

Primary Focus on Interactive Teaching Technologies



Summer 2006

Naace

Advancing education through ICT

Do you really want to keep the best things to yourself?

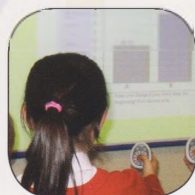
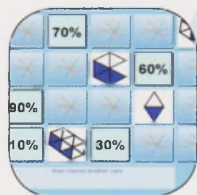


There's so much more to being a Naace member than getting this journal. Most members join because they want to be completely up-to-date with debates and practice, and care about their professional and career development. They regard ICT as integral to their role as an educator and see joining Naace as a natural consequence of this interest.

Headteachers use membership to understand and gain a vision of how their school should develop as a learning institution, co-ordinators and leaders use it to develop their thinking about the curriculum and technicians for the peer support they receive. Above all, ordinary teachers use it to improve their classroom practice. So shouldn't everyone in the school be a member of Naace? Now they can with institutional membership!

Institutional membership is a new membership category that extends the benefits of Naace membership to all staff as well as providing specific services only available to institutional members.

To find more about Institutional Membership contact Naace today. Then discuss the enclosed leaflet with your Senior Leadership Team.



Naace
PO Box 6511
Nottingham
NG11 8TN
T 0870 240 0480
F 0870 241 4115
E membership@naace.org

Contents

Introduction	p1	Working with an IWB in the Foundation Stage	p17
Collaborative Story Writing with an Electronic Whiteboard	p2	Bored With Boards? Revolution to Evolution	p19
Chart Showing a Progression of Interactive White-Board Use	P6	Children Take Control in the Virtual Classroom	p22
Creating interactive resources - the lower tech solution	p7	Kangaroo court	p25
Easiteach Geography Tools	p8	Video Conferencing for Transition	p28
Interactive Technologies in the Classroom; Blogs, Wikis and More	p10	The Use of FlexCams in the classroom	p30
Keep taking the Tablets!	p13	Cover Story - (explaining the picture on the front cover of this publication)	p30
Poetry on a Whiteboard	p14	Website Resources	p31
Presentation Technologies	p16		

Introduction

When computers first arrived in primary schools in the early 1980s, the BBC ran a series of programmes on their use in schools called 'The Learning Machine'. We were excited then by the huge potential of ICT for learning but the technology of that time was not much good for teaching: the interactivity was too limited and the screen too small.

Things are different today. Twenty-first century ICT is superb for teaching. The interactivity is literally at your fingertips and screens can be as big as you like. (In Las Vegas this January I saw a Celine Dion extravaganza where the whole of the backdrop was an 80ft computer screen.)

But it's not just what you've got - it's how you use it. This publication is about the latest technology in the hands of creative and interactive teachers. Read on and be excited by the new potential of interactive teaching technologies.

About the Editor:

Heather Govier is a freelance educational writer. A science graduate, she began teaching in primary schools in 1973 and has worked as an LEA advisory teacher and a lecturer in Initial Teacher Education. Before the merger of Naace with MAPE, she had been chair of MAPE since 1998. She is currently chair of the Naace Primary Working Group.

Heather can be contacted by email at: h.govier@btopenworld.com

ISSN 0264-3847

Guest Editor: Heather Govier

© Naace 2006

The articles may be photocopied for educational use.

Printed by: Hawthornes, Palm Street, New Basford, Nottingham, NG7 7HT

Published by: Naace, PO Box 6511, Nottingham, NG11 8TN

'Primary Focus' is published by Naace 3 times a year in Spring, Summer and Autumn terms.

To join Naace or to order additional publications visit our website at www.naace.org.

Naace is a registered charity No. 1060683 Naace (Trading) Ltd is a company limited by guarantee Reg No. 3270148

Collaborative Story Writing with an Electronic Whiteboard

Margaret Allen

ICT in schools has changed at a momentous pace, with developments in both hardware and software, which has meant that teachers are now able to utilize motivating and stimulating multimedia to enhance the teaching and learning in their classrooms. However, it is not always easy to accommodate the demands of technology in a primary classroom and it is only with careful planning that ICT can benefit the curriculum. Practical application using a range of software, hardware and the internet will all contribute to ensuring that ICT can assist in leading children to be motivated and enthusiastic learners.

The arrival of the data projector (and later the electronic whiteboard) in classrooms was a major turning point in stimulating effective use of ICT across the curriculum. The ability to display clearly in a classroom meant that children were engaged in a different way from before. I found one of the simplest ways of supporting teachers in their use of a projector was to model shared writing using a word processing package and a set of pictures.

In the Woods

I used a selection of pictures taken from the Big Books on the MAPE website (now available through Naace Primary Resources at www.naace.org). I captured the pictures into word and had each picture displayed alongside a text box. The pictures formed the basis of a story and were used by me to stimulate discussion and a shared writing opportunity.

I used six photographs from the Monster Tree Stories. My story concerned two children in the woods looking for their dog. However, the reader knew nothing of the dog until the last page.

I encouraged children to think of themselves as authors who were guarding a secret but wanted their readers to "turn the page". I chose the pictures so that each one offered a different writing focus. On some occasions I worked with six groups, each group being responsible for one picture and the next group continuing the story from the previous one.



The opportunities for discussion around why the previous group had written what they had and how the story would now develop were very powerful examples of exploring text in a purposeful and meaningful way, where ownership of the material was in evidence.

I started the story as follows:

"As they entered the woods they were unsure which way to go."

This offered the children the chance to describe "they" and also demonstrated how literal description is not always appropriate.

"Peter's feet were shuffling and sliding along the pathway. His eyes were searching all around. Rachel smiled at him and gently took his hand."

The children contributed to the writing of the next part of this page. I explained how from three simple sentences we had now described to our reader the personalities and possible attitudes of our characters and yet at no stage had we mentioned their age, relationship or appearance.

"As the pathway straightened, the trees began to thin out. The sun was able to cast down beams of light. Peter began to feel more relaxed and confident. He sprinted down towards the ancient stile. Rachel followed not far behind him. In the bushes, the children could hear rustling and felt excited."

The paradox at the end of this page allowed the children to see the value of not revealing the end of their story. The reader would clearly be intrigued to know why two young children would be excited at hearing rustling bushes in what appeared to be a deserted wood.

This Year 6 classes' recent study of metaphor became obvious when for the next picture (see over) they came up with'

"The still and lonely pond lay solemnly in the heart of the wood. The curved fingers of the reeds protected the murky water. The children almost danced to avoid the puddles."

The children engaged with this whole-heartedly and were stimulated and motivated to go back to the story and read it again and again. There was ample opportunity for editing and redrafting what they had previously written with me.

Teachers were able to emulate this example across different subject areas and I was soon witnessing ICT being effectively exploited to support literacy, history, geography RE and science.

Sounds could be added to photographs to influence mood. Photographs could be taken from websites or from the teachers' ever increasing stock of digital images. Photographs taken on trips or during technology and drama lessons all became appropriate starting places.



Children from Year 5 supported a Design and Technology topic with a Year 1 class. The Year 5 children photographed and downloaded the images from the camera onto the computer. They word-processed the dictated three sentences from their younger partners. The opportunities offered to both year groups were invaluable not only in basic ICT skills, but in speaking and listening, literacy, PHSE and general self-awareness.

The relatively recent adoption by schools of interactive whiteboards coupled with the Government's commitment to their use has meant that many schools have begun to adapt the way in which they teach. The incorporation of these three easy tips demonstrates how best practice can be achieved with the minimum of effort, and teachers need not feel daunted at the prospect of transforming their lesson ideas into interactive activities.

- Adopt - use of the whiteboard into your teaching style.
- Adapt - use of the whiteboard to enjoy the full potential of resources available.
- Innovate - use of the whiteboard by incorporating multi media resources.

The Treasure

In my role as a Teaching and Learning Adviser for Promethean I used the following flipchart (see below) as a cross curricular approach to using an interactive whiteboard.

I worked with some Y5 children and we read The Treasure. This story seeks to offer cross-curricular links, but it also encourages a creative approach to reading beyond the words on a page. What does the word "treasure" mean to the characters?

We talked about how going to the beach can be a summer activity and a winter activity. We used the pen to write all over the page. We compared summer and winter and talked about the different clothes that we would wear.

Children talked about the relationship that they had with grandparents compared with their own parents.

"My granny lets me get dirty" was a comment.

"We always have fun" was another.

Of course it is perception here, and maybe not reality, but it meant that we were able to talk about relationships with each other and with members of the family.

Flip is able to think about pirates and ships. The children were immediately hooked into the story. They wanted to know whether Flip went on a pirate's ship. We talked about what it would be like.

I was able to "take" the pirate and put him on a clean page. We used the opportunity to look at adjectives - "premiership words" to describe this character's appearance and personality.

Using the words that the children had come up with I drew a circle in the middle of the page. The words were presented around the edge of this circle. The children were asked to choose two words and drag them into the middle of the circle. Using those two words they had to construct a sentence, then add a third word and use a connective to include it.

Child: The pirate had a peg leg because he had been attacked by a shark.

Me: What sort of pirate?

Child: A brave pirate

Me: What sort of shark?

Child: A vicious shark



We discussed the next three pages in terms of what you find when you go to the beach. These children live near the sea and so there were all sorts of suggestions. Over the next week the class had an impromptu display of "Treasure from the Beach".

The Treasure Chest on Page 6 evoked more discussion about Pirates. I felt we could have had a completely different focus for the writing I was planning. I was able to go to a clean page in order to focus in on the idea of dreams and memories. We discussed and I wrote up words.

Memories: excited, fun, special, happy, unhappy, sad, treasure box, people, things, places.

Dreams: The children at first thought of dreams when they were sleeping! We talked about dreams in terms of what they would like to do and like to be. A whole range of jobs came up including astronaut, fisherman, jockey. Lots of the children wanted to travel. A significant number based life's aspirations around home life wanting children, and a nice house!

On Page 7 we were able to "take out" the items in the treasure chest. Each of the items was to represent something.

The string of beads: does each bead represent something special or is it just the whole string?

The crown: is that the most important dream or memory? Will it have more significance for Flip?

The mirror: does that reflect something good or not so good?

The wand: is it able to produce anything that you want?

The large green stone: is this the most precious memory?

The brooch: Will Granny wear that to keep it permanently beside her heart?



When Flip came to stay with his Granny, they walked to the beach.

1



Granny told him that the ocean was full of treasure.

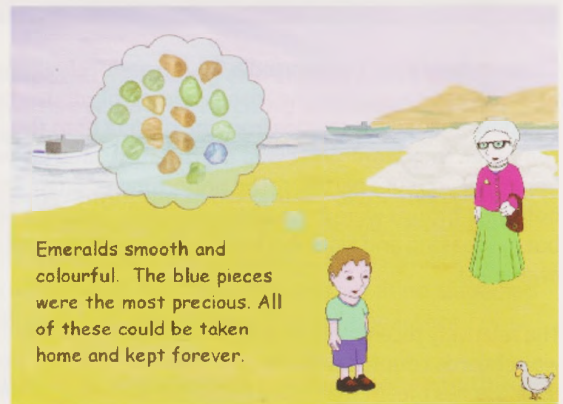
2



Some of the treasure you could take home, but not all of it.

Shells of different shapes and sizes.

3



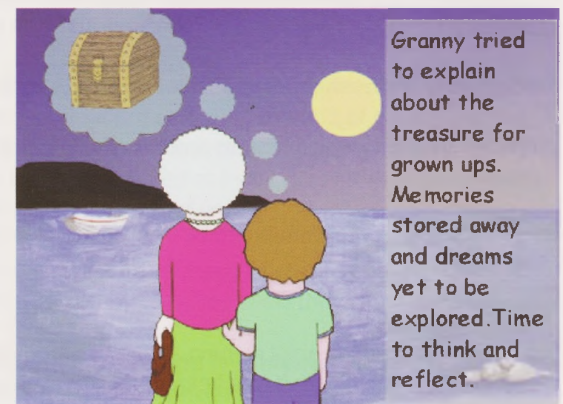
Emeralds smooth and colourful. The blue pieces were the most precious. All of these could be taken home and kept forever.

4



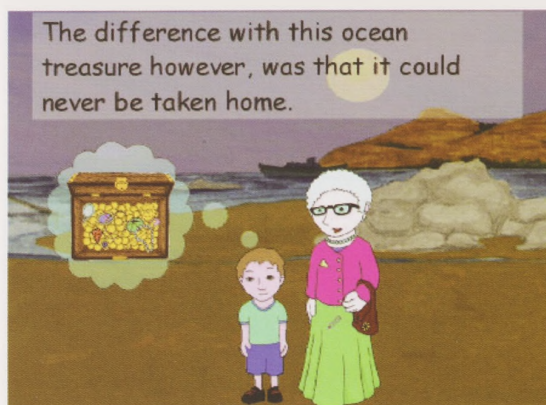
Wood that had once been a ship which had travelled the seas.

5



Granny tried to explain about the treasure for grown ups. Memories stored away and dreams yet to be explored. Time to think and reflect.

6



The difference with this ocean treasure however, was that it could never be taken home.

7



Flip was glad he had brought a bag with him to carry his treasure home in.

8

All of the above can be moved out of the treasure chest. The fact that the children could lift the different objects out meant that they could momentarily own these objects. By "owning" them, moving them and talking about them they had much more significance and relevance.

Why use a whiteboard?

Using the interactive whiteboard at its most basic level, the pens can be used to annotate over prepared documents and highlight specific parts of the text in a range of bright colours. This is particularly effective in literacy lessons where a poem is being presented and certain words need to be lifted out of the text for discussion. The simple 'drag and drop' function enables a teacher or pupil to move text from one part of a screen to another.

Images displayed on the interactive whiteboard can be used effectively to help literacy development through stimulating discussion and generating language. By including children's own artwork or images, pupils can use the visual example to describe settings and build upon their language.

Children learn through movement and all their senses. They learn at different rates and they link what they have learnt by representing it in some other way or by talking about it. If children are motivated and stimulated then they will show an interest and want to find out more and engage with it. In order to learn children need a range of experiences that also allows different learning styles to be accommodated – visual, auditory and kinaesthetic. Well-planned and purposeful intervention will feed into developing a child's learning.

Engaging children in focused activity, developing language, and supporting their own experiences gives all learners a way of expressing themselves.

The Primary National Strategy talks about teachers taking ownership of the curriculum, shaping it and making it their own. It states that teachers should be creative and innovative in how they teach. By using a story called The Treasure I explored ways in which teachers could engage children of all ages in story writing but I also made links with other curriculum subjects.

It is important to acknowledge that resources of this kind are not developed to replace books and story reading in the more conventional way, but that this medium has the potential of developing other skills. The flipchart could be presented in a finished state or alternatively the story could be built up using the resources available. In this way, discussion surrounding the setting and the characters is more meaningful as the children are able to understand the convention of story. Text can either be written or typed. Children can rewrite the story with a different focus, or the final page could be delayed, allowing them to write their own ending.

Each page can be printed, or alternatively the story could be made into a book. Children's writing is either added directly to the board or the book is used as a starting place. I have seen wireless keyboards used effectively to add text to the board. It is important that a lesson doesn't have 30 children continuously moving backwards and forwards to the board. However, it is also equally important to acknowledge the value for those children whose learning style dictates the need for them to physically engage with their task.

One teacher recently remarked,

"The interactive whiteboard allows me to replace laminated card and bluetak resources from my teaching."

Another commented,

"By allowing children to be active whilst learning they are more likely to remember."

Author Notes:

Margaret Allen is ACTIVprimary Development Manager for Promethean Ltd. Her role is to support teachers using interactive whiteboards in order that children can be engaged in meaningful and worthwhile activities, which stimulate their imagination as well as meeting the needs of different learning styles. She is responsible for training 50 Primary PGCE Students in Portsmouth and Southampton in the effective use of ICT across the curriculum.

Margaret.Allen@prometheanworld.com

Editor's Note

The Big Books which Margaret refers to at the start of her article are just one of the Naace Primary Resources to be found at <http://www.naace.org/> - scroll down the page and look for the icon in the right hand column.



Select the Classroom Resources option.

Many of these interactive classroom activities can be used effectively on an electronic whiteboard. All are freely available to Naace members and most can be downloaded for work off-line. They include:

- A selection of Big Books, a Big Book maker and Video Book Maker
- Bounce and Number Board - mathematical challenges
- Discloze - a set of text disclosure activities for use in literacy teaching.
- Discloze editor - a facility to make your own Discloze texts
- Find the pairs - pelmanism activities
- History resources - Greenfield Road, Sir Henry Unton and a history photo quiz
- Sorting Games and Jumbo - sorting and sequencing activities
- A Poem Maker
- A Quiz Maker
- A random number generator and a version of this for selecting teams
- Whodunnit - a database activity
- A Weather Project
- An activity about siting a nesting box for owls
- Downloadable files for numeracy, MFL and science.

