Making the most of your interactive whiteboard

European Schoolnet

Making the most of your interactive whiteboard

Foreword

The European Schoolnet Interactive Whiteboard Working Group (IWB WG) is a strategic initiative led by Ministries of Education enabling countries to share experience related to the increasing use of IWB technologies in schools and explore areas of common concern. As a result of participating in the working group, Ministries have been able to further develop their own national ICT strategies involving the deployment of IWBs and to focus at European level on key issues, such as IWB content interoperability, that are essential for the successful implementation of these technologies in classrooms.

Having first identified current good practice and produced nine case studies related to the use of IWBs in several countries, the working group published *Guidelines for Effective School/Classroom Use of IWBs* in June 2010. Based on this document, we have now produced *Making the most of your interactive whiteboard*, a shorter version of the full study that was carried out on our behalf by the University of Wolverhampton in the UK.

I would like to thank Diana Bannister and her team at the University of Wolverhampton for the commitment and effort they have shown in helping the IWB WG to produce both these publications. This shorter version of the guidelines will be particularly useful for busy teachers who are looking for practical advice and support on how to plan and make effective classroom use of IWB technology.

Later this year, the working group will produce a second major study that will provide guidelines on IWB procurement in order to support purchasing decisions by both Ministries and individual schools.

Finally, I wish to thank my colleagues from all participating Ministries for sharing their expertise and participating so actively in the deliberations of the IWG.

To keep up-to-date on the activities of the IWB WG, I invite you to visit our web site at:

http://moe.eun.org/web/iwbworkinggroup/iwb

Jerome Morrissey
Chair, European Schoolnet IWB Working Group

Table of contents

Introduction

The EuSCRIBE Project (European Schools and Classroom Research of Interactive whiteBoards in Education) was commissioned by thirteen Ministries of Education in the European Schoolnet Interactive Whiteboard working group to develop guidelines for the use of interactive whiteboards in education.

The project began with a survey of interactive whiteboard users from across Europe. This enabled the project team to establish some key themes which required further research.

The team then undertook link research visits with four countries including Ireland, Italy, Portugal and the UK. The visits involved lesson observations, interviews with teachers, ICT co-ordinators and school leaders to consider the use of interactive whiteboard (IWB) technology. The project director also met with several commercial suppliers to consider the emerging themes.

The report details commonly used interactive whiteboard tools, techniques and applications which should form part of the technical induction for all IWB users. The observation proforma included in the report allows practitioners to consider areas for development and users can look at key skills that they may need to address. The full report is available for download from the European Schoolnet website[1].

This brochure contains the main guidelines under seven key themes for implementing and embedding the use of IWB technology:

1. **Leadership and organisation** – this section will help school leaders consider how IWB technology can be implemented.

2. **Purchase, installation and maintenance** – this section identifies some of the key questions, before, during and after purchase of the IWB.

3. **Access** – this section helps leaders and practitioners consider where the IWB should be situated in each classroom.

4. **Classroom management** – this section helps practitioners to consider how to integrate the IWB along with other classroom resources.

5. **Training and continuing professional development** – everyone needs different amounts of training to use the IWB. In this section, you can think about how to plan for your training and continuing professional development.

6. **Learning and teaching** – this section helps you to think about the types of activities for which you use the IWB.

7. **Resources** – this section helps you to consider the types of resources you might need and the ongoing processes you should ensure to make it much easier to share lesson materials.

Each of these is considered in turn, allowing the user to access the evidence from the research and understand how to move forward with use of the technology. The guidelines are not just for new IWB users, but provide an opportunity for everyone to consider how to ensure effective use and application of this technology.

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1 http://moe.eun.org/web/iwbworkinggroup/guidelines

Leadership and organisation

How is the IWB integrated within the school?

—

Have you thought about developing a learning and teaching team?

—

Who can you observe teaching a lesson using the IWB?

—

Is the IWB embedded within your policies and planning?

—

How can you work with staff in your own school and/or other schools to develop materials for the IWB?

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Are all staff in school able to use the technology?

—

Who is responsible for e-safety and safe internet use?

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09:05 AM

Each school should set up a learning and teaching team that is a microcosm of the school, representative of subjects and phases. The team should acknowledge the school development plan and be the bridge between the senior management team and classroom practice. Some schools have given staff the opportunity to 'bid' for the installation of equipment identifying areas of priority and detailing how evidence of practice will be shared with colleagues.

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Prior to the purchase of technology and as part of ongoing training and continuing professional development, schools should provide opportunities to observe practice. Commercial suppliers could support this by offering incentives to leading practice schools at a regional level. The new user has to be able to understand how to make best use of the technology.

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You could identify a lead teacher to work with staff in order to demonstrate effective use of the software, to team teach, to lead lessons and to give feedback. Whilst one person can co-ordinate all of this, it is useful if the development can take place in teams, as individuals become complacent and use of the software can plateau.

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Regional advisers or similar should look to provide opportunities for clusters of schools to develop initiatives together. This could include joint training, and creation of content. It may also be helpful when trying to address subject specific materials.

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Where possible, school leaders and teachers should try to develop opportunities to share practice. However, staff should be encouraged not to inspect or judge, but to create, demonstrate and reflect in collaborative groups.

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Commercial suppliers should provide opportunities to demonstrate leading practice to principals, senior teachers and learning and teaching teams. This could be a recognised part of the procurement process. Ministries of Education also need to share examples of practice within each country.

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Purchase, installation and maintenance

Who is responsible for providing technical support?

—

Is your equipment under warranty?

—

Where do you keep spare projector bulbs?

