Using insider research to study teacher engagement with video conferencing in first-year classes

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This paper describes the use of insider research in an ongoing project that aims to explore the complex relationships between teachers, pedagogy, and technology within large first-year courses. It outlines the design rationale for the project and describes the methods used to study the engagement of 17 academic staff with video conferencing technology over a five-month period in 2011. Three researchers have occupied the dual roles of research participants (being members of the teaching staff involved with the video conferencing) and researchers; thus, they have been 'insiders' or full participant-observers. After describing the context and methodology, the paper reflects on the use of insider research as an approach to study teacher engagement with e-learning initiatives.

Keywords: insider research, teacher engagement, first-year classes, video conferencing

Introduction

The first year (FY) of university study is often a challenging period marked by adjustment and transition. Students are faced with the dual challenges of social integration and academic development as they enter the university community (Tinto, 1993). This creates significant challenges for universities as they endeavour to meet the needs of a diverse and multicultural student body, including students from non-traditional and non-English speaking backgrounds (Harvey, Drew, & Smith, 2006). In addition, large class sizes, often typical in the FY, can lead to a sense of disconnection between staff and students (Nicol, 2010; Stephen, O'Connell, & Hall, 2008).

While information and communication technology (ICT) can enhance learning environments in the FY (Nicol, 2009), the engagement of academic staff with technology remains problematic (Blin & Munro, 2008; Selwyn, 2007). In her study of e-learning sustainability, Gunn (2010) noted that e-learning development may not be an "easy road to travel" for academics, observing that "[h]igh workload, difficulty in finding resources, lack of real incentives to be creative and limited tangible rewards are common experiences" (p. 94). Other factors affecting teacher uptake of technology include individual motivation to change, organisational structures that support change, and professional development opportunities for staff (Giardina, 2010). Teacher attitudes and responses to new technologies can be a major predictor of their success (Albirini, 2006). Given that ICT can improve FY classes, it is imperative to understand how teachers, as key stakeholders, respond to and engage with e-learning initiatives in these settings.

The research agenda

Despite the extensive literature on educational technology, there is scope to conduct fine-grained investigations of the 'backstage work' occurring in FY classrooms to provide detailed views of teacher engagement with technology. Significant conversations that shape teachers' understandings often occur backstage, out of sight of the public eye (Roxå & Mårtensson, 2009). These settings are similar to the concept of 'backstage' regions; namely, places "relative to a given performance, where the impression fostered by the performance is knowingly contradicted as a matter of course" (Goffman, 1971, p. 114). These backstage spaces are "situations where we are private, or at least feel that we know who is watching, and we behave in a more unrestricted way than when we are 'front stage'" (Goffman, 2000, as cited in Roxå & Mårtensson, 2009, p. 555). Away from the performance, people can behave in quite different ways (Goffman, 1971).

One way of accessing backstage spaces is through insider research where the researcher is a member of the social group under study. The insider is defined as "an individual who possesses intimate knowledge of the community and its members due to previous and ongoing association with that community and its members" (Labaree, 2002, p. 100). It has been argued that insiders have "epistemological privilege" or access to particular forms of knowledge (Griffith, 1998, p. 362); however, the insider/outsider dichotomy is simplistic (Merton, 1972) and insider research can be far from straightforward, raising ethical and methodological dilemmas (Labaree, 2002; Mercer, 2006).

The remainder of this paper describes and reflects upon the use of insider research to explore these backstage regions of teaching with video conferencing technology.

The context

Following Hannon and Bretag (2010, p. 107), the study's objective is to explore "authentic, situated practice" within typical mass-learning environments mediated by ICT. To achieve this goal, the project has studied the engagement of 17 academic staff with video conferencing technology within four large first-year courses at a New Zealand tertiary institution. As a recently introduced technology, the video conferencing was an initiative that had encountered mixed success since its introduction early in 2010. Previously, multiple lectures had been repeated several times during the week to a large student cohort (over 1000 students); the new format with the video conferencing enabled one expert lecturer to simultaneously connect with students in four different venues. In addition to numerous advantages, this new format allowed students the flexibility to attend a convenient venue rather than travel to a central location and also decreased the numbers of lectures presented by staff. However, the first year (2010) was a tumultuous time for many teachers as lecture sessions were frequently disrupted by various problems, affecting learning and teaching processes. As 2010 drew to a close, there was a sense that the video conferencing was not realising its full potential to support pedagogical objectives; hence, this study was proposed.