Chart Showing a Progression of Interactive White-Board Use

Reg Eyre

Use by teacher	Good points	Bad points
(a) Using a computer in the classroom with a small screen display	<ol style="list-style-type: none"> Shows a willingness to try ICT in a classroom setting Shows beyond personal use to create off-line resources Shows willingness to try a new/different approach to teaching 	<ol style="list-style-type: none"> Operating in an inappropriate mode, in that the class members cannot easily see the display clearly
(b) Using a computer with a data projector	<ol style="list-style-type: none"> Use can be similar to 'big book' approach to exemplify ideas 'in the large' Aids the teacher in working in demonstration mode Can lead to well researched and prepared lessons, especially in the use of Internet resources 	<ol style="list-style-type: none"> Can lead to 'death by PowerPoint' approach Pupils can find it difficult to focus if the teacher has to move back to the computer to input text or commands Need to consider position of projector
(c) Using computer, data projector and IWB - initial phase	<ol style="list-style-type: none"> The teacher hardly ever needs to use the computer keyboard except to type text, e.g. URLs Everything done on the IWB is open to view by the pupils and encourages the teacher to become 'expansive' in their teaching – the actor phase? Can lead to mixed media approach 	<ol style="list-style-type: none"> Can lead to over dependence on one mode of teaching Can lead to 'over use' and reliance on the IWB
(d) Using computer, data projector and IWB including use of 'unsaved annotated layer'	<ol style="list-style-type: none"> Can lead to immediate written comments on work showing on the IWB initiated by pupil's questions Use can be made of the annotated screen during the plenary part of the lesson 	<ol style="list-style-type: none"> Pupils do not always understand what has happened when the teacher 'picks up' one of the pens from the pen tray, i.e. the notion of an overlay to 'freeze' the working screen
(e) Saving the annotated layer	<ol style="list-style-type: none"> Can be printed off to give out immediately as an aide memoir for pupils who might need it Can be edited so that it can be used at the start of the following lesson as reinforcement or alternative explanation 	<ol style="list-style-type: none"> Need to consider why this needs printing out, and for whom.
(f) Making use of the 'IWB notes' software	<ol style="list-style-type: none"> In 'free use' mode, (like a flip chart), it can allow for a flexible, 'unplanned' style of lesson with ad libs. Similar in use to a flat dry wipe board but with a recap facility. It can add to the teacher's teaching style repertoire. The teacher will probably start to use the hand-writing to text facility. The teacher will probably start to use 'copy and paste' to move notes around and create structured notes. The teacher will possibly move away from using Power Point to gain flexibility. 	<ol style="list-style-type: none"> Teachers seeing this at the start of their IWB experiences can be 'sold' the ideas but need the background experiences first. The hand writing to text facility needs practise and a recognition that there is a technical competence to be achieved. Using the on-screen typing keyboard can slow down the 'learning flow'. Teachers need to recognise that 'IWB notes and Power Point each have advantages and disadvantages.
(g) Use of 'IWB notes' software, together with the use of recalled annotated layers.	<ol style="list-style-type: none"> This style of use brings many techniques together. 	
(h) Things I have not thought of and yet more ways of using IWBs which may emerge from more school based software.		

At any of the points lettered above, the teacher has to consider why and how they teach and if they want their pupils to share their 'teaching space' for it to become a shared learning space. This may be dependent on the teacher's personality and their perception of the teaching process.

As teacher educator, I might be interested in changing a teacher's style or pedagogy with respect to their use of the IWB but I wonder if this is morally justified?

Author Notes:

Reg Eyre is a retired/retired lecturer/motorcyclist who has recently left University College Northampton, soon to be made a full university now that he has gone! His aim is to make sense of ICT to normal teachers and try out ideas in real classrooms, hence ideas for using art packages, Logo, control technology, data logging and Developing Tray. He may be known to some older members of MAPE as "Rainbow" after organising a conference in Cheltenham. His chief influences include Spike Milligan, Eric Clapton and Miles Davis... There is no hope!

Reg@Eyre.co.uk

Creating interactive resources - the lower tech solution

Rhona Dick

There can be little doubt that the interactivity offered by resources created using Macromedia Flash has had enormous impact on education. For many teachers mastering the software presents an unacceptable time commitment and a steep learning curve, technologically speaking. Writing as one who has yet to make base camp on this Everest of an expedition I resolved to find an alternative.

I had seen some interesting use of PowerPoint on the Teachers' Resource Exchange and investigated further. This is software that I had not previously had much occasion to use, and so was not fully conversant with its potential. The resource in question gave a pair of coordinates and asked children to click on the appropriate point on a grid so the program seemed to offer possibilities for some interactivity.

The first stage was to identify activities that would benefit from a combination of PowerPoint's standard features and the interactivity that I wanted to add. Certain mathematical topics sprang to mind, including symmetry and probability in which I could incorporate some teaching input and some multiple-choice questions.

Creating an interactive presentation - Describing position (Year 2)

After I had created the teaching input slides I planned the interactive ones. At Year 2 children have to be able to use mathematical vocabulary to describe position.

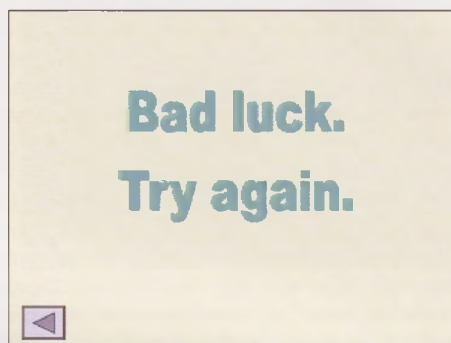
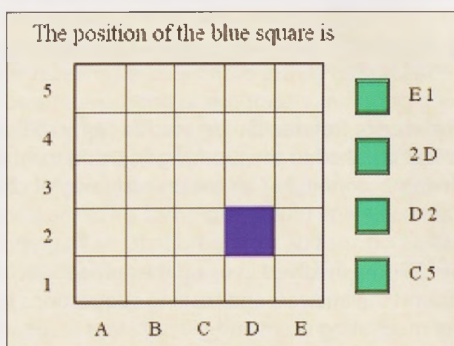
First I inserted a table to represent the grid, and labelled columns with letters and rows with numbers.

Next I created the feedback slides, a reward for the correct answer and a prompt to "Try again".

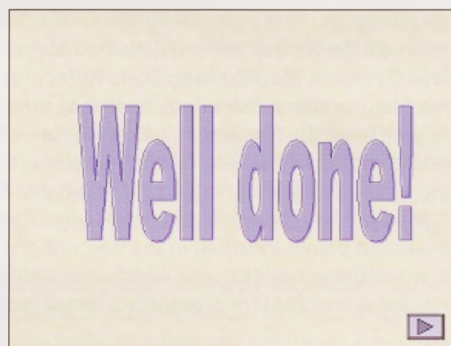
I shaded one square blue and created four *Action buttons* from the Slide Show menu. Each of these was labelled with a different pair of coordinates.

Actions had to be assigned to each of these buttons that would take the user to the appropriate slide. I did this by clicking on a button in normal view and then accessing the *Action Settings* in the Slide Show menu.

Thus three buttons took the user to the "Bad luck try again" screen and one led to the congratulatory "Well done". Both of these screens needed *Action buttons*, which were assigned in the same way.



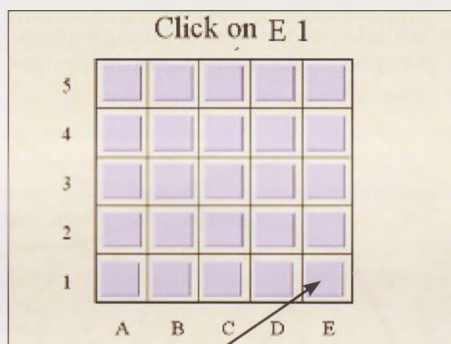
This action button takes the user to the last slide viewed



This action button takes the user to the next slide

The next task was to create a grid where the children had to click on the correct position.

This is achieved in exactly the same way as before, it is just a little more time consuming!



All the buttons on this grid are action buttons, but only this one takes the user to the "Well done" slide.

Of course it is perfectly possible to add all sorts of bells and whistles (almost literally) to these presentations, but my aim was to ensure the design was subservient to the purpose, and that the mathematical content would not be lost among the gizmos.

There are all sorts of technical limitations associated with interactivity in PowerPoint, and this can be a little frustrating, but if PowerPoint could do everything then there would have been no niche for Macromedia Flash to fill.

Author Notes:

Rhona Dick is a member of the Primary Working Group and is a freelance educational writer specialising in History, Mathematics and ICT. Rhona can be contacted by email at rhona.dick@blueyonder.co.uk

Easiteach Geography Tools

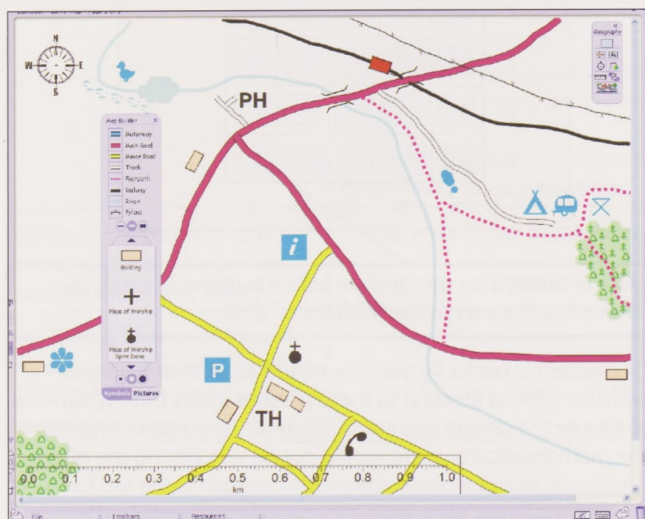
Alan Rodgers and Angella Streluk

Easiteach Geography is a package of software for whole class teaching using an interactive whiteboard and the Easiteach IWB software. The Tools and Content are purchased separately, but can be used together. The tools themselves can provide the means to enhance the teaching of geography.

Survival in everyday life can be greatly enhanced by good map skills. These rarely come naturally and are developed by regular practice and realistic application. The Easiteach Geography Tools enable flexible teaching of map skills involving participation and discussion by the children. They free the teacher from practical concerns leaving them free to develop the mapping skills. They really must be tried to appreciate them, but hopefully this article will give some insight into their value.

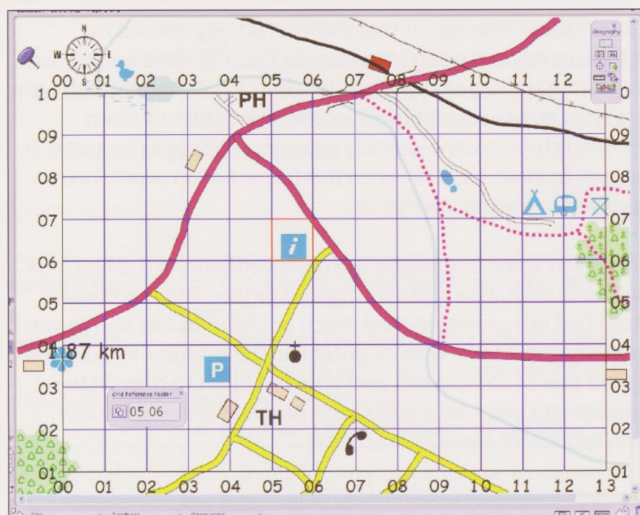
Some of the tools on the toolbar are sophisticated objects such as the **Grid Overlays**, **Map Builder**, **Scale Ruler** and **Compass Rose**. Many of these also interact with the other more complex tools, which are the **Navigator**, a **Distometer**, a **Grid Reference Reader** and **Grid Fill**. Several of these tools can be used at varying levels of difficulty, making them suitable for a range of ages and abilities. The application of a few of these tools is demonstrated below. Included in the descriptions are sample questions and comments in red, which are intended to demonstrate the opportunities for prompting discussion and investigation.

The above tools can be used in conjunction with any maps, plans and photographs that have been loaded onto the screen. They can also be used with maps built using the Map Builder tool. This enables map symbols or matching pictures to be used to build a map. The pen tool is used to draw roads and other linear features. Symbols or pictures can be dragged onto the screen, repositioned and resized as required. This tool can be used as an exercise in its own right, to support work on topics such as Village Settlers, or can be used to produce a map of an area to be used in other work. Group map building encourages discussion of where features should be positioned.



“What problems might arise when houses are sited near a river? Is the telephone box near the houses so that it can be used or should it be in the countryside for use in an emergency? What are the advantages and disadvantages of putting the Public House near the river?”

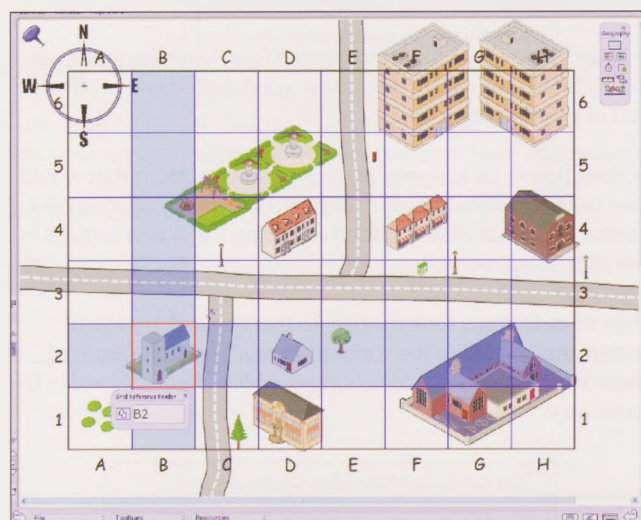
A class input on constructing a settlement can be used first as a teaching tool and/or as a form of assessment at the end of the unit.



The **Grid Overlays** can be used to teach coordinate reading in a way which enables repeated practice that all the children can easily see. The overlays are provided in letter/number format as well as four-figure and six-figure formats. They are fully flexible and can be customised if required. Once again these can be laid over maps made with the **Map Builder**, real maps or aerial photographs. The maps can include imaginary ones, local areas, places related to a theme such as coasts, or maps of localities being studied.

Extra tools go with the **Grid Overlays** to make both teaching and learning more efficient. A **Grid Fill** tool can be used to highlight any grid square being discussed. This can also be used to shade rows and columns so that the coordinates can be read off easily.

“Read across the bottom first to see which column the grid square is in. Now move up to see which row it is in.”

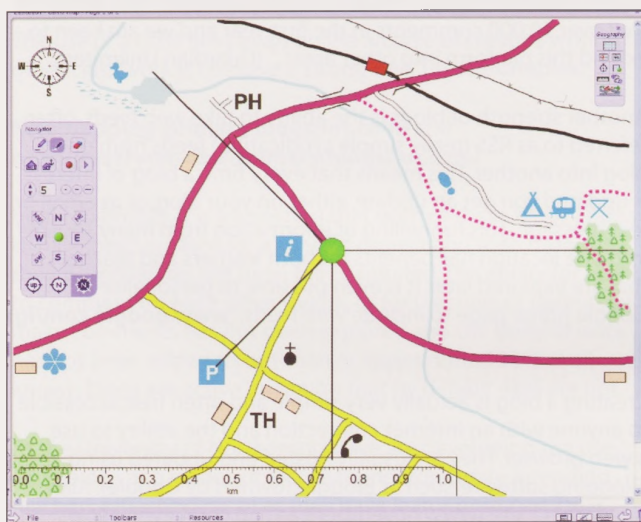


The **Grid Reference Reader** can be used to verify the grid references. This is linked to the type of grid being used and gives the coordinates accordingly. This makes a fun way of checking answers.

Getting the children involved in using these tools, discussing how they found the answers and making suggestions has the effect of motivating them and gives instant feedback and support.

The **Distometer** is a tool that is calibrated to suit the map and then used to measure distances. This can be the distance between two points or the total distance of a route. As a class teaching activity it would be most useful if the children had been asked to look at the Scale Ruler and estimate the distance. The ruler can be moved and rotated, and even resized if required. They can then use the **Distometer** to measure the accurate distance. This tool could be used in many contexts. Distances, as the crow flies, to different holiday locations could be measured. A series of routes could be compared for distance and convenience. This could be used to assess the effect of closing roads in the town centre etc. "How much further would it be between the cinema and the shops if the High Street were closed to traffic?"

All of these, when done as a class activity, give scope for sharing ideas and learning from each other. They also turn a skill usually involving concepts into a practical activity.



The **Compass Rose** tool allows various types of compass rose to be placed on a map or photograph. Another directional tool is the **Navigator**. This allows a marker to be moved around the screen using either logo-type commands or using the points of the compass. Various settings make this a sophisticated tool. In this example the **Navigator** has been used to check the direction of travel required from the Information Centre to other features on the map.

The **Navigator** can be moved along a route, leaving a track behind it. This could even be used on a plan of the school, navigating from room to room. Once again, working as a group permitting discussion, making a prediction and checking it, using the correct geographical vocabulary, all helps the learning process.

"If you were at the camp site, what direction would the public telephone be in?"

This screenshot gives an example of the Map Builder tool being used to help understand an oblique photograph of a mountain region. As the children come up and label different features, giving their reasons for their choices, they get practice in using map symbols, interpreting photographs and using geographical vocabulary. This collaborative work, observing each other's reasoning, verbalising one's thoughts, makes a difficult task much easier. Most schools have an aerial photograph of their school's local area. This technique would enable confident understanding of aerial photographs and support interpretation of a map of the same area.



