Video-enhanced lesson observation as a source of multiple modes of data for school leadership: A videographic approach

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Abstract

A growing body of literature recognises the affordances of video in education, especially in relation to lesson observation and reflection as part of teachers' initial teacher education and continuing professional development. Minimal attention has been paid to the outcomes of video-enhanced observation as a source of multiple modes of data for reflexive school leadership. This paper focuses on the data of three participants from a larger set of nine teachers involved in an over-arching study exploring teachers' professional knowledge and practices following a recent curriculum change in England. Data from video-stimulated interviews revealed that recorded video can provide school leaders with a window onto the practices and processes of daily school life, illustrated here through a focus on evidence of policy in practice. It is argued that the leadership perspective provides school leaders and managers with the analytical frameworks and competencies for critical interpretation of the data.

Keywords: Interpretive frameworks, leadership, reflection, video, videography, video-enhanced observation

Introduction

The central thesis of this paper is that school leaders can use digital video strategically as a source of data. Adopting a broadly videographic approach involving 'the interpretive video analysis of social interaction' (Knoblauch and Tuma, 2011: 427), this study gives an account of video and video-stimulated interview data that have been analysed thematically, employing similar methods to those which school leaders might find useful in their own work with recorded video as data for reflexive school leadership.

The paper begins by examining some of the key concepts relating to the use of video and then considers the question '*in what ways can video offer additional data of use to school leaders?*'. It will then go on to give an account of the findings from three focal participants, concentrating on the most frequently expressed and evidenced theme.

Video in education

Research has shown that leadership activities lead to improvements in aspects of school work which in turn improves outcomes (Day et al., 2010). In order to identify and action improvements, leaders use a range of approaches to gather evidence and inform strategy. Traditionally, this could involve synthesising assessment data, learning walks, interviews, focus groups and pupil voice. Audio, video or photographic recording of evidence may be used informally, but up to now, there has been very little discussion of the systematic use of video for strategic leadership in schools, although the use of video is prevalent in specific leadership activities, such as coaching and mentoring relationships (Lofthouse et al., 2010).

The need for school leaders to 'see' things more clearly invites a visual methodology, allowing a 'new view' with the luxury of meta-analysis and reflection (Lyle, 2003: 864). Video offers 'a fine-grained multimodal record of an event' (Jewitt, 2012: 2), resulting in rich visual vignettes, situated in context. Despite the practical challenges of recording video (Kilburn, 2014), the resulting evidence base is far more detailed than notes or photos.

A growing body of literature recognises the affordances of video in teacher education in the US, UK and Europe (Calandra and Rich, 2014; Marsh and Mitchell, 2014; Zhang et al., 2011), especially in relation to lesson observation and feedback as part of teachers' initial teacher education (Blomberg et al., 2013; Lofthouse and Birmingham, 2010; Marsh et al., 2010; O'Leary, 2016), self-recording of lessons for later review (Kane et al., 2015) and continuing professional development activities (van Es, 2012), but minimal attention has been paid to the outcomes of video-enhanced observation as a source of multiple modes of data for reflexive school leadership. A notable exception is Kress and Silva (2009), who report on two different uses of digital video in educational leadership. In their study, a US middle-school administrator used video footage and the school district's teacher evaluation criteria to make the evaluation process transparent and helpful rather than threatening for teachers. They also discuss a professional development initiative where microanalysis of video in a group of ten high school English teachers allowed for meaningful community learning. In both cases video is used to develop understanding through professional frameworks.

Synthesising the practicalities of using video with professional learning conversations (Harrison and Lee, 2011) and reflective skills for observation (Rosaen et al., 2008) encourages the 'professional vision' that van Es and Sherin (2008: 244) refer to in their study of "learning to notice" in the context of a video club. Sherin and Han's earlier (2004) study points to teachers

being able to reframe and expand their discussions over time. If teachers can learn skills to reframe discussions, there is scope to take them outside of the classroom and apply them to the larger school sphere to inform leadership strategies.

Having gathered video data, the question remains as to the way it can be triangulated to gain a deeper understanding. Video-stimulated interviewing, where video is used to elicit discussion, is used widely in educational research (Jones et al., 2009; Lyle, 2003; Moyles et al., 2003) and the resulting dialogue allows the opportunity to 'read the pedagogical environment critically' (Nind et al., 2015: 14), offering the chance to focus on the thinking behind the action and glean understanding from reflection on practice.

Although the studies referred to here each illuminate a relevant aspect of video in education: for coaching, for reflection, for observation, for evaluation, as data for microanalysis, or video-stimulated interviewing, no research has been found that allows them to overlap with the reflexive actions of school leaders, and it is precisely within this intersection that the current study is located.

