

Stimulating Methodologies- Exploring Discourses of Practice

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The relationship between educational research and practice

Despite the fact that one of the major purposes for conducting educational research is to contribute to our understandings of what teachers and learners do during the process of learning and what this means potentially for the education of teachers (Dewey 1974), researchers such as Richardson (1994) and Skhedi (1998) have identified that many teachers judge educational research as too removed from everyday classroom practice. As Richardson (1994, 5) explains, "research on the practice of teaching has recently shifted from a focus on effective behaviours toward ... understanding how teachers make sense of teaching and learning".

Accurately representing the complex pedagogical knowledge teachers draw on to teach is a difficult goal for researchers. As Puttnam and Borko (2000) argue 'as researchers trying to understand what teachers know and how they learn we must be particularly attentive to the support and guidance that we provide' (13). In this sense conducting research that while gathering data for the research aims, also contributes to teacher professional growth is valuable to consider.

In 1999, a national study conducted in Australia investigated the impact of educational research on practice (DETYA 2000). This report explored the extent to which teachers' practices were affected by the findings of research. McMeniman et al. (2000) contributed to the study by investigating the issue of the theory-practice 'gap'. In doing so, these researchers implemented video-stimulated recall as a major tool to elicit from experienced teachers the extent and ways that research influenced their practice. The evidence gathered through this data gathering tool provided a depth of insight into teachers' knowledge in action. An important outcome of this study was that the participants became very involved in examining their practice through the use of the video of their teaching. Thus the information they shared with the researchers not only informed the study but informed them also.

The potential of the methodology of video simulated recall became obvious in Reitano's research that focused on final year preservice teachers, from graduation to first year of teaching (Reitano and Sim 2005). The longitudinal study involving three sets of data gathering over twelve months, using video stimulated recall, demonstrated the impact of this methodology on the professional growth of the participants.

In the 2005 OECD report *Teachers Matter* stated that "society now expects schools to deal with different languages and student backgrounds, to be sensitive to cultural and gender issues, to promote tolerance and social cohesion, to respond effectively to disadvantaged students..." (OECD 2005, 7). The global movement of people and the global nature of communication contribute to communities that are fast becoming multi-racial, multicultural and multi-faith. Where such pluralism exists, teachers are naturally concerned with effectively implementing curriculum, pedagogy and policy in their classrooms. In this current world context and in reference to Australian schools Groundwater-Smith, Ewing and Le Cornu (2003, 11), argue that:

One feature of the postmodern world in which we should have an interest is the one characterised by the twin and apparently contradictory tendencies of globalisation and resurgent nationalism.... Knowingly — or otherwise — much of the information that flows through schools is part of an ever-shifting global discourse.

Our selection of a methodology for our project supports two important acknowledgements of the OECD Report (2005): that the quality of teachers and their teaching are the most important factors in student outcomes; and secondly the essential importance of teachers as active agents in analysing their own practice in the light of professional standards. A significant element in choosing video stimulated recall

as a research methodology for this proposed project is its reciprocal possibilities. It offers the potential to provide an innovative tool for research purposes as well as for the ongoing professional growth of participating teachers (Reitano and Sim 2005). The proposed overall research design uses case study design and methods (Shulman 1996, Yin, 1994), and focuses on the collection of intensive data relating to teacher knowledge in action in the classroom. In each site, video data of classroom lessons and associated stimulated recall interview data will be collected from each teacher.

The characteristics of video-stimulated recall

One of the critical elements in understanding knowledge in action is identifying methodologies that engage with that action. The choice of methodologies for this proposed study was informed by the need to recognise the limitations of (i) interview techniques alone (potential "pious bias" and/or superficial self presentation of interviewees), and (ii) mere observation (potential researcher bias due to high inference data) (McMenimen et al. 2000).

Conventionally, studies of teacher knowledge-in-action utilise methods such as interview and observation, survey, and empirical interaction analysis. Although these studies yield useful and interesting results, such methods are limited in the following ways:

- interview and survey data are removed from the teaching/ learning context and can be, for a variety of reasons, unreliable predictors of actual classroom behaviour;
- observation does not allow access to the thinking of teachers at the time of teaching in a "complex and entangled environment" (Nespor 1985); and
- interaction analysis (following the convention of Bellack & Davitz (1963) where teaching behaviours are recorded at predetermined intervals) provides only a crude and superficial record of teacher actions and little, if any, of the *process* of teaching. Process refers here to the interactive decision-making of teachers-in-action.

Therefore in designing the research, the team has sought to minimise the possibility of "superficial self-presentation" (Parsons, Graham and Honess 1983) and ideally encompasses a methodology which makes explicit the personal theories of teachers which underlie their actions. Video-stimulated recall methodology is consistent with a conceptualisation of teacher-mediated research effects on action, whereby the actions are self-selected by the teacher, explained in detail and sourced to their respective influences.