These excellent tools make a difficult task easier. They enable repeated practice in an interactive and supportive environment. The provisionality of the process, giving scope for developing a thought, also prevents the feeling of failure. The children can change their minds and modify their response.

"That could be a main road, but there are quite a few bigger ones. Is there another sort of road that might fit just as well?"

When the children eventually go to their individual or paired tasks they will hopefully feel much more confident.

These tools offer practical help in map skills to both the teacher and the pupils. Through their use lessons can be made more appropriate to the children and the topics. It becomes feasible to include map skills in every geography topic, as they should be. Link these tools with the real maps of local areas, which are now available to schools, and the possibilities for teaching and learning are greatly enhanced.

Read more about these tools at;

RM
<http://www.rm.com/Primary/Products/Product.asp?cref=PD260010>

Downloads include a poster and a guide to using the tools.

Schoolzone Evaluation;
<http://www.schoolzone.co.uk/resources/evaluations/evaluation.asp?p=RMLC-EASGY>

This evaluation is the result of a trial of the materials in the classroom.

Author Notes:

Alan Rodgers is a freelance ICT consultant who is also a part time lecturer at Newman H. E. College. He spent many years as a primary school teacher. Alan has uploaded many geography resources to the *Teacher Resource Exchange*.

Angella Streluk is a primary teacher with responsibility for geography and ICT. She enjoys keeping up-to-date with the development of ICT and likes to share ideas.

Both Alan and Angella write in a variety of mediums on geography and ICT, and primary ICT.

Email: alanrodgers@cirrus.me.uk

Interactive Technologies in the Classroom; Blogs, Wikis and More

Gareth Honeyford

No not more whiteboards!

It seems that the word 'interactive' these days is inevitably followed by the word whiteboard. Any school that does not have at least one interactive whiteboard in place seems to be talking about when they will get one or very occasionally making a strong case for why they are a bad thing. Almost every intending teacher I work with lists 'learning about interactive whiteboards' as a development need or interest and virtually every supplier of educational software has 'whiteboard friendly' titles available. Love them or loathe them they are everywhere. Therefore in this article I turn my back on whiteboards and look at some different forms of interactivity that may be worth exploring in the classroom context.

What does Interactive Mean?

www.wikipedia.org states that "Interactivity is still under continuous debates over its meaning," and a quick query on www.dictionary.com yields the following definitions:

1. Acting or capable of acting on each other.
2. *Computer Science*. Of or relating to a program that responds to user activity.
3. Of, relating to, or being a form of television entertainment in which the signal activates electronic apparatus in the viewer's home or the viewer uses the apparatus to affect events on the screen, or both.

If we consider definitions 2 and 3 first, we can see that these effectively refer to the fact that something the user does causes the computer program (or television) to respond, i.e. has an effect. This is all very well but by this definition almost all uses of a computer by pupils and teachers can be defined as interactive, from searching websites to accessing CD ROMs. Indeed, Wikipedia asserts that "Interactive software includes most popular programs, such as word processors or spreadsheet applications" and notes that "it [interactivity] is opposite to interpassivity."

If instead of considering the interaction to be between the individual and the machine we consider the interaction between individuals or groups facilitated by the technology, an interpretation of definition 1, "Acting or capable of acting on each other," then some interesting educational opportunities arise through innovative use of technologies such as Blogs and Wikis.

Blogs

What are they?

NAACE members who attended Alan November's session at conference 2005 will be familiar with the concept of blogs but for those of you who are not, the following should help. Blogs, short for Weblogs or web logs are effectively online diaries that are kept by individuals or groups. According to blogger, Rebecca Blood, "In 1998 there were just a handful of sites of the type that are now identified as weblogs" and she goes on to mention the listing of, "the 23 [blogs] known to be in existence at the beginning of 1999" It is only in the last three or four years that blogging moved into 'mainstream discussions'. Indeed as I reach the end of writing this article, proposed over a year ago I am bombarded almost daily by new articles and features on edublogging, including Josie Fraser's excellent,

"Blogging essentials for teachers and learners." (Computer Education, Autumn 2005) Many people first heard of blogging with the Baghdad Blogger, Salam Pax "The Baghdad Blogger began recording daily life in Baghdad in September 2002. His musings on pop music and the likelihood of being blown to pieces by allied bombs or murdered by Saddam's secret police captivated web surfers all over the world." (Guardian Unlimited, 25th February 2005) The publication of the Bagdad Blogger's writing as a Guardian column was perhaps the beginning of the Guardian's relationship with blogs but their website now proudly states that "We now have blogs which cover arts, news, games and technology. This area of our journalism has attracted well over 50,000 comments in the first year and we are keen to extend this platform into other areas." (Guardian Unlimited)

Another strength of blogs is the ability to take web feeds, often referred to as RSS (really simple syndication) feeds from one blog into another. This means that every time a blog of interest is updated you get an update, either on your blog, or as email or text message. This funnelling of information from many sources into one location has benefits for both learners and teachers that are explored later. It is even possible to personalise a Google home page to include web feeds. (www.google.com/ig)

How do you do it?

Creating a blog is actually very simple and often free, accessible to anyone with an internet connection and the ability to use a web browser. They are usually hosted and updated using 'Blogging software' such as Blogger (owned by Google). Alan November's site (www.novemberlearning.com) even allows educators to set up their own blogs. The beauty of blogs is that they allow users to quickly add content and links and the formatting, date stamping etc is all taken care of by the software. Different templates can be selected to allow the user to personalise their blog and pictures can be inserted with relative simplicity. As I shall explore later they provide a very simple way to have up to date news on a website, or for pupils to publish work. An interesting feature that can be exploited for educational purposes is that it is possible to allow readers to post comments on each entry encouraging interaction and reflection.

What might be of interest in educational context?

Blogs are new to the field of education and like all new ideas need early adopters to lead the way for others to follow. Josie Fraser, in Computer Education writes: "there are plenty of investigations and experiments to be made before blogs are an ordinary part of an educators' tool kit..." I believe that there are many useful activities that could be developed using blogs as a vehicle.

Stephen O'Hear writing in the Guardian states that, "Teachers who are subject specialists may want to start their own subject-based blog where they can provide up-to-date information and commentary on their subject area, as well as posting questions and assignments, and linking to relevant news stories and websites" and includes the example of teacher Pete Fraser, a media studies teacher from Cambridge who produces the following blog for his students.

<http://longroadmedia.blogspot.com/>
<http://education.guardian.co.uk/elearningstory/0,,1642281,00.html>

A very simple idea for blog usage is as an easily editable school website or newsletter. The ability to allow or block comments on each post would mean that if the school wanted to canvass parents' opinion on a particular aspect of school life such as a new uniform or car parking they could do so. Parents that were so minded could make use of the RSS feed to notify them, by blog, news reader, email or text message, when the school blog was updated, without them having to check the school blog regularly, as they would have to do with a conventional website. Taking this to another level, Musselburg school have a comprehensive but simple website featuring many blog elements.

<http://www.mgsonline.org.uk/>

If a class is undertaking a residential experience and has ready access to the internet, a blog could form a useful online journal and keep parents informed of how things are progressing, for example: <http://mgsonline.blogs.com/paris2005/>

The use of a class blog as an online archive of creative writing or other class work is I believe a strong one. These examples,

<http://epping-primary.blogspot.com/> and
<http://reservoir-east-primary.blogspot.com/>

begin to do this. It is interesting that both of these blogs appear to have been created for a specific project and then dropped - their potential has not been fully exploited. The ability for pupils to comment on each other's work, or for teachers or parents to make comments has not been explored and the body of work has not been added to, but then as Fraser notes, "55% of all known blogs are active" meaning that by default 45% are not.

At the University of Northampton we are developing the use of weblogs as a means of first year undergraduate intending teachers reflecting on what they have learnt from particular lectures and how they might apply that knowledge in a classroom context. The first phase of this project involves the lecturer posting an entry after each lecture, outlining salient points or asking key questions. The students then visit the blog before their next session and make comments on what they have read, learnt and thought about. Initial findings are positive compared with a paper-based system. One possible future development with each students creating their own blog with RSS feed to an overall group blog promises even more.

The following are some simple ideas that could form the basis for some blog projects in the classroom.

The blog offers promise as a tool for an interactive writing project. This could operate by a teacher or pupil beginning a story and introducing the characters. The story could then be left at a plot crossroads or cliff-hanger to be taken up by the next blogger. The next entry continues the story until eventually the whole class or group has contributed to the story. Alternatively, an individual could create a step-by-step novel as their blog entries build up into a complete story.

Each entry could be used as a way of setting a new maths investigation, linking to appropriate resources on the internet if required. The pupils could post solutions as comments and teacher could give tips if required. This would be particularly useful for investigations that have a range of solutions or that are very open ended.

The blog could be used as a journal for recording the results of scientific investigations. For example if the class was growing seedlings they could record measurements, observations and photographs on their blog.

An interesting activity could be for pupils or indeed a teacher to complete blog entries writing in the style of an historical character, such as an evacuee or and other pupils to post comments and questions as a form of 'virtual' hot seating.

Further information about blogs including advice on educational use can be found at

<http://safety.ngfl.gov.uk/schools/document.php3?D=d77#1>

The NGFL guide to Webblogs

<http://www.ngfl.gov.uk/features.jsp?sec=16&cat=99&res=84534> includes other information and links to related blogs. The

International edubloggers directory is also a mine of useful sites.

<http://www.frappr.com/edubloggers>

Wikis

What are they?

According to Wikipedia (itself a Wiki) wikis are "a group of Web pages that allows users to add content, as on an Internet forum, but also permits others (often completely unrestricted) to edit the content." Wikis were invented and named by Ward Cunningham in 1995. and Ward's first wiki is still active at <http://c2.com/cgi/wiki?WelcomeVisitors>

The name wiki comes from the Hawaiian word for quick, hence WikiWikiWeb was a very quick way of creating web pages. This remains true today, like Blogs, wikis are fast to create and edit. They are unusual in that often anyone visiting the site can register (not always necessary) and then click on an 'Edit Page' button and begin to make their own changes.

This freedom of editing may sound like madness but as Cunningham himself puts it, "The beauty of Wiki is in the democratic freedom, simplicity, and power it offers." There is a wiki at <http://www.bluwiki.org/go/EduWiki> that I have set up for the purpose of encouraging readers to explore the ideas discussed here, please feel free to log in and make any changes you want.

How do you do it?

As with blogs, creating a wiki is actually very simple and free, accessible to anyone with an internet connection and the ability to use a web browser. A number of sites, known as 'wiki farms' exist that allow users to register a wiki and begin editing within minutes, often completely free of charge. An up to date comparison of these can be found at

http://en.wikipedia.org/wiki/List_of_wiki_farms

The majority of sites operate on a WYSIWYG basis and no knowledge of HTML is required although it can be an advantage. Simply entering an InterCapped word into a wiki creates a WikiWord, automatically creating a new page. It is slightly confusing that 'wiki software' is the software placed on servers that allow wikis to be developed and is not therefore something that the wiki author needs to be familiar with. It is however worthy of note that the majority of wiki software is open source and freely distributed so schools with a strong technical background could download free wiki software and run their own wikis on their own servers. Further details about wikis and how to get started can be found in 'It's a WikiWiki World, Wiki Essentials for educators' in the latest issue of Computer Education. (*Honeyford 2006*)

What might be interesting in an education context?

Learning is a process that enhanced or deepened by collaboration, and many examples of 'good practice' as promoted by the DfES and Strategy teams feature discussions and group work. Given that wikis are ideal vehicles for allowing many people to work collaboratively on a project or idea it is not unreasonable to propose that they have a valuable place in the armoury of the teacher or learner.

Despite this, they are still some way from being accepted into the education mainstream, even further from being so than blogs.

The only real example I have been able to find is <http://www.zope.org/Wikis/zope-edu/FrontPage>

This interesting wiki has seen little activity recently and last had any changes made in February 2005 so is apparently quite 'defunct' at the moment. Its aim was to help, "educators everywhere take advantage of the latest innovations on the Internet." It also features a, "forum where educators, programmers, and students can meet together to design the next generation of online education."

This site strikes me as having potentially a lot to offer but like all 'Virtual communities' it needs active members to make it work. It is after all not possible to collaborate in isolation.

Probably the most powerful example of the potential of the Wiki in terms of collaboration, taking the, 'two heads are better than one' philosophy to the nth degree is the wikipedia project.

www.wikipedia.org

Wikipedia describes itself as, "a multilingual Web-based free-content encyclopedia. It is written collaboratively by volunteers, allowing articles to be added or changed by anyone with an internet connection. The project began on January 15, 2001 as a complement to the expert-written Nupedia, and is now operated by the non-profit Wikimedia Foundation. The English-language version of Wikipedia currently has more than 835,000 articles."

Another interesting example of a wiki based site that pupils and teachers might find useful as a reference source, although may be unlikely to participate in the editing of is Evo Wiki http://wiki.cotch.net/index.php/Main_Page an evolution encyclopaedia that compares theories of evolution and those put forward by creationists.

Other Interactive Technologies

If we continue to consider interactivity as between individuals or groups facilitated by technology there are many other 'interactive technologies' with educational promise that could be considered. Unfortunately there is neither time nor space to discuss these in detail but they include, mobile phones, instant messaging services such as AIM and MSN, discussion boards, chat rooms and online games, particularly Massively multiplayer online role playing games (MMORPG).

Conclusions

We are a long way from the use of blogs, wikis and other interactive technologies being common place in the classroom and we may never see them being adopted in the sweeping way that whiteboards are. However, these technologies are here and it is for as educators to make use of them in constructive

ways. Blogs as tools for writing could give audience to pupils' voices or motivate those that are hard to reach. There is strength in collaboration and wikis could be the vehicle by which some communities of teachers and pupils work together. With interactive technologies, like all aspects of education and indeed of technology, there is no, 'one size fits all' implementation simply a number of tools and approaches to consider.

References

Rebecca Blood, Weblogs, a history and perspective. http://www.rebeccablood.net/essays/weblog_history.html

Stephen O'Hear, (2005) E-Learning, Seconds Out Round Two in The Guardian (online) 15/11/05.

<http://education.guardian.co.uk/elearning/story/0,,1642281,00.html>

Sam Jones, Television Award for Bagdad Blogger, 25th February 2005

<http://media.guardian.co.uk/site/story/0,14173,1425069,00.html>

Guardian Unlimited, Our World Wide Web http://www.guardian.co.uk/values/socialaudit/story/0,14327,1600434,00.html#article_continue

Wikipedia the online encyclopedia. www.wikipedia.org

Evo Wiki http://wiki.cotch.net/index.php/Main_Page

Zope in Education Wiki <http://www.zope.org/Wikis/zope-edu/FrontPage>

EduWiki
The authors site for the free exploration of Wiki in Education concepts. <http://www.bluwiki.org/go/EduWiki>

Useful Sites
www.novemberlearning.com
www.blogger.com

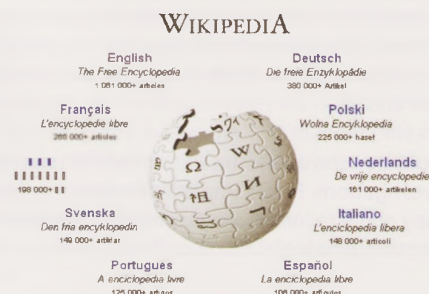
Gareth Honeyford (2006). It's a WikiWiki World, Wiki Essentials for Educators. Computer Education 113, Summer 2006.

Josie Fraser (2005). Blogging essentials for teachers and learners: a brief introduction to blogging/edublogging tools and practices. Computer Education 111, Autumn 2005.

Author Notes:

Gareth Honeyford is a Senior Lecturer in ICT and Education at The University of Northampton. He has written a number of articles for InterACTIVE Magazine (Questions Publishing) and is co-author of 'Children Parents and Teachers enjoying Numeracy.' (David Fulton Publishers, 2000)

Email: gareth.honeyford@northampton.ac.uk



Keep taking the Tablets!

Adrian Horner

The contents of this article have been stimulated by Northamptonshire's 'Village Schools' Standards Fund project work led by the Learning Discovery Centre and involving twelve village primary schools from across the county. These schools were by definition rather geographically isolated and the project sought to develop the schools in their approach to and use of more mobile ICT resources to enhance their curriculum. In particular, the twelve schools sought to use their local environment as a rich stimulus for learning. ICT resources used by each village school included 4 Tablet PCs, digital cameras and microphones.

A Look at Windows Journal™

Of particular relevance to all users of the Tablet was a program that arrives with the Tablet PC. It's called Windows Journal™ and it transforms your Tablet PC into a digital writing pad.

Using the stylus pen the user can write as normal and store the notes on the tablet. The pen thickness and colour can be changed as appropriate. The handwritten notes can be converted to typed text at a later date or manipulated as necessary. Similarly, highlighter colour and thickness can be altered for the desired effect.

Out... in the field... literally! - activities using a Tablet PC and Journal™

Journal™ enables the user to cut, copy, paste and insert pictures. However extra advantages arise as it gives opportunity for the user to draw freehand directly onto the screen meaning that pictures and diagrams can be annotated as necessary.