Methodology

Data for this study were extracted from an over-arching study exploring teachers' professional knowledge and practices following the 2014 ICT to Computing curriculum change in England. The researcher was a former secondary-school deputy headteacher undertaking doctoral study, with a subject specialism in Information and Communication Technology (ICT). The participants were mostly recruited through subject-specific professional groups and networks, and two were former colleagues. Ethical approval covered the use of lesson video, planning sessions and interviews relating to teachers' professional knowledge and practices.

Data in the form of lesson-planning sessions was audio and video-recorded either remotely through Skype desktop sharing or in person by the researcher and explored with participants using semi-structured and video-stimulated interviews. The interviews were also audio and video-recorded and transcribed for use as data. Four self-recorded lesson videos were provided by one participant in line with his school's policy on video for professional development, subject to the agreement that no video footage or still images of pupils would be used in any publications.

The data subset described in this paper relates to three focal participants selected from the larger set of nine participants, consisting of approximately seven hours of lesson observation and lesson planning video footage and three hours of video-stimulated and semi-structured interview footage. Each of these three participants was an experienced teacher who had been teaching a minimum of eight years, and who each held significant school leadership and management roles involving the training and/or professional development of colleagues. Two of the participants taught in the English secondary school (ages 11-18) sector and one in the English primary school sector (ages 5-11).

All planning sessions and interviews from the study were transcribed into text for coding. During coding, it was noted that the high level of technology-related knowledge and competence of teachers of ICT and Computing led to a number of reflections on technology and specifically on video in relation to their professional practice. During the initial coding

phase several themes relating to leadership began to emerge which were beyond the scope of the research questions of the main study, but were sufficiently interesting to warrant separate exploration. These three participants gave examples of how they were extending the application of video in their professional practices in order to draw inferences from details observed in the footage and offering interpretations through a leadership lens. Their data have been extracted from the larger study in order to focus on the ways in which video-recorded data can provide additional evidence for school leaders, remaining true to the exploratory goals of the interpretive research strategy (Bryman, 2012). Arguably, the value of interpretive research lies in the extent to which readers can understand and relate findings to their own context by 'making meaning from authenticity' (Jackson & Mazzei, 2009, p.5), so the data have been anonymised and presented here as brief descriptive vignettes.

Table 1: Focal teachers' vignettes

Case 1: Adam	Adam's school was using video in ungraded formative lesson observations carried out by school leaders to support teaching and learning. Video in lesson observations was part of the school's policy for improving teaching and learning. Regular self-recording of lessons for later reflection was an expectation of all teachers.
Case 2: Bobby	Bobby's role in his school was to team teach with class teachers, using his specialist technology knowledge to support other teachers. Bobby's approach was to harness the use of technology to share professional learning points between teachers and provide a lasting record. This ranged from taking photos and videos of lesson activities and recording Skype internet calls to blogs and video for public sharing. Bobby's use of video was focused on evidencing activities.
Case 3: Chris	Chris was using video when observing trainee teachers in her school, recording parts of lessons while also making notes. Chris found it useful to take video snapshots and snippets of episodes that piqued her interest, for review in feedback sessions with the trainees.

The video files, transcripts and documents were imported into a new hermeneutic unit in Atlas.ti 7 software for qualitative data analysis in order to focus solely on the emerging leadership-related themes. The malleability of video data described by Jewitt (2012), whereby it is possible to move through the data in a non-linear fashion, freezing frames and replaying sequences was balanced by selecting a systematic approach to the coding process. As a first step, each of the video-stimulated interviews was coded inductively. In video terms, an overview or establishing shot is best obtained using a wide camera angle, giving a high level, or macro view. Zooming in allows for a low-level, detailed shot: the micro view. Applying this concept to the treatment of data meant initially coding for macro data: data that would provide an overview of leadership-related themes, including explicit references and examples from the lesson observation and planning data. The macro coding approach led to an initial set of codes being developed from the data, which were then categorised into subthemes and then further condensed into an overarching set of main themes. Where the macro coding process encountered a specific application of the theme, these were coded as micro examples and reviewed in subsequent passes. Following on from the macro-coding process, the lesson footage and lesson-planning sessions upon which the video-stimulated interviews were based were themselves coded for micro data: data that would illustrate and exemplify the emergent

leadership themes. A final analytical pass of the data was made, moving from macro to micro levels of analytical analysis.

Findings

Through a process of review and refinement, five key themes were developed, identifying evidence of policy in practice, pedagogy, classroom climate, school context and school culture as areas where video might provide data for school leaders and managers. This paper focuses on the evidence of policy in practice theme as the most frequently expressed and evidenced.

