

**Naace**  
The Education Technology Association



# **Advancing Education**

the Naace Journal

Summer 2011

## **Editorial Ramblings**

Writing this issues editorial feels very strange. As with many of us currently working in local authority advisory services the end of the summer term brings a redundancy cheque and an uncertain future. Have we been sacrificed to economic necessity, to the gods of casino capitalism or more prosaically a victim of educational thinking entrenched in the middle of the last century? Whatever your personal views the loss of expertise, destruction of the knowledge bank of folk wisdom and experience together with an impending lack of support for schools and teachers does not bode well for the future.

As individuals we will need to adapt to a world where we survive by persuading schools that not only do they still need skilled impartial advice, support and training but that it is worth paying for now no longer superficially free at the point of use. We, the Naace membership (including sponsoring partners) remain the visionaries, the voice of long experience that can still enable schools to adopt and adapt Third Millennium Learning rather than revert to the false security of old fashioned and outdated practice.

But will schools respond? Anecdotal evidence suggests that some schools at least are cutting back on ICT, partly as a result of budget cuts but also in response to the lack of any government statement on how it views ICT in the curriculum. The loss of BECTA and cut-backs at local level give a very negative message further emphasised by some newspapers focusing on free schools and 'traditional' subjects of which some, such as Latin, were only ever the preserve of a minority. Yet to survive and be employable in the third millennium ICT capability is second only to English and Maths in importance. Those who cannot communicate, manage data and be creative with ICT tools are effectively handicapped. Our economic competitors understand this but once again England looks to the past rather than the future. Fortunately the other home countries are more enlightened.

In the last several weeks I have had, for example, schools drawing back from learning platforms now that they have to pay for the services and training. They say that a basic web site will do, children don't need logins or access to forums, wikis and all the other tools that many are actively using. Fortunately this attitude is not general as development planning work with an outstanding primary has proved. The message is becoming clear however, that while the best schools will continue to grow and develop their use of ICT, fully embracing Third Millennium Learning, the divide between these good and outstanding users and the rest will grow. How many children are going to be disadvantaged - we know from past experience who they are likely to be.

We all understand that we have a fight on our hands to ensure the future not only ICT as a subject but as an integral part of all learning. This requires a united front from all interested parties – it is not helpful for example to argue for Computing/Computer Science to replace ICT, leaving a small range of ICT-based activities taught wherever teachers wish. Technical knowledge and understanding of computers and computing has a place and the Naace response to the National Curriculum Review made this very clear. We also supported the argument for KS2 and KS3 ICT to prepare learners for a range of GCSE and vocation options in KS4 and beyond. It is there that

Computing/Computer Science properly resides, including perhaps as a science within a properly considered English Baccalaureate, however meaningless that concept is in reality. ICT has unique knowledge, skills and understanding to which all learners are entitled and which needs to be taught by skilled practitioners in both discrete subject and cross-curricular contexts. It requires that there to be, at the very least, a clear statement of broad content, expectations and standards to provide the scaffolding that schools need. Without this there is a danger that effective use of ICT will again become the preserve of enthusiast teachers and those few schools that continue to recognise its importance. We cannot allow this to happen.

This fight goes beyond the subject itself. It's about preparing learners for their and our future – after all children at school now will be paying our pensions and care costs! ICT still motivates and enthuses children. If you doubt that go back to a classroom and teach again. I recently did just that - a shock to the system as it was probably the first time that I had taught Year 4 since school experience in the 1970's! We began some work on simple stop motion animation linked their work on the Titanic story and the pleasure demonstrated when their few seconds of video was shown to the class reminded me not only of why I went into teaching in the first place but of the power of ICT as a learning tool.

That is further demonstrated on the content of this issue of Advancing Education. Roger Broadie argues that we need to move towards a theory of the impact of ICT in education. Linda Clarke reports on her work in developing use of a VLE in a special school – lessons here for those mentioned above while Fiona Aubrey-Smith takes this further with expert thoughts the value of online environments for learning. Bob Harrison urges us to look beyond government and to the students themselves for the future of ICT in education while sponsoring partners demonstrate how their products are enhancing learning. Finally Jeremy Meads offer solutions to the ongoing issue of data interoperability in schools.

So we must carry on arguing our case, influencing those who can in their turn influence government thinking both now and after the inevitable cabinet re-shuffle. We must demonstrate how effective schools raise standards through their use of ICT and we must show the importance of ICT to future economic well-being. It won't be easy but, as Churchill said, '*Courage is going from failure to failure without losing enthusiasm*'. However, as we review the initial skirmishes over the summer break we need to plan for the main campaign later in the year. I will therefore leave you with a quote from one of my late father's heroes, Field Marshall Erwin Rommell who noted that confronting the enemy involves, '*The art of concentrating strength at one point, forcing a breakthrough, rolling up and securing the flanks on either side, and then penetrating like lightning deep into his rear, before the enemy has time to react*'.

Interpret as you will!

Paul Heinrich  
Editor

The views expressed in this editorial are those of the author and do not necessarily reflect Naace policy.

# Naace

## E-Learning in maths does make a difference.

*Author: Jayne Warburton, CEO 3P Learning Ltd*

*The appropriate use of technology in a classroom can engage students of all ages and ability levels. Today's teachers are often faced with the dilemma of what technologies to use and how to successfully incorporate these programs into the learning and teaching experience of their students.*

The use of e-learning resources promotes active engagement, motivation and enjoyment and provides opportunities for students to discuss, debate, draw conclusions and to give advice to others. Students are more inclined to tackle unfamiliar or tricky topics and less afraid to make mistakes when faced with a friendly, game-like environment, rather than a heavy textbook. Instant feedback means that if a student makes a mistake, they can quickly see where they went wrong, encouraging them to rectify the mistake and progress to the next stage with confidence. Through this process, the teacher takes more of a facilitator role and the students become more independent learners, taking control of their learning.

Maths is a subject that is often perceived as difficult or boring. Research has shown that e-learning helps develop maths skills.

So how can using technology in the classroom raise levels of enthusiasm and attainment for maths?

Jane Fisher, Maths Coordinator at Hovingham Primary School in Leeds, has introduced technology to the maths department to help raise levels of engagement:

“Since introducing technology to maths, we have seen a huge improvement in the pupils’ confidence levels. Pupils can feel very wary of answering questions due to the fear of being wrong, and this is where we have found technology can help.”

Fisher continues:

“We have been using a maths e-learning resource for 18 months that aligns maths to the world of sport, bringing in the element of competition and personal bests, and have seen a real difference in our pupils. Because the resource is full of positive reinforcement and focuses on ‘eight correct answers’ rather than ‘two incorrect answers’, it gives the pupils the confidence needed to succeed in maths.”

Jane Fisher uses other forms of technology, including mobile technology, which pupils are already aware of. This can be a fantastic way of raising enthusiasm for the subject:

“We have found a lot of children struggle with place value in maths, often finding it difficult to visualise the relationship between ‘tens’ and ‘units’. However, when presenting to an entire class of thirty pupils, a piece of software on the interactive whiteboard can work wonders and often caters for visual, auditory and kinaesthetic learners, covering a variety of learning styles in one go. Some pupils require a lot of attention from the teacher, but with a class of thirty pupils this is not always possible. However, using technology such as the iPad, or e-learning maths resources allows a pupil to explore the world of maths at their own pace. They can hear, see and touch the system and generally find it a really rewarding way to learn.”

Laura Holt, Year 5&6 teacher at Brigstock Latham’s C of E Primary School in Northamptonshire echoes Jane’s enthusiasm for e-learning in the classroom stating:

“Engaging maths resources make maths fun and this is absolutely vital for many pupils, especially those with little motivation. As resources often look and feel like a game, pupils don’t really feel like they are doing work, however they are learning key mathematical principles that they will need to know for later life. Maths techniques only sink in through repetition, but taking home sheets upon sheets of questions can be uninspiring. Using technology really helps to keep the pupils motivated though and can give a purpose for practising.”

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# Naace

## Holmfirth School: Britannica Image Quest

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*Author: Eoghan Hughes, Encyclopædia Britannica (UK) Ltd*

*Holmfirth School in West Yorkshire is a Mathematics, Computing and Applied Learning Specialist Comprehensive with over 1,300 pupils. With a broad curricular remit and a large amount of extra-curricular activities, the school requires lots of resources for both teachers and pupils alike. This short article explains how they used Britannica Image Quest to support learning and teaching.*

When their staff and students found that they were no longer able to access Google Images within the classroom due to a local authority directive, they were left in a predicament. The students needed images for research, projects and homework, while the teachers wanted to make their lessons interactive and teach their pupils to use resources properly and safely.

After receiving a promotional email for Britannica Image Quest in March this year, the school - who already subscribed to Britannica Online School Edition - decided to take up a free trial of the high-quality image provider, allowing their staff and pupils access to over two million educational images.

The students in particular are keen users of Britannica Image Quest, using the resource for creating high-quality presentations and homework assignments - particularly in their Art, Graphics and Media Studies classes, where they have created CD covers, pop-up boards and designed newspaper lay-outs

Teacher Helen Stothard comments: "It's great that the students are using the resource. Schools invest a lot in software, which isn't always used. If students find software difficult to use, they won't use it, so the fact that they do is a huge compliment. The students expected Britannica Image Quest to be brilliant and it is."

The Results - for teachers:

Holmfirth's teachers are also delighted with Britannica Image Quest, which has allowed them access to a safe resource, which is fully interactive with their whiteboards and other classroom technologies.

Helen Stothard continues: "After an interactive online training session, we uploaded the details on the Frog learning platform and were soon inundated by both the staff and pupils eager to use the resource."

About Britannica Image Quest:

Britannica Image Quest is the largest online resource of its kind, with over two million available images sourced from leading providers such as Getty, Royal Geographic Society and the Natural History Museum. It provides instant and safe access to high-quality educational photos, diagrams, maps and illustrations, which can be used by teachers and students alike in projects, presentations, websites, lesson plans and interactive whiteboard activities.

The resource also removes the time and costs associated with seeking reproduction rights or checking over students' work to ensure they sought permission. All image rights have been cleared for educational use and the database is searchable by key word, subject, or image provider.

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## Towards a theory of the impact of ICT in education

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*Author: Roger Broadie, Broadie Associates Ltd*

*The use of ICT in schools puts significant costs upon the education system in the UK and other countries. There are also possible additional costs that introducing ICT might cause, such as distraction from learning and safety considerations. Assuming the cost-benefit case can be made for use of ICT in schools, teachers need to understand in what circumstances and why using ICT will improve learning relative to ways they might teach and get pupils to learn that do not employ ICT.*

### Why is a theory needed?

The use of ICT in schools puts significant costs upon the education system in the UK and other countries. These include the costs of the hardware and software in schools<sup>1</sup>, training for school leaders and teachers, and in some schools costs to the individual pupil and their parents. There are also possible additional costs that introducing ICT might cause, such as distraction from learning and safety considerations. It is necessary to demonstrate that the spend on ICT is at least as effective in producing learning as the spending of the rest of the school budget. It is therefore necessary to see the link between the use of the ICT and learning and for this to be quantified relative to the spend on the school buildings and physical environment, on teachers and other staff, and on resources such as books.

Assuming the cost-benefit case can be made for use of ICT in schools, teachers need to understand in what circumstances and why using ICT will improve learning relative to ways they might teach and get pupils to learn that do not employ ICT. The concern here is to ensure use of the best tools and environments to maximise learning. And as there are significant costs in using ICT there needs to be significant improvement of the teaching/learning processes from the use of ICT. This also calls for ways to quantify the improvements relative to previous approaches.

The third reason for a theory of impact is to enable teachers to develop their pedagogy and understanding of how learning happens. Though there may be situations where use of ICT is the only way to enable learning, in the majority of cases ICT will be used in conjunction with the other social and physical resources of the school and its wider community. Understanding the contribution of ICT to the whole learning environment and teaching approach is required in order to balance its use appropriately and to take best advantage of what it offers.

### The problems in forming a theory of impact.

ICT is itself very diverse in form and function. The ways that it can be used are extremely wide. This makes the choice of how and when to use ICT very difficult for teachers, in the sense that there is over-choice; ICT might be used in ways that are not very effective when it could be used to much greater effect. When limited to the physical environment of a classroom, the resources it is possible to assemble within it, and the time period allotted for a class or session, there is limited number of ways to organise how pupils will interact with each other and the teacher, and with learning resources. The introduction of ICT radically extends the possibilities; the range of resources it is possible to access is hugely increased, as are the ways pupils can produce work and collaborate. Most importantly, a computer is an interactive entity (dependent obviously on the way it is programmed) that can take on roles that in a non-ICT classroom have to be taken by either pupil or teacher. The computer can present and can provide feedback and assessment, as a teacher would, or can learn or respond collaboratively with suggestions, as pupils might do. The range of possible interactions is therefore also hugely increased, the pupil-teacher relationship becoming triangular, pupil-teacher-computer. Should the school also have an online platform, interactions in the class can be complemented by interactions that happen online before and after the class. Time and space can be used differently, requiring that teachers need to consider what the unique features of pupils being in a classroom are relative to the learning that can happen out of the class, so as to maximise the learning benefits of both. The ways in which teachers teach can be transformed.

Without a theory to guide development of pedagogy new approaches will be adopted because a teacher has chanced upon particular examples of use of ICT that provide an approach they feel will be effective with their class. This is indeed what is currently happening; no teacher can have full breadth of knowledge of how ICT is being used to enhance learning and their development of their pedagogy depends upon what is happening in their school or locality or upon the particular interest-groups of other teachers and educators they have time to engage with.

This is unsatisfactory, particularly as advances in neuroscience are giving increasing insight into how learning happens



and advances in online social networking and websites are providing insights into the psychology of engagement and interaction between people, and between people and information.

Both of these points highlight the main problem in forming a theory - the diversity of ICT and its uses.

### The nature and use of a theory of impact.

Good theories provide a simplification of what is observed, by identifying underlying structures and mechanisms. They also should enable predictions to be made.

In the current stage of development of the use of ICT in schools, teachers are getting surprising results from their use of ICT. They are trying ways to use ICT without a clear understanding of what will result. When teachers notice a bigger than expected improvement in learning, this is often attributed to higher engagement in learning by the pupils, with only an anecdotal appreciation of why the engagement of pupils is raised and without understanding clearly the mechanisms that have acted to generate more and/or better learning.

Much of the information that is being shared between teachers about these good uses of ICT is being shared through domain-specific groups. Teachers of English are discussing how to use ICT to improve understanding and use of language and literature while mathematics and science teachers are doing similarly in their domains. A theory of the impact of ICT must act across the different subject domains of education and across the different ages and abilities of pupils. With a theory to guide them teachers will be better able to work out how use of ICT can best impact on and improve the learning activities of their pupils and their psychological approach to those activities.

### The problems of assessing the impact of ICT on achievement

There have been many attempts to study the impact of ICT on achievement. It has proved possible to causally link certain uses of ICT to raised achievement when these are limited in time and purpose - for example use of revision software in the weeks leading up to exams. However broader studies such as Becta's Impact2<sup>2</sup>, analysis of the ICT Test-bed schools<sup>3</sup> and investigations by Ofsted<sup>4</sup> have largely failed to prove that use of ICT has caused raised achievement while at the same time being able to show correlation between schools with good pupil achievement and those making good use of ICT. Internationally there is a paucity of studies showing that ICT has raised achievement in schools<sup>5</sup>.

It is possible that this failure to link use of ICT with raised achievement to any great extent is that it is fundamentally impossible to do so. As observed above, ICT is almost never used in isolation from other components of the teaching and learning environment. As a result it is impossible to separate out the impact of the ICT from the impact of the ways the other components have changed as a result of, or alongside, introducing the ICT. The diversity of ways in which ICT can impact compounds this.

In order to establish a theory of impact there must be some link to raised achievement in learning, as that is a main purpose of schools and a main rationale for the funding of schools. If it is fundamentally impossible to directly link use of ICT to raised achievement, in the majority of cases, new approach is required.

