

Impact case study

Getting the most out of interactive whiteboards

There are more interactive whiteboards in UK classrooms than in any other country in the world, but teachers need support to exploit the technology's potential as an educational tool. Now, new resources and workshops developed by Cambridge researchers mean teachers can make the most of the IWB.

The interactive whiteboard (IWB) has become a ubiquitous tool in UK schools. More than 90% of UK classrooms now have IWBs, more than any other country in the world. But researchers at Cambridge believe that investing in the technology is not enough, and that to harness its potential for learning we must also invest in the teachers who are using IWBs.

Dr Sara Hennessy leads a team of researchers at the Faculty of Education that has studied UK teachers' use of IWBs, and in particular how the technology can be used to foster dialogic teaching and learning – an approach that creates a supportive classroom environment in which pupils can share, build on and evaluate each other's ideas.

At first glance, the IWB should be a powerful way for a class to create knowledge together. "The IWB is much more than a computer linked to a data projector," Hennessy explains. "Because it is dynamic, in that you can move objects around on screen as well as via the computer, and it comes with sophisticated software that allows you to annotate, highlight and zoom into images, video and text, the IWB can create a rich multimedia experience."

The problem, however, is that in many schools it is not. "At around £2,000 it's quite an expensive tool; it could be used simply to project a Powerpoint presentation – and it very often is. So our research has focused on supporting teachers to get the most out of the IWB by using it more interactively," she says.

Working with experienced teachers who have been using the IWB effectively, Hennessy and her team observed, analysed and documented the strategies the teachers used in the classroom: "The key method was reviewing lesson videos with the teachers; this was critical because it allowed teachers to reflect on their own – and their colleagues' – practice. That way, we built a collective view of how to use IWBs most effectively, and teachers were also able to share practice and get ideas from each other."

Reflecting on the research, Hennessy says one trio of lessons stood out. Working with a Year 9 history class of boys aged 12-13, teacher Lloyd Brown tackled trench warfare. Using a rich range of historical sources and objects, including diaries, photographs, drawings, sound and video, he used the IWB to enable pupils to reflect on soldiers' experiences.

According to Hennessy: "In the third lesson, the class used what they had learned to collectively draw a picture of what they imagined life to be like in the trenches. Each student built on what the previous one had done, which is the essence of dialogue, and by putting themselves into the minds of the soldiers the boys had a very sophisticated discussion about how much we can ever learn about past experience from historical sources – it was pretty powerful."

These rich examples of practice in using IWBs have been now been collated into a book, co-authored with participating teachers and published by Open University Press in 2014, plus an online resource (<http://tinyurl.com/OUPIWB>) including video clips, but the Cambridge team wanted to disseminate this professional development resource to more teachers in more schools.

Through the ESRC Impact Acceleration Account (IAA), Hennessy along with colleagues Paul Warwick and Tatjana Dragovic set up five clusters of primary and secondary schools and recruited 80 teachers to the project. One teacher in each cluster acted as an ambassador for the project, liaising with the researchers and organising and facilitating the two after school workshops that the project comprised.

The first workshop introduced teachers to the IWB and the dialogic approach, and the teachers then used the resource to develop their own ideas for using it in their classrooms. "They looked at videos, discussed them, used the dialogue table in the resource – which describes what a dialogic classroom would look like – and audited their own current practice," says Hennessy.

After the first workshop, teachers put their plans into action in the classroom and then used the second workshop to discuss what they had done. "This regular trialling of new ideas, followed by an opportunity for reflection with colleagues, is critical to continuous professional development," she says. "And they all came back with some concrete examples of dialogic teaching, they had all moved forward in some way in their thinking and practice, which was great to see."

Hennessy hopes the project can become self-sustaining. "The process does not end there," she concludes. "We had IAA funding until the end of August 2014, but we hope the teachers will continue – which they plan to – and make this a wider initiative in their schools and in their individual practice."

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