Similarly, pictures taken from a digital camera can be directly downloaded onto the Tablet. Pictures can be annotated or highlighted and used directly in handwritten work on the tablet.



Fig 1 Using the tablets outdoors

Recording sound with a Tablet PC

The Tablet PC is an ideal electronic sound recorder. Attaching an external microphone and then recording sound clips using Audacity™ means that pupils can collect images, take notes and record sound clips, be they background noise or interviews. These sound clips can be replayed and further photographs added to create a detailed account of an activity.



Fig 2 Recording and replaying sounds

Tablet ideas

- Prior to a class visit, download pictures from a web site that can then be annotated whilst the pupils are on the trip.
- Create a montage of key points using photographs, sound and annotation.
- Join them together to accompany a PowerPoint™ slide show of photographs taken from the same trip out.
- Use text boxes to organise notes by importing a word document into Journal™.
- If the tablets have Bluetooth™ ask groups to share data via wireless. Otherwise use a USB memory stick.
- Record sounds around the school using the Tablet. Play the sounds back and ask the pupils to identify the location.

As an example, one of the Primary schools in Northamptonshire we worked with visited The Isle of Wight and, I'm delighted to say that they took their Tablet PCs along with their cuddly toys and hot water bottles! The children used the Tablet as an electronic clipboard recording notes in Journal and sound files using Audacity.

Using a Tablet PC in Geography

Using Journal™ a map background can be created. (Find the map, save the page and insert as background). Digital photographs of the locality can be inserted onto the page in the appropriate place on the map and then sequenced or annotated as appropriate.

- Pupils could take the tablets out on the actual route and identify the buildings/ paths taken to check that it was correct. Annotation can be added and the images used to reinforce teaching points.
- Photographs of buildings could be arranged around the Tablet screen and categorised into groups according to chosen criteria. (roofing material/ age of building/ type of building etc). These photographs could become the basis for a data handling exercise back in the classroom.



Fig 4 Journal map with inserted images

And in History

An example of how a primary school in Northamptonshire utilised their Tablet PCs to support a trip to a local war museum.

- Prior to the visit the teacher visited the museum's website and downloaded a number of photographs of aircraft that would be visible during the visit.
- Once at the museum pupils used their Tablet PCs to record information on each aircraft using Microsoft Journal™.
- Returning to school the pupils were able to export their notes into text and copy/paste the photographs to create a timeline of the development of aircraft.

Geocaching

Geocaching uses GPS technology, in a 21st century version of hide and seek!

The basic idea is that an individual or even a school could set up caches (or secret treasure troves) around their school locality. Co-ordinate locations of these caches can be shared amongst students. GPS users can then use the location's co-ordinates to find the caches. It could be that these caches (arranged around a local field centre, country park or even school grounds) become much more than just the location of a few goodies. With obvious application to geography these sites become the location for the recording of data such as temperature, light or even sound.

Using a tablet PC this data can be recorded and sent back to 'base' via wireless or via mobile text message. Once back at base the data can be analysed and used as appropriate.

Sites could be local or require more travelling.

For example:

- Record temperature, light; take digital photographs at a cache site for later analysis and comparison of soil type or vegetation.

Or for a cross curricular approach

- Place a sentence or paragraph at each geocache location. Pupils collect the texts and build up the story/ poem.
- Parts of a number puzzle could be placed at each location. Pupils can collect parts to assemble later or even text their finds back to base.

Check out

<http://www.gagb.org.uk/> for further information.

Author Notes:

Adrian Horner is e-learning consultant for the Learning Discovery Centre in Northampton. This was set up in 2003 to act as a catalyst to transform learning across the county. Find out more at www.learningdiscovery.co.uk
email: ahorner@northamptonshire.gov.uk

Poetry on a Whiteboard

Trevor Millum

Poetry and ICT make good companions. There are many interesting and motivating ways in which the word processor in particular can be utilised to help pupils, not just to study poems, but to get inside them and play with their language. Along the way we hope that there will be enjoyment as well as appreciation and understanding.

Here are a couple of approaches which can be used by anyone with moderate competence in using a word processor.

Firstly, something for you. Reading the following description, you will probably recognise some of the words and phrases as being from another time, another text.

I was at the Explorers' Club yesterday and I met a strange chap, a traveller from Egypt or some antique land - been out on an expedition...got a bit lost I think. Anyway, it was this chap who said he'd come across this ruin of a great statue. Two vast and trunkless legs was what he noticed first. Hewn from stone, of course. These legs still stand in the desert and near them, on the sand, or rather half sunk in the sand, a shattered head or 'visage', I think he called it - lies. He was most taken with this statue's face, whose frown and wrinkled lip made quite an impression on him. And

he described the expression as a sneer of cold command - reckoned he could tell that its sculptor understood the chap he was representing all right! "Well those passions read" was how he put it. Most of the surrounding edifice had gone but the parts which yet survive are clear enough...

How long did it take to realise that buried in the sands of prose lay, half buried, a stone sonnet? If you care to download the full text from the www.englishandict.co.uk and put it into your word processor, you can try to pick out the sonnet and disentangle it from the prose. Mark the text of the poem with, say, red highlighter or bold, and then delete the remaining words. (It might be wise to make a copy of the original first, just in case.)

If your memory, or invention, is good, you will end up with either the original sonnet or a new version of it. Along the way you will have had to consider meaning, scansion, rhyme, diction and now you probably know the poem better than you did before.

This is not a poem you would give to your pupils! However, you could take a similar text at an appropriate level and use it in this kind of way, perhaps after a couple of visits to the original poem in previous lessons. Alternatively, it would make a good way to use a whiteboard (or laptop plus projector), taking suggestions

from the group as to which words to leave in, which to take out. Give them a copy first, perhaps, on their own PCs or on paper so that they can mark up some initial ideas. One way to start would be to try to pick out rhyme words. Encourage experimentation.

When a rough cut version has been arrived at, it can be compared with the original. See how close you got!

These 'immersed' texts are fun to prepare, both for teacher and pupil. Having got the idea, set the preparation of such a text as a separate task. You might take a poem like 'When to Cut you Fingernails' by Roger McGough and give each pair or group a verse to work on.

At this stage keep the verse private to the group working on it and don't reveal the rest of the poem. Depending on numbers and class organization, you may have several pairs or groups working on the same verse. The best versions will be those where it is hard to see where the joins are. Collect the verses and then redistribute them, making sure that everyone has a new verse to discover. They will already be familiar with their own - so they should have some clues as to the type of language they are looking out for.

The practicalities of immersing a text do not involve a lot of writing - just the judicious selection and insertion of words. As with many ICT activities, it is possible to do this without a word processor but it's tedious and does not encourage trial and error.

Just for fun, or to get the idea established, try the technique with something familiar like a nursery rhyme:

We've been having some problems with a boy in Y5 called Georgie Porgie. He's a great pudding of a lad and most of the time he's as nice as pie. Last week, though, during playtime, he kissed several of the Y3 and 4 girls. One or two took it as a joke but, well, Janice Jones and Cynthia Smith - you can imagine - it made them cry. When the boys came out, they heard what had happened and instead of going to play they started looking for Georgie. Luckily young Porgie ran away before they could find him. The following day...

Readers will be familiar with sequencing activities: word processors are ideal for this kind of activity. (Skip this paragraph if you already know how to move lines and paragraphs neatly up and down through the text. One way is to use Outline View in Word, highlight a line and click on the up or down arrows in the new toolbar. Another way is to position your cursor anywhere in a line or paragraph and use Alt and Shift together with the keyboard cursor keys.)

When students are familiar with this kind of work (or play) you might introduce another element: interweaving two texts.

And came back on a leek
 And we bounced so high that we almost flew
 As it galloped along with a bump bump bump
 He went away for a week
 It cramped our legs and bruised our rumps
 It packed its bags and went for a wanda
 My dad rides a smart purple plum
 Sitting in her pouch with a perfect view
 Uncle Sid drives a very fast marrow
 We went for a trip on a camel's hump
 We went for a trip on an anaconda
 We went for a trip with a kangaroo
 With an open-top courgette for mum!
 Zipping through the trees on its jungle Honda

To begin, leave the lines in the right order and just see if

students can disentangle the two poems. Again, this can be done on paper, perhaps using two highlighters to pick out the poems, but mistakes are harder to rectify and you don't have the satisfaction of seeing the two separated texts standing alone.

An alternative is to present the mixed poems in a table with three columns so that the completed texts can be seen side by side. Lines can be dragged into the appropriate columns.

Fast Fruit and Veg	Mixed poems	Hump Bump Bump
	And came back on a leek	
	And we bounced so high that we almost flew	
	As it galloped along with a bump bump bump	
	He went away for a week	
	It cramped our legs and bruised our rumps	
	And came back on a leek	
	And we bounced so high that we almost flew	
	As it galloped along with a bump bump bump	

You can take this a stage further by changing the order of the lines in one or both of the poems.

Another variation and a simpler puzzle to solve is to interweave poetry and prose. This is a short extract from the story of the Boojum Bold, who stole the Great Worm's gold. The lines below tell the beginning of the story in verse and in prose. Can you tell which is which? To make it easier, I've left the lines in the right order...

Once upon a time there was a creature called Boojum.

This is the tale of the Boojum bold
 who raided the caves and stole the gold
 He was as brave and bold as could be.
 On a night in March
 The Boojum it was who stole the gold:
 from the caves of the Giant Worm.
 when the moon was hidden
 One night in March
 made its raid
 in the Forests Forbidden
 when the moon was hidden by clouds
 the Boojum made his raid.

Working with poetry in this way is fun. If you want another example to play around with, try mixing 'Jabberwocky' with my parody 'Jabbermockery'. You'll find all these texts in full on www.englishandict.co.uk

Author Notes:

Trevor is a writer of children's poems and short stories, an experienced trainer of teachers at all key stages and a writer of a number of books to encourage and assist teachers in the use of ICT in English.

Email: trevor@fernse.demon.co.uk

Presentation Technologies

Brian McIntyre

A presentation system

The essential elements of a classroom presentation system are:

- A computer
- A large display device, such as a projector
- Speakers

...with the option to add two-way interactivity by adding a device that can emulate keyboard and mouse functions directly from the large display. Typically, these fall into two types:

- Interactive whiteboard
- Mimio (a device that converts a standard whiteboard into an interactive whiteboard)

Computer

Either a laptop or desktop computer can operate the presentation system. Desktop computers are less expensive, but will require a 'video splitter' allowing the display output to be shared by the local monitor (screen) and the projector. In laptop computers, this facility is generally built-in. Using a desktop computer is the tidiest option where the computer will remain permanently connected to the presentation system.

Projector

Projectors can either be portable or installed in the classroom ceiling. Portable projectors have the obvious advantage of being able to be shared between classrooms, but can be awkward and time-consuming to set-up, particularly if an interactive whiteboard or Mimio is involved. Also, because portable projectors project upwards from a table they tend to cast a shadow from the teacher that can make it difficult to use an interactive whiteboard effectively. Wherever possible, professional installation may help to reduce barriers to use and ensure maximum value from the investment.

The key features to look out for are brightness and noise. A brightness of about 1000 to 1500 lumens should be enough for all but the brightest spaces. No projector can compete with direct sunlight on the screen, so it will be necessary to budget for window blinds if this may be a problem. It is a good idea to purchase a projector that has an 'economy' low brightness mode that will increase bulb life and reduce glare on less bright days. Background noise from a projector can be distracting and tiring, so quieter is better.

Replacement bulbs for projectors are very expensive, so it is worth considering the total cost of ownership by comparing bulb life and cost. Often the least expensive projectors can have the highest total cost of ownership.

When getting your projector installed it is important to ensure that the cables will allow a VHS video/DVD player or other 'analogue' device to be used.

Safety is an important consideration: there are simple guidelines to safely using projectors and interactive whiteboards, which can be found at <http://www.becta.org.uk/ntss/ntss.cfm?id=3160>.

Interactive Whiteboard

Interactive whiteboards fall into two categories – active pen and passive pen. The active pen boards have a hard surface and electronic pens. With an active pen board the whiteboard cannot be used interactively if the pens are misplaced. Passive pen boards are touch sensitive, such that anything can be used

to interact with the display, including a finger. The passive pen boards have a less hard surface, but are durable enough for most classrooms.

The board must be installed at an appropriate height to allow the teacher to reach to all areas of the board. If pupils are likely to use the lower half of the board it should be installed lower still, whilst maintaining enough height to ensure visibility for the whole class and avoid backache for the teacher.

Note: where an interactive whiteboard is not used, a proper projection screen will be required instead. Dry-wipe boards make very poor projection screens as they have a shiny surface and tend to get grubby.

Mimio

The Mimio is a lower cost alternative to an interactive whiteboard. It fixes to a standard whiteboard using suckers and provides all of the interactivity that a standard interactive whiteboard would. The Mimio website is at <http://www.mimio.com/education/>.

Speakers

This important element of a presentation system is often overlooked. A good quality, installed sound system will ensure that the whole class can hear what is going on clearly and get the full benefit of the experience.

Visualiser

A visualiser is a small camera on a stand that turns the ICT projector into a kind of overhead projector. This allows paper-based materials, such as books, to be projected to the whole class. Small objects (including living ones) can also be placed in the visualiser to show them to the whole class.

Alternative options

Many schools no longer install interactive whiteboards, but provide teachers with Tablet PCs able to connect wirelessly to the classroom projector. This allows the teacher to work from their preferred teaching position, whilst writing on, annotating and interacting with the computer display as it projects. More information on Tablet PCs can be found at <http://www.microsoft.com/uk/education/products/tablet-pc/default.aspx>.

Purchasing

The recommended way to purchase classroom presentation equipment is through the Becta Interactive Whiteboard Catalogue. This offers nationally aggregated discounts as well as a robust, audited set of standards for quality, installation, training and support. The Catalogue can be found at <http://whiteboards.becta.org.uk/>.

Author Notes:

Brian McIntyre is Director and Consultant at Systems for Change Ltd., an ICT consultancy that specialises in supporting schools to maximise the educational impact of technology. Prior to establishing Systems for Change, he held the positions of Lead Adviser to Academies at Becta and Academies Lead at Edunova Ltd. Contact: 01335 350614,
Email: bmcintyre@systemsforchange.co.uk

Working with an IWB in the Foundation Stage

Reg Eyre

As part of the TTA funding of ICT initiatives in Higher Education, I put in a small bid to try some ideas based on the observation that vertically placed IWBs for Foundation Stage settings were inappropriate. The main reasons for this belief were that for these children, making marks on a vertical surface were unnatural and that the positioning of the data projector ensured that children would be working in their own shadow.

My initial experiment was to put the IWB flat on a table with the projector bolted onto a slide projector stand and pointing almost vertically down. This showed at least three main problems:

- While seated at the table/IWB, children could not reach the top of the IWB screen,
- If they stood up, they would nudge the IWB, which in turn moved the projector pole, and the projected image on the IWB went out of alignment,
- Any light striking the pen tray sensors on the IWB, (Smartboard) locked the IWB software into 'writing pen' mode.

Thinking about these points, it became clear that we had to make the following changes:

- 'Lock' the IWB and data projector stand so that the IWB and location of the orientated image stayed in position.
- Angle the IWB so that it could be used as a 'writing slope'.
- Tape black paper over the pen tray to cut out light from the projector and the overhead windows in the Victorian school on a bright summer's day.

I then designed a hinged writing slope framework out of scrap wood which had a pole centrally placed at the top of the frame.

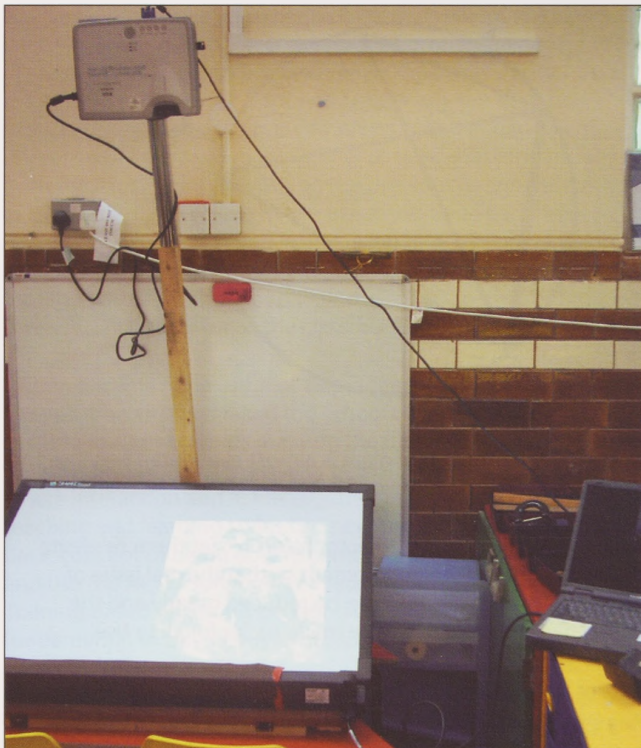
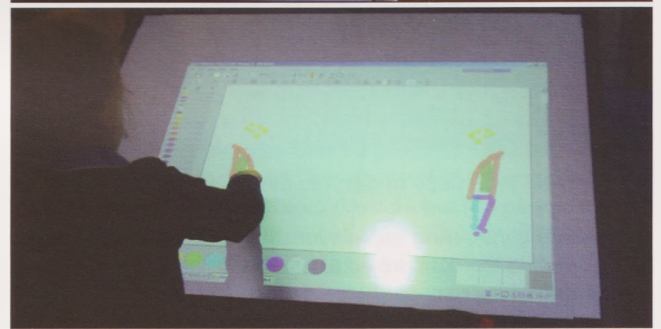


Fig 1 Shows the IWB placed onto the slope with the projected image

This system has been used in the school since 9th June (without my presence) by the teachers and children in preference to their own set up with the alignment not needing adjustment for over a month. All the staff suggested that this arrangement is far better than the original and I have had to put them off of using something similar in the rest of the school.