It is possible to link the use of ICT to the ways in which learning activity changes. Certain parts of the learning activity may have previously been impossible or very difficult without ICT, while it becomes possible for other parts to be changed because of the ways in which ICT is being used. It is therefore possible to create a theory of how ICT impacts on learning activity.

It will then be necessary to show that the changed learning activity, as a whole, leads to raised achievement. This is extremely complex in that it relates to theories of learning about which there is little academic agreement, but it can also be dealt with pragmatically in that teachers can do, through their formative and summative assessments, note pupils improvements in learning. For the purposes of this theory, the link between changed learning activity and raised achievement will be left to others. The purpose of this theory is to make clear the mechanisms of impact, so as to enable professional discussions about the ways learning activity can be changed in ICT-rich environments and which changes are most productive in raising achievement.

### Categorising changed learning activities to create a theory.

It has been stated above that the ways in which ICT can be used in learning are very diverse, creating a huge range of learning activities that are possible using ICT. In order to have a manageable and workable theory it is necessary to categorise the ways in which ICT enhances learning, so that different mechanisms of impact can be studied separately to some extent. This will make it easier to study the impact of individual changes in learning activity due to ICT though

there will still be considerable overlap; for example the impact of the ability to access learning resources via the Internet will be difficult to separate from the impact of the nature of those resources which are likely to differ from paper-based or physical resources.

An analysis of the value-add impacts of ICT<sup>6</sup> was conducted in 2001 by the European Education Partnership (E.E.P.). This can act as a starting point to be refined and validated as the number of examples studied increases. The areas of impact identified by the E.E.P. are listed below, but before considering the nature of these one overall factor that is relevant to most of them needs mentioning. This is that in many of these areas ICT can act to produce positive impact on learning both by opening up possible opportunities for learning and by constraining or focussing them. For instance a website can be constructed to link the user to a huge diversity of information and opportunities for communication and collaboration, or it can be constructed to severely focus and guide the user into using pre-determined and limited opportunities. Both can be useful in aiding learning as at times learners need to be able to follow their own learning paths and at other times to be strongly guided and have work scaffolded in small steps.

This ability of ICT to be used to support and enhance very different pedagogies inevitably leads to consideration of which pedagogies it is most appropriate to adopt to promote learning in ICT-rich environments. It is not the purpose of this study to consider this question but it is sensible for readers to be aware of the educational philosophy of the author and of the views of some others. A presentation by Diana Laurillard<sup>7</sup> considered this question with a tentative conclusion that generally constructivist approaches work best. The Apple Classroom of Tomorrow (ACOT)<sup>8</sup> studies were also strongly based in constructivist methodologies. The philosophy I shall bring to analysis of examples of impact is a belief that in general learner-centred and learner-led pedagogies are most effective for learning provided that the learner and their teacher can dynamically shift the pedagogy back to didactic and strongly teacher-led approaches at any moment that this becomes necessary. This is a view very similar to the theory of dynamic leadership that sees managers leading subordinates to take increasingly independent control of delegated work while remaining watchful and ready should any individual task cause the worker to need to revert to structuring of the task by the manager and greater supervision. It should also be borne in mind that ICT itself increasingly has the capacity for this embedded in systems, with online help to provide step-by-step guides to doing things being available in software, and from YouTube (<http://www.youtube.com>) and other sources.

### The E.E.P. categorisation of the impact of ICT on learning.

This analysis found the following categories of positive impact:

#### *Motivation*

Teachers often report increased motivation to work and engagement with work by pupils. It is not clear whether this increased motivation and engagement is a cause of better work or an effect of more satisfying and better structured work that use of ICT creates. Consideration of computer games suggests that the design of the software is responsible for generating engagement, with the motivations to play being largely human; challenging oneself or social interaction with others playing similar games. However many of the examples of ICT impact in learning currently available suggest that the original motivation to engage with a task comes from the teacher but that the use of ICT makes engaging with the task more enjoyable for a wide variety of reasons, which is responsible for increasing pupils' engagement and their learning.

#### *Access to resources*

As mentioned above, this can be a matter of giving easier and faster access to a much wider variety of resources, or it can be a matter of scaffolding and guiding the users' access. Also in this category we need to consider the impact of search engines and ways of organising information and resources. For example the creator of a CD ROM for students learning immunology decided to structure the whole body of knowledge, that is very inter-related, into a dodecahedron structure, the rationale being that each node of knowledge is only one or two clicks away from all the other nodes (with just one being 3 clicks away). He also used the technique of hotspotting diagrammatic films.

#### *Increasing communication and collaboration*

Computer systems now provide many different ways for people to interact online. As well as the fact of being able to communicate at a distance this area of impact must also consider the nature of the communication, for example the asynchronous nature of email and forums that provides time for reflection before answering. Communication forms such as Twitter (<http://www.twitter.com>) can be used to constrain and focus communication in order to promote learning, forcing users to state what they wish to say in only 148 characters.

#### *Extending learning time*

The ways in which learning is extended will be largely covered in other categories, such as ability to access school resources from home and to continue learning dialogues out of class. The purpose of separating extended learning into a separate category is to study how time and space can be used differently for learning in ICT-rich environments. If teachers know that pupils are able and willing to do certain things online out of class, they can transform what they

and pupils do in class.

#### *Using more channels*

This refers to communication channels into the human brain. Computers have radically increased the opportunities for visual and aural communication. There are also opportunities for the channels to be used to prompt each other, for example highlighting text that is being read by the computer to draw a child's eye to the written words that they are hearing.

#### *Access for minorities*

The minorities referred to are learners who are in a minority in their class or school whose needs are not as well catered for as those of the majority of the pupils in their learning cohort. This is not just students with handicaps but also those who have different needs because of language or previous experience or preferred ways of receiving information or communicating.

#### *Enabling publishing and audience*

This covers impacts such as the necessity to produce creative output in certain forms and to standards that suit the publishing approach and intended audience. It also covers impacts deriving from the comment and feedback that audiences can provide. The fact that audiences can be controlled is also an area of impact, enabling learners to control how widely they publish and to whom.

#### *Enabling brain-centred learning*

This is a category that the E.E.P. analysis states is far from clear. It resulted from a number of examples of powerful impact that could not be satisfactorily included in the other categories. It includes impacts such as the 'flow' of high engagement and concentration generated by games, how the very short latency of response of computers to input can better stimulate thoughts in developing ideas, how typing can make ideas flow better than handwriting because it is possible to commit words to paper at a speed more in tune with thinking and how and why multimedia appears to be so much richer for communication than text or speech. This area could also cover the impacts referred to in discussions of learning styles, such as pupils learning better in mobile activities or by using visual representations such as mind-maps.

#### *Re-balancing teaching and learning*

This obviously happens if learning time is extended but it also happens in more subtle ways. A computer is able to act in many of the roles that teachers and pupils undertake in learning. It can for example present as a teacher would, can mark and provide feedback, and can be taught by pupils as they attempt to demonstrate their learning. It therefore opens up the possibility of triangular teaching/learning relationships, allowing both pupil and teacher to adopt different roles, one example being the phrase "guide on the side not sage on the stage" to refer to how teachers should change their roles. There is an important education management issue here, as staffing costs are the major component of education system funding. Small changes in how teaching and other staff are employed and deployed may be able to release more than sufficient funds to fund the ICT necessary for changed approaches that produce significantly better learning.

#### *Automate management and recording*

There is an obvious impact here in schools saving time and money but this also refers to how learners can be helped to record their learning and make it more visible, and manage their learning.

#### *Increase scalability and replicability*

This is an impact of most concern to policy makers and school leaders but benefits learners who gain the better learning opportunities that have been scaled and replicated. A critical issue in this category is the role the teacher in learning. Teachers are different and some are not as good as others in some ways. Some are better at drawing resources together to support their teaching and pupils' learning, some are better at presenting ideas than others, and some are better at counselling and learning discussions. There are various ways in which a school, a local authority or a country can use ICT to ensure that the learning experience for all pupils has a higher guaranteed baseline no matter what the differences are between teachers, schools and localities. ICT makes it possible to replicate and scale these approaches at relatively low cost (relative to costs of education systems overall).

### Examples of analysis of impact to build the theory

The proposed approach to create a theoretical basis for studying the impact of ICT in education is to analyse different examples where teachers perceive positive impact on learning from the use of ICT, to identify mechanisms of impact that have the potential to be used by educators in different areas of the curriculum and teaching pupils of different ages.

Once mechanisms have been identified, these can be more deeply investigated to find ways whereby the impact on learning can be quantified.

This is best illustrated by a few examples:

Example 1: 9

Data logging. Leaving the computer to get on with the datalogging while the children are engaged with other things, rather than having the pupil's clock atching to take a temperature every few minutes is always more productive. The ogging can be left to proceed for as long as desired and then the pupils can engage in nalysis of the graphical representation of the physical change that was set in motion inutes or hours earlier. It is in the analysis and discussion that the real transferable earning is taking place.

It is clearly important to be able to read a stopwatch and a thermometer, but once upils have mastered those skills the constant replication of them over a long period as little if any value and merely provides an opportunity for distraction. pplying the principles learned in a single activity such as this can then be built into omething exciting and challenging such as solving a murder mystery using 'forensic' echniques, where pupils can appreciate the learning that has taken place and higher rder thinking skills are brought to the fore.

#### *Analysis*

This is firstly about using ICT to reduce the time spent on a low-level ctivity, replacing it with higher order activities that are more likely to generate earning. Secondly with data-logging, the ICT is being used to create visual epresentations of the data being analysed, more quickly and accurately than can be one by hand, which will aid interpretation and extraction of information from the ata. Thirdly data-logging can produce data on very fast phenomena, such as what appens millisecond by millisecond when a match is struck. This is creating a earning resource that would not be available without ICT.

#### Example 2: <sup>10</sup>

Teaching primary school children to make video podcasts and using hese to record and publish what they are doing in class is a useful learning activity. owever, if you give the same pupils a flip video camera and tell them they have to hoose to be a beetle or a butterfly (with a camera) making the podcast, you get a hole new dimension. The beetles will all be lying flat on the ground, crawling hrough the grass and pushing their camera through the jungle of stalks, bumping into ther bugs, looking up and seeing huge birds etc etc. The butterflies will hold their ameras facing downwards and fly around swooping down towards brightly coloured lowers. (Or in the case of one 9 yr old group, zooming in on a caterpillar shouting that's my baby'). This makes for a whole different sort of podcast.

#### *Analysis*

This is first about removing an activity that inhibits learning - the act of aving to write getting between the creative ideas and their expression - hence peeding up the creative story-telling. Secondly it is about ICT creating a visual epresentation, which is very similar to the visual possibilities of data-logging in that he visuals stimulate thoughts about things the learner has not previously seen.

#### Example 3: <sup>11</sup>

Twitter , at a 'literal' level, is useful to remind pupils about homework eadlines, assignments etc but at a more creative level it can be used for mass role lay. For example, working with secondary history teachers doing work with pupils bout the WW2 on the home front. It happened to be the Year of the Evacuee. Every upil had to choose a character (evacuee, mother of evacuee, father, member of host amily etc) and they had to pretend it was 1940 and communicate with each other bout what was happening to them and how they felt. Except that though they had to hink of themselves in 1940, they had mobile phones and twitter and 140 characters to end messages. Within about 3 days there were several hundred pupils following the hashtag and twittering - interestingly, a great many had set up accounts with 1940's names!

Similar mass role play can be done with English Lit (Macbeth on Twitter is very interesting) or in RE - can you understand the content of eg the Lord's Prayer well enough and get the key points in 140 characters?

#### *Analysis*

Here the use of ICT is slowing down the learning activity and making it asynchronous. It is also about constraining how thoughts are expressed in a single channel of communication (text) rather than adding a channel as in the video podcasts. Presumably the slowing down and the constraining of communication are both promoting more thought, the challenge being how we measure this.

#### Example 4: <sup>12</sup>

A science teacher set a forum question for homework. Just in the last couple of minutes of the lesson with no discussion he said "OK - homework; all of you provide an answer to this question in the online forum, "Which has more energy, an iceberg or a kettleful of hot water?"

This resulted in:

- All the pupils put an answer in the forum; none wished to be very visibly seen to have not done the homework.
- The more timid pupils were able to contribute as much as they wished, without the fear of criticism to their face that they felt in class.
- The less able pupils read what the brighter pupils wrote, before devising their own version of the answer they

liked best.

- The brighter pupils engaged in some debate about each others' answers, exploring several threads.
- The teacher was able to see all the pupils' answers in a single place, so was more easily able to identify the common misconceptions that would have to be corrected next lesson.
- In the next lesson he was able to 'ground' the pupils more quickly, as they could each see their own contribution and could remember some of the other contributions they had looked at and thought about.
- And he had accessible some pupils' answers to lead the debate, that looked at the problem from their viewpoint. Such as the pupil who said "I'd pour the kettleful of water over the iceberg, and if all of the iceberg melted then the kettle has more energy!".

### *Analysis*

The learning time was extended because the pupils were more motivated to provide their answer in the forum than they would have been in just preparing an answer to give next lesson, with reduction in fear about speaking publicly aiding some in this. The answers from the more able pupils became a resource for pupils whose understanding was not as good. Communication was extended through some of the pupils debating each other's answers. The teacher being able to see all the pupils' answers in one place is an automation of management and recording. Time was also saved in the next lesson. This example therefore shows positive impact in seven different ways.

By analysing a large number of examples of the use of ICT in this way, the categorisation of mechanisms of impact can be extended. This will allow us to see which mechanisms for impact are being used most often and which are most easily used cross-domain. Assessment can also be made of their comparative importance in raising achievement.

### **Conclusion**

Though the use of ICT with school age young people to promote learning, raise achievement and make education more effective and efficient is highly domainspecific and tailored to fit the individual circumstances of learners, teachers and schools, there are mechanisms through which this impact is gained that are cross-domain. This opens the possibility of studying the ways in which ICT impacts on learning to produce insights that may be generalisable quite widely.

These insights could inform the development of pedagogy in ICT-rich environments to generate a better consensus on the most effective changes that teachers and schools might make.

As the potentially generalisable impacts can be described as mechanisms of impact they are also potentially quantifiable through the ways in which learning activity changes. This would allow comparison with other methods that might be used to generate similarly productive changes in learning activity, which would allow assessment of the return on investment in ICT in comparison to other approaches.

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7. "Realising the vision for e-learning", a presentation by Diana Laurillard, e-Learning Strategy Unit, at the BETT Show 2004. She identified that the common thread in our understanding of learning from educational thinkers such as John Dewey, Jean Piaget and Vygotsky up to John Biggs and Jean Lave, is the learner as

active agent in the learning process, considered what counts as active learning, and how e-learning helps.

8. The Apple Classroom of Tomorrow (ACOT) project, <http://ali.apple.com/acot2/>, identifies six design principles for the 21st century high school.

9. Example provided in an email from Jane Finch on the MirandaNet list, 20 April 2011, on the thread Critical Learning Activities?

10. Example provided in an email from Jenny Hughes on the MirandaNet list, 20 April 2011, on the thread Critical Learning Activities?

11. A second example provided in the email from Jenny Hughes on the MirandaNet list, 20 April 2011, on the thread Critical Learning Activities?

12. The example is taken from the report 'Learning Platforms, a study of use in secondary schools', available at

<http://www.broadieassociates.co.uk/page3/page7/files/CapitalPwhitepaper.pdf>

The example is available at

<http://www.broadieassociates.co.uk/page46/page43/page27/page27.html>

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# Naace

## Can the VLE enhance teaching and learning in the Special School?

Thank you for editing the entry. This is how the edited entry will appear in the database.

Reference code: Linda Clarke

*Author: Paul Heinrich*

*This report outlines the positives and negatives of establishing a VLE in a Primary Special School setting based on classroom action research.*

### Introduction

The following project aims to outline the positives and negatives of establishing a VLE in a Primary Special School setting.

