Houses of the Future

Mit dem Whiteboard das will-future üben

Wie sehen unsere Häuser in Zukunft aus? Wird die Waschmaschine von allein wissen, wann alle Socken dreckig sind, sie sich vom Hausroboter bringen lassen und nach der Wäsche auch aufhängen? Das malen sich die Lerner hier aus und werden in ihrer Arbeit durch ein Whiteboard unterstützt.

An interactive whiteboard is basically a surface onto which a computer screen can be displayed via a projector. It is touch-sensitive, which means that all applications on the computer can be controlled via touching the board, either with your finger, or with an electronic pen/stylus. All changes made to information projected onto the whiteboard are transferred to the computer and can be saved. There are many different brands of interactive whiteboard currently available. Some examples are: Activboard (Promethean), Smartboard (Smart) and Starboard (Hitachi) (see list of links at the end of this article).

Most interactive whiteboards are supplied with specific software tools, e.g. 'electronic flipcharts', which are blank pages for creating teaching materials. Pages can be turned backwards and forwards and the number of pages that can be used is unlimited. Other tools enable activities such as handwriting, colouring, highlighting, handwriting recognition, dragging and dropping, hiding and revealing, web browsing, creating snapshots, designing interactive exercises and so on.

Interactive whiteboards are often used in conjunction with remote devices, such as graphic tablets and wireless response systems, which help to enhance the scope of pupils' participation and interactivity during the lessons. Voting systems, for instance, allow teachers to ask pupils to vote electronically on questions. Each student is given a voting keypad (which can be registered with the whiteboard so that each student has a unique ID) and can respond to the teachers' questions. Results can then be displayed immediately on the whiteboard in graphical format and can be exported to a spreadsheet. Teachers can decide whether they want pupils to vote anonymously or on "named mode".

In order to discuss the potential of this technology in a more practical and tangible way, we will draw on a small scale case study conducted at a Realschule, in which one of the authors implemented two English lessons with a 6th grade class, whose aim was the practice of the will-future. In addition to the description of the activities and materials used during the lessons in question, the article will also include other possible pedagogical uses of IWB technology. This will be referred to as "what the teacher could also have done" in this context.

Houses of the future

The first lesson focused on the topic "Houses of the Future". In order to set the context and introduce the topic of the lesson, the teacher presented an Internet video which showed a family living in a "house of the future" equipped with state-of-the-art technology. The video does not contain any audio. The pupils were supposed to pay attention to the special features the house offers and the various activities the members of the family are involved in. Other Internet materials the teacher can use are websites where other children draw and describe their houses of the future or interviews with experts on what they think the house of the future will look like (e.g. short videos and texts from www.bigthink.com). The IWB software enables the teacher to overwrite websites to emphasize linguistic elements and create snapshots of all annotations for future use.

Voting keypad

A possible way to introduce and stimulate interest in a new topic with interactive whiteboard technology is via the use of pupil-generated data as a starting point for discussion, e.g. a voting questionnaire (→ BOX 1, S. 44), in which the pupils choose which feature would be essential in their house of the future by using their voting keypads. Here, it would be interesting to find out how many pupils would choose the option "homework/housework robots".

Images and visuals: Resource gallery

The main task the pupils had to fulfill for this lesson was "drawing and describing their house of the future". In order to provide adequate task support, the teacher made wide use of visuals (mainly pictures) to facilitate the introduction of new vocabulary and basic phrases and to stimulate pupils' imagination. The advantage of using electronic pictures is that they can be shown on a large screen without losing their original quality, which facilitates viewing by the pupils. In addition to this, the seamless access to images via the Internet tends to encourage teachers to use visual input more frequently as a way of facilitating understanding of difficult concepts/words. The IWB software also provides a resource gallery with maps, pictures, diagrams and audio files, interactive flash resources which can be searched and dragged and dropped to the electronic flipchart. Teachers can also use Google Image to search for pictures and build up a bank of resources, as images can be placed in the resource gallery. Another obvious advantage for teachers

