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How does the concept of extended pedagogy enhance our understanding of literacy teachers learning with digital video?

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Background

While the field of learning with representations has been fertile ground for important research in recent years (Ainsworth, P2005), the need is even greater at the present time to understand better the fine-grained cognitive processes that are brought into play when people learn from dynamic visual representations such as video extracts (Ploetzner, 2004). Influential research that has focussed on Self and Other (Lemke, 2004), internal conflict resolution (Derry et al, 2000, and noticing (van Es, 2004) has made a valuable contribution to understanding cognitive processes associated with learning with video.

However, little is still known about the significance of peripheral learning that appears to be directly unrelated to the instructional content of a video, and that refers to other content, ideas or learning prompted by the intended content matter represented in a video. Engestrom (2003) introduced the concept of learning by expanding, which he defined as renegotiation and reorganization of collaborative relations and practices between and within the activity systems involved.

The paper re-frames the concept of learning by expanding in the context of teacher learning, drawing on 2 independent studies of learning from digital video of classroom practice.

ICE is a computer-mediated interface for viewing and critiquing digital video (Harrison and Pead, 2006). It affords opportunities to facilitate professional conversations by permitting close attention to the content, discourse and pedagogy of a lesson or teaching and learning event. In particular, with ICE the user can draw upon the video, the transcript and pop-up resources such as the lesson plan, and student work, as evidence upon which to make judgements about teaching and learning. The user can also select their own 'video quotations' that can be stored in a personal area or pasted into emails or discussion board messages in professional fora.

In both studies, ICE was used to provide information about how teachers learn from the representations of teaching that are available on video and regarded as depicting exemplary practice.

Research Questions

The research questions this paper seeks to address are 'How do experienced teachers learn from digital video of classroom practice?' and 'How does the concept of extended pedagogy enhance our understanding of teacher learning with digital video?'

Methods

The paper draws on the methods employed in two separate studies using digital video

to support the professional development of literacy teachers, and specifically to explore what and how teachers learn from videos of literacy instruction.

Twelve teachers from 6 schools in three local authorities in the North of England participated in the first study as three school-based pairs and six individual respondents. In the second study, fourteen teachers from seven schools in one local authority in the Midlands participated in school-based pairs.

The first study was conducted over one school year, and the second study took place over a four month period.

The first study focussed on how experienced teachers learn through critiquing videos of literacy teaching in key stage 2 classes using a reflective discussion board, while the second study looked at the learning of Key Stage 1 teachers through their multiple shorter postings on a bulletin board. Both studies used Interactive Classroom Explorer (ICE) as the medium for viewing, reflecting on and posting their responses to digital video extracts.

Frame

The study adopted a socio-cognitive perspective on teacher learning (Derry et al, 2000) in which a video representation is regarded as an external event that brings prior knowledge into working memory. [The prior knowledge serves to interpret and understand the representation, and the initial conditions for learning are established.] Conceptual conflicts between prior knowledge and the incoming information create the context for learning to occur. The socio-cognitive perspective adopted here is further informed by Ohlsson (1995), who proposed a set of cognitive epistemic activities that lead to learning through discourse and include describing, evaluating, explaining, explicating, arguing, and predicting.

Research findings

In seeking to explore how teachers learn from digital video, the paper specifically draws on and discusses findings from two studies that relate to notions of 'extended pedagogy'.

The paper reports and discusses findings from teachers' discursive reflections on video quotations from Study 1 and from briefer summary postings associated with video quotations in Study 2.

'Extended pedagogy' is introduced as an analytical concept to describe a teacher response to a video extract that develops a teaching idea beyond the specific focus of the video content, but philosophically or ideologically related to it, so meaningfully increasing the pedagogic scope.

The paper synthesises the findings from both studies to better understand how teacher learning with digital video might be maximised and embedded.

Findings from the first study suggested that extended pedagogy accounted for teacher learning about task setting, questioning and subject knowledge. The study indicated how cognitive epistemic activities mediate five stages of learning, from selecting a video quotation to structuring, elaborating, restructuring, and integrating new pedagogical knowledge.

Findings from the second study showed that teachers' bulletin board comments on pedagogy, which were mainly descriptive, were often complex and detailed and made explicit a great deal of collective knowledge about the early teaching of phonics. However, the additional constraint that bulletin board postings should not repeat comments made previously and should add something new, resulted in the posting of more 'extending pedagogy' comments. Such comments were more reflective, analytical, evaluative and constructively critical than the earlier descriptive comments.

Extended pedagogy is explored within learning themes that emerged in teachers' responses in both studies. Using the combined evidence from both studies, the paper argues that ICE provides a learner reflective-learner response environment that mediates extending pedagogy across multiple learning themes using a range of cognitive strategies. Moreover, the video quotation facility of ICE enables teachers to extend the pedagogy represented in the video and their own pedagogical knowledge by facilitating progression through the five stages of learning.

Strategies are considered for maximising teachers' professional development opportunities for 'external pedagogy' using digital video, and video quotations in particular.