Firstly, I will discuss exactly what a VLE is and how it can be utilised in education. Secondly, I will provide evidence from my own school environment and from selected special schools across Wirral.

I hope to show the many difficulties and success stories that have arisen from the initial provision of the VLE to its full implementation within a special school setting.

I have been able to collect evidence from my own teaching experiences within my special school setting and in my role as VLE SEN consultant for the local authority advisory team one day a week.

Evidence will include a survey by pupils in my own school, LA statistics and reference to theoretical reports/studies by relevant organisations.

*Learning is breaking out of the narrow boxes that it was trapped in during the 20th century; teachers' professionalism, reflection and ingenuity are leading learning to places that genuinely excite this new generation of connected young school students – and their teachers too. VLEs are helping to make sure that their learning is not confined to a particular building, or restricted to any single location or moment."*

*Virtually There, Yorkshire and Humber Grid for Learning Foundation, UK.*

It has proved difficult to find up to date primary school information about VLEs from relevant agencies ie Ofsted and Becta, however references will be made where appropriate. The majority of research has been based upon secondary schools and colleges as the proposal were brought to them first.

Finally I hope evaluate the quality and effectiveness of the VLE in my own setting based on the responses of the pupils/staff and from the curriculum assessment material for Literacy and Numeracy used by teachers within my school.

### What is a VLE?

*"A VLE is a virtual learning environment (VLE) is a system designed to support teaching and learning in an educational setting". (Wikipedia Jan 11)*

Becta states that the

*"UK, have coined the term learning platform to cover both MLE and VLE as used in the schools sector. The term learning platform describes a broad range of ICT systems used to deliver and support learning. Through a learning platform, hardware, software and supporting services are brought together to enable more effective ways of working within and outside the classroom. At the heart of any learning platform is the concept of a personalized online learning space for the pupil. This space should offer teachers and pupils access to stored work, e-learning resources, communication and collaboration with peers, and the facility to track progress"*

Some confusion comes about with the term MLE which is a more managed learning system in a wider environment. A VLE can be seen as a subsystem of an MLE. An MLE is more widely used for administration and is more prevalent in Universities and colleges.

Ideally the school VLE would provide interactive collaboration between pupils, between pupils and staff, staff and parents. (I will discuss these in some detail in the following sections)

A good VLE would contain a wealth of resources, school informations and links to the local authority.

According to a JISC's Introduction to managed learning environments, the term 'virtual learning environment' refers to the components in which learners and tutors participate in online interactions of various kinds, including online learning. Thus, a virtual learning environment is any electronic space where learning can take place or where interactions occur. These are often but not always in the form of the kind of webs we can see on the Internet.

<http://www.ukcle.ac.uk/30.1.11>

A typical VLE combines communications tools, such as email, forums, video conferencing and online resources. In the schools I have worked alongside and my own school we tend to use the VLE as a means of sharing resources and setting a range of curricular activities for pupils to access both at home and in school. Therefore at present we provide an electronic space for all to access via a login and password.

However, this assumes that every pupil has access to an internet connected computer. In a recent survey (appendix 1) I found that some pupils in my school did have a computer but no internet access, whilst others had no computer access at home. This will be addressed in the evaluation section of the project.

### Establishing a VLE in a special school

When the idea of establishing a VLE was first brought to my attention in my own setting I began to wonder how we could utilise the many functions for our school. I knew the pupils would respond very well to new technology but was very apprehensive about the staff response.

After an initial introduction to the Uniservity VLE by representatives from the company and Wirral LA I knew that this would be the way forward. It was also noted that the government recommended that each pupil had access to a personal learning space. <http://www.education.gov.uk/publications/standard/publicationdetail/page1/DFES-1296-200520.2.2011>

As ICT coordinator I knew it my job to implement the VLE within my school. After my initial panic I thought 'What do I do first?' so looked at the Becta site for advice: Getting started with your learning platform. Advice for schools March 2008

1. Have the commitment of your senior management team.
2. Understand what you want for your learning platform.
3. Ensure appropriate and timely training and support for staff.

This advice seemed fine and useful but it still did not really tell me what to do. However, I decided that to work within the Becta guidelines would be a good starting point. I also began to look at the existing VLE's on the Uniservity platform for information and ideas. I began to plan in my head roughly what we as a special school would need to enable all of our pupils access to the platform. I knew that a number of our pupils had poor literacy skills, therefore many visual links would be required.

I decided to meet up with a few colleagues and have a brainstorming session about our needs. Together we decided what pages we would have and how they would be used and by whom. We decided on how our homepage would look and what links would be visible etc.,

The plan:

1. Establish a homepage
2. Establish individual class pages
3. Establish a parents calendar
4. Establish staff only area to record training, meetings etc.,
5. Gain parental consent for photographs etc., to be included.

Myself and a colleague established the Gilbrook homepage with the help of the LA team. I then asked the LA to come into a school staff meeting to share the idea of a VLE with all staff and to show us how to add digital content to the pages. This meeting met with a response of "more work for us, what are we supposed to put on it? I don't know how, think it's a good idea if it works." I knew then that I would have to introduce the VLE at a relatively slow pace.

My first job was to establish class pages for each class, I put content on my page with links etc, to activities for the pupils. I then set up the framework for all the pages that I hoped we would be able to use in the future. Following a meeting with the Headteacher we set aside a number of staff meetings to address the VLE and made a decision to include the VLE on our Staff Development Plan.

I introduced the staff to my class page and showed them how to put links on their own pages using the hyperlink and pictures tools. I then set staff the target of making their own class pages by the next meeting in two weeks time. I was



at this stage not sure how many would actually contribute.

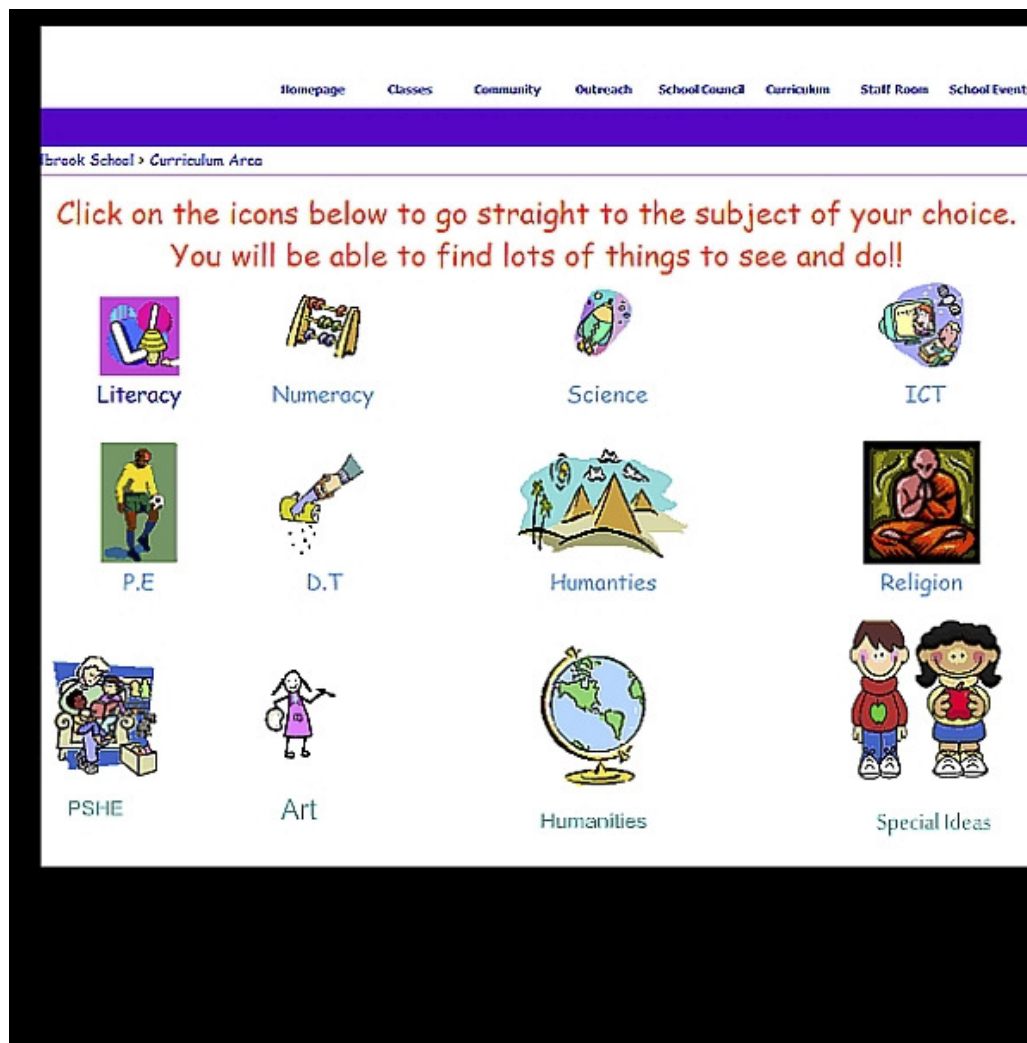
Imagine my reaction when we reassembled as a staff to look at the site, nearly every member of staff had put a photograph, a moving graphic and some resource links/activities on the class pages. I knew then that we could make it work as long as everybody could begin to see the benefits of using the VLE.

My next step was to fill in all of the pages on the framework, I decided to do this part myself as I didn't want to overload the staff after their initial enthusiasm. I decided to start with the curriculum page which would provide visual links to all areas of the curriculum for both staff when teaching and for pupils independently at home or school.

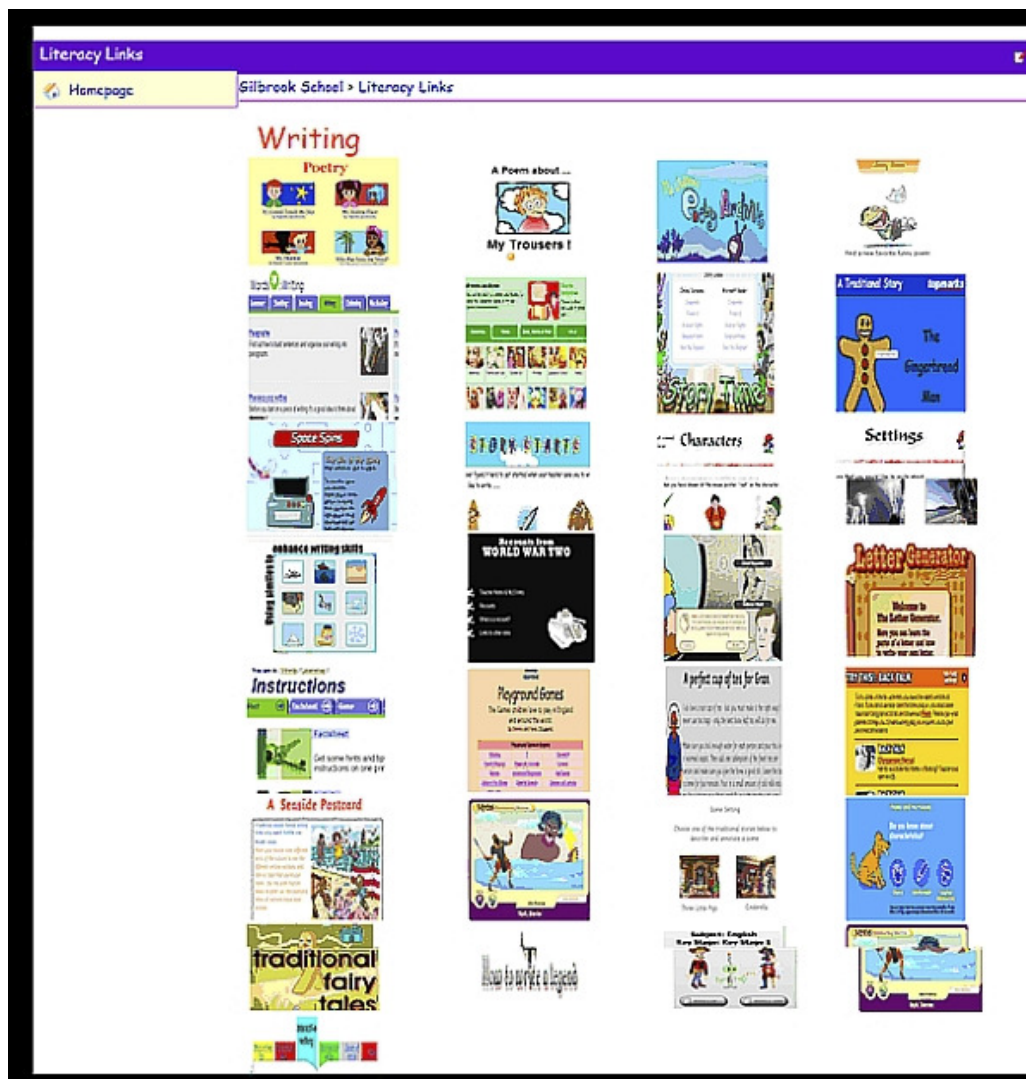
I looked at other VLE's for ideas and links to suitable resources and began to assemble the pages. This was difficult initially as I had to set up subgroups for the new pages and I had no idea how to do them. After some considerable time and many mistakes I found out how easy it actually was to add them.

On the next page you can see the curriculum homepage and then a sample of the literacy links. For a more complete view please visit our site :

<http://www.clc2.uniservity.com/Grouphomepage.asp?GroupId=585940>



*Curriculum Homepage*



Literacy Links

From this point establishing the way forward for our VLE became simpler although very time consuming. By Easter 2010 our VLE was working well. It covered all aspects of school life including photos, videos, internet safety tips and a wealth of resources. Pupils loved using it, staff were grateful for easy links to resources. Our member of staff who worked one to one with pupils established personalised learning on each pupils resource homepage. This was essential to ensure continuity between herself the pupil and the staff. Future plans include, more speaking text and sounds for the less able, more blogs and forums and pupil self assessment and access to planning. I am trialing self assessment with my class at present through the forum feature.

It was at this point that I decided to introduce the parents to the VLE during parents group. I demonstrated the VLE and asked the parents for their thoughts. They liked the idea that they would be able to share in their child's learning through photos and information on class pages. They were very interested in the resource area to help with homework. Some raised concern over security issues which I readily addressed. Overall, the parents thought it was a great idea and they have given me some ideas for the future to add to our successful parents page ie a parents blog, a place to ask each other for advice and a place to ask for future parent activities.

In summer 2010 the school received a 'highly commended award' from Uniservy for the VLE. We gained this award after a recommendation for how we used the VLE across the whole school.

With the parents fully onboard and willing to be taught how to use and add to the VLE parents page, I began to ask myself the crucial question "Was the VLE actually making a difference to our approach to teaching and learning, Was the VLE actually improving our pupils attainment?"