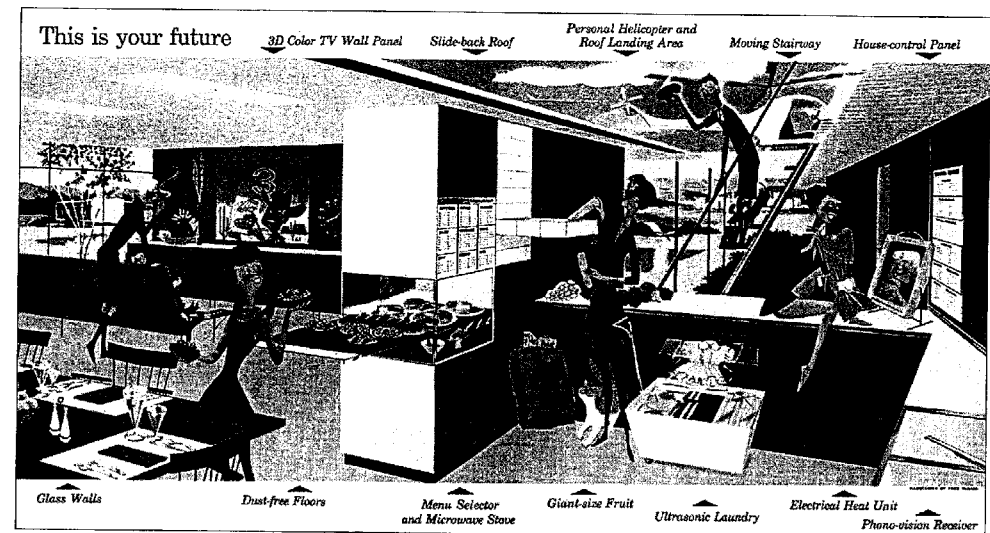|	
LERNGRUPPE:	6. Schuljahr
IDEE:	will-future mit dem Whiteboard üben
METHODE:	Whiteboard
TEXTE:	Videoclip "Houses of the Future" unter www.youtube.com/watch?v=HuVm3WIWx6Q Statements und Bilder "How will your house of the future look like?" www.co.marin.ca.us/depts/CD/Main/future-marin-website/kidsart/index.cfm?artnext=13 oder http://news.bbc.co.uk/cbbc-news/hi/chat/your_comments/newsid_3516000/3516582.stm

is that all annotations made on the images can be saved for later use.

Tools

While working with images, the teacher can also enhance the level of interactivity by employing a variety of software tools and techniques enabled by this technology. Some examples are the Reveal tool, Spotlight tool, White-Out effect and Colour effect (→ **BOX 2, 3** and **4**, p. 44). The Reveal tool (→ **BOX 2**, p. 44) is designed to work in a similar way to the traditional method of using a piece of paper to mask off parts of an overhead projector presentation. It can be used to expose the screen slowly in one of four directions (down, up, left and right). The White-Out effect consists of using a thick pen on white to hide words or pictures (→ **BOX 3**, p. 44). The Spotlight tool lights up the area of focus and darkens the rest of the screen (→ **BOX 4**, p. 44). The eraser tool is then used to reveal the text or image again. The Colour effect is done by colouring texts or images with the same colour of the page background. As a result, the texts or images are made invisible to the students, and they can be made visible again by dragging them to a section of the page with a different colour background. By using these tools or techniques the teacher can gradually reveal parts of an image or a text and employ a range of question techniques, which help generate a greater sense of involvement and engagement in the lesson in the pupils.

Meditation exercise

After introducing the vocabulary the students would need for their descriptions, the tea-

This is your future — 3D Color TV Wall Panel — Slide-back Roof — Personal Helicopter and Roof Landing Area — Moving Stairway — House-control Panel — Glass Walls — Dust-free Floors — Menu Selector and Microwave Stove — Giant-size Fruit — Ultrasonic Laundry — Electrical Heat Unit — Phono-vision Receiver

cher applied a sort of "meditation" exercise with the pupils in order to stimulate their imagination. She asked them to close their eyes for some minutes and imagine what their house of the future will look like. She created a relaxing atmosphere by softening her voice and by asking guiding questions, such as: Where will the house be? What shape will it have? Will it be big or small?

Mindmapping

The teacher then conducted a brainstorming activity on the interactive whiteboard, which focused on the main features of their "houses of the future". The main aim of this phase was to collect and organize the vocabulary the pupils had been introduced to in the previous phase. The main advantage of using IWB technology for this kind of activity is that all the annotations made by the pupils can be saved to the computer, printed off and retrieved in other lessons. The handwriting recognition tool can also be used to convert handwritten script into computer-style text, which can be useful to improve the clarity of presentation and quality of printouts. The IWB software also supports the design of

mind maps by enabling the teacher and pupils to use as many as sixteen pen colours to write on the board. A great variety of colour options can thus be used to differentiate topics or highlight grammatical features, e.g. different semantic fields – location, shape, furniture – represented in different colours.

The use of mind-mapping software in conjunction with IWB technology has also become commonplace in many language classrooms. A number of software producers have updated their products in order to facilitate their use in connection with IWBs. In the updated version, shape and handwriting recognition make it possible to sketch symbols and links as well as write text directly on whiteboards.