—

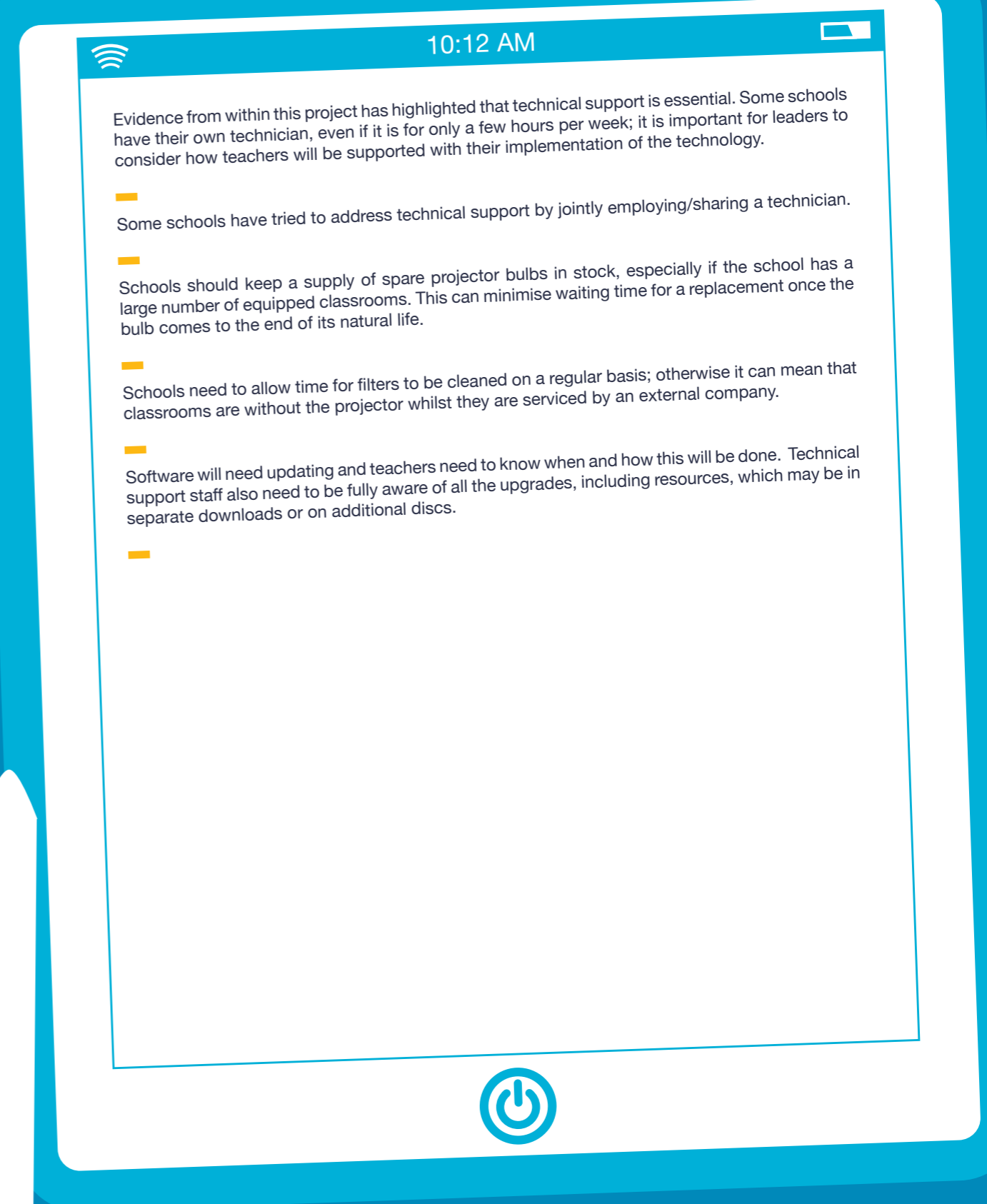**Where do you keep the remote control for the projector and the pens for the IWB?**

—

Who is responsible for cleaning the projector filters?

—

Who is responsible for updating the IWB software in school?

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10:12 AM

Evidence from within this project has highlighted that technical support is essential. Some schools have their own technician, even if it is for only a few hours per week; it is important for leaders to consider how teachers will be supported with their implementation of the technology.

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Some schools have tried to address technical support by jointly employing/sharing a technician.

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Schools should keep a supply of spare projector bulbs in stock, especially if the school has a large number of equipped classrooms. This can minimise waiting time for a replacement once the bulb comes to the end of its natural life.

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Schools need to allow time for filters to be cleaned on a regular basis; otherwise it can mean that classrooms are without the projector whilst they are serviced by an external company.

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Software will need updating and teachers need to know when and how this will be done. Technical support staff also need to be fully aware of all the upgrades, including resources, which may be in separate downloads or on additional discs.