Figs 2 Showing the comparison of shadow effects

For children at the Foundation Stage it would be inappropriate to have whole class teaching since almost all of their activities are based on small group work and therefore all these activities have to be self-standing with occasional adult input. While thinking about this, it also became clear that this system would work well for wheelchair users of ICT because their access to vertically based IWBs would be extremely difficult. By placing my set up onto an appropriate level table, they would be able to access software quite easily.



Fig 3 The user could be in a wheel chair

Two companies have been asked to make a better, reasonably costed, commercial product based on my design.



Fig 4 Showing the 'slope' in carrying mode

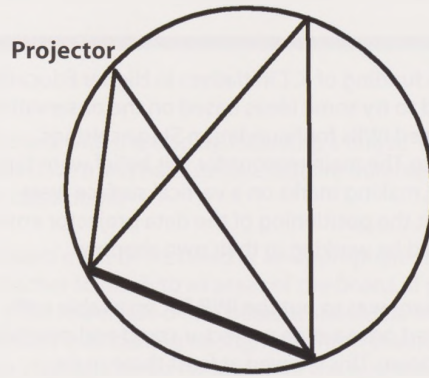
It was while considering the relationship between the positions of the IWB and the data projector that I realised that the positioning of the data projector in most classrooms is designed poorly. The current position is set so that there is hardly any 'keystone' effect but the penalty is that the user of the IWB cannot easily avoid looking into the projected beam. If the projector is moved closer to the IWB and raised in height, the keystoneing can be adjusted out using the projector control panel. This requires that there is sufficient height above the top of the IWB - which, in the case of false ceilings, means that the projector is mounted above the false ceiling and shines through an open panel. This might be good for security because if someone looks through the glass panel in a door, they would not see a data projector.

The mathematics to explain my findings comes from GCSE geometry.

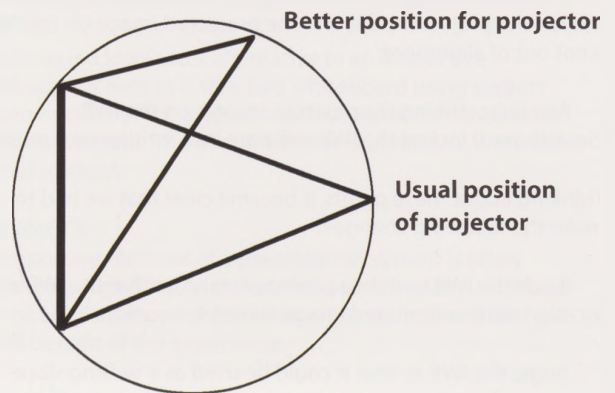


"The angles sub-tended at the circumference of a circle from a fixed chord, are the same angle."

If the board is the thick line chord in the diagram, then the 'slope' I have produced will look like the following:



If we now rotate the diagram further, we can see that there is a better position for the data projector in a normal classroom setting.



My last recommendation is that the board should not be mounted vertically on a wall, but rather, it should be mounted at an angle so that the bottom of the board should be about 30cm away from the wall. This would make writing on the board far easier. The historical precedent is the easel!



Note that the problem of glare is almost eliminated because the user's eyes will be outside of the beam.

We need to talk to data projector fitters to get them to re-site the positioning of their equipment so that the real issue of projector beam 'blindness' can be reduced greatly and the interactive whiteboard can be made easier for all to use.

Author Notes: (see page 6)
Reg@Eyre.co.uk

Bored With Boards? Revolution to Evolution

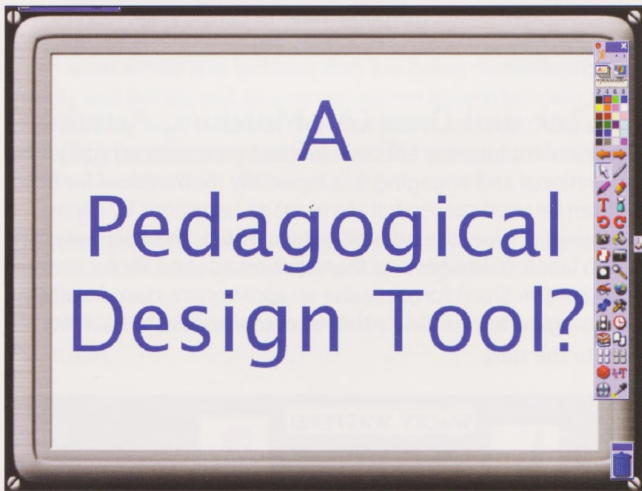
The Impact of Interactive Whiteboards in United Church Schools Trust (UCST) Schools

Anne Gould

"How would you like to be able to present full lessons using your computer?"

In June 1999 this apparently 'off the cuff' comment seemed a long way off, surrounded as I was with the paraphernalia of 'multimedia' teaching: OHP, tape recorder and video player. It seemed a dream, far beyond my horizons, this pulling together of all the best stimuli for learning, enabling true multi-sensory learning and providing for the different needs of pupils.

In September 1999 each school within the UCST group had two ACTIVBoards installed - one in a Senior Department and one in a Junior Classroom, for a one term trial. The teachers involved in the trial were revolutionaries and enthusiasts, rightly nicknamed 'champions' of the whiteboards.



The benefits to teaching and learning were quickly realised by these early 'champions' and it was evident that the IWB, in the hands of creative and imaginative teachers, could indeed become a new 'pedagogical design tool' promoting a revolution in teaching and learning. In January 2000, at a review meeting, the early users reported back enthusiastically the benefits they had seen: increased pupil motivation and engagement, improved pace in lessons, the ability to review lessons visually from the exact point of finishing the previous lesson, videos in large 'cinematic' screen mode, increased pupil participation, never running out of board space, using generic software and subject specific software for whole class learning. It was decided that the schools in the group would all, over a period of time, be given ACTIV boards for all the classrooms.

It soon became apparent that this indeed was the beginning of a **revolution** that has taken the schools in our group along an exciting journey towards realising the dream. Five years down the road finds us with the reality of multimedia classrooms where interaction and ICT fit together hand in glove. New teaching and learning styles have **evolved**, stimulated by the basic concept of being able to centralise teaching resources and use the ACTIV software as a 'launch pad for learning'. Training based on strong pedagogical foundations has been fundamental to this steady evolution in our schools.

I will illustrate the process of integrating the effective use of the IWB into teaching and learning by looking at the fictitious case study of a certain Miss Smith who may work in one of our Junior Schools. Put yourself in her shoes to see how you can do the same!



It is with some sense of anticipation that Miss Smith comes to terms with the fact that she has been given a shiny new interactive whiteboard in her classroom. Considerable thought has been given to its location to maximise whole class and group teaching. It has been **mounted on a wall** in a central location so that all the children can see clearly, whatever the arrangement of desks may be. The **projector** has been **ceiling mounted** to keep wires well out of the way and to negate the need for re-calibrating when the projector is moved. The classroom is south facing and has plenty of windows so **vertical blinds** have been fitted to block the light but not plunge the classroom into complete 'blackout'. Miss Smith has rearranged her furniture around the board to give a clear **700 mm** each side so that neither she nor the children stand in the projector beam. Wall mounted **speakers** have also been installed to maximise the benefit of sound files and video. Miss Smith may need a vhs player as she has many very suitable videos resources that support her units of work. She has been told, however, that many of these **resources** will be **digitised** in the near future and made available as files that she can load directly from her resource area on the network which she uses daily for storing and accessing all her electronic teaching resources. **Fast Broadband Internet** access is also available in her classroom, giving her ready access to a wide variety of ready-made resources and interactive activities available at the click of her mouse.

Miss Smith has seen many 'revolutionary' changes in her teaching career but is excited at the prospect of developing her skills further and applying her knowledge to this new technology. She looks forward to the initial day's training provided which will give her confidence in beginning to use the board, covering many of the features of the software.



Having attended the **1 day training**, Miss Smith returns to her classroom confident in making a start. She was pleased to be able to work alongside colleagues in a small group, bouncing ideas and helping each other. She also got to know some colleagues who she didn't really know and was able to contribute ideas to the group on how to use the new skills in specific lessons. She felt very tired but was very pleased to have achieved her **Professional User Certificate** at the end of the day. She knows now that there are colleagues who will share ideas, support and help to **consolidate** the ideas and skills learnt in the group sessions. She is keen to contribute some of those ideas to the **byte size sessions** organised for staff meetings each week. The **Head** had explained that, in order to **consolidate** and further drive the IWB initiative, she had allocated **time each week** for key IWB skills to be demonstrated for teachers to use specifically in their lessons during the week. She also suggested that in year group planning sessions, colleagues should **specifically plan** these techniques into their lessons. In this way they would move forward little by little but in a systematic way, building whole school skills.

So, what are some of the things that Miss Smith now feels more confident with? Her projector comes with a **handset**. Two vital options on her handset give her simultaneous control and flexibility in her lessons. The **'No Show'** option enables her at any time to **blank the image on the board**. This she realises is really important when the children are working on a group or paired activity where they need to focus on their task activities rather than a visual stimulus. She will also make sure that when there is no lesson in her room, she will use 'No Show' to **save the bulb life**. The second useful option on the handset is the **'Freeze'** option. This allows her to freeze the screen on the IWB while continuing to work on the computer, perhaps to create extra pages or find specific resources. This allows room for **creative and live work**.

Miss Smith is determined to work on maximising the potential of the tool that she now has and can see a new approach to teaching and learning **evolving**. She is hoping that further **consultation** sessions with her year group can be arranged to concentrate on integrating the skills into teaching and learning. What are some of the things that she can start to do to move from **potential** to **practice** in her teaching so that she will further engage and motivate the children in her class? Here are 10 activities and techniques that she can use straight away in her lessons.

1. Design Pages with Appropriate Background, Text and Images

The example shows a daily **Welcome** page which can be altered quickly each day. Choose an appropriate **background** and **images** to suit the school or calendar day. Include **text boxes** showing the timetable for the day, reminders etc. Use different **colours** for different things but make sure to choose colours carefully bearing in mind that some children have difficulty seeing certain colours. Use **Notes** and **Pointers** for the date and important reminders that need to be on the board all day. Notes stay visible over any software that you use. Have a **'thinking'** activity for children to start on when they come in the morning and maybe a sound link to a **'Happy Birthday'** sound file from the Internet. Other uses for **Notes** can include **Learning Objectives** that you want to keep visible all the time and behavioural warnings that need to stay displayed regardless of what page you are on or which software you are using. They can also be saved and colour coded.



2. Snapshots from the Internet

Using the camera tool it is possible to 'grab' any image from the Internet to use in your teaching. It is important though that you take note and apply the copyright conditions. You can add an acknowledgement in the page notes or on the page next to the image.

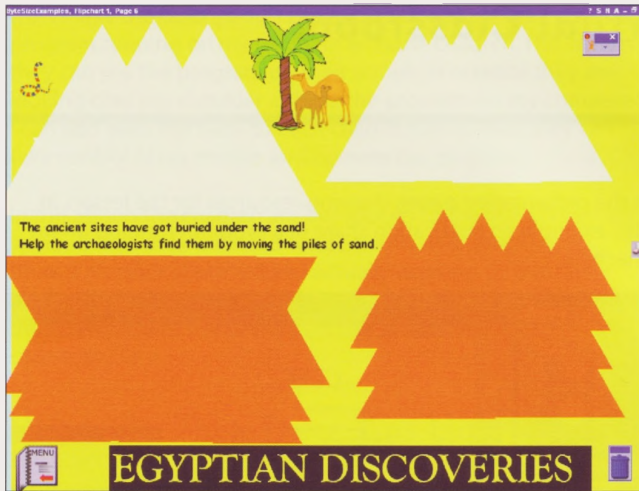
3. Click and Drag (All Matching Activities)

This standard but very effective interactive activity is highly motivational and engaging. It is especially motivational for boys and can be used successfully to manage behaviour by giving incentives to obey the rules of the classroom. The usual way is to match labels to images and then click on a sound file for reward or correction. Don't forget to use an appropriate, non visually-confusing background. Use the Reset tool to take the activity back to the start.



4. Rub and Reveal (Electronic 'Scratch Cards')

Hide text or images beneath an overlay of a pen colour which is the same as the background then get the children to offer, explain and write their answers on the board then get others to come to rub off/reveal the correct answer underneath. Again a motivational reward sound can be used to reinforce the learning. It is interesting to note that by standing up and walking to the board to complete an activity the child's brain will have been re-energised with oxygen!



5. Spotlight Tool

There are two versions in the ACTIV software - the circular spotlight or the solid circle. The circular spotlight can be used to engage the pupils by revealing just a small amount of images and/or text and getting them to reason as to what it might be or what the connections might be. This engages their attention in a much more active way because they are being stimulated both visually and aurally and to a certain extent kinaesthetically in as much as they have to follow the track of the spotlight. It is also a game! Any learning that can be linked to humour is more likely to be remembered.

The solid spotlight is best used to hide one or more images/text objects. Provide several connected images or text objects related to a topic you are about to start and challenge the children to deduce what the hidden object is through discussion.

6. Tickertape

Write key words to be learnt, for example Maths, French, Spellings of the week etc.

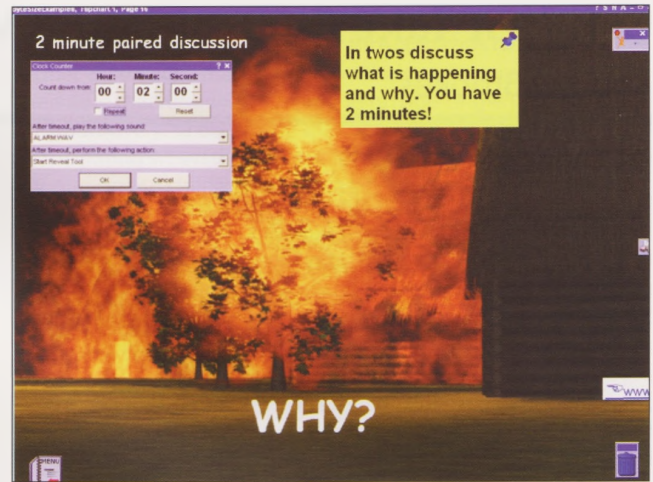
7. Count-Down Timer

This is a highly motivational tool for timing discussion or test activities for example. For tests, write a question on each page and set the Count Down clock to a particular time eg 10 seconds and select the action to 'Turn to Next Page' and select a sound if you wish. Finally, select 'Repeat'. The pages will turn automatically each 10 seconds - taking the 'donkey work' out of reading a test (you might need to read questions depending on the children in the group). You can assess your children while the test runs.

An alternative is to design a game such as 'ACTIVKim' where children are given a number of images or words to look at for a specific time and then the page resets to cover the words. They then have to write down what they saw. An old 'parlour game' in an electronic form! This also is a powerful aid to improving visual memory.

8. Undo - Redo Tool

This activity reinforces a new neural connection in the brain! For example in demonstrating the stages of decomposition in Mathematics, write the calculation freehand on the board. Then undo each of the stages and get the children to tell you each stage. This can also be done by a child demonstrating and teaching their classmates. It is recognised that to learn something effectively it is helpful to explain it to someone else. It is a simple yet powerful technique, which can be applied to many learning activities.



9. Linking Directly to Websites, Sounds and Documents

The pace of lessons can be improved significantly by the use of hyperlinks from a teaching page to a sound, web site or document you have already prepared. This technique cannot be emphasised enough in its ability to enhance and 'drive' a lesson. For example, a map of the world with links to images of each location can make a dramatic connection in a child's mind, thus enabling them to recall easily what a location might look like. In the same way, links can be made directly to a sound or a web page making the flip chart true 'launch pad for learning'.

10. Ready made customisable resources and activities

Within the ACTIV software there are ready-made flipcharts that can easily be customised to suit specific groups. It is very useful to have ideas from someone else to start from rather than 're-inventing the wheel'.

So, in a very short time, with training and support, Miss Smith is indeed able to use her IWB as a 'launch pad for learning'.

Conclusion

A new pedagogical design tool in our schools? Yes, but as many articles have stated before, the IWB has this potential but it does not just happen. In our experience there needs to be a strategic programme based on a solid understanding of how children learn so that the full interactive, multi-sensory nature of the technology can be brought into daily use in the classroom. This involves systematic training and support as well as guidance and advice on the best resources to use. The next step for us is to encourage teachers within the schools and academies to work together more closely, share resources and collaborate via our Wide Area Network. Watch this space!

