes*
- *No*

Q13 Has this changed parental awareness of the school and what is being done in any ways, do you think?
- *Yes*
- *No*

Q14 Has this changed the ways that parents relate to their children's work in any ways?
- *Yes*
- *No*

If so, what makes you think this has changed?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

Appendix G: Data gathering instrument 5 – Autumn Term 2010
Parents 2: Levels of attainment of parents

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Parents 2: *Levels of attainment of parents*

You are involved in an exciting community development supporting computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 Address (postcode)

Q3 Your relationship to the child receiving the computer

Q4 Gender
- ○ *Male*
- ○ *Female*

Q5 You have recently received a home computer and internet access. Have you used this at all to support your own learning?
- ○ *Yes*
- ○ *No*

If so, what is the subject of the learning involved?

Q6 Have you taken a course in this subject?
- ○ *Yes*
- ○ *No*

Q7 Has the computer helped you with language learning at all?
- ○ *Yes*
- ○ *No*

If so, how?

Q8 Have you used the computer to help with mathematics or number work at all?
- ○ *Yes*
- ○ *No*

If so, how?

Q9 How would you rate your abilities with the computer?
- ○ *Poor*
- ○ *Medium*
- ○ *Fairly good*
- ○ *Advanced*

Q10 Are you involved in any learning to develop your computer abilities at the moment?
- ○ *Yes*
- ○ *No*

If so, in what way are you using it?

Q11 Are you using the computer at the moment to look for jobs?
- ○ *Yes*
- ○ *No*

If so, has this been useful?

Q12 Are you using the computer to help with paid work at all?
- ○ *Yes*
- ○ *No*

If so, in what ways are you using it?

Q13 Are you using the computer for any creative activities (making music, design, art work, writing of any sort)?
- ○ *Yes*
- ○ *No*

If so, in what ways are you using it?

Q14 Are you using the computer to gain access to different media (video, images, audio)?
- ○ *Yes*
- ○ *No*

If so, what media are you accessing?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

Appendix H: Data gathering instrument 6 – Autumn Term 2010
Parents 3: Impact on employment, training and government services

Aston Pride Phase 3 CiTH Evaluation

Autumn Term 2010

Parents 3: *Impact on employment, training and government services*

You are involved in an exciting community development supporting computer and internet access through the Aston Pride CiTH project. We have been asked to conduct an independent evaluation of the project to help those involved in running it and to provide details that will help to support these programmes nationally. We would find your views of great value and would like to ask a few questions about the project so far. We assure you that details will be kept anonymous and will be treated as confidential.

Q1 Date

Q2 Address (postcode)

Q3 Your relationship to the child receiving the computer

Q4 Gender
- ○ *Male*
- ○ *Female*

Q5 You have recently acquired a computer with internet access at home. Has this been of use to you (rather than just to your child)?
- ○ *Yes*
- ○ *No*

Q6 Has it helped in your employment at all?
- ○ *Yes*
- ○ *No*

Q7 Has it helped you to look for a job?
- ○ *Yes*
- ○ *No*

If so, has this been useful or successful?

Q8 Has it helped with training for a job?
- ○ *Yes*
- ○ *No*

If so, how in what ways has it helped?

Q9 Has it given you access to more information?
- ○ *Yes*
- ○ *No*

Q10 What sort of information have you gained access to?
- ☐ *Local resources or facilities*
- ☐ *Leisure facilities or events*
- ☐ *Things that you could attend or meetings that you could go to*
- ☐ *Health information*
- ☐ *Local government services, such as social service information*
- ☐ *Government services such as tax*
- ☐ *Services such as car tax*

Q9 Has it given you access to more information?
- ○ *Yes*
- ○ *No*

Q10 What sort of information have you gained access to?
- ☐ *Local resources or facilities*
- ☐ *Leisure facilities or events*
- ☐ *Things that you could attend or meetings that you could go to*
- ☐ *Health information*
- ☐ *Local government services, such as social service information*
- ☐ *Government services such as tax*
- ☐ *Services such as car tax*

Q11 Have you accessed any services that have saved you money?
- ○ *Yes*
- ○ *No*

If so, what sort of service has this been?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

Please click on the **SUBMIT** button to send in your answers.

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Appendix I: Previously completed reports for Aston Pride

Passey, D. with Frank, F., Evans, J. and Staines, A. (2005). Aston Pride ICT Phase 1 Project: Final Evaluation Review Report. Lancaster University: Lancaster. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2005). Aston Pride ICT Project Phase 1: Evaluation report on the 'ICT in the Home pilot' in Prince Albert J/I School. Lancaster University: Lancaster. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2005). Aston Pride ICT Project Phase 1: Second evaluation report on the 'ICT in the Home pilot' in Prince Albert J/I School. Lancaster University: Lancaster. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2007). Aston Pride ICT Phase 1 Project Final evaluation report on the Interactive Whiteboard initiative. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2007). Aston Pride ICT Phase 1 Project Final evaluation report on the REAL initiative. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2007). Aston Pride ICT Phase 1 Project: Overview Findings. Lancaster University: Lancaster. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Passey, D. (2008). Aston Pride Community Development Project: Final Summary Report of Aston Pride IT Phase 2. Lancaster University: Lancaster. Accessible at: http://www.aston-pride.org.uk/index.php?option=com_content&view=category&layout=blog&id=73&Itemid=211

Appendix J: Interview schedule for parents involved in the project

Thank you for being willing to talk to me about your experiences with the Aston Pride Computers in the Home Project. I am Don Passey, and I am a researcher in the Department of Educational Research at Lancaster University. I have been asked to conduct an independent evaluation of the project, to help those involved in running it, and to provide details that will help to support these programmes more widely. I will find your views of great value, and would like to ask a few questions about the project. I can assure you that details will be kept completely anonymous.

Date:

School:

Role of respondent:

1. You have been involved with the Aston Pride CiTH project. Do you think this is a useful project?

2. Have there been issues with the project?

3. What would you say are the benefits of this project to you?

4. Have you been able to use the facilities to support communication with others in any ways?

5. Have you been able to use the facilities to support your interests in any ways?

6. Have you been able to use the facilities to support employment or training in any ways?

7. Do you think that your children are taking advantage of the facilities they now have?

8. Do you think that teachers are taking advantage of the facilities that learners have?

9. In what ways in the future do you think you, or learners and teachers should use the facilities to gain most advantage?

10. Is there anything more that you think is needed at this stage to support your uses of the facilities?

Thank you for answering our questions. Your answers are valued, and will be used to help the project and others involved in the future.

23rd April 2011

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