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Access

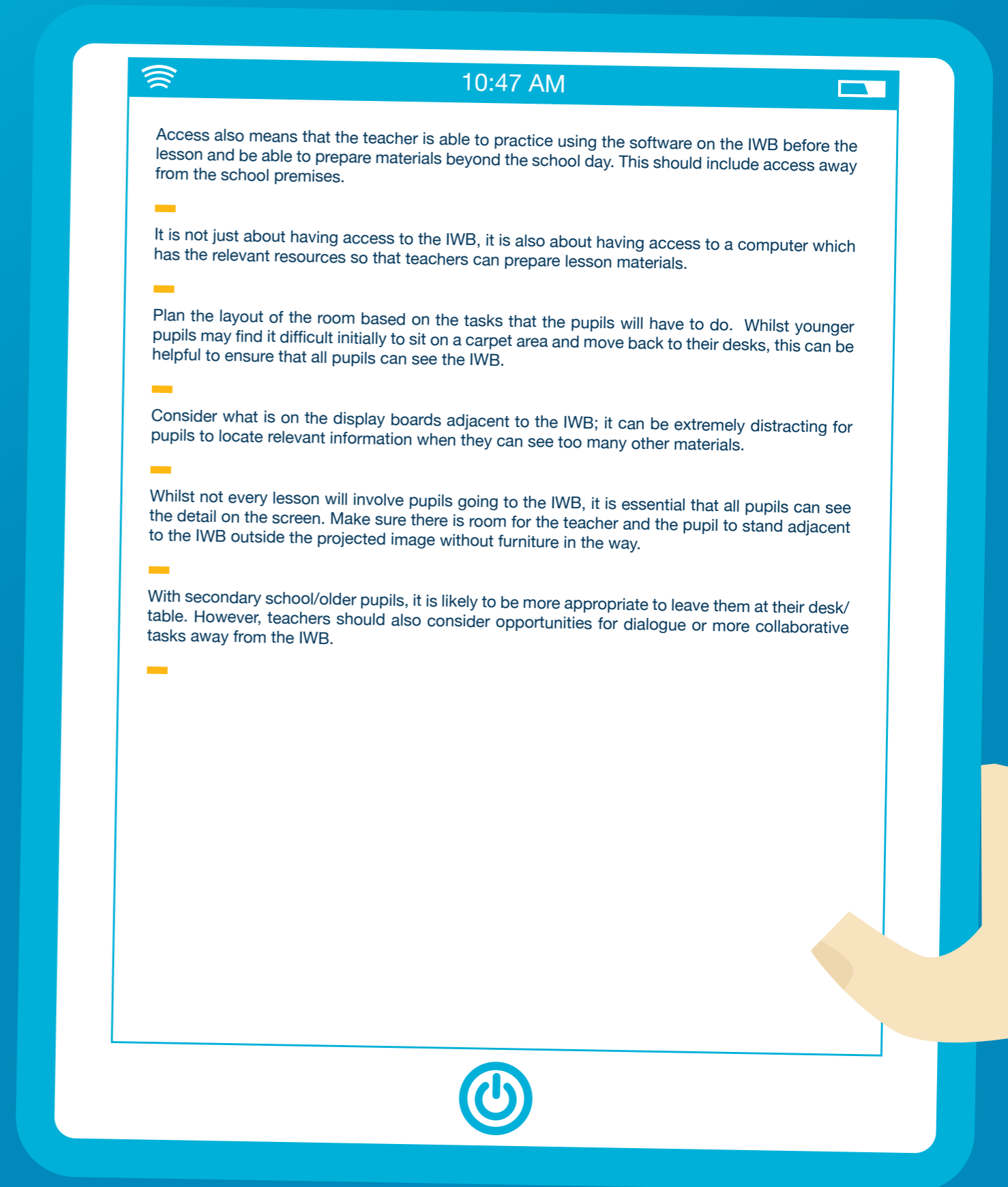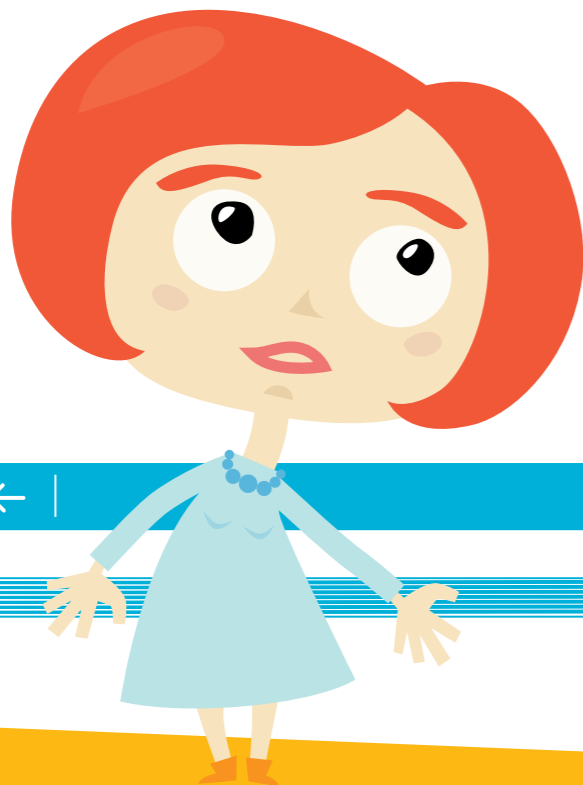**Have you got appropriate access to software both during and beyond the school day?**

Can pupils see the IWB?

Can pupils access the IWB?

Does the classroom layout need to change for your lesson?

10:47 AM

Access also means that the teacher is able to practice using the software on the IWB before the lesson and be able to prepare materials beyond the school day. This should include access away from the school premises.

It is not just about having access to the IWB, it is also about having access to a computer which has the relevant resources so that teachers can prepare lesson materials.

Plan the layout of the room based on the tasks that the pupils will have to do. Whilst younger pupils may find it difficult initially to sit on a carpet area and move back to their desks, this can be helpful to ensure that all pupils can see the IWB.

Consider what is on the display boards adjacent to the IWB; it can be extremely distracting for pupils to locate relevant information when they can see too many other materials.

Whilst not every lesson will involve pupils going to the IWB, it is essential that all pupils can see the detail on the screen. Make sure there is room for the teacher and the pupil to stand adjacent to the IWB outside the projected image without furniture in the way.

With secondary school/older pupils, it is likely to be more appropriate to leave them at their desk/table. However, teachers should also consider opportunities for dialogue or more collaborative tasks away from the IWB.

Classroom management

When will the IWB be used within the lesson?

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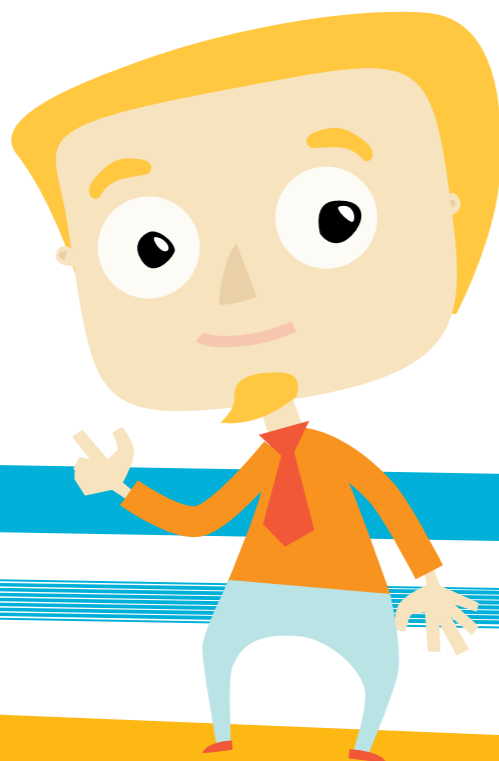**Where are the spare pens and the remote control kept?**

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What individual activities have you planned as part of the lesson?

—

How do you work with colleagues to collate resources and share ideas?