I began to ask the staff for samples of planning (appendix ii) so I could monitor the use of the VLE in lessons. I discovered that the VLE was being used across the curriculum in many ways. Each member of staff used their class pages to provide links and information to activities. One member of staff embarked on a project with Uniservy called It's a small world which has proved a great success. A favourite was the 2 simple software available free on the platform. This provides a huge range of digital content to cover all areas of the curriculum. Many used the 2publish

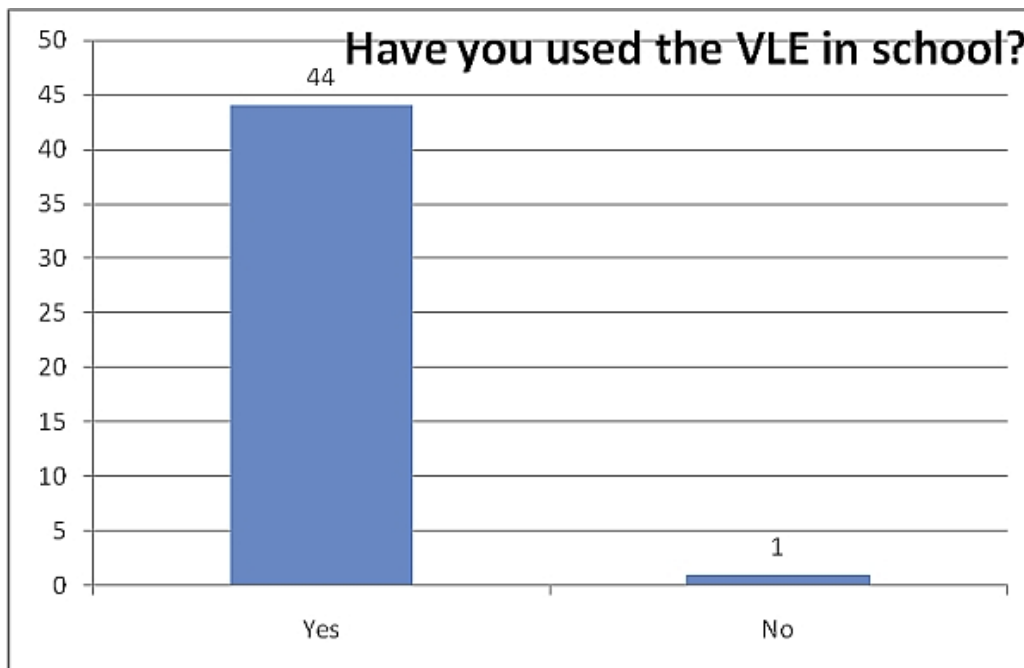
section which helps pupils with their writing.

Perhaps one of the most important points to research and to answer my initial question was the views of the pupils. In January 2011 I established a survey on the VLE for the pupils to complete online. I wanted to know the pupils views about the VLE and whether they thought it had helped them with their work. 45/45 pupils completed the survey and 29 of them thought that it did help them, 12 thought it sometimes helped and only 4 thought that it didn't help at all.

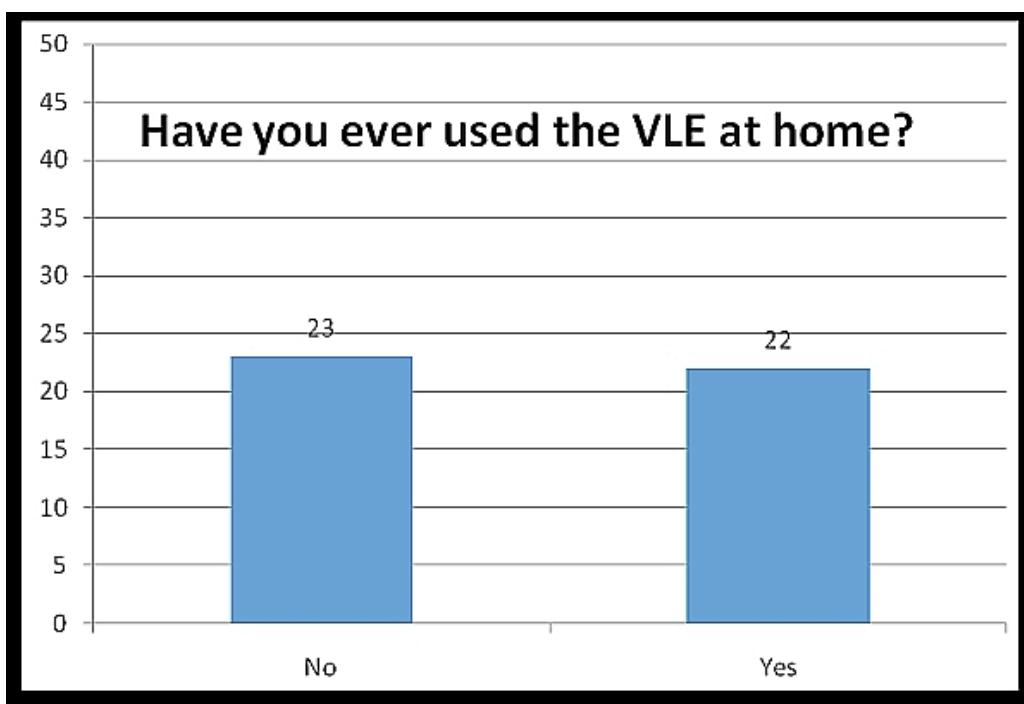
I was delighted with the pupils responses, only one pupil said they had never been on the VLE in school, it transpired that this was a new pupil in KS1.

I was delighted to share these results with the Head and staff and also with the LA and the Uniservity team. I will be sharing these results with the parents at our next session in March.

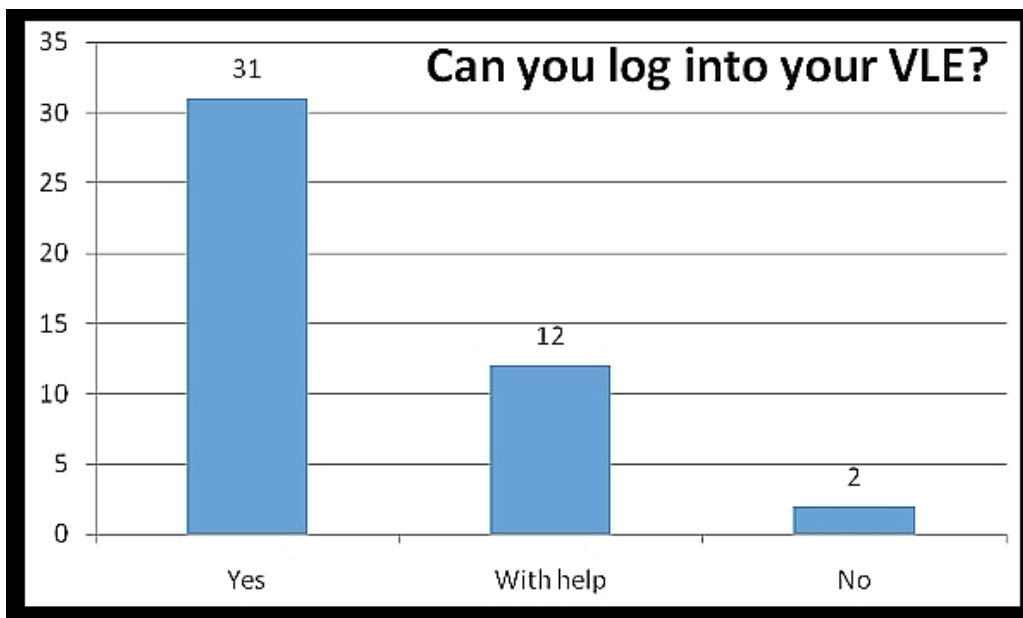
I have now collected my termly assessment using the Bsquared package and just looking at literacy I can see that my pupils have made great progress since September. Obviously this could be for a number of reasons but when linked to the childrens thoughts about the VLE I ask myself is it just a coincidence!



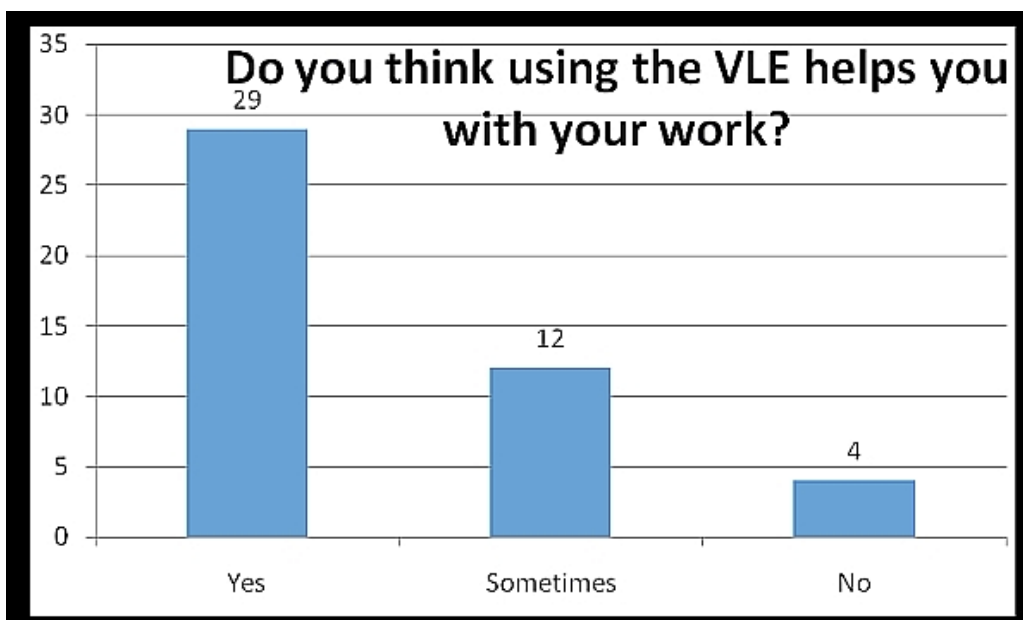
*Have you used the VLE in school?*



*have you used the VLE at home?*



*Can you log into the VLE?*



*Do you think using the VLE helps you with your work?*

### Advisory Work

Following the initial success of the Gilbrook VLE I was contacted by the ICT advisor in February 2010 asking for help to roll out the VLE in the other special schools throughout the Wirral area as they were not making full use if any of the VLE. I was to be released from school on alternate Fridays.

I was given a table of statistics for the special schools and asked to contact them with regard to their VLE. I targeted the ones who had very low statistics on usage (appendix iv). Initially I did not have to fill in contact sheets but have included some of my handwritten notes and later contact sheets for visits.

I was quite nervous about the prospect of visiting schools about the VLE because I knew from experience that staff would see it as extra work, but I knew that once my own staff felt that so felt sure that I could overcome this obstacle. Again I decided to use the Becta approach cited in Getting started with your learning platform. Advice for schools March 2008 and my own experiences.

My first job was to allay any fears that the ICT coordinator and Headteachers had about security issues. I assured them that information, photos etc., would only be accessible by login and passwords. The only parts of the site that needed to be public would be the parent information and general information about the school and any other information that the school wished to share publicly. At all of my initial meetings I demonstrated our VLE to show its capabilities for pupils and staff and then talked about how we could make it work for their pupils and school. I had to remember that a number of our special schools had pupils who would find it very difficult to access the computers and therefore no

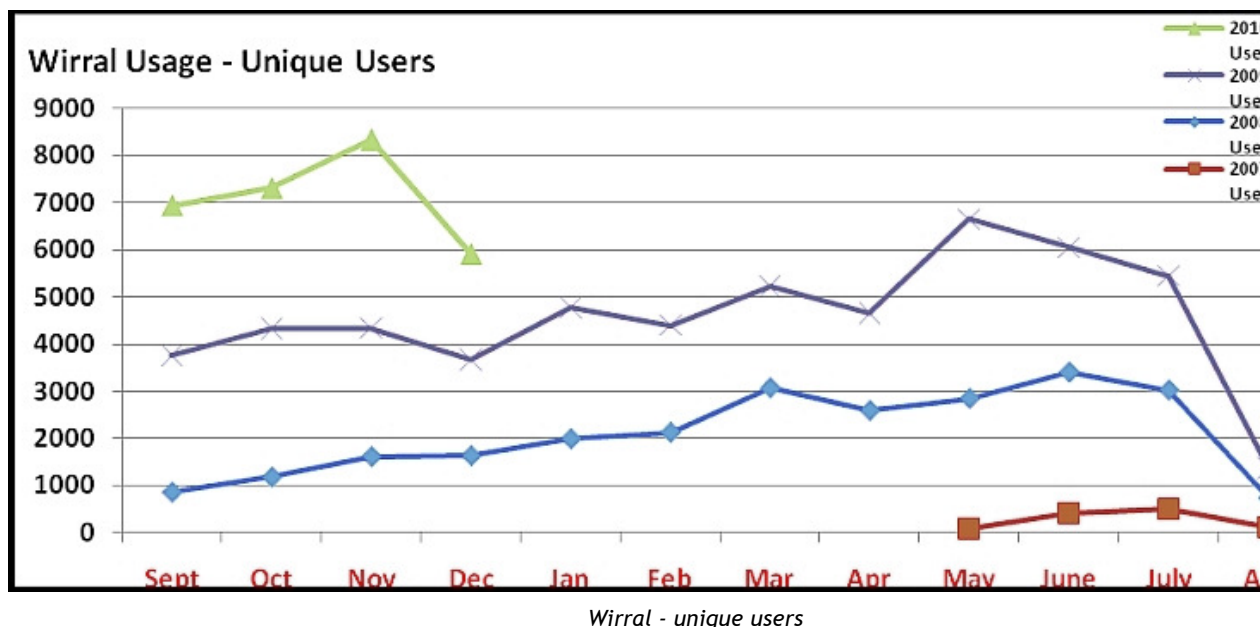
two schools would be the same. One of my early visits to The Lyndale School confirmed this. I also had to take into account the difference between primary and secondary schools and their possible uses for the VLE.

All initial responses to the VLE were favourable, schools began to think about how a VLE could work for them.

Whilst visiting the schools I soon realised that although a number of them had established a VLE it was not really a means of communication between the staff, pupils and parents. Many sites looked great but there was no real input from the pupils or resources to aid teaching and learning. I advised the schools to look for resources suitable for their pupils, to make the VLE a whole school project and to get the senior management team onboard with the venture. Each school was shown how to add digital content including movies and photographs, how to edit security settings and how to add new pages. I decided to follow the same path that I had used in my own school ie setting small targets for teachers- class pages etc., I explained about individual learning resources for some pupils. For the secondary schools I suggested maybe a transition project from primary between year 6 and 7. Two of my secondary schools invited me in for a staff meeting to explain and show the whole process to staff and Headteachers. I felt that these meetings went very well overall. Members of staff wanted to talk individually after the meetings to ask for suggestions and further help.

As I was only able to commint to a small number of schools on alternate Fridays the decision was taken to extend my work to every Friday during term time from September 2010. This has allowed me to really work with the special schools and now in January 2011 more special schools are using the VLE with their pupils. I am now able to spend more time with the schools that still need support and advice which makes them more likely to use the VLE.

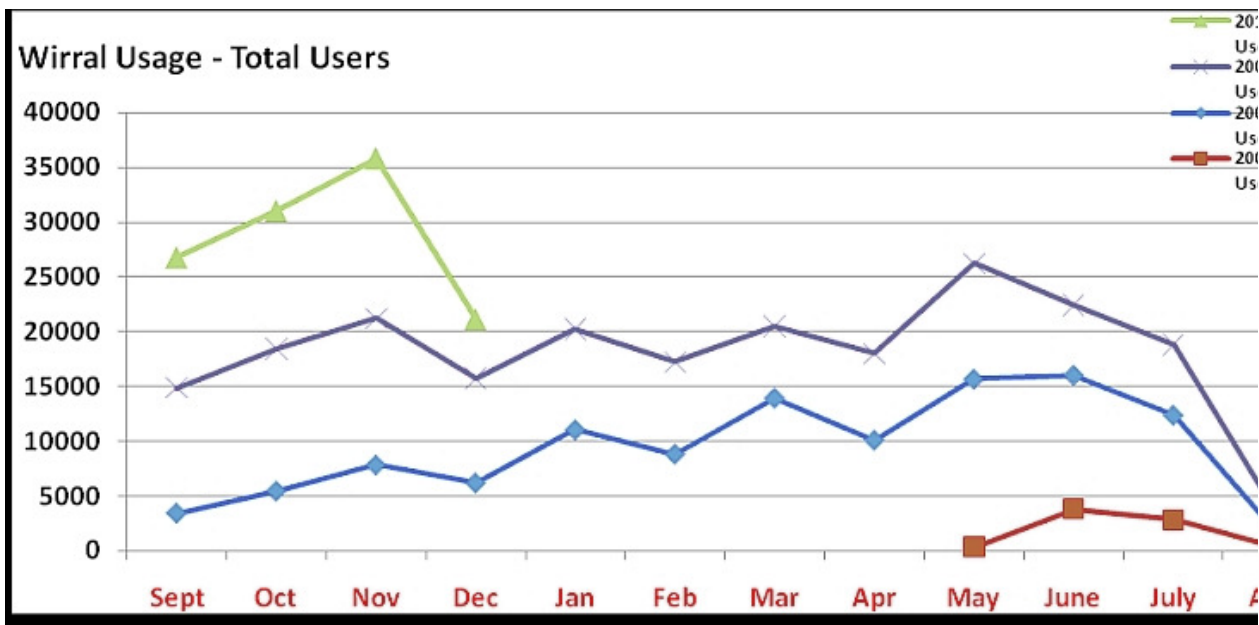
The table below is produced by Wirral LA and UniServity and shows the total usage increase since 2007/8.