Presenting pupil-generated work

In the next phase, the pupils were given time to draw their "houses of the future'. In the following lesson, the teacher collected some of these drawings and scanned them. She wanted the IWB to be used as a platform for the presentation of pupil-generated work. For the pupils, one advantage of using IWB technology for their presentations is the

possibility to draw upon a variety of tools, such as the highlighter or the reveal tool (→ **BOX 3** and **4**, p. 44) in order to engage the other pupils and bring more excitement to the activity. These tools can also help them to further the development of questioning skills. In this specific lesson, the main focus was on the development of oral skills. However, another possibility would be the display of students' writing on the IWB (by using a scanner or digital camera). The text can then be proofread by the whole class and all the changes or suggestions can be saved.
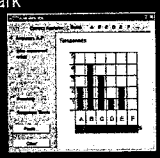
Creative writing

The next stage of the lesson focused on creative writing and storytelling. The pupils had to use the new vocabulary to create a science-fiction story, which happens in the year 3056. By showing some pictures, the teacher provided the beginning of the story and some words the pupils could use. Pupils were then split into groups of four and given an envelope which contained a series of cards with pictures, which they would need to reorder and tell how the story would go on. Some groups then presented their stories in front

Voting questionnaire

Question 1 of 4

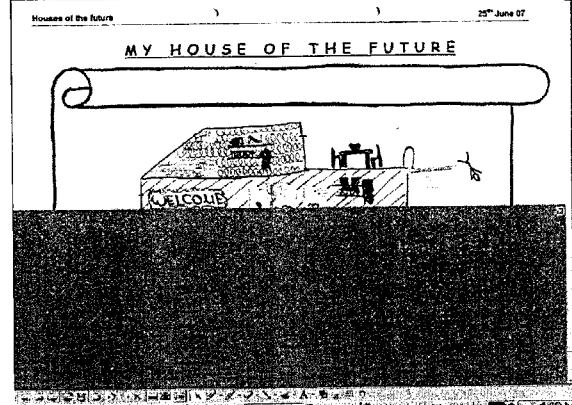What will your house of the future have?

A) An underground skate- park

B) A teleportation machine

C) A chocolate machine

D) Homework/Housework robots

E) A computer in every room

F) Other_____

Reveal tool
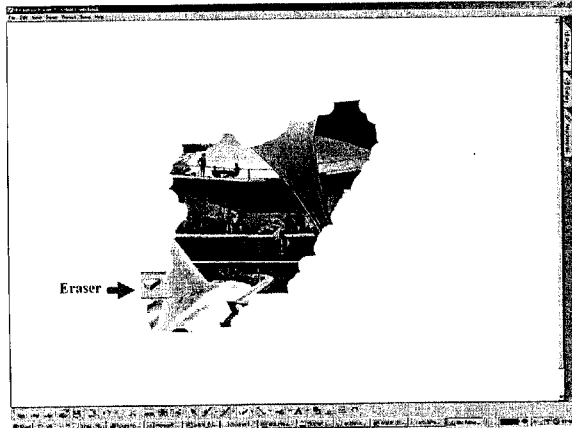
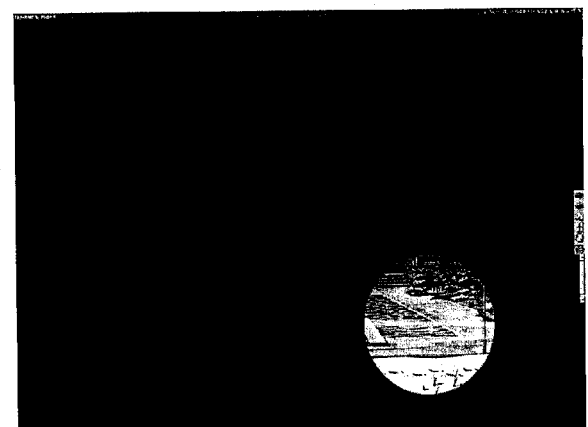Houses of the future   25ᵗʰ June 07

MY HOUSE OF THE FUTURE

White-Out effect

Eraser ➡

Spotlight tool

of the class by dragging and dropping the digital pictures in their chosen order on the interactive whiteboard.

The drag and drop facility can be employed in various ways by teachers. Being able to move items on screen helps with activities, such as matching, labeling, grouping, sorting, gap filling, and ordering. Although language teachers can perform the same activities by making use of paper-based flashcards, the design of materials and implementation during the lessons can be more time-consuming and less efficient.

For the implementation of this creative writing/storytelling activity, the teacher could also have used storyboard building software. This kind of software can be used by pupils to compose role plays and stories by adding characters, backgrounds, recording voices and adding sound effects. A good example is Kar2ouche, a highly interactive multimedia authoring tool.

Conclusion

Some of the most important potential benefits of the IWB technology are its role in facilitating the integration of new media in the regular language classroom, supporting the development of the so-called "electronic literacies" and meeting the needs of students with diverse learning styles (aural, visual and kinesthetic) through the use of multiple media. We hope that these examples of tech-

nology use may help English teachers to develop a better understanding of the possible applications and advantages that the technology can bring to their pedagogical context.

The amount of German classrooms equipped with this state-of-the-art technology is still very small compared to other countries, such as England and Australia. However, the quantity of press reports on IWB use in German state schools has become increasingly more frequent in the last two years, which shows that this technology is gradually finding its way into German classrooms. Therefore, the need for good quality training on the pedagogical use of IWB technology becomes increasingly important in this context.

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