

Gender inequality in the primary classroom: can interactive whiteboards help?



Issues the introduction of interactive whiteboards aimed to address

- ◆ This project looked at how interactive whiteboards (IWB) could be introduced to help move whole class teaching away from:
 - Closed teacher questions, brief pupil answers, superficial praise and an emphasis on recalling information rather than genuine exploration of a topic
 - Some boys dominating in the classroom to the disadvantage of girls.



What happened to teachers practice when using IWBs?

- ◆ They increased the frequency of open questions to boys in particular
- ◆ Their interaction with boys increased further: they asked boys open questions and evaluated their answers more frequently than girls



What stayed the same in teacher practice?

- ◆ Introducing IWBs was not linked to increases in teachers' stimulation of higher order thinking
- ◆ Interaction still conformed with the three-part initiation, response, feedback sequence



What stayed the same in teacher practice?

- ◆ Teaching continued to be directive – that is teachers used a high degree of:
 - direction
 - explanation
 - refocusing



Timescale for change in teacher practice

- ◆ For the first year there was not much change, e.g. teachers asked mainly closed questions
- ◆ But in the second year, changes emerged e.g. teachers asked more open questions in the second year of IWB use



Types of teacher questions

- ◆ Open question – no right or wrong answer
- ◆ Closed question – single, or limited, number of correct responses
- ◆ Repeat question – same question again
- ◆ Uptake question – teacher builds on a previous answer by asking a different pupil a related question
- ◆ Probe – teacher asks a pupil for further information, usually by asking a *Why* or *How* Question



Other teacher strategies

- ◆ Evaluation – teacher offered praise acceptance or criticism
- ◆ Direction – teacher gave an instruction to a pupil do something
- ◆ Refocus – the teacher called pupils back to the task
- ◆ Explanation



Who were the children in the study?

- ◆ The researchers observed the interactions between 30 teachers and their Year 5 (9-10 year olds) classes with and without IWBs.



How was the information gathered?

- ◆ The researchers observed each teacher four times:
 - once using an IWB to teach numeracy and once without
 - once using an IWB to teach literacy and once without
- ◆ Fifteen of the teachers still teaching year 5 classes were observed one year later teaching both literacy and numeracy to their new class

Analysing classroom discussion

- ◆ The researchers monitored classroom interactions ('discourse moves') in terms of:
 - types of questions the teacher used
 - other contributions the teacher made
 - pupil contributions



How can teachers use the evidence in this study?

- ◆ The study found that the quality of dialogue was what counted rather than simply the use of IWBs. Could you:
 - Plan lessons to include more probe and uptake questions? Such questions might include *“Why did you think that...?”* *“What do you think might happen next?”*
 - ensure your questions around IWB are designed to open up dialogue?
 - use IWBs to motivate the pupils to get engaged with the task?

How can school leaders use the evidence in this study?

- ◆ The study found that the key point about using IWBs interactively is the underlying pedagogy eg asking questions that stimulate elaborated discussion
- ◆ Could you encourage your staff to: build interactivity around specific strengths of the IWB such as the opportunity to manipulate mathematical figures, eg squares and rectangles, and so uncover their properties inductively and through discussion?

Follow-up reading

- ◆ Study reference: Smith, F., Hardman, F., & Higgins, S. (2007) Gender inequality in the primary classroom: will interactive whiteboards help? *Gender and Education* Vol. 19, No. 4 pp. 455-469



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