Screen shots thanks to www.prometheanworld.com

Author Notes:

Anne Gould is an E-Learning Training Consultant for United Church Schools Trust and the United Learning Trust.

Email: anne.gould@church-schools.com

Children Take Control in the Virtual Classroom

Andrew Brookes

Introduction

Control technology is an exciting area of ICT that children relish. It is important because it provides concrete experience of the place of ICT in their everyday world and the environment around them. However, traditionally it has been an area of ICT that has been difficult for many schools to implement confidently.

Small schools in particular have problems with budgeting for control technology equipment, which has not been helped by the insistence that control hardware cannot be purchased using eLearning Credits. A reasonable level of expertise and confidence with control technology equipment is needed to use it in the classroom, and this means that some equipment is unfortunately left to sit on a shelf. The pressures of teaching multiple year groups in the same class also make organizing control technology problematic.

At the Digital Learning Community in the East Riding of Yorkshire we use a range of online technologies, including virtual classrooms and virtual learning environments, to deliver lessons to children and adults throughout the county. As the DLC's ICT teacher, I decided that there was a place for using virtual classrooms to help bring the joys of control technology to primary children in those schools where, for whatever reason, it was difficult for them to get their hands on control hardware and software.

What is a virtual classroom?

By virtual classrooms I am referring to applications that attempt to replicate as closely as possible the experience of learning in a traditional classroom, but using the Internet as the vehicle for delivery. Delivery is synchronous. This means that the virtual classroom will be live, not a recording, and will be audio-based with the teacher and pupils able to communicate with each other verbally.

The virtual classroom software that I have been using to teach control technology is iLinc's LearnLinc. This allows children to communicate with me and with each other using voice and text chat. Children need a headset with built in microphone and an Internet connection to participate in the lessons. In addition I have a web cam connected to my computer, and the pupils can see my web cam, which I point at the control box and the devices connected to it so they can see the effects of the procedures we are writing. The pupils themselves could also have web cams connected to their machines, although I don't use this facility.

Content is delivered using a shared whiteboard and adapted PowerPoint presentations that can be annotated over. Relevant websites can be brought in using the synchronized web browser that allows the teacher to move the students to the correct website at appropriate points in the lesson. Feedback can be quickly provided using a range of coloured buttons with labels such as yes/no and true/false, and this is often used to gauge understanding and the pace of the lesson. Children can attract help by raising their 'virtual hand' or by sending a private text chat that is only seen by me. Lessons are routinely recorded and this allows absent children to catch up with lessons missed.

Fig. 1 shows the virtual classroom from the child's point of view (the teacher's view is more complex). The LearnLinc panel on the left includes their virtual hand, a view of the web cam, feedback and text chat amongst others. On the right

is the presentation panel, showing resources for the lesson, in this example an application share of a program running on my machine.

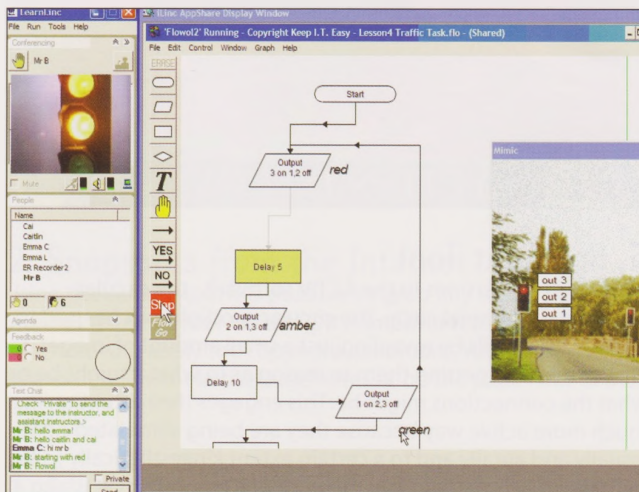


Fig. 1 The virtual classroom

Who's In Control?

I decided to work on a virtual classroom course that would cover the main requirements of the Y5 QCA unit 5E 'Controlling Devices'. The course consists of five sessions of 45 minutes each. The course has been run successfully with several groups of Y5 children and has been well received.

Lesson 1 - Control Everywhere

The objective of this lesson is to know that control technology is all around us.

In the first lesson, the children are introduced to control technology in everyday life. They brainstorm on the shared whiteboard examples in their classrooms. They use the drawing tools to highlight devices on photographs of a kitchen and an office, and compare a number of tasks that now use control technology with the way they were done before. Here they are introduced to some important vocabulary such as output and device and are encouraged to think about the 'invisible computers' that are in many of the objects that surround them. This lesson very much sets the scene for the rest of the course, and given that the children will not be able to get their hands on the control box and devices via the virtual classroom, this embedding of control technology into their everyday lives is particularly important.

Lesson 2 - Wired Up

The objectives of this lesson are to recognize that a computer can control devices and recognize the need for care when writing procedures.

This lesson gives the children an understanding of how we can control devices using a control box. I use Flow2 (from Data Harvest), which is installed, on my machine, along with a FlowGo control box, also from Data Harvest. This is connected to my machine, and the web cam is used to show the children how the connections are made. We discuss what a control box is, how it is laid out, and what we mean by an output. I introduce them to the idea that the control box needs a particular type of instruction to work properly, for instance turn output 1 on rather

than make the bulb go on. I can application share the Flowol program running on my machine with the children. This means they can see the program on their screen. In essence they are looking over my shoulder as I use the program on my computer. I can also 'pass the floor' to each child in turn so that they can take control of my mouse and operate the program.

In this lesson the children are introduced to the main flowchart symbols that they will need to use themselves, and I show them a number of procedures actually working, so that they appreciate that the Flowol program is sending instructions to the FlowGo control box which in turn is controlling the devices connected to it.

Lesson 3 - Then There Was Light

The objective of this lesson is to control an output device to produce a recognizable event.

In this lesson the main task is to make a light bulb turn on for a number of seconds and then turn off again, familiarizing the children with both the language of control, the need for precise instructions and choosing the correct flowchart symbol to build up a procedure. I set up the control box with the fairground model (part of Data Harvest's Model Pack 1 - see Fig. 2). By moving the web cam the children can watch how I plug everything into the control box, and 'guide me' in plugging the correct bulbs into the correct outputs. Using Flowol I application share this so that all the children can see my copy of the software running on my machine. The children then take it in turns to take control of my machine and use the correct symbols to build up the procedure. The procedure is then tested by watching both the onscreen mimic (a feature of Flowol 2 that means the result of running the set of instructions can be seen onscreen in a picture of the fairground) and the web cam, which is focussed on the fairground model on my desk. We discuss how this simple procedure could be changed to make a different outcome, such as repeating the procedure, or controlling a different bulb on the model.



Fig. 2 Control models from Data Harvest

Lesson 4 - Traffic Control

The objective of this lesson is to control more than one output device.

I use the Giant Traffic Lights model that Data Harvest produce and connect this to the control box. The children then use the techniques and processes they have developed in the previous lesson to build up a group procedure that will make the traffic lights work in the correct sequence repeatedly. The children take turns to take control of the application share of Flowol running on my machine, and add one instruction at a time to the flowchart, correcting and testing as we go until we have a final procedure that we can watch running on the web cam.

One of the problems is that the children can only take control of the application when it is their turn, and thus have to wait. Rather than each child working on their own procedure on their own machine, we are working on one single procedure collaboratively. To overcome the problem of children not participating when they do not have control of Flowol, I encourage the children to constantly send text chat messages into the classroom to say what they would do next, report any errors, make any comments on how well the procedure is going, and even to congratulate each other on their part of the 'big picture'. This is encouraged throughout the course, and by this stage most of the children will happily send text chats constantly throughout the lesson. I also ask the children to use the yes and no feedback buttons to vote on whether the pupil with control of the application has correctly completed their task. The children can see the feedback results as a pie chart, which again encourages them to participate when it is not their turn, and also acts as a peer assessment tool.

Lesson 5 - We Have A Problem

The objective of this lesson is to problem solve inaccuracies in sets of instructions.

This lesson allows the children to put their knowledge of control procedures and the flowchart principle used in Flowol to troubleshoot several scenarios. The children are presented with two procedures, one to control a set of traffic lights (a familiar scenario that they tackled in the previous lesson) and another to control an automatic house (a new and unfamiliar scenario). In each case, the procedure to control the devices has a number of errors. I connect the relevant models to the control box, this time using the giant traffic lights from the previous lesson and the house model (also from Data Harvest - see Fig. 2).

The children take it in turn to spot errors in each of the scenarios, and then by taking control of the application share of Flowol they can show the rest of the group how they would correct the problem. The rest of the group use the feedback tools to agree or disagree with the changes, voting at each stage. This gives the pupils feedback on whether they are right or not without my needing to confirm this. They then use the web cam to view the results of their change on the model connected to my control box, before moving on to the next mistake.

As mentioned before, most children now instinctively use the text chat to add comments and ideas as they think of them, and to respond to what is going on in the lesson whilst they wait their turn to take control of the application share. This can be seen in an extract from the text chats received during one such lesson.

Louise (private): they have put output 5 instead of 4

Louise (private): they have put delay 5 before

Nathan (private): he has put 1235

Cal (private): not all the lights in the house went on

Cal (private): 5 instead of 4

Patrick (private): We don't need 5

Charlotte (private): 135 of and 2 has not beed switched of and still 4 is switched off

Louise (private): they are turning the lights on for 5 secs and turning them off for 10 secs

Charlotte (private): it stops insted of it repeating

Louise (private): it should be the outhr way round

Cal (private): not all the lights in the house go off

Louise (private): they have told it to stop instead of repeating

Charlotte (private): there is another mistake

Cal (private): it stops instead of repeating itself

As can be seen all the children are using private messages to communicate with me. Private text chats can only be seen by the tutor and the child who sent them, as opposed to open text chats that can be seen by all. This ability to have a constant private conversation between student and teacher offers a degree of security not possible in a traditional classroom where students put their hand up and anything they say can be heard by the rest of the class. It certainly struck me, teaching this course, just how popular the text chat facility is in lessons, and how powerful it is in allowing the children to express their ideas without the risk of making public mistakes.

We finish the course with a review of the learning that has taken place, and the children reflect on how well they have progressed and what they enjoyed the most.

Comments from the Children

The children who have taken part in the lessons have been very enthusiastic about working in a virtual classroom. Indeed, it is an excellent example in itself of control technology at work! Despite a number of limitations, which I shall address in a moment, the comments from the children have been overwhelmingly positive. Comments such as 'I understand the lesson really well', 'I am better at controlling things now', 'Mr B, I don't want to leave' and 'I can't believe it's the last lesson' are typical of messages sent during lessons.

One child commented how on her way home from school after a previous lesson, she was explaining to her mother how the street lights come on automatically because they have a light sensor. Another child, when asked how the virtual classroom lessons could be made better responded 'just make them even longer!'

Potential and Limitations

I am in the early stages of exploring how virtual classrooms can be of benefit to teachers and pupils, in school settings and beyond. Teaching control technology through a virtual classroom is only a part-experience. The children need to get their hands on the control box and devices for themselves, build models, test them, make mistakes and solve problems, and it is this practical experience that really fires the imagination and consolidates learning.

Having had the opportunity, subsequently, to work with some of the pupils who have taken the course, it is clear that most of the children do remember a lot in terms of how to use the control software, and how control technology works in everyday life. Thus there is potential for teaching techniques and concepts, as well as developing some higher-order thinking skills and understanding of the process of building up a set of instructions to control devices. Nevertheless, the course would be more powerful if the lessons were part of a larger control experience.

For instance, the course could be used to support those children in a class who were struggling, giving them extra opportunities to practice writing procedures alongside practical work going on in class. It could be used with a group of more able pupils, who could then support the rest of their peers in class-based work. Pupils in situations that would normally make control technology work difficult, such as long-term ill health or home-schooled pupils, could access the lessons from any Internet-connected computer.

The virtual classroom also provides what will be for some children a more enabling environment for learning, allowing them to participate throughout the lesson via text chat and feedback – they do not have to wait to speak or be chosen by the teacher. Most children soon get into the habit of saying well done via text chat and receiving positive feedback can be

reassuring for the less-confident child. Each child can receive feedback from their peers, and they will often spot any mistake they have made themselves when they see a sudden flurry of 'no' feedback coming in from the other children in the group. This of course instantly changes to 'yes' as the children change their feedback in response to corrections.

Nearly all the children so far have also made extensive use of the private text chat facility, as mentioned previously, to communicate their ideas whenever they feel like it, but without the risk of sounding foolish or making mistakes in front of their peers. The very fact that it mirrors the instant messaging and text messaging experience that many of today's children relish is of course not to be disregarded either.

A Future for Virtual Classrooms?

I have found teaching children in schools using virtual classrooms to be an interesting, rewarding and often frustrating experience. Whilst virtual classrooms are being used to good effect in the world of business, higher education, hospitalised and excluded children, adult education and the like, it seems to me that there may well be a place for virtual classrooms for some aspects of pupils' education within schools. Quite what form this should take, and how best to integrate face-to-face and 'virtual' teaching to create an optimum blended learning solution is something that will need to be considered over the coming years.

Any teachers who are interested in finding out more about virtual classrooms, who would like to share their own experiences or their thoughts on how virtual classrooms could be used to help schools and pupils, are welcome to email me. My address is at the end of this article.

Sample Recording

Describing the virtual classroom experience is difficult to do in the traditional media of print. I have therefore made available a sample recording of a demonstration lesson I did recently with a group of Y5 children who had already completed my course. The recording will give you a flavour of what it is like to learn and teach in a virtual classroom.

To access the recording, go to the DLC's virtual learning environment at <http://moodle.eriding.net> and click on the course called NAACE Control & Virtual Classrooms. At the next page click on Login as a guest and then enter the enrolment key which is naace. You will then be able to download the sample recording. The creators of flowol require the participating schools to have a site licence.

Links

Data Harvest

<http://www.data-harvest.co.uk>

East Riding's Digital Learning Community

<http://www.thedlc.org>

LearnLinc

http://www.ilinc.com/products_learnlinc.php

Author Notes:

Andrew Brookes is the ICT teacher working at the East Riding of Yorkshire's innovative Digital Learning Community. He has taught in a number of authorities around the country, including ICT coordinator for a cluster of small primary schools in Derbyshire. He was recently seconded to Edge Hill College of Higher Education to lecture in Primary ICT on initial teacher training courses, and has had articles published in The Times Educational Supplement, Mathematics Teaching and Language & Learning.

Email: andybrookes@eastriding.gov.uk

Kangaroo court

Steve Bunce

Guilty! Guilty! Guilty! - The pupils know the phrase and they know the phrase 'looking guilty' as they can do it so well, but do they know about justice and how it relates to Citizenship? This was the challenge we wanted to face. Two local middle schools had recently purchased new voting pads, so could we use these to teach about justice?

Now what about the context? Do we look at the current court system or the past? So, the idea was formed that we could look at different trials from history to the present day. We could use the voting pads, so the pupils could offer their opinions as the evidence was presented. We didn't know if this would work as an idea, but we were really excited to try. The first ideas were the Salem witch trials, the Spanish inquisition and the trials of Guy Fawkes, the Tolpuddle Martyrs and Jesus.

The project offered the opportunity to link the two middle schools in the area to develop liaison activities. Ponteland has two middle schools, Ponteland Middle and Richard Coates Middle, with approximately 600 and 460 pupils, respectively. A Year 5 class in each school were chosen to be 'new juries'. In the past, we had carried out Citizenship lessons and in one example the pupils had to respond to different scenarios by standing in the corners of the classroom - decision corners. However, we noticed that the pupils and especially the boys were influenced by their peers and so the result may be misleading. This is where the voting pads offered a tremendous opportunity to gather opinions without the peer influence.

Voting pads



Fig 1. Voting pads - easy to use, just press a button

Each school had different voting pads systems, Turning point and Promethean. It was decided that the teachers needed to develop expertise using their own system, however, the activities could be used with either technology. The Turning Point system has the advantage that it can link to Powerpoint files, whereas, the Promethean system works seamlessly with the Promethean whiteboard software. There are many other voting pads types, however, the pedagogy should remain the same. The main areas to address were the classroom organisation and the use of questioning. Distributing the pads and showing the pupils how to use them was simple; trying to present the evidence impartially, without leading their thoughts, was very difficult.

The format for the lesson was explained to the pupils. We would consider each piece of evidence; briefly discuss it and then vote. After each vote, the results would be displayed to show the current opinion of the jury - guilty or not guilty.

