

P.31 Gathering evidence of change in school half-way through the ICT Test Bed project

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Following a lengthy absence from school, I returned to find it quite transformed! The amount of equipment was amazing – beyond anything I could have dreamed of, to say nothing of two teachers I had never even met before. What was so impressive was that the learning environment seemed to have undergone quite a radical change. It seemed much more child-centred, where they had more direct control of their own learning. For instance children use Global learning in English and Maths work which is tailored to individual levels of achievement and children work at their own pace, whereas if this were teacher led it could probably involve group or whole class work which might not fit each child's needs. There is less opportunity to differentiate work at an individual level which the use of ICT can achieve with out additional workload.

Children appeared to be generally calmer, even when ICT was not in use. They exhibited improved levels of collaboration and the expertise that the staff and children were able to demonstrate left me breathless but also rather concerned that I felt somewhat de-skilled myself! This is not to say that the standard of education at the school before the introduction of the Test bed was poor. It was not. What I saw however were children who were now producing work of a standard that previously I had not really thought possible. For example, SATs evidence has shown that special needs boys achieved level 4 in writing when without ICT they might well not have had the motivation to produce work of that standard. Their results displayed added value at the end of Key Stage Two that was significant when compared to their achievements at the end of Key Stage One which was prior to the introduction of the Test bed initiative.

Increased attention and involvement

One example of such change is the transition from the use of big books in the literacy hour to the use of prepared texts on an interactive white board. Prior to the introduction of the Test bed, children were required to look at a big book for part of the Literacy Hour while seated on the carpet by the teacher. They were probably unable to see all the text clearly unless they were near the front and attention was sometimes drawn to other events in moments when concentration lapsed. With the introduction of interactive white boards the text is large and clear, having the facility to be displayed in different colours or highlighted in part as required to elicit responses. There have been examples of a teacher reading a big book alongside a child who operated the interactive white board which displayed the same text. This illustrates the use of two forms of learning – auditory and visual with both old and new methods of teaching being used in concert. Children demonstrate a greater attention span and appear more deeply focussed and involved in their work. They now show little evidence of a lack in concentration and are rarely deflected, even when visitors enter the classroom.

Resource development

Teachers can store this material on flipcharts in the staff area of the computer for use in subsequent years when it might need little or no adaptation. Admittedly, in the early period, teachers experienced higher workload to produce the resources but in future, once the resource base has grown, they will be able to re-use material more often. Using the shared area also has the added bonus that these resources are also available for other members of staff if appropriate. For example teachers talk amongst themselves and may mention specific websites or resources that are bookmarked or in their favourites (See appendix). The use of VLE can give teachers access to a host of resources not only within schools or clusters but nationally. It must be said that populating the VLE is currently an arduous task which in itself might deter teachers at first but the eventual rewards are evident. More companies are also producing interactive books on CD-Rom for use in the literacy hour, which may also reduce teacher workload. Using e-learning credits is one way of funding such additional resources

while in other schools, that have not got the benefit of extensive technology, there may be other priorities.

Creating an ethos of achievement

Written work is of a higher standard and certainly there seems to be less reluctance, especially on the part of boys, to draft and re-draft work. A great deal can be put down to the use of ICT in this area as the perceived drudgery has been removed from many writing tasks. There has often been a belief that boys do not seem to be enamoured by writing, especially those with special needs for whom the task of producing an extended piece of writing was an onerous one, made all the more disenchanting by the knowledge that the teacher might well ask for some re-drafting of a piece of work that was not only mentally but physically demanding. Boys like technology. It is "cool". With the use of laptops or PCs, any child can compose a story or account which the teacher can review and with a little cutting and pasting, a new or final draft can be quickly produced. Spelling errors are highlighted as work proceeds and the use of spell checkers reduces errors even further although it must be emphasised that technology cannot always find the correct answers and there is really no substitute for learning high frequency words! Furthermore, this work looks good and can be printed, laminated and put on display within a short time. The children's sense of achievement is much enhanced and also produces greater self-esteem and a belief that work of quality is possible. Such feel good factors help to strengthen the virtuous circle associated with raising achievement.

Understanding the learners' experience of using ICT to improve writing - consulting the school council.

When members of the school Council were asked their opinions on the use of ICT for writing, they all mentioned the value of the spellchecker and the way it highlights errors. Several noted that it was much quicker to write using the computer and some even cited the fact that their hands did not ache as much when compared to using traditional pens and pencils. Most of them openly said they felt proud to see their work displayed as it was better than their own handwriting, yet again demonstrating increased self-esteem when using ICT. One girl said she liked the ability to select different fonts for the type of stories she wrote. Is this a case of "Chiller for thrillers"?

Using ICT to produce written work in lessons other than literacy will provide extended opportunities for children to write creatively and perhaps use different genres – report writing in science, geography or history perhaps, while at the same time reducing the de-motivation that is sometimes present. By having younger children use ICT programs that develop correct typing skills in discrete lessons, it also encourages good practice, speed and accuracy further up the school. These are skills that will be expected in the world of work in the 21st century.