Further, video stimulated recall provides a means to engage with teachers' thoughts and decisions during interactive teaching. The methodology focuses on the videotaping of classroom lessons as stimulus for interviews; the videotapes, together with the interviews, provide a means to investigate teachers' knowledge in action. The technique of video stimulated recall (where the teachers are videotaped in a routine lesson and then view the tape and explain the thinking underlying their actions) allows professionals to "confront and be confronted by their own professional actions" and to make explicit their implicit theories/beliefs.

The stimulus for the interviews will generally be provided by videotaping of classroom lessons, and examples from the research literature follow the same general pattern. A series of classroom lessons are videotaped and as soon as possible after the lesson the researcher meets with the teacher for the stimulated recall session. The videotape (or segments of it) is

then viewed and may be stopped by either the researcher or the teacher at particular points.

The researchers in this study plan to avoid prompting by pre-determined questions to avoid leading the witness down the path of the researcher's thoughts rather than those of the teacher being interviewed. Thus a loosely structured technique will be used for this study where the teachers will be encouraged to stop the tape at any point when they view themselves making a decision and comment on why they decided to do what they did: in other words, to make their personal theories of teaching explicit and thus available for scrutiny. The researchers will use "probes" such as "what is the basis for your using this technique/directing the lesson in this way etc.?", "Where did that come from?"; "Why do you do that?"... "And has that come from your own experience, or from talking with other teachers?"

The filming of each lesson will consist of two cameras and one portable vision mixer, with appropriate microphone support. The resultant videotape has a split screen facility enabling the researchers to focus on teacher or student responses, recording simultaneous images on the one screen. The stimulated recall sessions following the lessons will be videotaped and audio taped (for ease of transcription) by the researchers, in their turn, and these sessions will be transcribed and analysed to determine the ways in which the teachers represent diverse social and cultural identities.

This therefore leads to consideration of the potential for such a tool in the professional growth of teachers. Literature in the area of teacher change or growth is substantial. In the next section the focus is on the nature of the video stimulated recall for research. This is then followed by a discussion of its potential in an "interconnected model" of professional development that strongly supports the development of a reflective practice.

Video stimulated recall and professional growth

Clarke and Hollingsworth (1994) have suggested a number of interpretations for "teacher change", each linked with a particular perspective on professional development. One perspective is of significance to the purpose of this paper in arguing for particular strategies that would provide for evidence of professional growth. This perspective – change as growth or learning – acknowledges the nature of teaching as a community of practice: "teachers are themselves learners working in a learning community" (Clarke and Hollingsworth 2002, 948).

Research studies in professional development have criticised the professional development activities of the past that consisted in the main of one off workshops focusing on particular skills and knowledge. Their failure is well documented as Clarke and Hollingsworth (2002) testify. Therefore the complexity of professional growth for change is now strongly represented. The argument presented by research over recent years is that to be effective, professional development needs to be based upon a coherent theory of learning that takes into account the "social situatedness" of teachers' work (Clarke & Hollingsworth 2002, 955). In this way, the nature of the individual teacher's professional world of practice is incorporated in the strategies used for professional development. The focus of in-service cannot be about either changing teacher *knowledge* or changing teacher *practices*. These are inextricably linked. As a consequence Clarke and Hollingsworth (2002) present what they term an "interconnected model" of professional growth (951).

Establishing and maintaining an effective professional

development approach by schools should be a priority. Current policy developments in Australia at both national and state level reflect overseas trends of establishing professional standards for teachers that would be used for evaluative purposes. In Queensland, discussion by State education officers is now focussing on how teachers might demonstrate their achievement of these standards. This has led to increased debate over professional development provision that enables teachers to develop evidence of their growth that also reflects the professional standards. Both initial teacher education programs and in-service professional development programs are influenced by the notion of 'evidence based teaching'. For example, Holland and Adams (2002) explain how a model they term the Professional Development Plan (PDP) closely reflects a "change as growth" model and are part of a formative evaluation process for experienced teachers. The plans are described as being consistent with 'a professionalised view of teaching' (227), where the process is based on trust and professional growth.

In attempting to pull theory and practice together, we are familiar with 'reflective practice' as an integral part of the discourse of teacher education and professional growth. It has also become a part of the texts of professional standards: In Queensland, discussion by State education officers is now focussing on how teachers might demonstrate their achievement of these standards.

- "5. Graduates will be committed to reflective practice and ongoing professional renewal" (Queensland BTR 2002).

This standard is then clarified and includes descriptors highly relevant to the intended purpose of using video-stimulated recall in the proposed project:

- Graduating teachers will display a positive orientation to personal learning and teaching which foregrounds reflection on practice as an important part of the ongoing development of teacher identity.
- Such reflections will indicate a growing critical awareness of the multiple and often conflicting meaning within which they operate as they struggle towards increasingly ethical and socially just professional practice

In this context of professional standards there is an important need for teachers to consider ways of demonstrating their development through reflective practice. Nearly twenty years ago, Zeichner and Liston (1986) investigated the incorporation of "reflective" teaching into five components of the teacher education curricular. They recognised then the difficulties and impediments caused by the complexity of teacher education. However with the acceptance of the relevance and value of the teaching portfolios (Wolfe 1998), one means to demonstrate growth through reflective practice is available. The incorporation of evidence such as critical reflections based on segments of video-ed teaching (or video-stimulated recall) can become part of the content of such folios – particularly with the development of the notion of the 'electronic' portfolio.