Guy Fawkes on trial

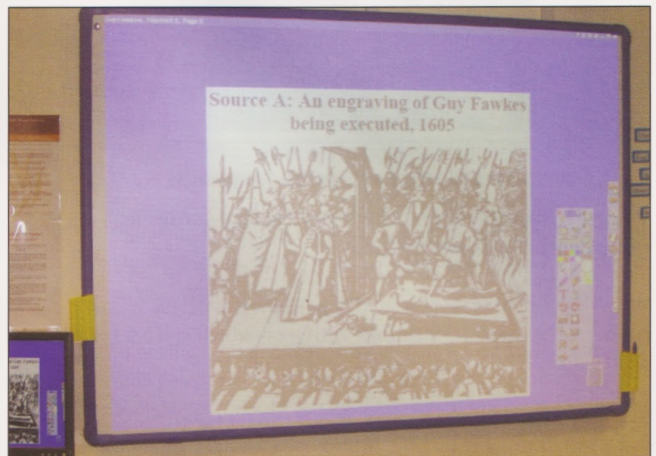


Fig 2. Presenting the evidence for Guy

The first trial held was for Guy Fawkes. This was the appropriate time of year, as it was the beginning of November and near Bonfire night. The themes for the trials could easily be themed around events in the year, for example, the Salem Witch trials around Halloween or Jesus' around Easter.

To find the pieces of evidence, we carried out extensive internet searches and found an excellent website, School History (www.schoolhistory.co.uk). The basis of this example was developed from a piece by Mr. Huggins on Guy Fawkes.

The first piece of evidence was fairly general, but it was obvious that the children brought previous knowledge to the classroom. They voted and Guy was definitely in trouble.

Pupil: Guy Fawkes wanted to blow the king up.

Teacher: Is there a mention of Guy Fawkes in the evidence?
It just says the protestants were worried about the Catholics.

As a teacher trying to be impartial and encourage the pupils to think, it was difficult not to intervene too much. Later in the debrief, we discussed about how a lawyer can lead the jury. The pupils particularly liked the idea of saying a statement and having it struck from the record, even though everyone had heard it.

We looked at the next evidence, Lord Mounteagle was warned not to attend Parliament and Guy was found in the cellars with the gunpowder. Nearly 100% of the pupils voted that Guy was guilty.

Pupil A: He definitely did it, because he was there with the gunpowder.

Teacher: Does anyone else have a different idea?

Pupil B: Maybe he was lost and ended up there by accident?

The next evidence did not help the defence. The other plotters were gathered up and Guy confessed.

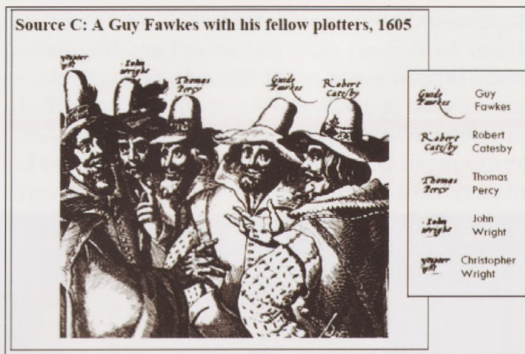


Fig 3. Guy and the plotters - evidence to consider

Source: <http://www.schoolhistory.co.uk/year8links/gunpowder/gunpowder.pdf>

With the pictorial evidence of Guy Fawkes with his fellow plotters, the pupils continued with a convincing 92% saying guilty.

- Teacher: What do you think about the picture?
 Pupil D: I think they look guilty.
 Pupil E: They look like they're whispering.
 Teacher: So do you think the picture makes them look guilty?
 Pupil F: Yes, they're bunched together and look shifty.

We moved on through the case, but the guilty verdict kept coming up and the class could see the results instantly on-screen.

Now, the next evidence started changing the opinions of the pupils: 'the government knew about the plot on 27th October, but did not do anything until 4th November. Also, all of the gunpowder was carefully controlled by the government and had to be kept in the Tower of London. The records for 1605 have mysteriously disappeared.'

- Pupil A: Maybe Guy stole the records.
 Pupil B: No, I think someone was trying to make it look like Guy, because they could say it was him.
 Pupil C: Why didn't they just fake his signature?
 Pupil D: I think he might have got his gunpowder somewhere else.

The idea of leading the jury appeared again, through the use of language.

- Teacher: Why do you think they used the word 'mysteriously'?
 Pupil E: It makes you think something's up.
 Teacher: Could the evidence have the same meaning without the 'mysteriously'?

As the trial continued, the verdict swung from guilty to innocent. King James gave permission to use torture. Then, Guy's denied the plot, but days later changed his appeal and confessed. Again after the lesson, we discussed how the order that the evidence was presented in can affect the outcome. The teacher explained that in a real trial the prosecution goes first before the defence, so they must consider all of the facts.

Source H: Guy Fawkes normal signature, above his signature taken from his confession, 1605.

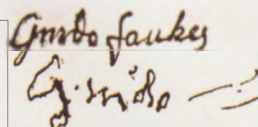


Fig 4. See how Guy's signature changed after alleged torture

The original idea was that everyone would be on the jury for the whole trial. However, another idea to link with the justice system was to select a jury. All the pupils would vote, but at the end of the presentation, a random jury would be chosen by voting pad number. They would come to a decision and the foreman of the jury would give the result. So, our twelve went and conferred while the remainder of the class discussed the case.

NOT GUILTY! The jury was unanimous - unfortunately for Guy, we were too late!

Warning - Hot coffee!

We considered which courtroom drama to attempt next. To try to make it more relevant to the pupils, an example came from the Citizenship Foundation: Running a mock trial (<http://www.citizenshipfoundation.org.uk/main/resource.php?s100>).

This is an excellent resource, which outlines the justice system and provides information about running a trial with the pupils. The case to consider was about a lady who bought a cup of coffee at a drive-through. Unfortunately, she spilt it and scolded herself quite badly. She brought a case against the fast food company saying that it was their fault, because the coffee was served too hot.

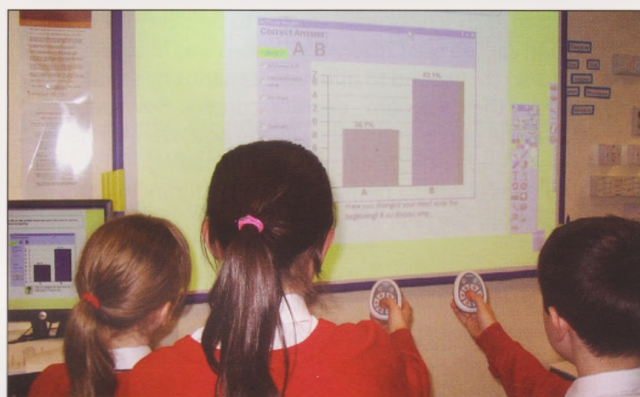


Fig 5. The class can see the results instantly

For this trial, two Year 5 classes, one from Richard Coates Middle and one from Ponteland Middle were mixed together. The trial was then run twice to allow all of the pupils to be involved. The first piece of evidence was presented:

Jennifer bought a carton of coffee. When she drank her first mouthful it spilt and caused her damage. She thought she should be compensated. She wrote to the owner who refused so she took advice from a lawyer. The lawyer said the owner should pay her and took them to court claiming "damages" (that is, compensation for the loss she said she had suffered).

Fig 6. The first evidence

The children were in disbelief - how could it not be her fault?

- Pupil A: It's like if I walked into the wall - it would be the school's fault?
 Pupil B: That's daft, she shouldn't be allowed to ask for money - it her fault.

With this first vote, all but one of the class were in favour of the fast food company. With this way of running the trial, everything is anonymous. So, after each vote to keep the users unidentified, we could not stop and ask the class who agreed or disagreed and why.

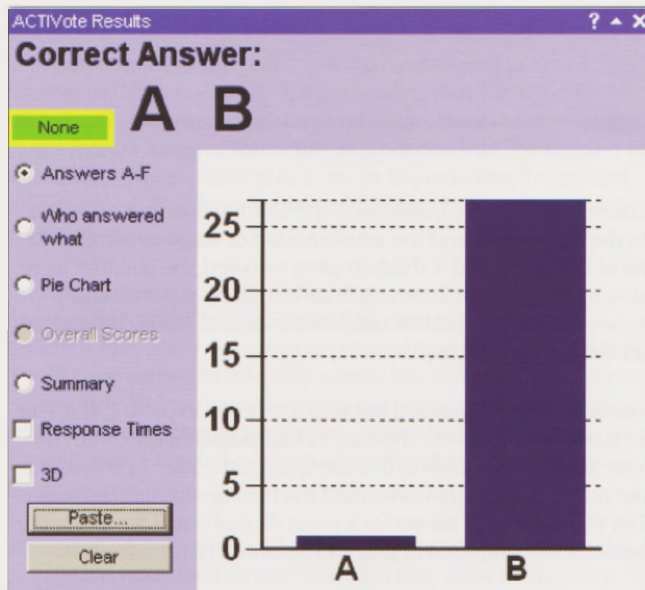


Fig 7. All bar one - nearly everyone in favour of the fast food company

More pieces of evidence were presented, for example, the coffee was marked hot, she was seventy years old, she tried to sip it straightaway. The pupils voted and the results swung between the fast food company and lady.

After the sixth article of evidence, the surprising result was the pupils were exactly divided 50:50. So, what would happen next?

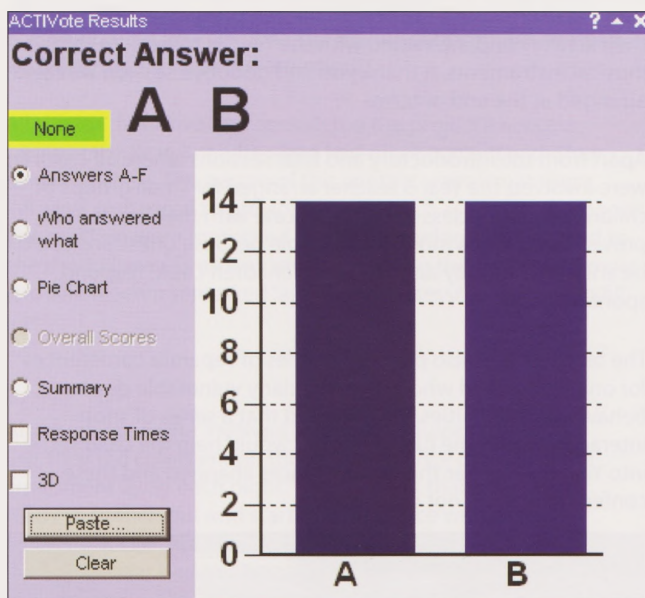


Fig 8. Hung jury - equally split

The next evidence, explained how the fast food company had used cheap coffee beans, which needed the water to be heated above the recommended, safe temperature. The result was predictable, the pupils answered quickly and in favour of the lady. At this stage, we showed the pupils their response times. For each question, they had ten seconds to answer. The software allowed us to see which pad had answered first and last. In this example, it was a game who answered when, but this feature could be really useful during a test; it could indicate which pupils really understood the work.

After the final evidence had been considered, we needed a verdict. The evidence was balanced between supporting the fast food company and the lady. On each table, there was a mixture of pupils from each school. To find a verdict, each table jury needed to find a consensus. Then a foreman would present

to the class with decision and feedback on how the table had arrived at their result.

Teacher: Who do you find in favour of?

Pupil A: The fast food company. Five of us said it was her fault for trying to drink it straight away when everyone knows it's hot, but she said it was the company's fault, because the water was extra hot.

Teacher: How could we get more evidence? Is there anyone else we could ask?

Pupil B: What about the video cameras? They could watch the video and see what happened.

Pupil C: What about the passenger?

Pupil D: No, she would just back her friend up.

Teacher: Would you always support your friend?

Quick vote - if you saw your best friend secretly steal some money out of my bag at break time, would you tell me?

We used the voting pads to test this dilemma and the result was not a clear-cut yes or no, but a mixture. This was an impromptu use of the pads, which could easily lead to further discussion in another lesson. The advantage of using the pads here was the anonymity to gain an opinion.

The class continued their discussion and you would be forgiven for thinking they were all from the same school, apart from their different uniforms. As a liaison activity this had been a great success.

The pupils learnt about the justice system and even played out some of the roles. They developed their problem-solving skills by considering the evidence and at the end of the lesson they justified their reasoning.

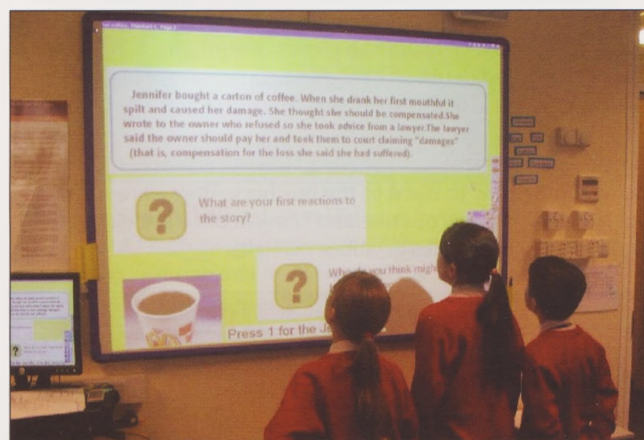


Fig 9. Who is going to win? We need to think carefully

The voting pads motivated the pupils as they liked the idea of the new technology and the instant feedback. The teachers saw the potential of the voting pads in collecting opinions, asking questions, testing knowledge - both for assessment for learning and summative assessment.

So, what next - another example from history, Amistad, the Mutiny on the Bounty or the Saddam Hussain trial? Press your voting pad now!

Many thanks go to the pupils of Ponteland Middle and Richard Coates Middle Schools and their teachers Rachel Dunwoodie and Red Willcox, respectively.

Author Notes:

Steve Bunce is an ICT Consultant in Northumberland and is passionate about ICT and pedagogy. He will happily answer any questions regarding the article.

Email sbunce@northumberland.gov.uk

Video Conferencing for Transition

Fiona Large

Background

In April 2005 East Sussex School Improvement Service began a project to explore strategies to ensure continuity of learning across transfer and transition points. The project involved two groups of primary schools, and two secondary schools. Following an initial meeting and a day's planning, the two groups chose a variety of activities and strategies to support transition, involving film making, photography, theatre, dance and art activities. Two schools, Hodder Junior School and Peacehaven Infants School chose to use video conferencing to aid transition between Year 2 and Year 3.

The two schools are less than a mile apart and some transition activities are already in place, such as a shared sports afternoon and a visit to the Junior school by the Year 2s to meet their future teacher. But typically some children are anxious about moving on to the Junior school. The teachers wanted to build on existing practise to make the transition between Key Stage 1 and 2 a more positive experience for all children.

Installation

The VC equipment was loaned to the schools by the School Improvement Service for two terms. Once the project was agreed, the equipment was quickly installed by Heather Pettit, the South East Grid for Learning Project Officer. She was able to make contact with the schools' technician prior to installation to make sure everything would run smoothly. Both schools chose to connect the VC equipment to their schools' large televisions. Since projectors and DVD players have become common place, these are largely unused pieces of equipment. The Year 2 teachers opted to use the library to conference, while the Juniors chose to use a Year 3 teacher's classroom.

Once the equipment was installed, Heather was able to demonstrate how to use it to the teachers. They were surprised at how easy it was to operate and knew at once the children would be very enthusiastic about using it.

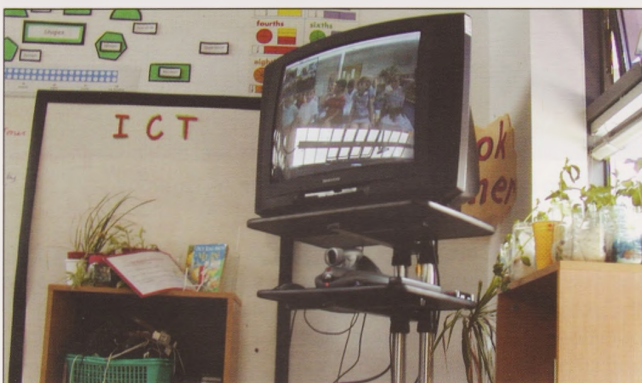


Fig 1 - Video Conferencing using the large television

Planning

A planning day followed, where the Year 2 and 3 teachers met from the two schools to map out a timetable of activities for the second half of the Summer term. A timetable of exact dates and times is crucial, so that the teacher can prepare the children for the conference but also so that all the children are ready to participate at the agreed time. Conferences were kept to between 20 and 30 minutes, ideal for children of this age.

The conferences

The first conference began with the children being introduced to the equipment and the whole notion of video conferencing. All of the Year 2 and 3 children were involved, the children were able to have a go at zooming in on particular children and generally get the children used to the idea of seeing themselves on the television screen.

The next session involved the Year 2 children exploring the Year 3 classroom via the VC. The Year 2s had prepared questions for Year 3s to answer. During the conference, the Year 3s answered the questions and demonstrated the facilities of the classroom. The VC equipment allows for a great deal of visual flexibility, the lens can be controlled to pan and zoom via remote control.

Subsequent sessions involved prepared questions being answered by Year 3 children about all manner of worries and concerns ranging from playtimes, what to do if you were hurt, rewards and sanctions, to going to the toilet! The Year 3 teacher arranged for a Midday Dinner Supervisory Assistant and a First Aider to answer the children's questions. These would be familiar faces in the playground and lunch hall in September. The children also had an opportunity to meet the Headteacher.

In addition to the question and answer sessions there were also opportunities for sharing and celebrating achievements. During expressive arts week, the Year 2 children presented a display of their artwork and interacted with the Year 3s to explore some musical instruments. A thank you and goodbye session was also arranged at the end of term.