Methodology

While the study aims to understand how teachers engage with technological innovation, it also intends to use the findings to transform social (teaching) practice within a department; thus, the study combines aspects of both interpretivist and radical paradigms as defined by Grant and Giddings (2002). The enquiry is descriptive, but it is also informed by participatory approaches, specifically, co-operative inquiry (Reason, 1994). To varying degrees, the project has pursued a "collaborative form of inquiry, in which all involved engage together in democratic dialogue as co-researchers and as co-subjects" (Heron & Reason, 1997, p. 8). Two principles underpin co-operative inquiry: propositional knowledge is rooted in experiential knowledge and research participants should be fully engaged in the design of studies that obtain information about them. Thus, "research is done by people with each other, not by researchers on other people or about them" (Heron & Reason, 1997, p. 8). Reason (1994) recognises that individuals may not participate in identical ways, adopting varying roles and providing contributions that differ in quality and quantity. Similarly in this enquiry, three members of the participant group have driven the study and occupied the roles of researchers and participants; however, all participants have been united by a common concern to improve the use of the video conferencing technology. Reason's four phases of co-operative enquiry (Reason, 1994, p. 326) have been loosely followed: participants have been involved in identifying the research focus, contributing to the design of the study, and then providing data. Also, frequent focus group discussions and ongoing interactions between staff have provided all participants with other opportunities to shape the study. Preliminary findings, guidelines, and recommendations will be presented to the group for discussion later in 2011.

17 lecturers from four FY courses participated in the project over a 12-week period from February to June 2011 (one semester). A number of data collection methods that seemed best suited for a blended participatory/descriptive approach were used. Immediately after the weekly sessions with the video conferencing, the staff member teaching that day used prompts to record a ten-minute (maximum) post-lecture recording of her/his experience using the video conferencing. With an awareness of phenomenological approaches, it was anticipated that the prompts would elicit a 'stream of consciousness' from the teacher, obtaining their immediate responses to the teaching session in their own words and "evoking a comprehensive account of the person's experience of the phenomenon" (Moustakas, 1994, p. 114). These accounts were self recorded by the teacher without an interviewer being present; the prompts focused on teacher expectations about learning outcomes before the session and whether or not these expectations had been met. In addition, lecture sessions showing staff interacting with the video conferencing were discretely video recorded by a technician. The camera was placed in such a way as to record activity behind and around the lecture podium, capturing lecturer and technician interactions with various technologies including the video conferencing. These video recordings have provided an observable objective record that can be analysed parallel to the subjective post-session accounts. Silverman (2001) has highlighted the weakness of interviews for documenting lived experiences, arguing that qualitative research should use appropriate, sensitive, and systematic methodology to capture naturally occurring data distinct from interpretations. The analysis of accounts and video recordings may reveal similarities and differences between subjective and objective observations, and provide an additional source of data for triangulation. In total, 17 videos were obtained, several incorporating two or three lecture sessions with different teachers in the same course. Also, focus group interviews scheduled at regular intervals during the semester provided opportunities to pursue interesting leads in the data and check emerging interpretations with the teacher participants. These candid discussions provided backstage views on the benefits and challenges of using technology in large classes. Finally, differing perspectives were obtained through interviews with key informants involved with managerial or technical dimensions of the video conferencing. Specific details of the data set are provided in table one.

Table 1: The data set

Paper	Teacher participants	Weekly post-lecture accounts	Video recordings	Focus group interviews	Key informant interviews
A	3	10	5	14	5
B	3	5	2		
C	6	15	3		
D	5	13	7		
Totals	**17**	**43**	**17**	**14**	**5**

At the time of writing (September, 2011), data collection had concluded and the video analysis was underway. The following section will briefly reflect on conducting insider research in this study.