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11:58 AM

Teachers have reported that it can be helpful to have an additional surface to write on alongside the whiteboard. Many also make regular use of a dry wipe board alongside the interactive whiteboard to note the lesson objectives, the learning outcomes, the homework, the key vocabulary etc., so that certain information remains constantly available to the pupils and the teacher.

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Keep the display area around your IWB clear so that pupils are not distracted by too much information.

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Make the lesson objectives and learning outcomes clearly visible to the pupils.

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Think about the individual tasks or the collaborative activities that your pupils will do within the lesson to demonstrate their understanding.

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Teachers often want to develop their own lesson materials but this can be a huge task for every subject initially. Try to identify a focus area for development. For example, a Primary teacher may choose to develop literacy resources; this does not mean s/he only uses the whiteboard for literacy, but prioritises this subject and therefore spends more time gathering, developing and sharing the lesson activities. If teachers within the school identify their chosen area, this can lead to the production of more resources.

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By comparison, a secondary teacher will choose to focus on a particular year group. For example, if one teacher takes year seven and another year eight science resources, this means that more resources are created, and teachers can consider how to prepare something that can be used by someone else.

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Training and continuing professional development

Have you completed an ICT skills audit?

—

Who is responsible for training in your school?

—

What training is available in your school?

—

What training is available locally or within your region?

—

What training is available from commercial IWB suppliers?

—

How does existing practice and any new ideas get shared?

← | → |

01:17 PM

The observation form from the EuSCRIBE Project (contained in the full report) may be helpful for teachers trying to assess skill levels.

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Schools need to undertake an audit of ICT competencies and also an audit of IWB competencies prior to any initial training. The observation form from the EuSCRIBE Project may be helpful for teachers trying to assess skill levels.

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All staff should set targets for their own ICT professional development each year.

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Some commercial IWB providers offer accredited training which is largely available on-line.

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Schools should also think about training pupils to understand the technical skills to operate the IWB. There is evidence to show that pupils enjoy learning how to master the software and there are also examples of older pupils creating resources for younger pupils.

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Try to ensure that there is more than one teacher who undertakes the training.

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Try having workshops that allow staff to create lesson materials together.

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If possible, schools could also try to work in partnership with neighbouring schools to develop practice together.

—

Learning and teaching

What kinds of activities do you use the IWB for?

—

What do the pupils do within the lesson?

—

What opportunities are available for dialogue and discussion?

—

How do you organise the pupils you teach?

—

How do you prepare activities suitable for the different learning needs?

—

01:55 PM

The whiteboard can be particularly helpful when:

- Introducing key ideas
- Researching information
- Presenting lesson content
- Showing film clips
- To evaluate lessons and projects
- To share pupils' work

Lesson content can be saved, modified, printed, used again and shared with other colleagues.

Teachers need to consider the abilities of the pupils that they are working with when using the IWB. This can include: the position of the pupils, the content on the IWB, the amount of content visible to the pupils and the layout on the IWB.

Assessment can be by questioning, task activity or outcome. It is not just a matter of moving through the IWB software to get to the next activity; the teacher should be constantly reviewing the success of the pupils and making assessments to inform teaching and learning.

Teachers should record or log details of what they have been doing within lessons to avoid repetition or duplication.

Try not to use too much text on screen.

Check the font and colours you are using. (Some look fine on a computer screen, but lose clarity when projected.)

Teachers need to know how to make colleagues aware of how they use digital content and the IWB. Providing 'evidence' of successful IWB use is very important because otherwise staff have the potential to make repeated use of digital resources without up skilling the pupils at all.

Where staff are not considering the IWB as part of their long term planning, there is evidence that teachers download web based materials purely for ad hoc and spontaneous learning. This sometimes means that activities have been selected mainly to motivate pupils, because they are fun and engaging, and not necessarily linked to the curriculum or planning. This can mean that activities may not have learning outcomes and have been used purely to engage the pupils.

Resources

Identify - Develop - Create - Modify - Evaluate - Share

Can staff and pupils access the resources beyond the lesson within school / from home?

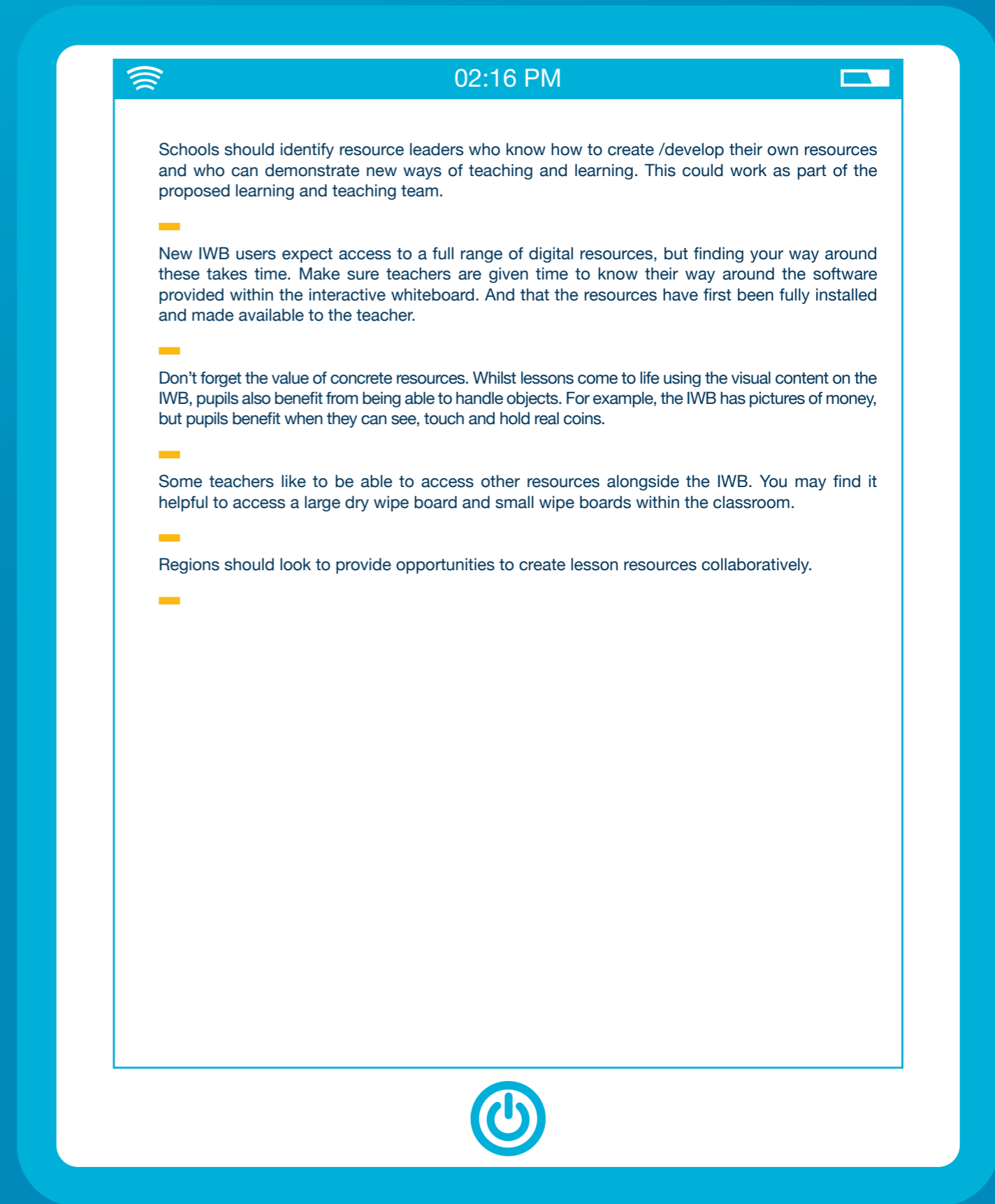What other resources do you need during your lesson?

