



Teacher transformation with eLearning experiences: A case for addressing personal practical theories in academic development

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Academic development of staff capacity for the use of technology in their practice may be transformative towards new pedagogies if their training extends beyond skill and capacity with specific technologies to address underlying beliefs of learning and teaching with technology. This paper proposes that focussing on teacher personal practical theories may be a way to enable transformation in teacher practice for realising the potential of quality integration of technologies in teaching and learning. The principle will be explored in an upcoming research study of moments in teacher experience in a flexible learning initiative which created change to their personal practical theories. In this paper, the principle is discussed briefly and the impetus for the study illustrated with samples from two experiences in attempting to integrate teaching with technology.

Keywords: academic development, personal practical theories, teacher change, teacher beliefs

Introduction

The rhetoric of transformative practice with higher education due to the introduction of eLearning practices and new technologies is hype (Varvel, Montague, & Estabrook, 2007) without a corresponding attention to teachers' practices. Academic development around the use of technologies in teaching practice tends to focus on technical training, pedagogical applications, and implications for use in a workshop, seminar or one-to-one session, but leave lecturers to develop and implement on their own. We tend to see old practices with new technologies – a better/newer/different way to do the same kinds of activities – suggesting something else is necessary to take advantage of the affordances of new technologies and transform teacher practice. It may require us to recognise the need for new skills, new understandings of learning principles and practices, and new pedagogical complexities (Noss & Pachler, 1999). This may still not lead to transformative practice, and as such our “last frontier” (Ertmer, 2005) may be to focus on teachers' epistemologies and practices which arise from them with teaching and learning, and teaching and learning with technology. This paper serves a means to discuss the impetus behind an upcoming study of the role of design support in the integration of technology in teacher practice, highlighting areas of teacher change or resistance to change in their practices, and through this explore the perspective that through experience, transformation may occur, but through focus, transformation is more likely assured..

Personal practical theories and capacity for transformation

The need to address teachers' personal practical theories about teaching and learning with technology was identified in an earlier study of teachers' uses of communications technology (email) in language teaching (Johnston, 2008). When given professional development and implementation support, the

teachers approached and responded to their experiences in very different ways, yet true to their beliefs and understandings of teaching and learning in their discipline area and their educational contexts. This earlier study assumed that technologies as an effective learning resource results in teachers attending to their teaching practice (Hughes, 2005), and designing for relevant and meaningful pedagogical practice of the technology (Patrikis, 1997) leads to transformative teaching and learning. For this earlier study, a ‘sound pedagogical practice’ was proposed as one which includes an underlying theoretical approach about learning and teaching, both in general and relevant to the discipline, and a thorough designing and planning phase. Furthermore, for communications technologies, a methodological focus on tasks as real and purposeful contextualisation of the communicating experiences would make an approach to communication technology in classroom teaching that was meaningful for learning. However, teachers’ responses to (often difficult) experiences with email communication between their foreign language learners and native speakers and the theoretical approach they were implementing were unique and individual, with a clear reflection of their responses to their experiences reflecting their concepts of teaching and learning language in their particular contexts.

Literature on the internal perspectives that underpin teachers’ approaches to teaching and learning with technology refers to them as teacher beliefs (e.g., Bain & McNaught, 2006; Steel and Levy, 2009), teacher personal epistemologies (e.g., Billett, 2009), or personal practical theories – because they can be systematic (Cornett, Yeotis, & Terwilliger, 1990). As theories, these beliefs come from teachers’ knowledge and experience of teaching, which leads to theorising about how learning occurs, and results in teachers’ decisions about methods for the most appropriate practice (Cornett, et al., 1990). This theory is underpinned by knowledge arising from a teacher’s

- experiences in personal and professional life, and education, including teaching experiences, experiences as a student and as parents (Gess-Newsome, et. al, 2003; Cornett, et al., 1990; Whitehead, 1991)
- knowledge about pedagogy, subject matter / discipline, students (Ball, 1996), and context
- visions and expectations for the future (Connolly et al, 1997) and “visions” (Hammerness, 2001) of teaching; and
- personal factors – unique perceptions, values and other human characteristic and situational factors (Dalton, 1988).