Usage facts:

- Total User logins - Increasing from 26,764 in September 2010 to peaking to 35,829 in November 2010. 69% increase on November 2009.
- Unique User Logins - Increasing from 6,945 in September 2010 to peaking to 8,346 in November 2010). 92% increase on November 2009.

The months where the figures decrease correlate to the school holidays.



Wirral - Total Users

## Usage facts:

- Total User logins - Increasing from 26,764 in September 2010 to peaking to 35,829 in November 2010. 69% increase on November 2009.
- Unique User Logins - Increasing from 6,945 in September 2010 to peaking to 8,346 in November 2010). 92% increase on November 2009.

The months where the figures decrease correlate to the school holidays. (Information provided by Wirral LA January 2010).

Whilst visiting the schools I realised the need for a central point of reference for the VLE which would provide a plan, resources etc., I am now in the process of developing an area on the Wirral VLE through the ICT section called Special Ideas.

Wirral Special Schools Homepage

From the special school homepage teachers will be able to access any of the links with just a single click. I have included steps to help establish a VLE. I wish I had access to this when I started! All special schools will be welcome to make contributions and ideas to the pages.

Wirtual LA :: Curriculum :: ICT :: Special Ideas :: Tips for your special VLE \*\*\*\* - Windows Internet Explorer

http://ict2.unisevity.com/GroupHomepage.asp?GroupID=20180986

Quality in Virtual Learning... Hotmail - pete192@hotmail... Jobs & Careers - Teachers... Jobs & Careers - Teachers... Jobs & Careers - Teachers... Packard Bell Web Slice Gallery

Wirtual LA :: Curriculum :: ICT :: Special Ideas :: T...

Learning Links  
Purple mash  
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Homepage  
Calendar  
NEWS  
Engaging Parents through Online Reporting

Primary Behaviour Support

121 Tuition

Anti-Bullying

SEN Resources

Curriculum

EAL and Minority Ethnic Achievement Service

E-Safety

School Governors

Control Panel  
Group Admin

Tips for your special VLE

Content  
Homepage  
News  
Calendar  
Resources  
Markbook  
Members  
Display Members  
Add Members  
Add Profile Sets  
Membership Types  
Members List Security

Communication  
Email  
Message

Configuration  
Settings  
Security

For the past 12 months I have been visiting special schools helping them to establish their VLE. This can be quite a daunting task with special needs pupils. Here are a few tips that I have picked up along the way!!

1. Don't try to run before you can walk.
2. Make a plan of what you think will work for your school.
3. Discuss this plan with the Headteacher, staff, parents and pupils. Remember this should be a whole school approach.
4. Include an outline/ action plan in your school development plan.
5. Look at other VLE sites for ideas on layout, content etc.,.
6. Think about what you want to include on each page.
7. Think about suitability for your pupils ie ability, range etc.,.
8. Attend any relevant training or contact LA ICT team. Share this with staff if required.
9. Set yourself and/or staff small targets ie make a class page for each class.
10. Include lots of pictures, films, photos and links for pupils with limited reading skills.
11. Record pupils as they work and play. Parents love to see this at home.
12. Set up a parents page with links to relevant information

### Guidance on establishing a VLE

## Evaluation

In this section I will attempt to bring together the whole project looking at the impact of using a VLE in special schools and to answer my initial question about enhancing teaching and learning.

One of the main problems that has evolved whilst establishing a VLE in schools has been time and the inequality. Some teachers are given extra time to set up a framework, others are not. Some schools have included the VLE in their development plan as a priority others have not. Some schools have technicians to help, whilst others have to wait for advice.

Whilst researching I found this quote from Becta:

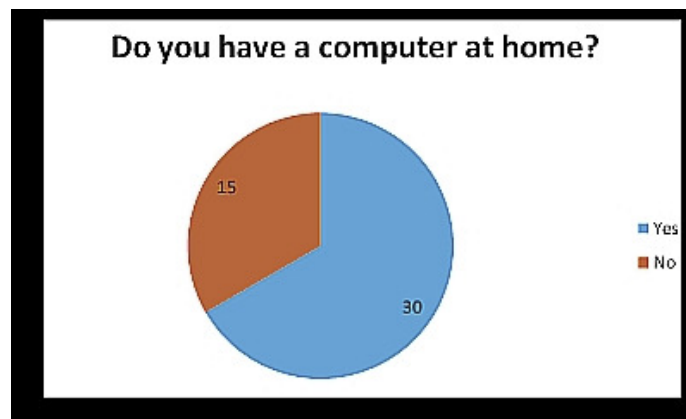
*'It has become apparent that the role of the teacher is still vital in learning...and so the role of the teacher has to be central to any discussion about mainstreaming VLEs.'*

*VLEs: Beyond the Fringe and into the Mainstream July 2004 online conference Becta Furl Service.*

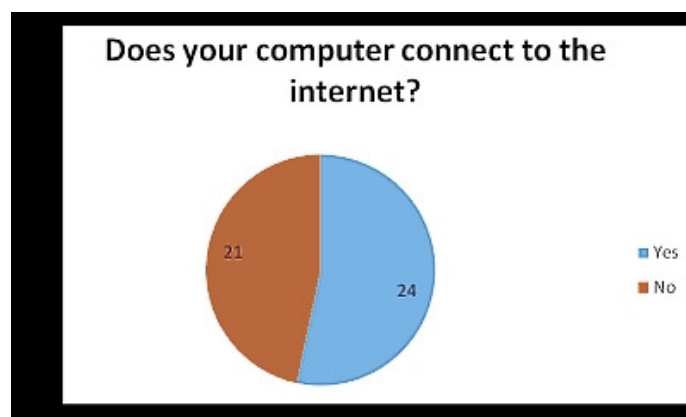
I believe that the above quote is totally relevant to the training that I have been providing both in my own school and as an advisor to others but the biggest complaint from teachers is the time needed to make the VLE workable, even if they can see the advantages long term. However, I do think that sometimes teachers do need a little persuading to actually become involved in any discussion and future plans. The evidence I have collected from my own environment is yes it does take time but once embedded in the school curriculum many hours can be saved by accessing common resources instead of searching endlessly. The benefits of using a VLE far outweigh the negatives. However, that VLE must offer fun and helpful resources for the user, not just documents that have been copied on. The VLE must encourage and motivate the user and above all must be kept as up to date as possible. This in itself presents a problem. I often get asked whose job is it to do this? I believe the VLE needs a whole school approach and therefore no one person should be asked to do this, however I know from experience it is usually left to the ICT coordinator.

When staff complain I usually ask the question 'Do you want to enhance teaching and learning?' and inevitably the answer is yes. I then ask 'Do you think the VLE can help with this?' again the answer is yes in the long term.

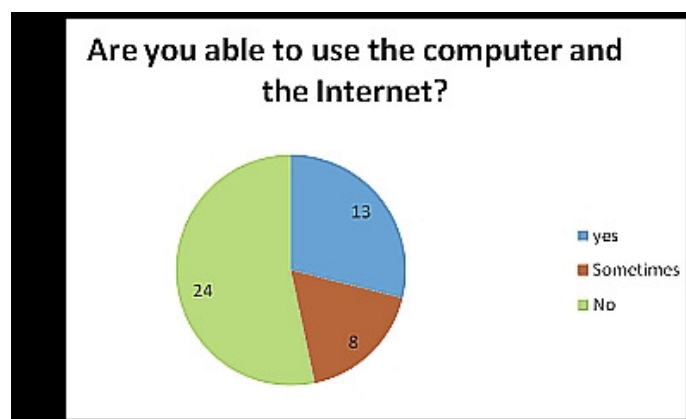
One other area of inequality that should be addressed is the access to the internet at home. If the VLE is truly to be a global communication to enhance teaching and learning it needs to be available to all. Although a number of pupils may have a computer at home it does not necessarily mean it is connected to the internet as my survey shows.



*Do you have a computer at home?*



*Does your computer connect to the Internet?*



*Are you able to use the computer and Internet?*

Does this mean that those with internet access can make more progress than those without. I know as a teacher that I provide tasks for pupils to be done at home on the computer, but I always make allowances for those who can't complete the task at home and allow them time during the day to access the task. I have heard many teachers especially at secondary levels discussing this issue. Last year the government did try to address this inequality through the Laptops for pupils scheme, which provided a laptop and internet access for low income families. The uptake in our school was over 50%. However I believe the forms that parents had to fill in were very confusing and therefore put them off applying. Schools need to remember this inequality and provide access for pupils during the school day if possible.

In conclusion with the evidence that I have provided from staff, pupils and parents in the relevant sections of this project I believe that yes the VLE can enhance teaching and learning, however as stated earlier this VLE must engage and motivate every user. I strongly believe that the VLE should be in place in every school and home and that the evidence that I have collected during the past twelve months is a testimony to this.

Although I have answered my initial question with a Yes, I am at this moment unsure as to the future of the VLE in schools, From April 2011 schools will have to pay for their learning platform. With reduced budgets and possible staff cuts I believe that the importance of a good VLE may diminish as schools will have to prioritise their spending and this will have a great impact on the future of VLEs and their ability to enhance teaching and learning.



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# Naace

## Expert opinion on key ICT issues

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Author: *Fional Aubrey-Smith and UniServity*



*Fiona Aubrey-Smith is Head of Educational Development at UniServity. A former classroom teacher and school leader from Hampshire, Fiona has been at the forefront of innovative approaches in using technology to extend student's learning; raising standards in schools. Fiona's portfolio includes award winning practice, published research and international keynotes driving thought-leadership relating to learning technologies and whole school strategic development. As Head of Educational Development at UniServity, Fiona now works to support the relationship between national education strategy, the role of technology within it, and keeping the learner at the forefront of all that "we" (sector) do.*

### UniServity's Vision

*"Why should... where I live and which school I attend, what I can afford or what is given to me, where I work or who I know, define the boundaries of my learning and therefore my chances in life?"*

### True personalisation

The word personalisation is often misused. It's about individuals making personal their own learning experience. Those around the learner (teachers, parents) outline the learning framework (the curriculum, boundaries, timescales, logistics, objectives and expectations) and the learner owns and defines their own journey there (targets, nature of activity, outcomes, peers). In doing so, the learner takes ownership of their own learning. Personalisation is about empowering learners to see learning as their own; thus teaching the skills of lifelong learning.

A simple metaphor might be a jigsaw puzzle; the jigsaw picture is set by national expectation, local logistics and the student's teachers and family, but the student should be the one that puts the pieces of the puzzle together. If a student understands the expectations and context they are in, then they are better placed to determine how to proceed. If the student understands what to do, then they are equipped and motivated with skills to learn for life

Prior to joining UniServity, Fiona led the team at Ranvilles Infant School, Fareham, Hampshire, which won Becta's ICT Excellence Award for Extending Learning Opportunities in 2007. Her experiences there were used in her MA and played a key role in moulding the vision for learning held by UniServity, where she is now Head of Educational Development. Ranvilles transformed its curriculum by asking its learners what they wanted to learn, and how, and then mapped their responses through the curriculum. This innovative approach resulted in whole-school raised attainment, consistent Outstanding Ofsted inspections and high demand for school places.

*"So often people assume that children are not able to manage their own learning effectively, but actually they get it spot on because they are not worried about the social parameters around which we are 'supposed to' answer questions. Instead, they answer the questions we are focused on. Given the right framework to work within, children are better at managing their own learning than we adults are at managing it for them. That's why we need to shift the responsibility, sustainably, from teacher to learner."*

### Assessment for learning

Assessment is generally viewed as the domain of the teacher and something that adds significantly to their workload. Although historically it has been a task for the teacher, it does not have to be. Giving assessment criteria and guidance to the learner and their peers, and teaching the skill of assessment, encourages students to take ownership and responsibility. This responsibility grows from being about the assessment, to being about the contents of the learning activity itself, and raises standards consistently where this strategy is used. Put simply, if a student has visibility on the points that could earn them an A grade, they are equipped with the knowledge to write an essay that meets that criteria and so to improve their grades. Such an approach is commonplace in good classrooms. It's called Assessment for Learning, not Assessment for Teaching.

Online technologies such as learning platforms now push the boundaries of traditional quantitative assessment methods, enabling schools to record a rich bank of qualitative evidence to support assessment for learning. For

example, many schools now upload sound recordings and videos as evidence to support students' work and encourage blogging to support reflective learning. Even at Key Stage 1 we are seeing an increase in the use of wikis to enable parents to submit evidence of their child progressing towards targets at home. This can be as simple as uploading an audio clip of their child reading unaided, to video clips of their child sharing their toys with siblings to demonstrate social skill development.

*"As use of the internet and Web 2.0 continues to blur the line between formal and informal learning, confining assessment to one room, at one time, is no longer reflective of a student's progress. Technology helps present the bigger picture, enabling teachers, parents and students to record all of their achievements, whether they take place in school, during after school clubs or at home."*

Available 24/7, anywhere with an internet connection, online assessment technologies help unite all parties involved in a child's welfare, from teachers and parents, to outside agencies. At the click of a button, evidence can be recorded for all parties to see, helping to share the responsibility for a child's progress wider than the classroom environment."

#### International links

International links are about being connected to the global classroom and using it for a purpose. It's not just about the novelty of talking to people on the other side of the world, it's about looking at how these new peers can extend learning. Diverse cultures and locations bring different perspectives to conversations, different knowledge to the group, different applications of skills and different sets of knowledge which can extend understanding. A genuine global classroom removes the boundaries of time and location, meaning that rather than have your schooling shaped by where you live, who you know and the limitations of those involved, student's really can break free of traditional boundaries and restrictions.

#### Lifelong learning

Learning is the act, process, or experience of developing knowledge, skills or understanding. It is not synonymous with 'schooling', and should not be assumed as only happening during certain hours, under the direction of certain people, in certain venues. Learning is something you can do anywhere, and at anytime. The art form is in connecting those learning experiences together.

UniServity's online learning space, Life, works to connect all these learning experiences together. It can analyse connectivity between experiences. Intelligent semantics enables it to identify strengths and challenges for the learner. For example, if they learned about the Romans at school and then subsequently go on a family trip to a historic site at the weekend, Life deduces that this individual is interested in history and pushes further information to their desktop to broaden the learning experience. Learning is not school centred it's about life-long learning.

#### Web 2.0/3.0 in education

Web 1 is where one person publishes to everyone else, and the recipient reads and digests. It equates to a classroom where students copy from the blackboard.

Web 2.0 also centres around one person publishing to others - e.g. on a forum or blog where there is still a hierarchy, but others are allowed to interact. It equates to a classroom where the teacher assigns an activity to the class such as 'write an essay', and everyone hands in their own version of the same essay.

Web 3.0 is the real game changer. Here the hierarchy is removed; information, people and tools are inter-connected e.g.; You Might Like, App Store, Intelligent Analysis and Suggestions, Automated Assignments. It equates to a classroom where the admin, logistics and classroom management are all taken care of, so that the teacher and learner can just focus on meaningful dialogue and interaction; extending learning. It empowers the teacher to be the professional they deserve to be, and the learner to access the learning that they deserve.