Evidence of policy in practice: Local issues

Policy may be defined in local, regional or national terms within different levels of accountability for its implementation. National policy agendas tend to be mandatory, especially within the UK maintained sector, with Ofsted inspectors tasked with establishing the extent to which a school follows the policy appropriately. At a local level, schools specify policies as part of their approach to ensuring positive outcomes. Adherence to local policies was a major theme from the perspective of the focal teachers. Within the overarching theme of policy in practice, each teacher identified policy as an area that could be foregrounded through the use of video. An example of macro and micro instances of policy in practice are presented in Table 2.

Focal teacher Adam related developmental experiences of video-enhanced observation, where his manager was keen for him to establish routines derived from a local Assessment for Learning (AfL) policy, whereby teachers would encourage students to develop independence as opposed to an over-reliance on the teacher through the use of the SPOT (Self – Peer – Other – Teacher) technique:

> Yeah, he's really good because, I think, he finds that there's very little routine-wise to look for now. Once he'd sorted out things like SPOT and other routines, there wasn't that much … then he was more interested in what they're learning [Adam].

In reviewing one of Adam's recorded lessons it was possible to view the inside of his classroom from an observer's perspective. The ability to freeze the video clip allowed for a frame-by-frame ethnographic-type scrutiny, leading to the identification of a SPOT poster on the classroom wall. In addition to the technique being used by Adam in his verbal feedback to students, it was also evident that Adam's intention to follow policy extended to the creation and display of materials for policy reinforcement. Classroom displays can be interesting sources of evidence of policy and practice over time, especially when student work is displayed, what Jewitt (2005) would describe as 'a material instantiation of pedagogic discourse' (Jewitt, 2005, p. 309), further evidence of how a teacher mediates policy.

Focal teacher Bobby's approach to the use of video involved gathering evidence, especially in relation to accountability.

> They don't see books [for this subject]… whether it's senior management looking at evidence or whether it's when inspectors come and things like that…. we'll blog these little videos… we've been blogging for about a year and a half and some

teachers take to it more than others and some need a bit more reminding, so I make sure that I put opportunities to blog into the plan [Bobby].

Bobby's concern around evidence was two-fold. Firstly, that the use of technology in the lessons would not be represented in students' exercise books, so he was keen for video to be used to capture the evidence. Secondly, that the school had agreed a policy of blogging and sharing images and video and the videos were evidence of the policy in practice. Moving from macro to micro, the planning session footage showed Bobby entering these blogging reminders onto the curriculum plan and then switching to the school website to demonstrate the use of video in class blogs.

Table 2: Example data matrix taken from the policy in practice theme

Theme	Macro	Micro
Evidence of policy in practice	Evidence of specific instance of policy of developing student independence being used	Lesson observation: SPOT technique used by teacher in lesson to encourage student independence; SPOT poster on classroom wall
	Evidence of school blogging policy being used	Scheme of work document: instruction to create and publish video evidence
	Evidence of marking policy being applied	Lesson observation: recording of unmarked work in pupils' exercise books

Focal teacher Chris had harnessed the affordances of her miniature tablet device to take photos and video footage to back up her written notes when mentoring trainee teachers in her school. In her video-stimulated interview she described her work with one trainee. Chris had observed a lesson as previously agreed, and had looked through several pupils' exercise books as part of the process. She was surprised to find that the books had not been marked, despite it being a clear local policy that books would be marked in readiness for an agreed lesson observation:

The good thing is I can quickly record what I see. It's a reminder to me to deal with the issue… If the marking had been done, it would be a different story… it would be 'well done [trainee]', tick, 'your books are up to date, let's talk about how you applied the department assessment policy' [Chris].

In terms of the micro view, Chris was able to immediately locate and play a clip showing several pupil exercise books, demonstrating that the books had not been marked. Chris, as with Adam and Bobby, had a very clear rationale for the use of video that went beyond just recording lessons.

Discussion

The affordances of video technology, combined with its relative ease of use and ubiquity meant that the focal teachers saw video as a logical addition to their professional tools. In each case, their leadership roles provided a framework for development and mentoring opportunities with colleagues where the application of policy in practice was an important factor. A key theme throughout is the relationship between the video and subsequent dialogue. For the focal teachers, video brought a social and situated aspect to their work, an intention for footage to be shared and for understandings to be shaped through dialogue. This is not video for covert surveillance, this is video for shared understandings. Unpicking this suggests two potential areas for discussion: video as data and interpretive frameworks for use with video. Limitations and challenges are also discussed to stimulate thinking about the practicalities of video for leadership in a school setting.

What counts as data?

Quality assurance and accountability processes in schools are inevitably criteria-based and require supporting documentation. There is a need to document and provide evidence, a thread which ran very strongly through the focal teachers' reflections. Accountability is often seen as a pressure of the leadership role, a negative aspect that detracts from 'real work'. However, in the words of focal teacher Adam, "school leaders want to share best practice. The only way to share it is to document it well." For the focal teachers, video provided 'visual evidence' of practice (Lofthouse et al., 2010: 22).

