# 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

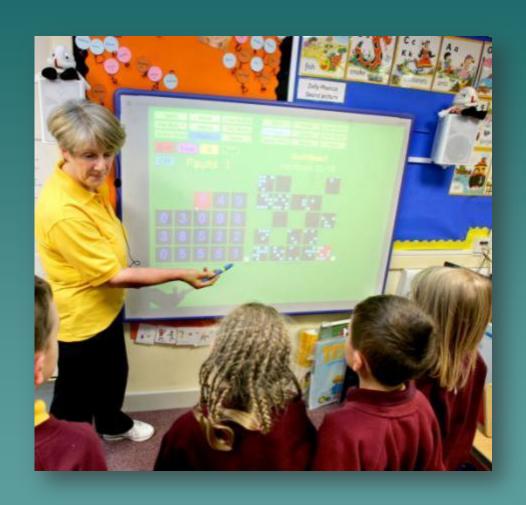
#### What stayed the same in teacher practice?

- 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

#### Standards Site



#### Feedback

- Did you find this useful?
- What did you like?
- What didn't you like?

Any feedback on this Research Bite would be much appreciated. Please email your feedback to:

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