Interactive Whiteboards and Collaborative Pupil Learning in Primary Science

Conclusions and implications for practice
The IWB provides both a tool and an environment that can encourage the creation of a shared dialogic space if
- there is active support from the teacher for collaborative, dialogic activity in the classroom
- the teacher devises tasks that use board affordances to promote active learning and pupil agency. For example:
  - A series of cumulative tasks, the pace of which can be controlled by the children (e.g. reviewing previous learning)
  - Open-ended tasks (e.g. sharing initial topic ideas)
  - Science investigations (e.g. data interpretation, considering experimental design and variables)
  - Tasks integrating web-based materials (e.g. using web-based simulations and video resources)
- the participation structure is flexible enough to accommodate developing pupil and teacher expertise and expectation.

but
- wider constraints may apply, such as when there is a conflict between group learning and the need to assess individuals
- individual circumstances may combine and intervene, such as technical capability and self-efficacy.

Analysis
- Identifying 'learning episodes' of several minutes as initial units of analysis
- Further detailed analysis of talk and interaction within and beyond learning episodes
- Building a research narrative for whole lessons linking IWB affordances, collaboration and dialogue, science learning and teacher mediation

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Children’s active participation through exploratory talk

Exploratory talk is that in which we can hear questions, reasons, talk being used as a tool for thinking together. It is characterised by such phrases as:

- what do you think…? why…?
- I think that…..because…
- if……but…..I know…
- shall we…?

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Children talking about food chains, with features of exploratory talk:

**S1:** Well actually, no … what about if we put that there, that could…
**S2:** Oh yeah.
**S1:** That could be eaten like that.
**S3:** Maybe we could swap it round.
**S1:** No that’s.
**S2:** Why was the spider…?
**S1:** So do you all agree with that?
**S3:** Do you agree with that yeah?
**S2:** Yeah.

See also
http://thinkingtogether.educ.cam.ac.uk