Reflecting on the use of insider research

To an extent, insider status has provided privileged access to backstage regions of teaching practice and it is unlikely that this degree of access would have been obtained by an outsider. There have been clear advantages working in close proximity to teachers on a daily basis and the three researcher/participants have drawn on their implicit knowledge of the workplace – or "preunderstandings" (Coghlan & Brannick, 2010, p. 114) – to inform the design and management of the study. In addition, there has been a degree of camaraderie between all participating teachers as they have shared their common experiences with the video conferencing; crucially, everyone has been invested in improving practices around the video conferencing (an outcome of the project). However, insider research does not guarantee access to hidden information or the formation of trust (Labaree, 2002). In this study, some areas were off-limits; for example, a few staff chose not to participate, distanced themselves after the first interview, declined to attend focus groups or be video recorded. One could speculate that these participants were uncomfortable with some aspect of the study, perhaps a concern that their work performance might be judged by others. The full participant group included technicians, managers, and lecturers with varying levels of influence and vulnerability and it would be naïve to ignore power relations within this workplace setting.

The blending of interpretivist and radical paradigms has had implications for the insider/outsider and researcher/researched relationship. On the one hand, the three researcher-participants have related to their colleagues as equals with shared interests in improving the video conferencing technology – conducting research *with* others (as insiders) to achieve a shared objective. On the other hand, as interpreters of the data who intend to publish from the findings, the researcher-participants have conducted research *about* their colleagues (and themselves). As interpreters, their analyses are ultimately centre stage, positioning them as more dominant than their colleagues; these unequal power relations sit uneasily in the radical paradigm where power sharing, reciprocity, and collaboration are central (Grant & Giddings, 2002). Additionally, participatory enquiry aims for a "democratisation of method, involving all participants in decisions about methodological processes" (Heron & Reason, 1997, p. 9). While collegial discussions took place before the study to allow consultation to occur, the three researcher-participants have designed and managed the enquiry process – exposing themselves to Heron and Reason's (1997, p. 9) critique that much qualitative research is "unilaterally shaped by the researchers". However, the notion that all participants can be co-researchers seems somewhat unrealistic in this context. The 17 participating teachers are a diverse group, representing multiple disciplines and having differing levels of interest in the video conferencing and varied levels of research activity. Within larger groups, it may be difficult to establish the high levels of focus, commitment, and collaboration that this type of research project requires. As Reason (1994) has noted, co-operative enquiry may be best suited for small and tightly-knit groups where it is feasible that all participants can be full co-researchers.

As the project moves into the analysis and dissemination phases, the researchers will be confronted with the

ethical implications of sharing insider knowledge with outsiders. Insider knowledge is privileged information – should researchers bring it front stage to be examined by others, and if so, how? The introduction of technology into a learning environment can be disruptive, particularly if the technology breaks down, interrupting or distorting the innovation (Hannon, 2002). Alternate and sometimes conflicting discourses around technology-use can emerge (Hannon & Bretag, 2010), potentially harming certain individuals through negative portrayals of work performance. Intensifying these ethical concerns is that, even with identifying features removed from the data, confidentiality cannot be guaranteed in this study (a point made clear in the consent forms). As the teachers are known to each other, it is quite possible that data may be traced back to individuals. Tensions exist between the need to share the findings as comprehensively and usefully as possible, and yet to protect participants. Decisions around how to disseminate the findings will probably be context-specific (Mercer, 2006); disclosing more detailed information at an international conference may be less risky than disclosing the same information in the workplace where other colleagues and managerial staff might recognise data provided by others. These issues remain unresolved at this stage of the study.

Conclusion

This paper has described the use of insider research as one way to access hidden areas of teaching practice, far removed from the formal public life of tertiary institutions. Such 'coalface' depictions of teaching with technology are crucial to inform discussions of e-learning sustainability in authentic mass learning environments. The study has blended participatory and interpretivist approaches, employing multiple methods to obtain fine-grained depictions of how teachers engage with video conferencing technology. While useful, insider research is not straightforward (particularly within politically-charged e-learning environments), raising a number of methodological and ethical issues that must be considered at various stages of the research process.

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