From Billett (2009), in his discussion of workplace learning, we could consider that teacher learning and transformation from their workplace experiences of teaching with technology is guided, even determined, by personal epistemologies. Personal epistemologies are socially, actively, and intentionally derived – as relates to learning from academic development and teaching experiences, but are unique because they are based on teachers’ very personal, long-term life histories (ontologies). It is this personal ontology that is the powerful influence on what teachers do, how they respond, and the kinds of learning that arise from workplace learning. Teachers’ personal practical theories also affect their response to potential change situations – whether promoting or inhibiting it (Thomas, 2005). For instance, teachers are more likely to find what is familiar or find the inadequacies of a change and fill it with old practices (Shkedi, 1998). Billett explains further that “elaborating personal epistemologies is central to understanding how individuals engage in and learn through their paid work ... and their remaking and transformation of their work activities...” (p. 210). This may therefore enable change and transformation in teachers’ practice that thus may enhance the place and practice of technologies in tertiary learning. In academic development situations our role may be to assist teachers to understand change (Thomas, 2005) and to address their personal practical theories (and responses to change) by making them explicit (Hammerness 2001). That is, addressing the way teachers have always done things and why (Bassegy, 1999; Thomas, 2005) and from this to work to unlearn old habits, beliefs and perspectives of teaching and learning (Ball, 1996; Sarason, 1982), and from this enable transformation in approach to teaching and learning.

Personal practical theories in practice

The impetus for the research study to be undertaken arises from the PhD study introduced above and anecdotal evidence from a flexible learning initiative at an Australian university in 2009. The examples provided here underpin the intended study and the theoretical proposition behind it. The PhD study involved a case study exploration of teacher experiences when implementing email exchanges between language learners and native speaker peers in a classroom education context and guided by supported pedagogical design; the initiative involved a university faculty focusing on engaging with technologies and with heavy support from the central teacher support body and its learning designers.

Case 1: Carol and the integration of email in practice

This first case study demonstrates the power of personal practical theories in resisting change with technology. The teacher is Carol (pseudonym), an active foreign language teacher with strong involvement in the local language teaching community. Her time in-country has led to proficient, current and socially competent language skills. Evident in her talk about the value of the email activity for her students' learning is her theory that learning a foreign language is about open, social, authentic and independent language use, and her theoretical position about language learning in classroom settings. For example, she believes classroom and curriculum-based language teaching constrains real language use – which according to her is the purpose for learning a foreign language: email exchanges would enable “real language use not constrained by course planning”. She further believes that classroom language learning creates a static view of language and culture, whereas both are dynamic constructs, and thus her role as teacher is to provide opportunities for students to experience real language and culture:

“language is not static. Why would you be a language teacher if you don't believe that? Try to use resources to have actual contact coming out ... the kids don't get to see terribly much of a different culture to their own very much.”

Carol's view of her role and methods as a teacher was to provide students with real language situations, including challenges, difficulties, and dilemmas to resolve on their own but with her support:

“That's all part of being a learner at that age, I suppose. You cannot totally guide a student, but they have to have that time to challenge their own language learning and play with their language learning.”

In meeting this principle, she did not interfere with students' independent efforts to address email problems directly, but rather by discussing and supporting them offline, in the classroom environment. In that environment, she demonstrated a firmly belief in the teacher classroom role as guiding and scaffolding learning by developing a module of learning to support the study, and creating teacher-led, classroom-based learning experiences (activities, exercises, discussions, feedback).

