

MOBILISING COLLABORATIVE TEACHER PROFESSIONAL LEARNING

Peter Aubusson and Sandy Schuck
University of Technology Sydney

Kevin Burden
The University of Hull

ABSTRACT

This paper reflects on the role of m-learning in teachers' professional learning. It argues that effective professional learning requires reflection and collaboration; and that m-learning is ideally suited to allow reflection-in-action and to capture the spontaneity of learning moments. The paper also argues for the value of collaborations between teachers and students in professional learning. It suggests that authentic artefacts and anecdotes, captured through mobile technologies, can enable the sharing, analysis and synthesis to improve classroom learning environments. Opportunities for user-created content are discussed as well as ethical issues that might arise through using mobile technologies in this way. Practical, school systemic, attitudinal and ethical factors may inhibit m-technology adoption; these factors need to be researched and addressed to realize the potential of teacher mobile professional learning.

KEYWORDS

mobile learning, professional learning, teaching, education

1. INTRODUCTION

In an age where information and communication technologies (ICT) are ubiquitous, and where the appropriate use of technologies in the classroom is essential for preparing youth for later life, mobile (m-) technologies are likely to add value to teacher and student learning. The use of collaborative, m-technologies in teachers' professional learning optimises opportunities for teachers to access current educational information and experiences as well as to collaborate, analyse and reflect on practice. The potential of new technologies for collaborative learning is great as they provide rapid access to current information and community interaction. Yet, in practice, transformational effects of such technologies in educational systems are not widespread and are under-researched. In particular, there is little research on teacher learning with m-technologies. Much of the current research investigates the integration of ICT into school curricula (Bain, 2004; Staples, Pugach & Himes, 2005). We argue that what is urgently needed is research that investigates teacher agency, actions and beliefs about professional learning with collaborative m-technologies.

In a rapidly changing world, teacher professional learning needs to provide opportunities for critical reflection, and access to changing knowledge. Collaborative technologies offer a potentially powerful means to enhance teacher professional learning through: discussion of pedagogical issues with a community of colleagues and with students; ready access to online information; and shared reflection on digitally captured classroom experiences. Yet, over the last decade the slow adoption of such technologies by teachers has been noted with concern by governments and employing authorities world-wide (Peck et al, 2002; Phelps et al, 2004; Schuck, 2002). One possible reason for such slow adoption is that teachers' work environments inhibit connectedness; they are literally and physically disconnected. They operate in environments where opportunities to learn occur in diverse places at unpredictable times. M-technologies have the flexibility to enable connectedness to digital communities and information at such times and places.

This paper reflects on the role of m-learning in teachers' professional learning and growth. It argues that effective professional learning requires reflection and collaboration; and that m-learning is ideally suited to allow reflection-in-action and to capture the spontaneity of learning moments. Further, the ability to capture

and share such moments allows for authentic examples of classroom experiences to be deconstructed. The paper also argues for the value of collaborations between teachers and students in professional learning, and suggests that artefacts captured through m-technologies enable sharing of learning experiences with a goal of improving the classroom learning environment. Opportunities for creative user-created content are discussed as well as ethical issues that might arise through using m-technologies in this way.

2. M-TECHNOLOGY IN COLLABORATIVE TEACHER LEARNING

A way forward is clear from research, which indicates that collaboration is critical for effective professional learning (Aubusson et al, 2006; Burbank & Kauchak, 2003; Clement & Vandenberghe, 2000). These authors note that the process of collaborative learning promotes critical reflection on practice; acknowledges teachers as active learners and producers of knowledge; and supports teacher decision-making. Aligned with this approach to professional learning is the view that understanding teacher agency, beliefs and practices, as well as teachers' life worlds, is essential in any framework in which self-regulated teacher professional learning is central (Clarke & Hollingsworth, 2002). This view is exemplified by Connelly and Clandinin's (1997) notion of the 'professional knowledge landscape' in which teachers operate. Teachers' practical wisdom is central to their professional knowledge landscape. Practical wisdom is, "a sense of what will 'work' and what will not. It is a capacity, in the first place for synthesis rather than analysis" (Berlin, cited by Hargreaves, 2007: 49). Teachers exchange practical wisdom and test its veracity in discussions with others, often sharing their knowledge in the form of stories and anecdotes (Noddings & Witherell, 1991). Often these stories are limited to exchanges among small groups in school departments. M-technologies provide a vehicle for the rapid exchange of anecdotes and stories with a wide, diverse community. These anecdotes invite scrutiny of the practical wisdom embedded within them.

The value of harnessing the power of m-technologies lies in their capacity to generate collaborative professional learning involving reflection, production, synthesis and analysis. The benefits of next generation m-technologies are that they enable interactions with people both beyond and within one's own school; offer support even if geographically isolated; provide access to expertise over a range of areas readily available in an online learning environment; and build personal and professional support networks. Some teachers are already using this technology for professional learning, not merely to access information but to capture and share teaching and learning moments. For example, Fogwill (Fogwill & Aubusson, 2006) used his mobile phone to video, audio record and photograph student roleplays in his science classes. He argued that its size, portability and familiarity made it less intrusive than other modes of recoding. Furthermore, the captured episodes were easily shared and served as stimuli for professional discussion with other teachers.