Do you have access to other interactive devices?

What software or websites do you access regularly?

Do you have all the skills you need to be able to create your own materials?

Who is responsible for updating the software in school?

How are resources/learning materials stored in school?

02:16 PM

Schools should identify resource leaders who know how to create /develop their own resources and who can demonstrate new ways of teaching and learning. This could work as part of the proposed learning and teaching team.

New IWB users expect access to a full range of digital resources, but finding your way around these takes time. Make sure teachers are given time to know their way around the software provided within the interactive whiteboard. And that the resources have first been fully installed and made available to the teacher.

Don't forget the value of concrete resources. Whilst lessons come to life using the visual content on the IWB, pupils also benefit from being able to handle objects. For example, the IWB has pictures of money, but pupils benefit when they can see, touch and hold real coins.

Some teachers like to be able to access other resources alongside the IWB. You may find it helpful to access a large dry wipe board and small wipe boards within the classroom.

Regions should look to provide opportunities to create lesson resources collaboratively.

Resources

What happens to the resources that you create?

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How are resources shared with colleagues?

—

Have you thought about copyright and use of the Creative Commons' licenses?

—

ill the resources you create work with other whiteboard technologies?

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02:57 PM

Resources need to be transferable, organised and understood and integrated with assessment.

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Sometimes there is not always the opportunity to share resources and many teachers currently create resources in isolation and store these on their own laptop. Schools need to address where lesson materials are stored and should make provision through the Virtual Learning Environment. (VLE) Some schools have also found opportunities within staff meetings or professional development time for colleagues to share a resource, an activity or new skill.

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Copyright/Intellectual Property Rights need to be considered before sharing resources. Teachers should consider adding a Creative Commons' license to resources that are being uploaded to communities or virtual learning environments.

—

Commercial suppliers regularly release updates and additional resources for their software but teachers are often blocked from installing these updates as they do not possess administration rights for their network or computer. Where teachers do have administrator privileges, it can lead to a situation where some classes regularly update their software and others do not. Make sure that teachers in your school are not using different versions of the software, with different functionality and file types. And that technicians or network managers understand the importance of keeping IWB software and resources up-to-date.

—

In the past it has been impossible to create content for one interactive whiteboard and then use it on another. This stops sharing and makes it impossible for teachers to use their resources if they change school or technology. There is now a common file format that allows interoperability. The file format will be recognised as .*iwb and will require the practitioner or IWB user to have the latest version of IWB software available for use. There is also a free viewer for the common file format that could be made available on the school VLE, making it possible for anyone to access an interactive whiteboard file without first having to install the correct software. (The Common File Format is scheduled for adoption by major suppliers in late 2010.)

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# Moving your skills forward...

Checkmark boxes

Pens and Highlighters

Drag and Drop / Matching

Using Text

Spotlights

Blind, Revealer or Screenshade

Handwriting Recognition

Stacking Objects / Duplicating / Infinite Copying

Timers

Maths Tools

Screen Record

Grouping

Transparency

Layering

Rub and Reveal

Fill Tool and Techniques

Camera Tool / Screen Capture / Clipping

Animation

User Communities

Interactive Authoring

Other Interactive Devices in Conjunction with the IWB

IWB tools, techniques and applications

Pen tools / highlighters

All interactive whiteboard software allows the user to write within the IWB software and on top of the desktop. As a first step, users often learn to vary the colours they use to make specific teaching points or use the highlighter tool to annotate text and images. Other common applications are labelling diagrams and simple note-taking on a blank page. The pen tools allow the size, colour and properties of pen lines to be changed in order to suit the needs of the activity. Some IWB software allows the pen line properties to be changed so that they begin and end with arrows in order that they can be used for matching activities. More advanced users may use thicker pens to paint over words and images on the screen in order to hide them from view. In most IWB software there is a digital eraser tool that is used to remove writing from the screen.


