Using interactive whiteboards for dialogic teaching

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The IWB has been widely introduced in UK schools without much consideration of how it might best be used as a ‘dialogic tool’

(Sept. 2007 Special Issue of ‘Learning, Media & Technology’ on IWBs)

• technology should serve pedagogy... it can “open up a space for dialogue” (Wegerif 2007)

• teachers’ pedagogic approaches mediate the use of the IWB (Gillen et al 2006; Hennessy 2006; Warwick & Kershner 2008)

• the tool itself thus has no transformative power, though it raises new possibilities...
Does the use of IWBs transform teaching?

- No
- They are commonly used to maintain a teacher’s existing approach
- There have been concerns that they actually encourage more didactic, ‘scripted’ presentational approaches
  
  *(e.g. Smith, Hardman & Higgins, 2006)*

How can the IWB help a teacher achieve productive educational dialogue?

In a dialogic classroom, teachers and learners are:

- reasoning; generating, justifying and evaluating ideas:
- responsively and cumulatively building on others’ ideas:
- co-constructing new meanings and interpretations
  
  *(Alexander, 2004; Mercer and Littleton, 2007; Mortimer and Scott, 2003)*
Dialogic teaching requires a teacher to use different kinds of talk strategically

- a dialogic approach is known to be fruitful for learning, developing reasoning skills and conceptual knowledge - but it remains rare
  
  (Smith et al. 2004; Mercer & Littleton 2007; Scott & Mortimer 2003)

“In many classrooms most of the dialogue appears to occur more by accident than in a deliberate, conscious manner”
  
  (Bewley & Smardon, 2007)

Some types of dialogic strategy

- Encouraging a diversity of views
- Witholding evaluations
- Encouraging extended turns
- Creating ‘dialogic space’
- Adapting to emerging circumstances
- Building cumulatively on shared experience
What does the IWB offer as a tool for dialogic teaching?

A teacher and class can...

- gain shared access to multimodal resources
- make a cumulative record of collective thinking
- move through time to review and plan

Aims

- To see how teachers taking a dialogic approach can use the IWB to stimulate effective classroom dialogue
- For researchers & practitioners to work collaboratively in exploring the dialogic use of IWBs

Participants / Methods

- 1 primary, 1 middle school, 1 secondary teacher: not expert IWB users (release funded; all gained university accreditation)
- 3 classes of students aged 11 (PSHE), 13 (English), 14 (History: all boys class)
- Trialling new approaches: 3 lessons videoed in each classroom, joint analysis of ‘critical episodes’
Case Study

Lloyd: Lessons 1-3  (Secondary Year 8 history teacher)

**Can we imagine the experience of trench warfare?**

Lloyd used digital resources to help students gain vicarious experience of trench life in 1st World War.

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**Lesson 1**

If I ever get sent to the front with a regiment, I shall shed tears of joy... I do envy. Chris going off so soon but I think the dog will have his day soon too.

We expect to be moved to the front at any moment. The men apparently will be in the trenches alternate 24 hours, changing with a fresh lot of men during the night. I am behind HQ, probably a dug out where I sit and wait for the wounded to be brought to me. I am told that doctors are not allowed in the trenches. I am told that the feeling at the front is splendid and there is a Daily Mail for every 10 men.

Our men have had a terrible experience of 24 hours in trenches, shrouded through and in some places knee deep in mud and water. To see them come out, line up and march off is almost terrible. They don’t look like strong young men. They are muddled to the eyes. Their coats are plastered with mud and weigh an awful lot with the water that has soaked in. Their backs are bent and they stagger and totter along with the weight of their packs. Their faces are white and haggard and their faces glare out from mud. They look like wounded, sick, wild things. Many, too many who are quite beat are told they must walk it. Then comes the nightmare of a march of 2 to 4 miles which they do in a trance.

Doctor’s diary: “Just by underlining something, it makes you think about it. So from that point of view, the use of the IWB and the annotation part, I think helps thinking”  (Teacher)
Lesson 2

**Interpreting & visualising poem**

Video storyboarding on mini-whiteboards, 2 pairs record on IWB

YouTube video “Paths of Glory”
Use of dialogic strategies

The teacher...

- Encourages extended turns
- Elicits a diversity of views, avoiding evaluating
- Allows dialogic space for discussion (whole class and pairs)

Lesson 3
DVD audio track (no picture) of trench warfare:
shelling and countdown

Class brainstorm words suggested by the
sounds heard, recording ideas on IWB:

busy
hard to communicate
loud
bombing
never a break

DVD video track (no sound)

[Is it possible for us to imagine the experience of trench warfare?]?

“They are co-constructing knowledge focussed on this open-ended
question” (teacher)

Ricky: It’s like when you imagine winning the lottery... it wouldn’t
necessarily be like what you think.

Robert: You can imagine what it would look like, but you can’t imagine
what it would feel like or how you would be feeling.

Owen: Yes, because on the DVDs or on the films and the poems and stuff,
it explains and you can see what it looks like, in wasteland, and you’re
both in trenches, but you wouldn’t know what it was like to go ages
without food or water.

Ricky: That’s partially true, but you wouldn’t know what it would be like to
be shot by a bullet or be bombed or something.

Felix: ... every single person’s experience with it would be different...
Everybody’s got different feelings towards the war... and you would
only know what you felt like.

Teacher: Yes... can we ever achieve a common understanding of anything?
Interactivity supports explicit reasoning & building on others’ ideas to construct new collective view

“building on their informed speculation from some of the things that they had seen” (Teacher)

Exploiting distinctive IWB features:

- Revisiting earlier activity of class (assistive memory)
- Annotating texts (provisionality and permanence)
- Presenting films, pictures texts (multimodality)
- Enabling active student involvement (interactivity)
When used with a dialogic pedagogy, the IWB enables a teacher to:

- Encourage students’ active, highly-motivated involvement
- Extend the trajectory of learning across several lessons
- Develop a learning community
- Adapt to student responses and other changing circumstances as they emerge

How can we strategically exploit rich potential of interactive technologies now available – and those coming soon – to make learning more engaging & successful?

What are the affordances & constraints of using / combining different modes for different pedagogical purposes?

How can ICT designers and redsearchers help teachers to build on what we now know works: empowering students through collaborative, dialogic, participatory, problem- and inquiry-based activities?

“The dialogic classroom, that’s what it is about, isn’t it, to make thinking more analytical than just descriptive and narrative.”
(history teacher)
References