However, one of the issues with email communication is in the dual-context in which it lies. At the other end of the email message is a teacher with students in a classroom context, with other pressures, classroom and learning perspectives, and beliefs around the role of email technologies for learning. Without acknowledging and addressing the educational and curricular context with the partner teacher, difficulties with receiving email messages that were timely and useful for the learning context, Carol became disappointed in the experience. Her assumptions about time, quality and involvement of the partners according to her theory of teaching and learning language and the role of email exchanges with native experiences affected the success of the experience. In this case, her personal practical theories held that email communication was a process that just happened, but in reality the affordances – and issues – of the technology were not addressed. From the perspective of the proposed study and the interest in this project was the nature of teacher beliefs – Carol appeared to work with the same task-based teaching methods as the project was proposing, but also worked within a strong local curricular focus that did not have space to accommodate the openness and lack of predictability of email exchanges. The question arose – can, and then how can, teacher beliefs in constraining classroom and curricular contexts be addressed to harness the potential and issues in email exchanges with native speakers or, more broadly, international, cross cultural, web 2.0 communication and collaboration events.

Case 2: Teacher responses to developing units for flexible delivery

This second set of examples illustrate that the experience with a project for initiating change in teaching modes, and the support surrounding that change raised a notion that experience may lead to change, and that some people appear to have a change-enabled character.

- **Case study 1: Angela** Angela's view of her unit was that students learn through being transmitted basic knowledge information. In approaching developing her unit for complete online delivery, she had the view that the same knowledge needed to be delivered with the same lecture text as the face-to-face student cohort. It became evident to the learning designer that the amount of content was

excessive for online learners. The personal practical theory of the learning designer to develop knowledge through open, higher-level tasks conflicted with that of the lecturer working at the knowledge-transmission level. However, through persistence to the online learning site development, incidents of ‘light bulb’ moments in how content might be delivered in alternative ways emerged. Angela also talked about how her curricula and pedagogical change for this unit was being transferred to her face-to-face teaching. The study hopes to examine those light-bulb incidents and the claim of transference in further detail

- **Case study 2: Ben** Ben’s approach to developing a unit for online delivery was to have it reflect as closely as possible the delivery method (and content) of the face-to-face version – an online presentation of the lecture and tutorials. His resistance to change was overt and explicit, even to handing over development to other staff. However, the experience of preparing the unit led to changes in the way the material was to be presented, the inclusion of other academic staff and a new learning designer led to other design and a change from live online lectures and tutorials to alternative resources and activities as the learning materials. Ultimately, change occurred to the way material was presented to learners, but not in how teaching and learning was designed and delivered. The study aims to explore the nature of change resistance – in this case length of service and end-of-career position may have been a key influence (e.g, Kremer & Ben-Perez, 1980).
- **Case study 3: Bjorn** Bjorn’s unit was to be revised as a face-to-face unit which incorporated more flexible practices and greater use of technologies. He approached the development opportunity as an opportunity to change how the curriculum was organised and delivered. He was challenged in considering how a change from teacher- to student-centred practice might occur. This case highlights whether change happens more or only with change-enabled attitudes or personalities, and the study aims to explore whether change was ultimately implemented after the design phase completed, and the kinds and effect of support received during implementation.
- **Case study 4: Anna** Experienced in paper-based distance learning course development, Anna designed her course, revised and reviewed it, made changes but sought advice about the use of discussions and discussion boards in order to ensure that she was taking advantage of the affordances of the technology. In the first instance, her workplace experiences that help create her epistemology around teaching and learning has already enabled an understanding of distance modes of learning. Her response to the new mode of teaching also indicates change-capable kind of person, willing to seek advice and help in the design to enact change. Like Bjorn, Anna’s case raises an interest in the nature of a person to be change-oriented.

Summary remarks

These two example sources introduce two different aspects relevant to the thesis of this paper: a teacher’s personal practical theory affecting uptake and maintenance of a new practice with technology, how workplace experiences in the area of teaching and learning with technology can lead to transformation in practice, and whether change-enabled characteristics in some people can inform us in regards to ways to work with staff on enabling change. These cases came from the experiences of teachers involved in different aspects of design or implementation of teaching practices engaging with technology. For the university samples which will guide the upcoming study, whether transformation to teacher practice and their personal epistemologies occurred needs to be explored, as well as which experiences were transformative and how. Examining the nature, purpose, and need for transformation is critical. On the one hand, we should be able to respond to Njenga and Fuerte’s (2010) call to give “educators the time and opportunity to explore the dangers and rewards of e-learning on teaching and learning” (p.191), but on the other to be able to explore and propose ways that academic development could engender transformation in practice, and support teacher change in being more efficient and effective.