*"In education, the emphasis is shifting away from the teacher doing all the work; empowering learners to take responsibility for their own lives consistently raises standards, and reflects what's happening in the wider world".*

#### Parental engagement

Parental engagement is about 'engagement' and should not be confused with 'informing' or pushing information such as reports to parents. Parental Informing has traditionally been about the school creating information and allowing parents access to that information. Parental Engagement shifts towards an equitable partnership, where both parties work together for a common cause. For example in the past if a child has behavioural issues, the school would devise a behaviour plan for parents to enforce. Through true parental engagement, that plan takes the form of a joint discussion between parents, the child and the school - a proper dialogue and sharing of views. Grays School in Newhaven is a great example of this. Here each pupil has a portfolio on UniServity's online learning space Life to accommodate everything from home, school, clubs; collectively celebrating and evidencing across contexts - it's about valuing everything a child does rather than just being about school.

## True Collaboration

Simply put, true collaboration is about each stakeholder contributing equitably to the task in hand - it's a learning scenario in which ownership is shared amongst all those taking part. There is no hierarchy and it should not be confused with 'cooperation' which is something different.

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# Naace

## Never mind the Government or DfE look to the students for the future ICT strategy in education?

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*Author: Bob Harrison, Education Adviser, Toshiba Information Systems(UK) Ltd*

*With all involved in using technology to enhance learning still coming to terms with the changes wrought by the coalition government where can we turn for inspiration? Well, it's obvious isn't it - the pupils!*

Anyone involved in decisions about or involved in using technology to enhance teaching and learning in schools and colleges is still coming to terms with the seismic shifts in the landscape since the new government took office. Gone is The Harnessing Technology grant, ring-fenced funding, BECTA The Harnessing Technology strategy, BSF, and many Local Authorities and Managed service providers are having difficulty providing commercially sustainable ICT and connectivity support packages which can meet the ever changing needs of schools and colleges.

### So where should we turn for inspiration?

Who can shed some light on the future for technology enhanced learning in a world of "schools know best", a withdrawal of centrist interventions and sceptical ministers wide eyed in the glare of PISA but narrow minded when it comes to other OECD reports. And officials who are persuaded of the value of the US charter school movement but oblivious to the Obama backed National Education Technology plan?

Well it's obvious isn't it?

The pupils stupid! Whose time in the womb was probably alongside an ipod and whose everyday lives are immersed in digital technologies they just take for granted. The computer many carry round in their pocket has more memory, processing speeds, functions, connectivity and capacity for learning than the two computer rooms of 24 BBC Micros I taught my first students in the 1980's in Sheffield.

### Learn from the Learners

So learn from the learners was the overwhelming lesson, which emerged from the SSAT's first gathering of student digital leaders, held recently at the Hi-Tech Aston Science Park. The venue was perfect as it is appropriately the home of several Hi-Tech start-up companies involved in technology, learning and gaming design such as Andy Goff's Interactive Learning experience that hosted the event.

With representation from pilot schools Hamble College, Skipton Girls High and Stretford school/Lostock College, the SSAT launched their support network for other schools, local authorities and colleges who are excited by the potential of Digital Leaders and the stories from the pupils of the pilot schools about "transformational" changes in learning and teaching, raised levels of attainment and achievement, raised levels of self esteem and confidence of students and increased staff skills in the use of technology to improve teaching and learning.

### Exciting initiative

"Of all the initiatives I have managed at the SSAT over many years, I have never been so excited " says Paul Hynes, Digital Leaders project manager.

"The stories from the pilot schools have been really encouraging and the presentations from the digital leaders today provide powerful evidence of how students can contribute to improving learning and teaching if they are given the opportunity".

Kristian Still, Assistant head at Hamble College, who imported the idea from the "Generation Yes" project in the USA is pleased with how the idea is catching on.

"The Digital Leaders concept is a powerful addition to any schools efforts in self improvement and has the potential to help schools raise levels of achievement, attainment, staff confidence using ICT and most importantly students leadership skills.

"I am so pleased that with the help of the Vital CPD project for teachers and the support of the SSAT all schools can now benefit from Digital Leaders project which has had tremendous impact"

Stretford High School and Lostock College advertised and interviewed candidates for the post of digital leaders and

supplied each of the successful candidates with a Toshiba netbook to help them in their role.

Head of Education and Public Sector at Toshiba (UK) Plc Len Daniels, who joined the interview panel, was impressed with the process.

“The Digital Leaders have become powerful agents for change within their schools and their self- confidence and skills have been really impressive. I hope some of them will consider a career in the technology industry”

### Vital development

The Digital Leaders and participating schools have a number of online training programmes available to support their projects and these have been developed by teachers in the pilot schools in partnership with the Open University Vital CPD project.

Peter Twining, the Open University project director of the Vital programme is delighted with the Digital Leaders initiative and it’s potential for helping teachers develop their skills in using technology to improve teaching and learning. The Vital CPD project funding has been extended by the DfE for a further year.

“Digital Leaders provides a brilliant approach to empowering both teachers and learners. We are thrilled to have been able to support its development and look forward to helping extend its reach and impact in the future”

Bob Harrison can be contacted at [BobharrisonSET@aol.com](mailto:BobharrisonSET@aol.com)

### Links

SSAT Digital Leaders Network

<https://www.ssatrust.org.uk/achievement/future/Pages/Studentdigitalleaders.aspx>

Vital CPD

<http://www.vital.ac.uk>

Interactive Learning

[www.interactivelx.com](http://www.interactivelx.com)

OECD report on ICT in Learning

<http://www.agent4change.net/resources/research/606-higher-priority-needed-for-ict-and-learning-oecd.html>

US National Education Technology Plan

<http://www.ed.gov/technology/netp-2010>

Toshiba Education

<http://www.toshiba.co.uk/education>

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## Is data interoperability really possible in schools?

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*Author: Jeremy Meades, Director of ICT Strategy and e-Learning, SchoolsICT*

*Many schools now use learning platforms, and have extensive administration systems, including a school management information system, cashless catering, library systems and analysis software. Currently, systems that use data within the school tend to store data separately from each other. Many of these systems extract data from the school management information system using add-on software. So how can data integrity across systems be ensured. SIF offers a solution.*

During the last decade there has been a significant and substantial investment in technology in our schools. School networks have become increasingly sophisticated making use of technologies that would not have been considered even a few years ago. Many schools now use learning platforms, and have extensive administration systems, including a school management information system, cashless catering, library systems and analysis software. In addition, school systems connect with off-site systems with the local authority and services such as SMS, parent e-mailing and assessment systems.

However, the evolution and inclusion of this wide variety of systems has often been ad hoc and un-planned. Traditionally, schools have worked with annual budgets and have tended to react to their ICT needs on an annual basis rather than planning over several years. This approach has led to schools investing in disparate and unconnected systems. The impact on learning and administrative costs is severe and unrecognised by many.

Successful schools rely on good quality data being available in the classroom and systems that support learning and administration. Currently, systems that use data within the school tend to store data separately from each other. Many of these systems extract data from the school management information system using add-on software.

A typical secondary school using a management information system, a learning platform and the library system will expect to administer these systems separately. Initially, the learning platform and library system will utilise the data held in the management information system but as data in the school management information system changes the data in the learning platform or library system may not, resulting in loss of data integrity. In other words, a change in her child's teaching group in the management information system may not be reflected in the learning platform - the consequences, potentially, include a loss of learning.

This is one example and there are many more including a loss of efficiency, increased duplication and errors and significant compatibility issues. ICT service departments in schools will experience an increase in support costs and an increase in time to manage multiple data sources. A lack of data interoperability means that applications and their data are isolated from one another. Redundant and duplicate data entry is common. Data reporting from disparate systems is costly, inefficient and has the potential for inaccuracy with the result that data can be either inaccessible or inappropriate for decision makers.

Given this landscape within schools is data interoperability really possible?

The Systems Interoperability Framework (SIF) is an international standard that provides standards and governance arrangements enabling diverse data systems to seamlessly interact and share data efficiently, reliably and securely regardless of the application and the platform they are hosted on.

The Information Standards Board (ISB), sponsored by the Department for Education (DfE), and SIF Association issued a joint statement in March of this year to confirm that they have agreed to work together to achieve a common goal of cost-effective and secure methods of sharing data between different systems.

### What is the significance for schools?

SIF, with the support of the ISB, is fundamental to schools achieving significant cost savings, reductions in data inaccuracy and increased efficiency. Having achieved these objectives, the positive impact on learning will be significant as the data becomes more available to school leaders to manage strategic objectives, teachers are able to personalise learning and include parents in the education of their children.

Learners and parents can expect personalised learning content, accurate school data and increase efficiency. Similarly, school administrators can expect increased efficiency, reduced duplication and errors, and reduced compatibility issues between different systems.

Teachers will have access to a wide breadth of information potentially in real-time across a variety of school systems whereas in the past this information has been confined to the school management information system. The result should be better data analysis and a more efficient use of teacher's time. ICT service departments can expect a reduction in support costs, a reduction of time needed to manage multiple data sources and the better use of existing systems and infrastructure.



## What is a SIF infrastructure?

Essentially, it is an infrastructure that enables different systems to share their data to an agreed standard and specification. It is an important guiding principle of the SIF Association that SIF is an open, supplier-neutral and platform independent standard.

An application uses a SIF Agent to be the liaison between the application and the Zone Integration Server (ZIS). The SIF Agent recognises the application's business logic and data structure. The Agent receives and translates SIF messages and submits data changes to the ZIS. The ZIS is a central communication point within the infrastructure. It tracks the SIF Agents that connect to it, distributes all SIF messages, implements security rules, and enforces what the SIF Agent can and cannot do.

## What is the SIF Association?

The SIF Association is a non-profit membership organisation with approximately 3000 members that include schools, local authorities and government agencies, software suppliers and other organisations that are active in both the primary and secondary education markets in the US, UK and Australia. The Association in the UK meets four times a year to extend and modify the SIF Implementation Specification to ensure that it meets the needs of data systems used in our schools.

## How can a school benefit from SIF?

Many schools in England and Wales already use a SIF infrastructure. Infrastructures have been put in place by Regional Band Consortia (RBC) and Local Authorities. At BETT 2011 the SIF Association stand demonstrated that there are 44 Local Authorities with SIF infrastructures. Where there is no SIF infrastructure there are low-cost commercial infrastructures available.

Suppliers of data systems to schools are recognising the benefits of SIF that include a reduction in long-term application integration costs and a significant competitive advantage over those suppliers who are not engaging with SIF. The use of a defined open specification that includes a data model and infrastructure ensures that data systems make full use of the SIF infrastructures that are available.

The result will be that schools, using their management information system as an authoritative as a database, will be able to take advantage of improved data management, improved interoperability between applications, enhanced data reliability inconsistency and powerful reporting capability. The idea of 'write once, use many times' is the mantra for data interoperability in schools.

The release of an open-source Agent Development Kit and access to OpenZIS, an open-source ZIS, will have profound effect on the continued adoption and expansion of SIF as schools recognise the benefits and suppliers enable their products to take advantage of SIF.

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## Naace Editorial Ramblings

Thank you for editing the entry. This is how the edited entry will appear in the database.

*Author: Paul Heinrich*



*Writing this issues editorial feels very strange. As with many of us currently working in local authority advisory services the end of the summer term brings a redundancy cheque and an uncertain future. Have we been sacrificed to save to economic necessity, to the gods of casino capitalism or more prosaically a victim of educational thinking entrenched in the middle of the last century? Whatever your personal views the loss of expertise, destruction of the knowledge bank of folk wisdom and experience together with an impending lack of support for schools and teachers does not bode well for the future.*

As individuals we will need to adapt to a world where we survive by persuading schools that not only do they still need skilled impartial advice, support and training but that it is worth paying for now no longer superficially free at the point of use. We, the Naace membership (including sponsoring partners) remain the visionaries, the voice of long experience that can still enable schools to adopt and adapt Third Millennium Learning rather than revert to the false security of old fashioned and outdated practice.

But will schools respond? Anecdotal evidence suggests that some schools at least are cutting back on ICT, partly as a result of budget cuts but also in response to the lack of any government statement on how it views ICT in the curriculum. The loss of BECTA and cut-backs at local level give a very negative message further emphasised by some newspapers focusing on free schools and 'traditional' subjects of which some, such as Latin, were only ever the preserve of a minority. Yet to survive and be employable in the third millennium ICT capability is second only to English and Maths in importance. Those who cannot communicate, manage data and be creative with ICT tools are effectively handicapped. Our economic competitors understand this but once again England looks to the past rather than the future. Fortunately the other home countries are more enlightened.

In the last several weeks I have had, for example, schools drawing back from learning platforms now that they have to pay for the services and training. They say that a basic web site will do, children don't need logins or access to forums, wikis and all the other tools that many are actively using. Fortunately this attitude is not general as development planning work with an outstanding primary has proved. The message is becoming clear however, that while the best schools will continue to grow and develop their use of ICT, fully embracing Third Millennium Learning, the divide between these good and outstanding users and the rest will grow. How many children are going to be disadvantaged - we know from past experience who they are likely to be.

We all understand that we have a fight on our hands to ensure the future not only ICT as a subject but as an integral part of all learning. This requires a united front from all interested parties - it is not helpful for example to argue for Computing/Computer Science to replace ICT, leaving a small range of ICT-based activities taught wherever teachers wish. Technical knowledge and understanding of computers and computing has a place and the Naace response to the National Curriculum Review made this very clear. We also supported the argument for KS2 and KS3 ICT to prepare learners for a range of GCSE and vocation options in KS4 and beyond. It is there that Computing/Computer Science properly resides, including perhaps as a science within a properly considered English Baccalaureate, however meaningless that concept is in reality. ICT has unique knowledge, skills and understanding to which all learners are entitled and which needs to be taught by skilled practitioners in both discrete subject and cross-curricular contexts. It requires that there to be, at the very least, a clear statement of broad content, expectations and standards to provide the scaffolding that schools need. Without this there is a danger that effective use of ICT will again become the preserve of enthusiast teachers and those few schools that continue to recognise its importance. We cannot allow this to happen.

This fight goes beyond the subject itself. It's about preparing learners for their and our future - after all children at school now will be paying our pensions and care costs! ICT still motivates and enthuses children. If you doubt that go back to a classroom and teach again. I recently did just that - a shock to the system as it was probably the first time that I had taught Year 4 since school experience in the 1970's! We began some work on simple stop motion animation linked their work on the Titanic story and the pleasure demonstrated when their few seconds of video was shown to the

class reminded me not only of why I went into teaching in the first place but of the power of ICT as a learning tool.

That is further demonstrated on the content of this issue of Advancing Education. Roger Broadie argues that we need to move towards a theory of the impact of ICT in education. Linda Clarke reports on her work in developing use of a VLE in a special school - lessons here for those mentioned above while Fiona Aubrey-Smith takes this further with expert thoughts the value of online environments for learning. Bob Harrison urges us to look beyond government and to the students themselves for the future of ICT in education while sponsoring partners demonstrate how their products are enhancing learning. Finally Jeremy Meads offer solutions to the ongoing issue of data interoperability in schools.

So we must carry on arguing our case, influencing those who can in their turn influence government thinking both now and after the inevitable cabinet re-shuffle. We must demonstrate how effective schools raise standards through their use of ICT and we must show the importance of ICT to future economic well-being. It won't be easy but, as Churchill said, 'Courage is going from failure to failure without losing enthusiasm'. However, as we review the initial skirmishes over the summer break we need to plan for the main campaign later in the year. I will therefore leave you with a quote from one of my late father's heroes, Field Marshall Erwin Rommell who noted that confronting the enemy involves, 'The art of concentrating strength at one point, forcing a breakthrough, rolling up and securing the flanks on either side, and then penetrating like lightning deep into his rear, before the enemy has time to react'.

Interpret as you will!

**Paul Heinrich**  
**Editor**

The views expressed in this editorial are those of the author and do not necessarily reflect Naace policy.

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## E-Learning in maths does make a difference.