However, apart from a few examples such as the above one, research on m-technologies in education has focused primarily on student use, and on the ways that teachers can support that usage and very little research has been conducted on how teachers themselves might learn with these new technologies, or indeed with any digital technologies (Fisher, Higgins & Loveless, 2006; Naismith et al, 2004). Further, as third generation m-technologies, which offer increased connectivity, are a relatively new phenomenon, there has been little opportunity to assess the impact of these next generation technologies for professional learning. Fisher et al, (2006) argue that if different approaches to learning and teaching, and different relationships between students and teachers are to occur, it is essential to understand teachers' learning and the role that digital technologies might play in this. This paper seeks to build on the Fisher et al review (2006) of teacher learning with digital technologies by considering what mobility, with its characteristics of being personal and portable (Naismith et al, 2004), might contribute to this area.

M-technologies, such as the next generation of video-phones, increasingly offer the potential for teacher creativity as producers, rather than simply consumers of knowledge. These devices are now capable of video and audio capture at a quality that is sufficiently professional for their use as learning objects in a variety of different environments, including both face-to-face and online. Whilst the ubiquitous and ever growing presence of services such as YouTube provide teachers with an unparalleled selection of video resources to download, the advent of next generation m-technologies now presents a real opportunity for teachers to undertake authorship of these materials in addition to being consumers (Kearney & Schuck, 2006). These activities are already starting to occur as teachers become aware of the simplicity behind the production and

sharing of meaningful authentic resources. It is only a small step to replicate this process with the immediacy afforded by mobile recording devices rather than static devices.

At the same time, it is becoming increasingly common for students to have access to m-technologies during the school day. At present these are seen as subversive and illicit tools (Hartnell-Young & Heym, 2008). We are suggesting that the use of such technologies by students can add to the learning of students and teacher alike. An important focus of this reflective paper is on the value of student collaboration with teachers. M-technologies can be used to provide artefacts that provide varied perspectives of activities. We suggest that teachers can learn from students' perspectives and that students gain from deconstructing teaching moments with their teachers, so that they can see the rationale for teacher actions. Hence this paper argues for a genuine partnership between students and teachers in the capturing of learning moments, and a triangulation of learning experiences from the different viewpoints. Thomson and Gunter (2006: 839) discuss processes they used to work with school students to develop a "'student's eye' set of evaluative categories" and suggest that the process of viewing students as researchers is likely to be both transformative and disruptive. Given that genuine reframing of practice often benefits from disruption, this process is likely to be valuable for teacher learning. As well, Cook-Sather (2006) suggests that acknowledging and listening to student voice indicates a position in which students are seen as active participants in their own learning. While this partnership is likely to be challenging for teachers, it would be likely to encourage students to work with, rather than subversively against, the teacher. The UK press is littered with examples and criticisms from teachers (and some parents) and the violation of what they also see as their privacy when pupils have used mobile devices to record and post activity from the classroom, often surreptitiously (BBC News, 1.10.08). Although the position is beginning to change with a number of reports suggesting the orthodox position ought to be re-examined by schools, this is not yet a universally accepted position, even within a single country such as the UK (McFarlane et al, 2007; Hartnell-Young & Heym, 2008). In one example, teachers at one school were incensed to discover pupils had posted a short video of an unruly class up to YouTube. When approached by the school, YouTube refused to remove it, on the grounds that while 'it portrayed the school in a bad light, [but]it was not illegal.' (Hartnell-Young & Heym, 2008: 18).

However, the use of m-technologies by teachers as described above is not unproblematic. There are a number of ethical issues to consider when teachers deploy m-technologies in this way and when students take on the role of co-researchers. These issues include, but transcend the obvious ethical requirements to gain parental permissions. It is apparent from discussions between the authors themselves that different ethical positions exist between institutions and indeed between countries. In most UK schools, for example, it would not be acceptable for teachers to use mobile devices in the ways we have described without gaining explicit prior permission from parents. Even though such activity could well be described as part of the modern professional's normal working habits, this would not absolve them from the need to gain parental permission to show and discuss teaching moments with others. Such is the strength of opinion relating to the capture of images (both still and moving) of pupils in the UK at the present moment. This is not universally the case and many countries and their school institutions might be surprised and slightly confused by this position. This example is further complicated when we start to consider the additional role of the student as a co-researcher in this mobile enterprise. Additionally there is the issue of power and authority to consider when teachers and students partner each other as co-researchers. Cook-Sather (2006) warns against the trap of believing there is a single student voice, and also indicates that power imbalances do occur between teachers and students, and the positioning of school students as co-researchers can become tokenistic. We also suggest that student power is greatly increased by their ability to post videos and photos of practice in their classrooms to the world. In such cases the vulnerable party is the teacher. Hence the use of m-technologies in the classroom may be an ethical minefield.