Drag and drop / matching

The simplest action to undertake on an IWB is to drag and drop objects, moving them around the screen. Many interactive activities are based on this simple idea. In example one the pupils drag, drop and rotate the shapes in order to tessellate them. In the second example, materials are classified by dragging them to the correct column.
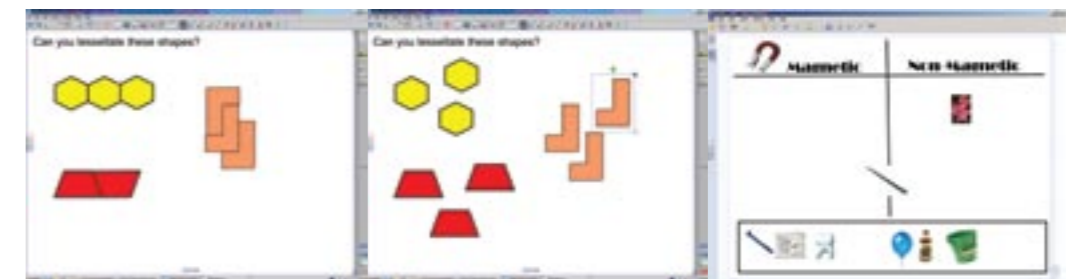
Text tools

Text tools allow text boxes to be added to the screen. This can be for individual words or longer pieces of text. They include all of the normal tools from a word processor that allow for different font styles and sizes. In the example, several text boxes have been stacked up so that the pupils cannot read the words. The second screenshot shows pupils removing sentences and deciding on the correct sequence. Practitioners sometimes fill or highlight texts in order to emphasize particular features. Text can also be hidden and revealed in a number of ways. E.g. By filling a word the same colour as the screen background then changing the colour to make it appear.
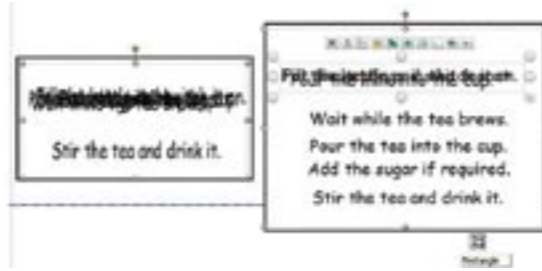
Spotlight / searchlight

The spotlight or searchlight tool allows the teacher or student to explore individual parts or aspects of the screen. The user can make the area within the searchlight larger or smaller and may also change its shape so that the searchlight area is square or rectangular. This tool is often used to explore images or texts and can also be used in conjunction with other software and websites.
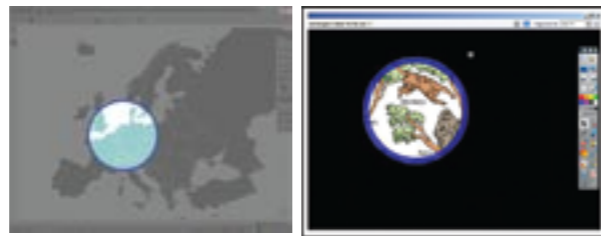
Screen-shade, blind, curtain or revealer tool

This tool is a simple screen cover that is used by teachers to hide all or part of the screen. Commonly it is used to gradually introduce teaching points or an activity. It functions in a similar way to a 'Roller Blind' but can also be pulled horizontally. In the first screen shot it is being used to cover part of the screen where the Planet Earth would be. In screen shot two it is drawn down to gradually reveal a map. In example three, the tool is used to reveal different layers of the rainforest within a Geography lesson.
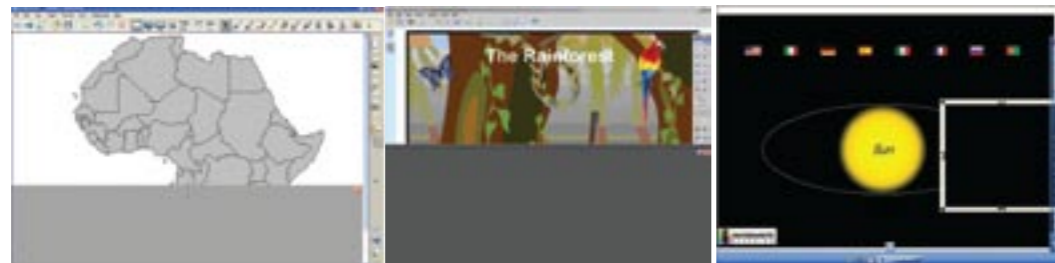
Text / handwriting recognition

Most interactive whiteboard software allows the user to write with the pen tool and then turn it automatically into text. Often the software will offer a number of text alternatives in order to take into account different styles of handwriting. Some brands will convert handwriting into a specific target language. e.g. a teacher in France converting handwriting into German in a foreign language class.

Stacking objects / cloning and duplicating

A simple way of accessing multiple copies of a single object is to stack several copies of an object on top of itself. Example one shows a stack of coins that are being used within a Mathematics lesson. Users will quickly move on to using automatic duplication tools once they are familiar with the software. Cloning and duplicating tools allow the user to quickly access multiple copies of the same word or image during a lesson. In essence, it creates a never ending stack of objects. The user selects the object and sets the object properties so that they automatically duplicate when selected. In example two, the coins are being set so that they reproduce on demand. Individual pages can also be duplicated within the software and advanced users will sometimes use this function to save time when developing lesson materials. They may duplicate a page and change it slightly rather than constructing a similar page from scratch.

Timers / stopwatches and clocks

Countdown clocks and timers are commonly used by teachers as part of normal teaching. Timers found within the IWB software allow the teacher to manage the length of lesson segments and can be programmed to play a sound or tune to signify the end of an activity. Most brands include a variety of timers aimed at different aged learners. Clocks can be programmed to display time in 12 and 24 hour formats and are often placed in the corner of the screen and used instead of a traditional clock. Many other similar 'working' add-ons, such as calculators and thermometers may also be found within the IWB software.