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*Author: Jayne Warburton, CEO 3P Learning Ltd*

*The appropriate use of technology in a classroom can engage students of all ages and ability levels. Today's teachers are often faced with the dilemma of what technologies to use and how to successfully incorporate these programs into the learning and teaching experience of their students.*

Research has shown that e-learning helps to develop student's maths skills. The use of e-learning resources promotes active engagement, motivation and enjoyment and provides opportunities for students to discuss, debate, draw conclusions and to give advice to others. Students are more inclined to tackle unfamiliar or tricky topics and less afraid to make mistakes when faced with a friendly, game-like environment, rather than a heavy textbook. Instant feedback means that if a student makes a mistake, they can quickly see where they went wrong, encouraging them to rectify the mistake and progress to the next stage with confidence. Through this process, the teacher takes more of a facilitator role, allowing students to become more independent learners.

Maths is a subject that is often perceived as difficult or boring, so how can using technology in the classroom raise levels of enthusiasm for maths?

Jane Fisher, Maths Coordinator at Hovingham Primary School in Leeds, has introduced technology to the maths department to help raise levels of engagement:

"Since introducing technology to maths, we have seen a huge improvement in the pupils' confidence levels. Pupils can feel very wary of answering questions due to the fear of being wrong, and this is where we have found technology can help."

Fisher continues:

"We have been using a maths e-learning resource for 18 months that aligns maths to the world of sport, bringing in the element of competition and personal bests, and have seen a real difference in our pupils. Because the resource is full of positive reinforcement and focuses on 'eight correct answers' rather than 'two incorrect answers', it gives the pupils the confidence needed to succeed in maths."

Jane Fisher uses other forms of technology, including mobile technology, which pupils are already aware of. This can be a fantastic way of raising enthusiasm for the subject:

"We have found a lot of children struggle with place value in maths, often finding it difficult to visualise the relationship between 'tens' and 'units'. However, when presenting to an entire class of thirty pupils, a piece of software on the interactive whiteboard can work wonders and often caters for visual, auditory and kinaesthetic learners, covering a variety of learning styles in one go. Some pupils require a lot of attention from the teacher, but with a class of thirty pupils this is not always possible. However, using technology such as the iPad, or e-learning maths resources allows a pupil to explore the world of maths at their own pace. They can hear, see and touch the system and generally find it a really rewarding way to learn."

Laura Holt, Year 5&6 teacher at Brigstock Latham's C of E Primary School in Northamptonshire echoes Jane's enthusiasm for e-learning in the classroom stating:

"Engaging maths resources make maths fun and this is absolutely vital for many pupils, especially those with little motivation. As resources often look and feel like a game, pupils don't really feel like they are doing work, however they are learning key mathematical principles that they will need to know for later life. Maths techniques only sink in through repetition, but taking home sheets upon sheets of questions can be uninspiring. Using technology really helps to keep the pupils motivated though and can give a purpose for practising."

Jayne Warburton can be contacted at [customerservice@3plearning.co.uk](mailto:customerservice@3plearning.co.uk)

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## Expert opinion on key ICT issues

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Author: *Fional Aubrey-Smith and UniServity*



*Fiona Aubrey-Smith is Head of Educational Development at UniServity. A former classroom teacher and school leader from Hampshire, Fiona has been at the forefront of innovative approaches in using technology to extend student's learning; raising standards in schools. Fiona's portfolio includes award winning practice, published research and international keynotes driving thought-leadership relating to learning technologies and whole school strategic development. As Head of Educational Development at UniServity, Fiona now works to support the relationship between national education strategy, the role of technology within it, and keeping the learner at the forefront of all that "we" (sector) do.*

### A New Vision for Learning

*"Why should... where I live and which school I attend, what I can afford or what is given to me, where I work or who I know, define the boundaries of my learning and therefore my chances in life?"*

### True personalisation

The word personalisation is often misused. It's about individuals making personal their own learning experience. Those around the learner (teachers, parents) outline the learning framework (the curriculum, boundaries, timescales, logistics, objectives and expectations) and the learner owns and defines their own journey there (targets, nature of activity, outcomes, peers). In doing so, the learner takes ownership of their own learning. Personalisation is about empowering learners to see learning as their own; thus teaching the skills of lifelong learning.

A simple metaphor might be a jigsaw puzzle; the jigsaw picture is set by national expectation, local logistics and the student's teachers and family, but the student should be the one that puts the pieces of the puzzle together. If a student understands the expectations and context they are in, then they are better placed to determine how to proceed. If the student understands what to do, then they are equipped and motivated with skills to learn for life

Prior to joining UniServity, Fiona led the team at Ranvilles Infant School, Fareham, Hampshire, which won Becta's ICT Excellence Award for Extending Learning Opportunities in 2007. Her experiences there were used in her MA and played a key role in moulding the vision for learning held by UniServity, where she is now Head of Educational Development. Ranvilles transformed its curriculum by asking its learners what they wanted to learn, and how, and then mapped their responses through the curriculum. This innovative approach resulted in whole-school raised attainment, consistent Outstanding Ofsted inspections and high demand for school places.

*"So often people assume that children are not able to manage their own learning effectively, but actually they get it spot on because they are not worried about the social parameters around which we are 'supposed to' answer questions. Instead, they answer the questions we are focused on. Given the right framework to work within, children are better at managing their own learning than we adults are at managing it for them. That's why we need to shift the responsibility, sustainably, from teacher to learner."*

### Assessment for learning

Assessment is generally viewed as the domain of the teacher and something that adds significantly to their workload. Although historically it has been a task for the teacher, it does not have to be. Giving assessment criteria and guidance to the learner and their peers, and teaching the skill of assessment, encourages students to take ownership and responsibility. This responsibility grows from being about the assessment, to being about the contents of the learning activity itself, and raises standards consistently where this strategy is used. Put simply, if a student has visibility on the points that could earn them an A grade, they are equipped with the knowledge to write an essay that meets that criteria and so to improve their grades. Such an approach is commonplace in good classrooms. It's called Assessment for Learning, not Assessment for Teaching.

Online technologies such as learning platforms now push the boundaries of traditional quantitative assessment methods, enabling schools to record a rich bank of qualitative evidence to support assessment for learning. For

example, many schools now upload sound recordings and videos as evidence to support students' work and encourage blogging to support reflective learning. Even at Key Stage 1 we are seeing an increase in the use of wikis to enable parents to submit evidence of their child progressing towards targets at home. This can be as simple as uploading an audio clip of their child reading unaided, to video clips of their child sharing their toys with siblings to demonstrate social skill development.

*"As use of the internet and Web 2.0 continues to blur the line between formal and informal learning, confining assessment to one room, at one time, is no longer reflective of a student's progress. Technology helps present the bigger picture, enabling teachers, parents and students to record all of their achievements, whether they take place in school, during after school clubs or at home."*

Available 24/7, anywhere with an internet connection, online assessment technologies help unite all parties involved in a child's welfare, from teachers and parents, to outside agencies. At the click of a button, evidence can be recorded for all parties to see, helping to share the responsibility for a child's progress wider than the classroom environment."

### International links

International links are about being connected to the global classroom and using it for a purpose. It's not just about the novelty of talking to people on the other side of the world, it's about looking at how these new peers can extend learning. Diverse cultures and locations bring different perspectives to conversations, different knowledge to the group, different applications of skills and different sets of knowledge which can extend understanding. A genuine global classroom removes the boundaries of time and location, meaning that rather than have your schooling shaped by where you live, who you know and the limitations of those involved, student's really can break free of traditional boundaries and restrictions.

### Lifelong learning

Learning is the act, process, or experience of developing knowledge, skills or understanding. It is not synonymous with 'schooling', and should not be assumed as only happening during certain hours, under the direction of certain people, in certain venues. Learning is something you can do anywhere, and at anytime. The art form is in connecting those learning experiences together.

UniServity's online learning space, Life, works to connect all these learning experiences together. It can analyse connectivity between experiences. Intelligent semantics enables it to identify strengths and challenges for the learner. For example, if they learned about the Romans at school and then subsequently go on a family trip to a historic site at the weekend, Life deduces that this individual is interested in history and pushes further information to their desktop to broaden the learning experience. Learning is not school centred it's about life-long learning.

### Web 2.0/3.0 in education

Web 1 is where one person publishes to everyone else, and the recipient reads and digests. It equates to a classroom where students copy from the blackboard. This is seen through things like Content and Resource Management, putting teaching materials online, and traditional Website/Extranet type activities.

Web 2.0 also centres around one person publishing to others - e.g. on a forum or blog where there is still a hierarchy, but others are allowed to interact. It equates to a classroom where the teacher assigns an activity to the class such as 'write an essay', and everyone hands in their own version of the same essay.

Web 3.0 is the real game changer. Here the hierarchy is removed; information, people and tools are inter-connected e.g.; You Might Like, App Store, Intelligent Analysis and Suggestions, Automated Assignments. It equates to a classroom where the admin, logistics and classroom management are all taken care of, so that the teacher and learner can just focus on meaningful dialogue and interaction; extending learning. It empowers the teacher to be the professional they deserve to be, and the learner to access the learning that they deserve.

*"In education, the emphasis is shifting away from the teacher doing all the work; empowering learners to take responsibility for their own lives consistently raises standards, and reflects what's happening in the wider world".*

### Parental engagement

Parental engagement is about 'engagement' and should not be confused with 'informing' or pushing information such as reports to parents. Parental Informing has traditionally been about the school creating information and allowing parents access to that information. Parental Engagement shifts towards an equitable partnership, where both parties work together for a common cause. For example in the past if a child has behavioural issues, the school would devise a behaviour plan for parents to enforce. Through true parental engagement, that plan takes the form of a joint discussion between parents, the child and the school - a proper dialogue and sharing of views. Grays School in Newhaven is a great example of this. Here each pupil has a portfolio on UniServity's online learning space to

accommodate everything from home, school, clubs; collectively celebrating and evidencing across contexts - it's about valuing everything a child does rather than *just* being about school.

## True Collaboration

Simply put, true collaboration is about each stakeholder contributing equitably to the task in hand - it's a learning scenario in which ownership is shared amongst all those taking part. far less transformational.

Fiona Aubrey-Smith can be contacted at [Fiona.AubreySmith@uniservity.com](mailto:Fiona.AubreySmith@uniservity.com)

LinkedIn Profile: <http://uk.linkedin.com/in/fionaaubreysmith> Twitter: <http://twitter.com/fionaas>

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# Naace

## Holmfirth School: Britannica Image Quest

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*Author: Eoghan Hughes, Encyclopædia Britannica (UK) Ltd*

*Holmfirth School in West Yorkshire is a Mathematics, Computing and Applied Learning Specialist Comprehensive with over 1,300 pupils. With a broad curricular remit and a large amount of extra-curricular activities, the school requires lots of resources for both teachers and pupils alike. This short article explains how they used Britannica Image Quest to support learning and teaching.*

When their staff and students found that they were no longer able to access Google Images within the classroom due to a local authority directive, they were left in a predicament. The students needed images for research, projects and homework, while the teachers wanted to make their lessons interactive and teach their pupils to use resources properly and safely.

After receiving a promotional email for Britannica Image Quest in March this year, the school - who already subscribed to Britannica Online School Edition - decided to take up a free trial of the high-quality image provider, allowing their staff and pupils access to over two million educational images.

The students in particular are keen users of Britannica Image Quest, using the resource for creating high-quality presentations and homework assignments - particularly in their Art, Graphics and Media Studies classes, where they have created CD covers, pop-up boards and designed newspaper lay-outs

The results - for students

Teacher Helen Stothard comments: "It's great that the students are using the resource. Schools invest a lot in software, which isn't always used. If students find software difficult to use, they won't use it, so the fact that they do is a huge compliment. The students expected Britannica Image Quest to be brilliant and it is."

The Results – for teachers:

Holmfirth's teachers are also delighted with Britannica Image Quest, which has allowed them access to a safe resource, which is fully interactive with their whiteboards and other classroom technologies.

Helen Stothard continues: "After an interactive online training session, we uploaded the details on the Frog learning platform and were soon inundated by both the staff and pupils eager to use the resource."

About Britannica Image Quest:

Britannica Image Quest is the largest online resource of its kind, with over two million available images sourced from leading providers such as Getty, Royal Geographic Society and the Natural History Museum. It provides instant and safe access to high-quality educational photos, diagrams, maps and illustrations, which can be used by teachers and students alike in projects, presentations, websites, lesson plans and interactive whiteboard activities.

The resource also removes the time and costs associated with seeking reproduction rights or checking over students' work to ensure they sought permission. All image rights have been cleared for educational use and the database is searchable by key word, subject, or image provider.

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## Making IT work for teachers and learners – Trent Valley Academy, Gainsborough, Lincs

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*Author: Trent Valley Academy, Gainsborough, Lincs*

*Trent Valley Academy is an E-ACT Academy and Specialist in Performing Arts and Technology. The academy was rebuilt and re-opened in September 2009 under the Academies programme and currently has 1,100 students. Central to the academy's vision was the ability to deliver access to ICT, personalised and anytime, anywhere learning. They required an ICT provider who understood their vision of what they wanted to achieve in the classroom and who had a real understanding of educational issues and the use of technology in education.*



*"I think it would be fair to say that it wasn't a 'one solution fits all'. We were determined to have a tailored approach. One needs to examine the context of your own organisation....the staff that are there, the position you are in, the stage of development you are at." Tom Megahy, Executive Principal.*

### ICT Service and Solution

Northgate Managed Services worked in partnership with Trent Valley Academy to develop a tailored service and solution which would best match their vision. The academy already had an IT department on site which they wanted to retain; therefore a partial managed service best suited their needs. Their IT Manager has day to day responsibility for the ICT, however, if a technical issue arises which cannot be resolved, Northgate is on hand to provide the relevant support and expertise. The Academy has access to Northgate's Service Desk where issues can either be resolved remotely or onsite by one of Northgate's field based engineers. A large part of the academy's solution was the introduction of thin client technology which delivers applications and data to all devices from a centralised computing

model via the network. All processing is carried out by the servers. This allows the academy to provide a greater ICT provision for their budget, widening the access and use of ICT. A range of over 600 devices including laptops and desktops are available throughout the academy, these include both thin and fat devices. Centralised management and control means the thin client network is easier to run and support. Issues are more easily identified and can be resolved centrally, covering the whole thin client network. Additionally, upgrades and installations of new software are simplified as these are also deployed centrally on the server rather than on each individual PC.



*"There are also clear benefits for both learners and teachers to thin client technology. It allows them to log on to any computer within the academy and access their personal desktop, documents and applications. This availability also extends to the home as students with access to the internet can log on to the academy's web based system which provides access to the same desktop they have at school, helping to achieve the academy's vision of independent learning." Tom Megahy, Executive Principal.*

### Effective use of ICT

Since the academy has re-opened, ICT has been making a positive impact on the teaching and learning within the school. In French lessons for example, the class is split into 3 groups each with 30 minutes per activity. The ICT available in the classroom allows the teacher to focus on writing, listening and speaking throughout the 1hr 30 min lesson. Laptops are used to develop comic strips stories in French, desktop PCs are used for French listening lessons and a Visualiser is used to create puppet shows which are projected onto the whiteboard and performed by the students.

*Laura Delleur, Teacher of Modern Languages commented: "We use ICT every day, and to be honest I don't think as a department we could live without it now. In terms of creating independent learners, which is ultimately the goal, they can come out of the classroom and extend their own learning. We are training them to use different materials and different media which they have access to outside of the classroom. In terms of the personalisation, we can set tasks for them that is to their level. We are challenging the lower ability students and stretching the higher ability students, and we wouldn't be able to do that without the ICT."*

In technology lessons the students are attaining high national curriculum levels because they are working with increased accuracy due to the ICT available. They have been given the confidence to use new applications more effectively and the skills they are learning are transferable into adult life. They are enthused and excited about learning as they can experience design through to production in one lesson with the support of ICT.

Trent Valley Academy continues to work in partnership with Northgate on an ongoing basis, to develop new ideas and introduce new developments in ICT. The technology in place is future proof and will provide the opportunity for the academy to introduce new technologies as they become available.