References

- Bain, J. D., & McNaught, C. (2006). How academics use technology in teaching and learning: Understanding the relationship between beliefs and practice. *Journal of Computer Assisted Learning*, 22(2), 99-113.
- Ball, D. L. (1996). Teacher learning and the mathematics reform: What we think we know and what we need to learn. *Phi Delta Kappa*, 77(7), 500-508.

- Bassey, M. (1999). *Case study research in educational settings*. Buckingham, UK: Open University Press.
- Billett, S. (2009). Personal epistemologies, work and learning. *Educational Research Review*, 4 (210-219).
- Cornett, J. W., Yeotis, C., & Terwilliger, L. (1990). Teacher personal practical theories and their influence upon teacher curricular and instructional actions: A case study of a secondary science teacher. *Science Education*, 74(5), 517-529.
- Dalton, T. H. (1988). *The challenge of curriculum innovation: A study of ideology and practice*. East Sussex: The Falmer Press.
- Ertmer, P. A. (2005). Teacher pedagogical beliefs: the final frontier in our quest for technological integration? *Educational Technology Research and Development*, 53(4), 25-39.
- Gess-Newsome, J., Southerland, S. A., Johnston, A., & Woodbury, S. (2003). Educational reform, personal practical theories, and dissatisfaction: The anatomy of change in college science teaching. *American Educational Research Journal*, 40(3), 731-767.
- Hammerness, K. (2001). Teachers' visions: The role of the personal ideals in school reform. *Journal of Educational Change*, 2, 143-163.
- Hughes, J. (2005). The role of teacher knowledge and learning experiences informing technology-integrated pedagogy. *Journal of Technology and Teacher Education*, 13(2), 277-303.
- Johnston, S. E. (2008). Context, change and communications technology in classroom pedagogy: Indonesian language teachers implementing email in senior secondary teaching Unpublished PhD Thesis, School of Languages and Comparative Cultural Studies, The University of Queensland.
- Kremer, L. & Ben-Perez, M. (1980). Teachers' characteristics and their reflection in curriculum implementation. *Studies in Educational Evaluation*. 6(1), 73-82.
- Njenga, J. K. & Fuerte, L. C. H. (2010). The myths about e-learning in higher education. *British Journal of Educational Technology*. 41(2), 191-212.
- Noss, R., & Pachler, N. (1999). The challenge of new technologies: Doing old things in a new way, or doing new things? In P. Mortimore (Ed.), *Understanding pedagogy and its impact on learning* (pp. 195-211). London: Paul Chapman Publishing Ltd.
- Patrikis, P. C. (1997). The evolution of computer technology in foreign language teaching and learning. In R. Debski, J. Gassin & M. Smith (Eds.), *Language learning through social computing* (pp. 161-178). Parkville, Vic: Applied Linguistics Association of Australia, and The Horwood Language Centre.
- Sarason, S. B. (1982). *The culture of the school and the problem of change* (2nd ed.). Boston: Allyn and Bacon.
- Shkedi, A. (1998). Can the curriculum guide both emancipate and educate teachers? *Curriculum Inquiry*. 28(2). 209-229.
- Steel, C. & Levy, M. (2009) Creativity and constraints: Understanding teacher beliefs and the use of LMS technologies. In *Same places, different spaces. Proceedings ascilite Auckland 2009*. <http://www.ascilite.org.au/conferences/auckland09/procs/>
- Thomas, H. (2005). *Conversing for conversion: Turning system wide curriculum into local curriculum reform*. Paper presented at the Conversations: Conversations and Actions, Adelaide, South Australia.
- Varvel, Virgil E.; Montague, Rae-Anne, Estabrook, Leigh S. (2007). Policy and E-learning. In R. Andrews & C. Haythornthwaite (Eds), *The SAGE Handbook of E-learning Research*. Sage Publications: London. Pp 269-285.

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<http://ascilite.org.au/conferences/sydney10/procs/Johnston-concise.pdf>

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