Improving parents' appreciation of their children's activities

Teachers have expressed some concern that parents may not see a great deal of traditional work in children's books when they come to progress evenings. However, as much is now stored on individual laptops, the teacher can access this work and allow parents to browse at their leisure or even have the child sit alongside the parent if they attend the meeting and display what they have done.

Teacher-led and student-centred follow-up work using laptops

It can be argued that good teachers will produce good work with children whether they have an ICT-rich environment or not. What has to be said is that with the advent of an ICT-rich working environment, all children appear to be more eager to remain on task. They regard learning as fun and remain engaged to the point of working into break times in order to complete their assignments. Teachers use the interactive white board well to produce interesting lessons which involve stimuli that the children enjoy. It has been noted that

teachers, having gained in confidence and experience, gradually tend to take a step aside from the whiteboard as it were, allowing the children themselves to take on a much more active role. This in itself acts as a spur to children to concentrate and get ever more deeply immersed in the activities.

The use of lap tops for follow-up activities has meant that children feel more in control of their own learning. The use of Global English and Maths programs allow individual children be given work which is more closely matched to their ability. While this work is challenging and does extend children's skills and knowledge, they seem to regard it in a non-threatening way as technology is perhaps regarded as a benign task-master. Their work is easily assessed by teachers and results can be centrally stored in a staff area of the computer which is not accessible to children where teachers can regularly check on progress.

The children in Key Stage two have the privilege of being able to take their lap top home each night and over the weekends or holiday periods if they wish. This has resulted in many instances of children producing some quality pieces of work which had not even been set. One special needs child wrote two pages of a story and when he showed it to me he pointed out that it was not yet complete. Another child produced a power point presentation on Henry VIII and his wives that included a series of slides with both her own text and pictures downloaded from the internet, concluding with music! Such is the motivation and enthusiasm that can be produced by the good use of ICT.

Assessment of progress and feedback

Linked to the control of their own learning, children regard the ability to access regular if not immediate feedback as important. As has been cited earlier, they do not feel threatened by technology and readily embrace what it can offer. An example of positive feedback was in the use of reading results with year 6 children at the start of term and then at half term which revealed considerable improvements in all except one child who then had to admit that the reading book had often not been taken home. Subsequent testing a month later indicated that this was no longer the case. Children readily talked to their peers and were willing to divulge results, which they perceived to be non-threatening possibly because there was an acceptance that they were in control of the degree of improvement and their efforts could be seen to be making marked gains in reading ages – some by as much as 15 months in one term. The ICT thus helps create a positive ambiance and learning culture. This perhaps illustrates how ICT can be used in a "mixed economy" of ICT motivation linked to fundamental good practice – a message which should be shared with other schools.

Traditionally reading tests were carried out twice yearly. They were labour intensive, requiring a one-to-one approach which was demanding and the test itself was not particularly "child friendly", taking some considerable time to administer and even longer to calculate new reading ages, as the teacher had to consult tables and charts to compare the reading result with the chronological age before entering the results. Using a programme on the laptop or PC, older children can carry out the test themselves while younger ones work with a classroom assistant. At the end of the tests the assistant uses an access code to produce results immediately. The children are given feedback individually and they can also see the results of previous tests, which again can boost self-esteem. Teachers are able to store evidence in a class folder on disc together with a hard copy for parents which did help overcome a problem of lost data following an upgrade of the system. Hopefully this will not re-occur. Teachers and children remain confident about the recording and presentation of the results using ICT.

Absence or reduction of negatives

It has often been said that computers are wonderful things (when they work properly!) That said, teachers and children can sometimes be let down by failing technology, and this usually happens at the worst of times. Fortunately the Test bed schools have technicians on hand to help service machines and trouble shoot where needed. Often a small glitch can be overcome

by teachers themselves and it is in such instances that children have been seen to be more tolerant than perhaps might have been the case previously. They appreciate that the equipment is complex and in some cases at the cutting edge of technology. Perhaps it is for this reason that they are willing to sit and wait for things to be sorted out rather than create added stress for the teacher. To use the analogy of a journey, which is of course what education is all about, it is rather like a railway trip where the children are excited at the prospect of experiencing something new and interesting along the way. They do not mind a pause at a "railway station" once in a while as the engine receives attention, because they know that their journey will soon continue.

ICT is not the new messiah but used wisely as the tool to encourage learning, boost self-esteem and bolster progress it has produced the goods in this particular school thanks to the efforts of a dedicated and fully committed staff. All credit to them!

Sites chosen by staff that are useful and what makes them stand out.

www.ngfl-cymru.org.uk

Really good lessons for IWB range from early years through to KS2 including resources for all areas of the Foundation Stage.

www.reonline.org.uk/

(Excellent for all areas of RE)

www.snaithprimary.eril.net/

(Great for History and Geography)

www.bbc.co.uk/schools/scienceclips/index_flash.shtml

(Used regularly in Science for all topics)

www.topmarks.com

(good resources for KS1)