Apart from the introductory and final sessions where all children were involved, the Year 3 teacher arranged for small groups of children from her class to communicate with the Year 2s. This proved to be much more manageable because questions could be answered quickly and the Year 3 children could respond spontaneously.

The teachers had also planned a series of separate conferences for one Year 2 child who was particularly vulnerable due to behavioural difficulties. It was hoped that a series of short interactions with the future teacher would help the child settle into Year 3. However, the circumstances changed and these conferences could not go ahead.



Fig 2 - A small group from Y3 answer questions

Impact

In September 2005 the Year 2 children transferred to Year 3. The teacher of this class, Allison Burgin, reports that the children seem much more settled than usual. They have in fact come up to the juniors ready to learn. She also noticed that she needed to spend less time explaining systems to the new Year 3s because many of them had been explained previously during the video conferences.

Another factor to consider is the change in Year group organisation at the Junior School. The class is a vertically grouped Year 3 and 4. It could be argued that the Year 3 children would have settled to learning quickly because they have Year 4 role models. But perhaps the video conferencing opportunities enabled the children to know their classmates beforehand. Either way, the teacher is very happy with the smooth start to the academic year.

Whilst the equipment is still on loan, Allison is using it to enable the children to reflect on the transition they have made. They have had opportunities to report back to their infant teachers on how they are getting on at their new school. This reinforces the positive start to the school year.

The Year 2 teachers, Wendy Wiltshire and Vicky Mather remarked on the difference in the children's attitudes towards moving on this year. They reported that in the past the children have been anxious about any visits to the Junior school. This year the teachers noted that the children appeared much more confident and most children were enthusiastic about starting in Year 3. Parents of some of the Year 2 children had also commented favourably on the project during parents evening. The equipment was set up in the Infant school library and had understandably attracted attention!

All the teachers involved considered the project a success because the Year 2 children had had more contact with their future teachers. The nature of this contact was also, at times, informal compared to previous events such as sports afternoons. The children were motivated by the technology and wanted to speak and listen. Time was saved in getting the children to meet and one teacher remarked "and no risk assessment forms to fill in!"

Next time

Although everyone involved found the equipment easy to use, they did comment on the inconvenience of locking the equipment away each night. They also felt that they were ready to branch out and start to conference with others when the project came to an end. The teachers thought that the equipment had not been exploited to its full potential in that other teachers had not used it. The cost of this particular equipment - approximately £3000 - is beyond the grasp of many primary schools.

The project has certainly had a very positive impact on transition for these pupils and the teachers in both schools are already planning how they can use other forms of ICT, digital video and email, to make next year equally successful.

Thank you to the teachers and pupils of Peacehaven Infants School and Hoddern Junior School.

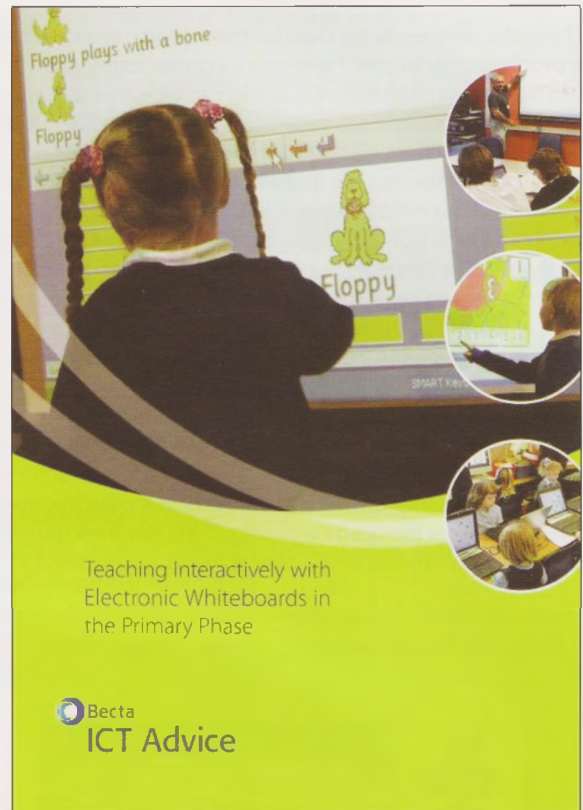
Author Notes

Fiona Large is a Primary ICT Consultant for East Sussex School Improvement Service with many years of primary teaching experience.

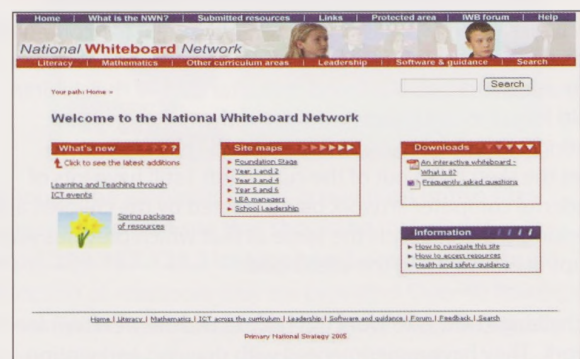
Email: flarge@cfbt.com

Editor's notes:

1. Becta have just brought out a new publication in their 'ICT Advice' series - 'Teaching Interactively with Electronic Whiteboards in the Primary Phase'. This 36 page booklet is a very friendly source of teaching ideas for using whiteboards effectively across the KS1 and KS2 curriculum. It is free and it can be ordered from <http://www.becta.org.uk/publications>



2. The National Whiteboard Network <http://www.nwnet.org.uk/> is an excellent source of ideas and resources for using whiteboards in all areas of the curriculum.



The Use of FlexCams in the classroom

Trudy Lines

Like most teachers I use my interactive white board to reinforce and enhance my teaching, I work in a very small village school, with Reception, Year One and Year Two children. I use internet programs and CD ROMS in both Literacy and Numeracy to make learning fun and interesting. The children love to come and touch the screen and make things happen.

As I have the children in my class for three years, resources can be a problem and children have very long memories when it comes to school storybooks. Big books can be expensive and with the restriction on the number of times they can be used in three years, as a school we had to come up with another way of increasing our resources. We decided to buy a FlexCam made by Videolabs. This is a camera that plugs in to the projector, showing anything put under it as a picture on the white board. Small storybooks that only the teacher could previously read can now become a big book that everyone can read. The same can apply to photographs and pictures. Now resources are unlimited, any book can be used for a whole class lesson.

As a school we have also made use of the FlexCam to put children's work up on the screen for everyone to see. Everyone is then able to read good examples of work. If a lesson objective is full stops, for example, then we can see how a child has used them and whether the usage is correct. If it is not then the other children very quickly become a critical friend, giving helpful

comments to improve work. The children love to see their work on the board and are able to help each other in a non-threatening way. Offering suggestions to improve their friends' work helps them to think about improving their own work. We feel that this way of using a FlexCam helps the children with their writing and the approach is now being extended to other areas of the curriculum.



For further information on FlexCam see <http://videolabs.com/products/index.php?cat=6>

Author Notes:

Trudy Lines teaches KS1 and Foundation Stage children in a very small two class Cotswold village school. She is also the ICT co-ordinator for the school.

Email: alines@talk21.com

Cover Story - (explaining the picture on the front cover of this publication)

Veronica Carter

The children in my YR class make frequent use of the computers for drawing and painting. I used to introduce them to an electronic sketchpad but found that after a while the children would forget to use it and I would find them drawing and painting using the mouse. This year I find I have forgotten to get the sketchpad out of the cupboard! I still have lots of wonderful computer artwork being created by the children and, surprisingly, the quality is the same as that which previous year groups achieved using the sketchpad.

My challenge now is to work out how to use our new IWB for artwork. They have experimented with drawing and writing on the board. A few struggle to keep consistent pressure on the pen to make a consistent mark but most are fine. 'Finger painting' on the IWB proved a non-started as their sticky little fingers just cannot move smoothly across the board.

The shadows issue is a problem with some children coping with it much more easily than others.

On the last day of term, I thought it might be fun if everybody drew themselves on the IWB and wrote their name by their drawing. I had no idea if they would be able to control the size they worked in so that it would all fit so I started with the more able in the hope that if they worked at an appropriate scale the others might follow their lead.

It took much longer than I had expected but everyone was keen to have a go and all of them achieved a recognisable drawing and added their name to it. In fact the children were better able to control the size they worked in when there was only a small space left for them.

As the IWB links to my laptop, which does not have an infant paint package installed, we used Paint but the children accepted its differences from what they were used to without any comment or problem.

The children enjoyed watching their work progress over the course of the morning and the end result is up on the wall for all to admire! It's a start. I remain sure that the IWB has great potential for collaborative computer artwork at a new scale. I think I will enjoy trying to work out how to develop this potential!

Author Notes:

Veronica Carter is Foundation Stage Co-ordinator at Camelsdale First School in West Sussex. She maintains the Teach with ICT section of the school website which contains a collection of teaching resources for use with younger pupils. Veronica is also Foundation Stage Moderator for Becta's Teacher Resource Exchange.

Email: pandas@camelsdale.w-sussex.sch.uk

Website Resources

Jim Merrett

There are some wonderful resources available to use with interactive whiteboards. Many are available on CD-ROM or from subscription-based websites but the following selection are available for free from the internet.

Art

www.sanford-artedventures.com/

Many of the features on this site are ideal for demonstrating artistic methods and techniques on the whiteboard.



Case Studies

www.thereviewproject.org/

The Review Project was established to look into the use of whiteboards and their website provides some interesting case studies with examples of good practice. Some aspects of the site are getting dated but the discussion forum is still current and there are some great links to recommended resources.

Early Years

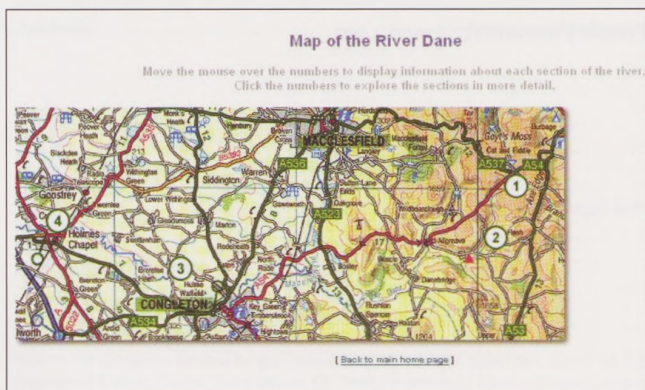
www.icteachers.co.uk

The Early Years section of the site has a number of useful presentations, covering colours, counting and phonics. The site also has resources for other age groups too, across many subjects.

Geography

www.nwlg.org/pages/resources/geog/hydro_cycle/daned_map.htm

Parts of a river are ideal for explanation in a visual form. There are several good websites for this, one of which is this, covering parts of the River Dane. Click on the numbers for photographs and animations, covering various parts of the river, including the source, a waterfall and meanders.



History

www.schoolhistory.co.uk

With over 80 PowerPoint presentations, interactive quizzes, games and downloadable worksheets, covering all key stages, this has to be one of the best history sites when looking for resources to use with an interactive whiteboard.



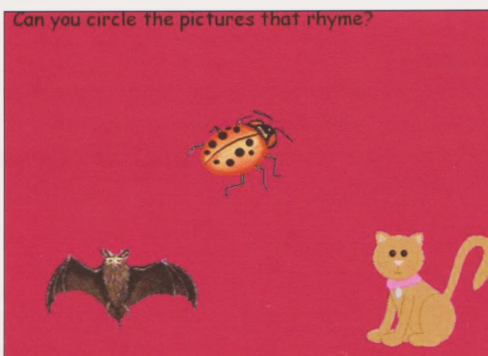
Literacy & Numeracy

www.edu.dudley.gov.uk/ict/classroom_activities/pripowerpoint/index.htm

Teachers in Dudley have put together an interesting set of resources aimed at supporting the teaching of these subjects at KS2.



Although the emphasis in this article is on British sites, a superb American site that should be included is <http://208.183.128.3/ce/ppt.htm> because of the huge collection of resources that are provided. Over 40 Powerpoint presentations are available at KS1 alone (K-2). Secondary resources at this site are stronger on science.



MFL

<http://forum.ngfl.gov.uk/direct2u>

This is a list of Direct 2 U material that may also, before long, be available on the Naace website. Select the 2005 lesson plans option, then index by subject. Scroll down to MFL where you will find an activity to demonstrate how people in different countries speak.

PE

www.primaryideas.co.uk/index_files/pe.html

This is a German site although English translations are provided. It provides animations of athletics activities, enabling students to view the performance slowly before trying it themselves. Also ideal for wet days when the hall is not available.

Primary Ideas
‘For those hard to find resources...’

- Home
- Literacy
- Numeracy
- Science
- Humanities
- Guided Reading
- PE & Games
- Early Years
- Assembly Scripts & Ideas
- Display Ideas

PE & Games Plans

This page gives you possible ideas that you can include in your PE Games lessons. They are not plans as such but consist of activities that can be put together when planning a PE lesson. They are under the headings that are stated by the National Curriculum and have linked them to topics at lower key stage 2. I hope they prove to be useful. Please let me know if you use any of the best resources by emailing me at jim@reonline.org.uk or by signing the guestbook on the front page. If you have any resources which you would like posted here please also email me!

Invasion Games (including football, rounders, hockey, basketball, netball)

Year 3 Passing & Catching	Click here	Microsoft Word	Craig Smith
Year 4 Retaining Possession	Click here	Microsoft Word	Craig Smith
Year 4 Regaining Possession	Click here	Microsoft Word	Craig Smith
Year 5 Attack vs Defence	Click here	Microsoft Word	Craig Smith

RE

www.reonline.org.uk

This is an extensive site, suitable for all age groups and covering all the major faiths. Plenty of visually appealing material, including animations are available for download.

REonline for Juniors

Click on one of the buttons

Show me a list of topics

Or... [Festivals Calendar](#) [Virtual Tours](#) [Search Using A Keyword](#)

Science

www.seasky.org

The material here does go outside the national curriculum boundaries but it is worth the experience to let the children see outstanding colour photography from under the sea and in space. Very stimulating.

Welcome to Sea and Sky • Please Select Your Destination

About • What's New • FAQ's
Awards • Guest Book • Contact • Search

Visitor # 00568383

The Sea

Join the Seasub Cousteau for a fascinating journey to the depths of the sea. From the coral reefs to the dark reaches of the deep ocean, you will discover the splendours of the sea.

The Sky

Join the Starship Sagan for an exciting voyage to through the universe. From the planets of the solar system to the bizarre objects of deep space, you will discover the wonders of the universe.

Additionally

Don't forget the wonderful range of resources available at the BBC website, www.bbc.co.uk/schools covering most subjects and age groups. Many of these are interactive and animated presentations, ideal for whiteboard use.

The National Whiteboard Network has a good set of primary resources across several subject areas at www.nwnet.org.uk/pages/index.html

The whiteboard companies have resources on their websites too. See www.prometheanworld.com/uk/ Select your age group and enter a subject in the search box for a list of available presentations. Also Smart Education at: <http://smarteducation.canterbury.ac.uk/>

The Teacher Resource Exchange at <http://tre.ngfl.gov.uk/> is packed with hundreds of great presentations, amongst other useful resources, created by teachers. Just select 'Interactive Whiteboard' from the drop-down menu in the 'Type' option in the search box and choose your subject and age group.

Finally

If you write any useful material yourself for your lessons, don't keep it to yourself. Submit it to one of the many sites that would make it available to other teachers through the internet. It will save them time and will be greatly appreciated.

Author Notes:

Jim is a teacher, examiner, educational consultant and writer specialising in educational websites. He is a website reviewer for The Guardian, TES and EC&T and produces content for educational sites. Additionally Jim contributes to professional development, particularly in the field of using ICT across the curriculum. Jim is also the PR officer for Naace.

Email: jimmerrett@msn.com

Order Form



	Price	Quantity	Total
Computer Education			
Issue 112 Spring 2006	Members		
Issue 111 Autumn 2005	£10		
Issue 110 Summer 2005	£10		
Issue 109 Spring 2005	£10		
Issue 108 Autumn 2004	£5		
Issue 107 Summer 2004	£5		
Primary Focus			
Primary Focus on Art and Design and Design Technology	Members		
Primary Focus on Naace Online Resources	£10		
Primary Focus on Creativity and Challenge	£10		
Primary Focus on Geography with CD	£10		
Primary Focus on Citizenship	£5		
Primary Focus on Embedding ICT in Primary Practice	£5		
Primary Focus on New Literacies	£5		
The Teachers Guide to Copyright, The Internet and the Classroom Teacher	£3.50 inc p&p		
Total Cost			

Please send completed Order Form and cheque or provide invoicing details to:
 The Publications Manager, Naace, PO Box 6511, Nottingham, NG11 8TN
 Make cheques payable to 'Naace'
 Publications are VAT EXEMPT.

Name Invoice to:

Address Invoice Address:

.....

.....

.....

Phone Invoice Dept tel no:

I enclose a cheque

I enclose invoicing details and a Purchase Order

Office Use

£		✉	



PO Box 6511
Nottingham
NG11 8TN

T. 0870 240 0480
F. 0870 241 4115
E. office@naace.org

www.naace.org