Taking a constructivist stance, Knoblauch argues that 'data are the products of the researchers' actions' (Knoblauch, 2009: 182) and that data are therefore produced rather than collected. As such, what counts as data, and what gets recorded will depend on the question, but it is clear that video data is a rich source. Leaders can produce video data in response to specific questions, but can also repurpose existing video as data. A recorded lesson observation will capture the enactment of a planned lesson, but also a myriad of other data to be filtered through the current interpretive framework of the viewer, which can be shared and form part of a leadership dialogue. Data doesn't just answer questions, it stimulates them. However, the management of data and building capacity for data-driven decision making (Marsh and Farrell, 2014) becomes an issue with video data as much as with other forms of data. Decision making can be guided by familiarity with the guiding frameworks of school leadership.

Interpretive frameworks

The increasing availability of mobile technologies and attendant technological convergence means that video is now far easier to capture, review and share and can encourage dialogue, collaboration and dissemination. Whilst no technology is neutral (Harris et al., 2009), the potential of video for transformation and its flexibility means that it should be considered for incorporation into a range of leadership practices. School leaders develop analytical and interpretive skills as they experience leading and managing people, projects, departments, faculties and school improvement strategies. In addition, engaging with accountability frameworks, such as Ofsted inspection criteria, teacher standards, policy implementation and evaluation facilitates being able to 'switch on' a particular set of expectations, as it did with focal teacher Chris, whose need to support colleagues with professional teacher standards

meant that she was able to view a specific episode from that perspective: it gave her a key for the ensuing dialogue with the trainee. Reviewing video interactively away from its source allows for analytical distance (Jewitt, 2012) and therefore the ability to interpret the data according to a particular framework. For Chris, the video footage allowed dialogue in relation to the policy expectation: she and the trainee could review it and discuss strategies to improve practice.

The present study set out to contribute to the research about leadership by pointing a lens at the way video data can be used to provide evidence for a variety of strategic practices in schools. The most significant finding to emerge from this study is that it confirms that video episodes can be repurposed and interpreted for school leaders, and that the application depends on the frame of reference. It emerged that prevalent theme among the focal teachers was the potential for video to allow the capture and evaluation of evidence of policy in practice. Taken together, these results suggest a role for video in promoting the application of professional noticing in a more systematic way as part of the leadership mandate.

For school leaders open to the addition of video to their professional practice, suggested first steps include visiting a school where video is used for professional development, to experience the way that video-enhanced observation can be criterion-referenced to a framework. Existing policies can then be reviewed to include video and some of the local limitations and challenges can be addressed before beginning the process of piloting and adoption.

Conclusions

Several limitations and challenges need to be recognised in relation to video footage. Firstly, although this study was based on data analytically repurposed from a larger study, this could be a benefit as much as a limitation. Pragmatically, a school leader monitoring one aspect of school life could find evidence in relation to a different question. The ability to repurpose video in the service of school leadership "and to bring new research questions to the data" (Jewitt, 2012, p.6) is a technological as well as methodological feature of working with video.

The ethics of working with video needs to be thought through in terms of informed consent. In the UK educational context, issues around data protection and safeguarding are salient, especially where under-18s may be in shot when video is being recorded. As the use of video outlined in this article is for a legitimate educational purpose, it does not breach legislation. The school would continue to act within the terms of the 1998 Data Protection Act. More significant from a leadership perspective is the need for the school to develop a comprehensive policy and internal guidelines about the use of video in order to support staff in their work, a point highlighted by Lofthouse, Leat and Towler (2010).

Commercial video observation systems may prove to be a fruitful approach to the systematic implementation of video-enhanced observation that can be repurposed for school leaders. One study currently underway (Batlle Rodriguez, 2016) involves the use of a software application for video enhanced observation with a customisable tagging system, which allows review of the tagged episodes through a firewalled community of practice. Such an approach could support school leaders not only with a convenient method of capturing video, but also the potential to develop sets of customised tags to support different aspects of the leadership role, such as lesson observation tags or learning walk tags, which can be applied either during live

recording or later review. As a system customised for the school, with approved users and secure storage, this addresses the data protection and ethical issues outlined earlier.

Although small scale, comprising three focal teachers and one researcher, these exploratory findings suggest a fertile vein for future research into video as a leadership tool. Further research is required to determine the extent to which school leaders may already be using video in some of the ways suggested in this paper, with follow-up to compare their experiences. A further study could usefully explore the provision of professional development involving video-enhanced observation for school leaders. Of course, the video methods outlined in this paper also offer a methodological approach with the potential to reach beyond the practical use of video for leadership: video methods and video-stimulated interviews can enable different facets of educational leadership to be studied.

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