3. CONCLUSION

Our argument in this paper is that m-technologies have the capacity to add new dimensions to teacher professional learning. M-learning provides a lens through which activities in the classroom can be observed, critiqued and shared. There is an important knowledge production and knowledge sharing capacity afforded by m-learning as the audience to a critical incident is able to be much broader than the teachers in the staffroom or the local region. The ability to share events and deconstruct them with a large number of critical

friends suggests that feedback will be more extensive. As well, asking students to be co-researchers, both capturing moments and using them to indicate what learning they felt was occurring in that moment, has tremendous power for teacher learning. While potentially risky and challenging, if teachers are able to use such feedback constructively, much learning can occur for both student and teacher. The strength of this kind of learning lies in its spontaneity, immediacy, honesty and agility.

We suggest that teachers could well be liberated by the technology. They could feel empowered by their partnership with students if they are prepared to work alongside their students and allow them to use their mobile phones as learning tools rather than subversive technologies. However, we caution that ethical issues will arise that require new ways of thinking about records of experience and question whether the teaching profession (and wider community) is ready to embrace this professional learning facilitated by evocative, powerful but intrusive m-technologies.

REFERENCES

- Aubusson, et al, 2006. Action learning in teacher learning community formation: informative or transformative? *Teacher Development*, Vol. 11, No. 2, pp133-148.
- Bain, A. 2004. Secondary school reform and technology planning: Lessons learned from a ten year school reform initiative. *Australasian Journal of Educational Technology*, 20 Vol. 2, no. 2, pp.149-170.
- BBC News Report. (2008). <http://news.bbc.co.uk/1/hi/education/7156326.stm>, accessed 1/10/2008
- Burbank, M. and Kauchak, D. 2003. An alternative model for professional development: Investigations into effective collaboration. *Teaching and Teacher Education*, Vol. 19, pp. 499-514.
- Clarke, D. and Hollingsworth, H. 2002. Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, Vol. 18, pp. 947-967.
- Clement, M. and Vandenberghe, R. 2000. Teachers' professional development: A solitary or collegial (ad)venture? *Teaching and Teacher Education*, Vol. 16, pp. 81-101.
- Connelly, M. and Clandinin, J. 1997. Teachers' personal practical knowledge on the professional knowledge landscape. *Teaching and Teacher Education*, Vol. 13, pp. 665-674.
- Cook-Sather, A. 2006. Sound, presence and power: "Student Voice" in educational research and reform. *Curriculum Inquiry*, Vol. 36, No. 4, 359-390.
- Fisher, T. et al, 2006. *Teacher learning with digital technologies: A review of research and projects. Report 14*. Futurelab Series. Bristol: Futurelab. http://www.futurelab.org.uk/research/lit_reviews.htm#lr14, accessed 26/10/ 2006.
- Fogwill, S. and Aubusson, P. 2006. Student generated analogies in High School Physics. Paper presented at Australasian Science Education Research Association conference Canberra, July 5-8
- Hartnell-Young, E. & Heym, N. 2008. *How mobile phones help learning in secondary schools*. Becta: Coventry.
- Kearney, M. and Schuck, S. 2006. Spotlight on authentic learning: Student developed digital video projects. *Australasian Journal of Educational Technology*, Vol. 22, no. 2, pp. 189-208.
- McFarlane, A. et al, 2007. *Mobile learning: Research findings. Report for Becta*. Coventry, UK: BECTA. Retrieved October 1, 2008 from http://partners.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=14204 .
- Noddings, N. and Witherell, C. 1991. Epilogue: themes remembered and forseen. In C.Witherell & N. Noddings (Eds.), *Stories lives tell: Narrative and dialogue in education* (pp. 279-280). New York: Teachers College Press.
- Naismith, L. et al, 2004. *Literature review in mobile technologies and learning. Report 11*. Futurelab Series. Bristol: Futurelab. Retrieved October 26, 2006 from http://www.futurelab.org.uk/research/lit_reviews.htm#lr11.
- Peck, C. et al, 2002. Techno-promoter dreams, student realities. *Phi Kappa Delta*, 83(6), 472-80.
- Phelps, R., et al, 2004. Teachers and ICT: Exploring a metacognitive approach to professional development. *Australasian Journal of Educational Technology*, Vol. 20 No. 1, pp. 49-68.
- Schuck, S. 2002. Walking the electronic tightrope: questions surrounding infusion of IT into education subjects. In C. Rust (Ed.), *Improving Student Learning 9: Improving Student Learning Using Learning Technology*, (pp. 186-194). Oxford: The Oxford Centre for Staff and Learning Development.
- Staples, A. et al, (2005). Rethinking the technology integration challenge: Cases from three urban elementary schools. *Journal of Research on Technology in Education*, Vol. 3, No. 3, pp. 285-311.
- Thomson, P. & Gunther, H. 2006. From 'consulting pupils' to 'pupils as researchers': a situated case narrative. *British Educational Research Journal*, Vol. 32. No. 6, pp. 839-856.

IADIS
INTERNATIONAL
CONFERENCE

Mobile Learning

26 to 28 February
Barcelona, SPAIN

2009



Proceedings

Edited by:
Inmaculada Arnedillo Sánchez
Pedro Isaías



iadis

international association for development of the information society