Subject tools

IWB software contains a number of tools that lend themselves particularly well to specific subjects. This example shows a range of interactive tools for Mathematics. These tools work like their real counterparts and can be used precisely. Initially, many tools developed around Mathematics and Science teaching. Recently, however, tools such as timeline makers, spellcheckers and word generators have been developed with other subject areas in mind.
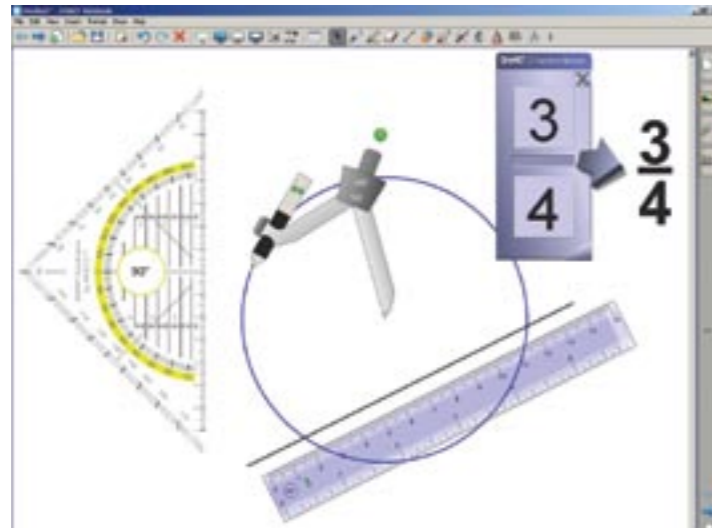
Screen or page recorder / video camera

This tool can be used to record all activity that takes place on the interactive whiteboard during a session. It can apply to the full screen or a particular area. The resulting video clip can be saved in multiple formats and viewed using most media players. Some practitioners will use this tool to record the answer to a problem before a lesson or to record a process then replay it during the lesson to reinforce learning.
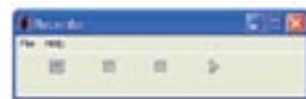
Grouping

Grouping allows the IWB user to combine more than one image or text object in order to make a composite image. This can be useful when creating labels or matching activities. In the example, an arrow and a key question have been grouped. The arrow is place partially off screen and dragged onto screen using the finger or stylus at the appropriate moment during the lesson. Grouping is regularly used in drag and drop and classifying activities.
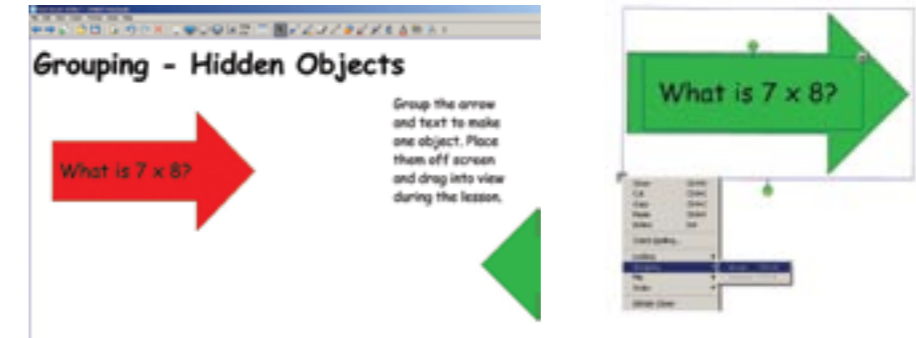
Transparency

The transparency tool allows IWB users to change images and text so that they can become partially or fully transparent. It the example, the shape has been made partially transparent so that the squared paper can been seen through it. This could help in this context if teaching a Mathematics lesson on Area. Other subject teachers may also use this function such a layering maps so that elements of more than one can be displayed together.

Layering

Layering allows the IWB user to place screen objects in a desired order on the screen. Users may use this concept in a number of ways to create tasks. Example 1 shows some text hidden underneath a speech bubble. The speech bubble is locked down so it cannot move and the user can pull a quote from underneath the speech bubble at any time during the lesson. In example 2, the pupil removes the coloured tiles to gradually reveal the mystery picture beneath.
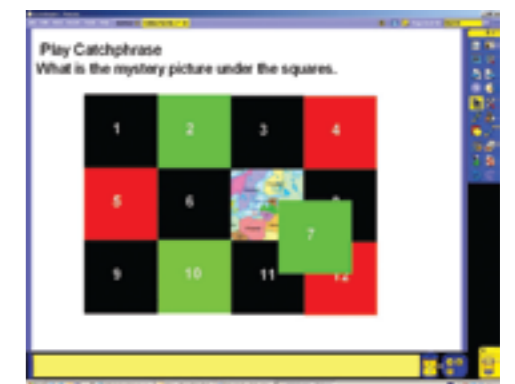
Rub and reveal

Rub and reveal is a commonly used technique with most interactive whiteboard software. The user hides an object such as text or a picture under a layer of ink. In some instances the ink is the same colour as the page background on others it contrasts. The user simply uses the eraser tool to rub away the layer of ink to reveal the word or image beneath it at an appropriate moment during the lesson. Text is covered with a layer of green ink then gradually rubbed away to fully reveal it.
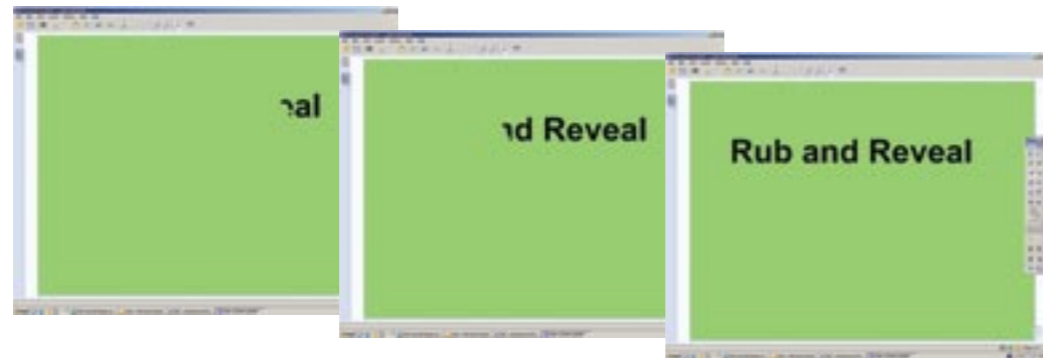

Fill tools and techniques

The fill tool allows users to change the colour of a shape, text object or the background by clicking on it and selecting a colour. In the example the fill tool has been used to fill the regular shapes in blue and the irregular shapes in green. Fill in a shape to reveal some information. Place text inside a shape that is the same colour so that you cannot see it. Change the colour of the shape with the 'Fill' tool so that the text appears (see below) In this example a teacher introduces keywords at the beginning of a lesson using this technique.