*“Everywhere you look in this building there is ICT. Everywhere you look there are children and staff using ICT, and that can only be good for the core business of teaching and learning.” Tom Megahy, Executive Principal.*

### Cost Savings

There was concern about the large volumes of print being generated and the increase in paper wastage, which was having a significant impact on costs and the environment. To address these issues, a managed print solution was introduced. Each student and teacher has an individual swipe card which enables them to print their document from any printer in the school. Once a document is sent to print, it is only when the swipe card is scanned at any printer location that the print job is generated. This has resulted in significant cost savings and overall reductions in the amount of printing that was previously experienced. The solution can also provide the academy with analytical information such as printing levels at each printer and individual printing quantities. This information supports the academy in making decisions such as printer locations, number of printers required and provides data to measure costs as well as savings.

For further information see [www.northgate-is.com/education](http://www.northgate-is.com/education)

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# Naace Stream2School Case Study - Impact on Learning at Steeple Claydon Combined School

Author: Rachel Tilden Walker, Education Director, Stream2School



*This case study focuses on the positive impact on learning that effective use of the Stream2school software can have when used to support 1:1 teaching at steeple Claydon Combined School in Buckinghamshire.*

## How Stream2School was used

- To support individual tuition with one Year 5 and five Year 6 pupils, including three girls and three boys.
- Focus areas were Mathematics for one pupil and Writing for the other five pupils. The Year 6 pupils were 'stuck' at Level 3a/3b and needed to get to a Level 4 to ensure their effective progression throughout KS2.
- Support consisted of 10 one-hour sessions, taking place once a week throughout the Spring Term 2011.
- Stream2School Programs used included i-Learn Writing (Cambridge-Hitachi), Mult-e-Maths (Cambridge-Hitachi) and Write Online (Crick).
- Stream2School was used as it gave access to these programs at a very low cost, giving the school the opportunity to assess their effectiveness, both for 1:1 support and for wider adoption in Literacy lessons across the school.



## Defining the amount of ICT used

- Individual discussions were held with pupils to understand them in their school, social and home context and to understand their learning styles, preferences and areas for development.
- The tutor used individual students' APP (Assessing Pupil Progress) records from their class teachers to gain a detailed understanding of their current levels and 'sticking points'.
- In the initial 1:1 session, students talked about the ICT they used, what they enjoyed and found beneficial to their learning.
- The tutor talked with class teachers about literacy/numeracy topics to be covered in the Spring term, to ensure that work could be followed up and reinforced in 1:1 time.
- The tutor then looked through i-Learn Writing and Mult-e-Maths to identify possible activities that could be used to enhance planned areas of study. In writing sessions these focused on journalistic and persuasive writing. For the maths sessions a wide range of Mult-e-Maths activities from Years 4 to 6 were used.

## Working with pupils

- Individual one hour sessions were planned at home in advance and matched to individual needs and preferences. The tutor accessed Stream2School from home as part of this planning process, with no additional cost to the school.
- The i-Learn Writing activities were excellent introductions to styles of writing. These included: watching videos of authors discussing their writing; looking at sample texts and annotating these to identify key features; playing language games focused on word and sentence level features; and summarising information for discussion and later review.
- Write Online was used to support free writing tasks. Once key features of a specific writing style had been identified and discussed in depth, pupils could choose a topic that they wished to use for their own piece of writing - this could be fictional or one based in their own experiences. Most students wanted to use the computer to do their writing, and were able to type as quickly as they wrote. Write Online's prediction tool was used by those less confident with their spelling choices in order to help them overcome these potential blocks and focus on the overall structure and quality of their writing.
- Mult-e-Maths activities were planned to support specific learning objectives. The tutor worked through these together with pupils to understand and overcome any misconceptions. Mult-e-Maths was also used more flexibly during sessions when pupils obviously needed reinforcement of work from earlier years or were able to progress quickly and needed extension work from higher years. It was also used to respond to a pupil's concerns about particular areas of study that they wanted to revisit from class that week.

## Impact on Learning

All pupils made significant progress over the course of the Spring Term.

Five pupils made two sub levels of progress, measured by practice SATs papers in Dec 2010 and March 2011:

- two Year 6 girls for writing;
- one Year 6 boy for writing;
- one Year 5 boy for writing; and
- one Year 6 girl for Mathematics.

1 pupil made one sub level of progress:

- Year 6 boy for writing.

Pupils were able to assess their work very accurately and pin-point areas for improvement.

They felt able to take this forward by themselves after the 1:1 sessions had ended, ensuring a sustainable improvement in their skills.

Pupils' self-esteem and confidence grew over the sessions. They felt able to contribute and took shared responsibility for each successful session. Their level of academic talk and reflection was greatly improved and they felt more able to tackle challenging tasks and overcame initial anxieties about their ability to solve new problems.

Reasons for such big improvements in attainment: Careful planning, which could be undertaken at home using Stream2School.

Wide ranging activities that could be tailored to meet individual needs.

I-Learn Writing supported progression through:

- very well structured and suitable exemplar pieces of writing;
- annotation by pupils on-screen as part of discussion;
- great questions to focus pupil attention on key features of text, together with answers already available to compare their own annotations against;
- understanding of the author's perspective through videos; and
- great games and activities to reinforce key points of language and grammar.

Multi-e-Maths supported progression through:

wide ranging activities that allow a concept to be shown in many different ways;

- visual resources to add discussion and understanding;
- easy structure of activities aligned to numeracy framework allowed for immediate changes within the session based on pupil needs;
- the ability to move up and down very quickly between year groups to enable concepts to be reinforced or extended as appropriate; and
- open ended tasks that allowed integration of AT1 skills within each session.

Write Online supported progression through:

- a simple interface that worked in similar ways to word processing packages they have already been used to using;
- the word prediction tool supported more fluent writing styles, enabling pupils to work quickly and focus on the structure of their writing and quality of language; and
- it provided some pupils with additional confidence to try new words that they may have previously avoided as they did not know how to spell them. This increased the quality of the finished task.

## Conclusions

With the demise of ring-fenced 1:1 funding, how can the lessons learnt from this case study have an impact on pupil attainment going forwards? There are many opportunities to replicate this work and its impact, either with ongoing 1:1; through effective use of Learning Support Assistants; or by supported home use. Our recommendations would include:

- Use Stream2School at home. Community and parent licences are now available, which means that parents can access the same materials that have been so effective in the 1:1 sessions at Steeple Claydon. This is done as a four-month rental, and can be used by parents independently of school software choices.
- Work with teaching staff to understand a child's position within APP (Assessing Pupil Progress) Assessment Guidelines. Templates of these guidelines can be found at: <http://nationalstrategies.standards.dcsf.gov.uk/node/20683>
- Understand what children are expected to achieve in different age groups for Mathematics. The National Strategies team has created a useful set of questions for each year group, called 'Pitch and Expectations'. These can be used to check understanding at the beginning of a topic and to assess progress. They can be found at: <http://nationalstrategies.standards.dcsf.gov.uk/search/primary/results/nav:49914>
- Understand how writing is levelled against assessment criteria. There are a good range of examples at National Curriculum in Action (link below), aimed at all curriculum subjects including Literacy:



<http://curriculum.qcda.gov.uk/key-stages-1-and-2/assessment/nc-in-action/index.aspx>

- A wider range focusing on just writing can be found from South Gloucestershire's website. These help with understanding sub-levels as well as whole level progression. <http://www.learningwithsouthglos.org/Literacy/curriculum/learningandteaching/planningandassessment/Assessment/Writing/index.htm>
- Find out about how literacy is being supported at a national level. Further useful information and guidance on how literacy can be developed can be found at: <http://nationalstrategies.standards.dcsf.gov.uk/search/primary/results/nav%3A49946%20facets%3A24721>
- Provide your children with a range of ways in which they can respond to a task. This can be done by giving them the opportunity to define the context to ensure what they are writing about is relevant and interesting to them. They could also showcase their work using different media; for example creating a comic, video or animation instead of simply writing or word processing their work.

For further information please contact [info@stream2school.com](mailto:info@stream2school.com)

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# Naace

## Online resources revolutionise the teaching and assessment of phonics

*Author: Christopher Thorne*

*Phonics is one of the most traditional methods of teaching reading so what can technology add to the mix? Here Christopher Thorne, the man behind the hugely successful Mr Thorne Does Phonics (<http://www.mrthorne.com/>), talks about the internet, iPad apps and new uses for old game shows.*



A new reading test has been announced by the government which will assess phonic decoding skills in Year 1. A pilot is in progress now and pupils in England will take the test in 2012. This is interesting news as it means that phonics will have greater prominence in the curriculum as the backbone of learning to read. However, testing for very young children is something I do not agree with, and some children will have only turned five years old when they take the test. I know from my own experience that junior children have difficulties sustaining concentrating and sitting still for long periods of time, let alone infants! I am also not sure that teachers will learn anything new from these new tests. Teachers already assess phonic knowledge and recall of high frequency words which do not correspond to phonetic rules.

Schools will have to make sure phonics teaching is rigorous with daily practice. They will also have to report back to parents so that the partnership between school and home impacts on progress. Caution will need to be advised, as many parents naturally worry if their child is making the progress they hope for. Currently, most children read at home with/to their parents but they don't necessarily work on segmenting and blending phonemes. This is one area where my site will be useful. Teachers can send home a link for parents to log onto an individual video (<http://www.mrthorne.com/>) and then they can practise for just a few minutes.

When teaching in Year One at a Solihull, I became Lead Teacher for Phonics for the local authority. After an in-service training (INSET) session on phonics, I made a simple video with the letters and the sounds and posted it on YouTube so children and their parents could access it at home. It was really well received. It reached over 200,000 hits in the first year and Google invited me to become a YouTube Partner. I spent six months making more videos - there are now over 300 on YouTube but schools were telling me that their firewalls would not let them access YouTube in school. Through Twitter I discovered Matt Lovegrove, a teacher at Sonning Common Primary School in South Oxfordshire, who offered to create the website [www.mrthornedoesphonics.com](http://www.mrthornedoesphonics.com). There are 250 videos on the site. At first my content was all about words and pictures and I did not feature myself but gradually I started to introduce some of my own personality and now have a comprehensive collection that covers over 170 different sounds and spelling patterns. People like them because they tap into the way children learn today. Children are used to sitting in front of a TV, computer or interactive whiteboard for 5 or 10 minutes and the videos are short enough to sustain attention. It is a 21st century way of learning.

While phonics is one of the building blocks of reading, it has always been contentious. It has had periods when it has topped the poll of reading methods and then it has fallen out of fashion. At the moment, with the introduction of a new government reading test, some companies are pressing ahead and creating new products while others are biding their time. The DfE has just released a list of suggested Phonics resources. Mr Thorne Does Phonics fills a niche like no other because it features a teacher talking direct to the camera, it provides for a one-on-one approach to all viewers and it uses 21st century technology to engage pupils. There are a number of ICT resources which can help with literacy and phonics: Collin's Big Cat Phonics, Jolly Phonics, Bug Club from Pearson, Rising Stars' Splash Phonics and Scholastic's Phonics Inventory are all excellent. There are also phonic books and CDs, lots of phonics games on the web, new apps for mobiles and YouTube videos. Many of them are games or exercises for children. The best way for teachers to decide which to use is to look at the reviews on the web and find which is the best materials for their setting - what works for one school may not work for others.

Mr Thorne Does Phonics is different from these resources because it features a teacher directly teaching the sounds of synthetic phonics to the viewer. Many parents and some teachers either use the name of the letter 'ay' for 'a'; 'bee'

for 'b', 'ess' for 's' etc or the sound of the letter as they were taught at school, which tends to have an -uh sound on the end, think of 'buh' or 'tuh', but the sound is actually shorter and more clipped. It often sounds strange to make the sounds but it is really important when children blend the sounds together to read words. My site works because children hear the sound and can see how to articulate their mouths to say the sounds too. This is especially useful for children who come to school with very little English and have to learn to speak the language and make the sounds as a preparation for reading.

I'm from Solihull so I have a slight accent, although it is changing a little now that I am teaching in London, but I have tried to reflect both northern and southern pronunciation in the videos so castle is pronounced with the northern short A and the southern long A. I have received tweets from teachers who really like this feature. They also like the fact that it is non American pronunciation, as so many online materials tend to be American-voiced.

To date my own site has had 200,000 unique visitors and the YouTube videos have seen 2.3 million hits. I am now looking at technology on the move. There are many children who don't necessarily have access to lots of books and reading support at home but an increasing number do have access to apps on smartphones and that number is set to rise. While the resources are free on the web, people will have to pay to download the app from the app store but then it does have extension materials and assessments and it reflects the value I've put on my work.

I have also been approached by a number of commercial companies and there are some exciting prospects in the pipeline but for the moment I am teaching my class at the Phoenix School in Hampstead and working with Prime Principle, the company which produces Classroom Monitor (<http://www.classroommonitor.co.uk/news-events/index.php>). This is such a timesaver when it comes to assessing phonics. We would sit down with a tick sheet and highlighter pen and mark the sounds and words which children could do and then work out what they needed to do next. We used to transfer this information to Excel or to a template. Now Classroom Monitor does it all online. For example, if a child needs help with irregular high frequency words such as wanted, of , because, then Classroom Monitor will direct them to the relevant videos at Mr Thorne Does Phonics.

National Curriculum Assessment - Writing - Level 3 - Junior																			
	Jade D. BALL	Jessica P. BOO	Rose D. ELLIOT	Victoria N. FINC	David N. FORST	Poppy FOWLER	Koiti N. GEORG	Kathryn S. KAY	Chris L. KING	Sophie LEWIS	Naomi L. LOWE	Christopher N. I	Alexandra S. M	Finlay QUINN	Ranjit N. RAKES	Owen N. RICHA	Michael O. ROS	Salamon SAMU	
	2C	4C	4C	3C	3B	4C	4C	3B	3B	4C	2B	2C	4C	3C	2B	3C	3A	3C	
The basic grammatical structure of his/her sentences is usually accurate.	M	M	M	A	A	M	M	A	M	M	T	U	M	M	U	T	M	A	T
He/she uses full stops accurately.	A	M	M	T	A	M	M	A	A	M	T	U	M	A	U	T	M	T	M
He/she uses capital letters accurately.	M	M	M	T	A	M	M	A	A	M	T	U	M	A	U	T	M	T	M
He/she uses question marks accurately.	M	M	M	A	A	A	A	A	A	M	T	U	M	A	U	T	M	A	A
Pupil's writing is organised, imaginative and clear.	M	M	M	M	M	M	M	A	A	M	T	U	M	M	U	A	M	T	M
The main features of different																			

Phonics in the classroom has to be short, sharp and even frenetic. It has to be real impact teaching that lasts a maximum of 10-15 minutes and hits the nail on the head, "Make this sound. Say it in a happy voice. Say it in a sad voice. Say it to a partner". You need lots of quick fire activities and I like to use versions of old TV games shows such as Phonics Family Fortunes and Phonics

Connect 4 to sprinkle fun into what can be a monotonous teaching sequence. Schools should not be afraid to use games and encourage the child's enjoyment of play.

Once children have learned to read, they can read to learn so building up phonics skills will take up a lot of classroom time so you might as well make it as much fun as possible.

Classroom Monitor is the most widely used tool for assessing pupil progress (APP) in the UK.

Key features include:

- It's online so can be accessed from anywhere
- Layout based around familiar paper marksheet
- Easy to print out
- Simple traffic light system for recording assessment
- Fast assessment through multi selection for group assessment, and faster individual assessment
- Direct link from assessments into reports saving valuable teacher time
- Links to phonics resources on Mr Thorne Does Phonics, providing valuable support for a teacher and saving further planning time
- Ability to attach evidence to support phonics judgements, such as video / sound recordings
- Ability to build up summative, trackable results based on formative assessments, which can be viewed in graphs / exported to Excel
- Ability to share all this online with parents

Christopher Thorne can be contacted at [mail@mrthorne.com](mailto:mail@mrthorne.com) or via [www.mrthorne.com](http://www.mrthorne.com)

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