Screen capture / clipping / camera

This tool allows the user to cut parts of an image either from within the IWB software or from an external source. The image can either be square or rectangular or freehand. During the EuSCRIBE project teachers were observed using this tool to cut out a character from an image taken from a video clip. Other uses might include capturing diagrams from websites or creating a jigsaw from an image.
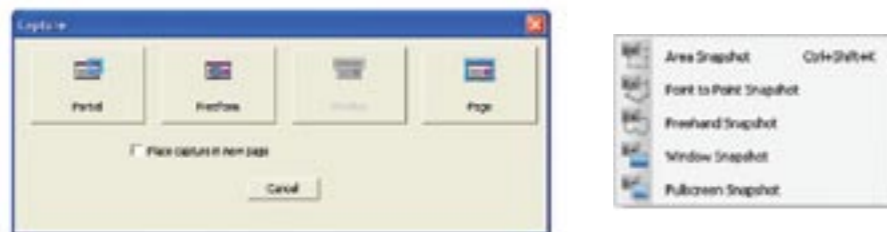
Animation

Objects on screen can be animated in a number of ways. The simplest approach is to create a page and duplicate it many times. The user simply moves objects slightly on each page in sequence similar to an animator's flipbook. As the user turns the pages, the objects move or change. This is particularly useful if explaining processes or cycles. A second commonly used animation technique is that of programming screen objects in order for them to move, disappear or change when clicked on by the user when at the IWB. For instance, the image of a door may be programmed to flip horizontally. This might reveal who is behind the door. Finally, screen objects might be programmed to move around the screen, similar to traditional presentation software. More complex animation is possible by importing and embedding Macromedia Flash objects or movie clips that the user has sourced elsewhere.

Interactive authoring

IWB software has advanced to the point where it is relatively simple for users to author activities that combine movement, sounds, images and text with the facility to programme specific correct and incorrect answers related to them. Example one shows an interactive multiple choice quiz that is self-marking. Example Two shows a 'Recycling' lesson that applauds pupils, using a sound file, when they recycle items correctly.

User communities

Many manufacturers have set up IWB user communities over the past several years. These online communities allow users to communicate and share resources and ideas through a website. Lessons can be contributed by users and downloaded by members. Some manufacturers provide additional IWB Gallery resources for download and provide news on software developments and product updates to members via e-mail. Some regional authorities and school districts have also developed their own user groups and networks that share IWB practice at a local level. In some areas of the UK, education authorities have developed exemplar interactive whiteboard materials for their teachers to adapt and use as part of their everyday teaching.

Other interactive devices in conjunction with the IWB

There are several interactive devices available which can provide a complete interactive solution for some schools, but they can also be used to complement the IWB. These include small wireless interactive tablets that allow remote access to the board from anywhere in the room and' voting' or Learner Response Systems (LRS) that allow students to respond individually to a question set by the teacher via their own wireless handset. LRS responses are displayed on the IWB and can include numerical and text formats as well as traditional multiple choice responses. Users can also invest in a visualiser or document camera that allows the teacher to project a still or live video image onto the IWB screen, annotating or taking screenshots as necessary.

MimioView document camera

eInstruction response system

SMART Slate

Promethean ActivWand

Dual user

Interactive whiteboard manufacturers now provide users with the option to purchase and use multi-input / multi-user technology. This means that more than one person can use the interactive whiteboard at any one time. This is accomplished by either dividing up the screen so that each user has their own section that they can control from a remote device such as a tablet, or by providing a second IWB user with their own set of tools that works on all or half of the board. This is a relatively new development in IWB technology and no users were seen to use this approach during lesson observations carried out within the EuSCRIBE project.

Websites

European and national links

European Schoolnet

http://moe.eun.org/web/iwbworkinggroup/iwb - Interactive Whiteboard Working Group

http://lreforschools.eun.org - The Learning Resource Exchange for schools

Czech Republic

http://dum.rvp.cz - Portal for sharing various digital resources, part of the LRE

www.veskole.cz - Mostly frequented portal for interactive LOs (school administered)

http://www.dzs.cz - European Cooperation in Education

www.rvp.cz - Czech curriculum portal including national repository of digital learning materials

Italy

http://www.scuola-digitale.it - ANSAS IWB dedicated website

http://wiidea.scuole.bo.it - The italian WiiMote teachers 'community

Portugal

http://moodle.crie.min-edu.pt/course/view.php?id=396 - Interactive Whiteboards at the Team for Educational and Technology Resources Moodle platform

https://www.portaldasescolas.pt/portal/server.pt/community/00_recursoseducativos/ - Schools' Portal, Portuguese Ministry of Education, Learning Resources section

http://interactsite.blogspot.com - Teachers testimonials and support blog posts about IWB since 2006

http://interactic.ning.com - Teachers Community of Practice about IWB and Web 2.0 tools for teaching and learning

Switzerland

The IWB dossier is on the Swiss Education Server:

http://iwb.educa.ch (German version)

http://tbi.educa.ch (French version)

http://lim.educa.ch (Italian version)

UK

http://www.becta.org.uk - British Educational Communications and Technology Agency

http://www.teachers.tv/ - The homepage for Teacher TV – Many references to IWB use if used as a search term

http://www.teachernet.gov.uk/wholeschool/ictis/infrastructure/iwb - Advice and guidance on using IWBs in different areas of the curriculum

http://t-media.educ.cam.ac.uk/T-Media-Mathematics/start.html

Copyright links

http://creativecommons.org/about/ - Information on Creative Commons licenses

http://www.copyrightaware.co.uk - Industry Trust advice on copyright

http://jisc-casper.org/content/view/about - Copyright advice and support project for e-learning resources

Links of commercial IWB suppliers that supported the EuSCRIBE project

http://www.einstruction.eu - The EMEA eInstruction website

http://www.einstruction.com - The official eInstruction website

https://www.eicommunity.com - The eIcommunity - user group for einstruction

http://www.mimio.dymo.com - The official DYMO/Mimio website

http://www.mimioconnect.com - The Mimio user community and lesson bank

http://www.prometheanlearning.com - Promethean Training and Online Learning Hub

http://www.prometheanplanet.com - Promethean user community

http://www.prometheanworld.com - The Official Promethean website

http://smarttech.com/ - The official SMART website

http://www.exchange.smarttech.com/index.html - SMART online user community and resource exchange