Conclusions

Increasingly professional standards for teachers are becoming an accepted policy decision at international, national and local levels. They are also occurring at a general level as well as curriculum specific. While the standards developed are used for the purpose of registration – initial and on-going - they are also argued as essential to support teachers. Teachers are constantly under scrutiny by the communities in which they

work. However the complexity of their profession is seldom well understood by those outside. Issues such as the day to day decision making that occurs in classrooms, the impact of increasing diversity among the students they teach each day, and the impact of government policy initiatives on classroom practice all contribute to the professional demands on teachers.

In considering ways to better develop teacher knowledge and understandings of diversity and difference, it is argued that research should be focused on classroom practice in order to draw upon teachers personal professional theories and to acknowledge the 'situatedness' of teacher practice. To this purpose, we propose that the development of rich case studies using evidence gathered through video-stimulated recall will contribute not only to the research in this field but also to the professional growth of those teachers involved in that research. At a broader level, the findings of this research will include an evaluation of the methodology in relation to its effectiveness in providing evidence of teacher professionalism that can contribute further to the discussions and definitions of professional standards.

References

- Bellack, A.A. and Davitz, J.L. (1963), *The Language of the Classroom*, Mimeo, New York, Teachers' College, Columbia University.
- Clarke, D. and Hollingsworth, H. (1994), 'Reconceptualising teacher change' in: Bell, G., Wright, B., Leeson, N. and Geake, J. (eds), *Proceedings of the 17th annual conference of the Mathematics Education Research Group of Australasia*, Lismore, NSW, 153-164.
- Clarke, D. and Hollingsworth, H. (2002), 'Elaborating a model of teacher professional growth' in: *Teaching and Teacher Education*, 18, 947- 967.
- Dewey, J. (1904/74) 'The relation of theory to practice in education' in: Archambault, R. (ed.), *John Dewey, On Education, Selected Writings*, Chicago, 1974.
- Dunkin, M.J., Welch, A., Merritt, A., Phillips, R. and Craven, R. (1998), 'Teachers' explanations of classroom events: knowledge and beliefs about teaching civics and citizenship' in: *Teaching and Teacher Education*, 14(2), 141-151.
- Groundwater-Smith, S., Ewing R., and Le Cornu, R. (2003), *Teaching : challenges and dilemmas*, 2nd edition, South Melbourne, Nelson/Thomson Learning.
- Holland, P. and Adams, P. (2002), 'Through the horns of a dilemma between instructional supervision and the summative evaluation of teaching' in: *International Journal of Leadership in Education*, 5 (3), 227-248.
- Keith, M.J. (1988), *Stimulated recall and teacher's thought processes: a critical review of the methodology and an alternative perspective* (paper presented at the Annual Meeting of the Mid-South Educational Research Association, Louisville, Kentucky),
- McMeniman, M., Cumming, J., Wilson, J., Stevenson, J. and Sim, C. (2000), 'Teacher Knowledge in action' in: Department of Education, Training and Youth Affairs (DETYA), *The Impact of Educational Research*, Research Evaluation Programme, Higher Education Division, DETYA, Commonwealth of Australia, Canberra.

Nespor, J.K. (1985), *The role of beliefs in the practice of teachings: Final report of the teacher beliefs study*, Texas University, Research and Development Centre for Teacher Education.

OECD (2005), *Teachers Matter: Attracting, developing and retaining effective teachers*, Paris, OECD Publishing.

Parsons, J.M., Graham, N. and Honess, T. (1983), 'A teacher's implicit model of how children learn' in: *British Educational Research Journal*, 9(1), 91-101.

Puttnam, R. and Borko, H. (2000), 'What do new views of knowledge and thinking have to say about research on teacher learning?' in: *Educational Researcher*, 29 (1), 4-15.

Reitano and Sim, (2005), *Providing a space for professional growth through research*.

Richardson, V. (1994), 'Conducting research on practice' in: *Educational Researcher*, 23(5), 5-10.

Shkedi, A. (1998), 'Teachers' attitudes towards research: A challenge for qualitative researchers' in: *Qualitative Studies in Education*, 11(4), 559-577.

Shulman, L. (1996), 'Just in case: Reflections on learning from experience' in: Colbert, J., Trimble, K. and Desberg, P. (eds), *The Case for Education: Contemporary Approaches for Using Case Methods*, Massachusetts, Allyn & Bacon, 197-217.

Wolf, K. (1994), 'Teaching portfolios: capturing the complexity of teaching' in: Ingvarson, L. and Chadbourne, R. (eds), *Valuing teachers' work: New directions in teacher appraisal*, Melbourne, ACER.

Yin, R.K. (ed.) (1994), *Case Study Research: Design and Methods*, 2nd Edition, London, Sage.

Zeichner, K.M. and Liston, D.P. (1987), 'Teaching student teachers to reflect' in: *Harvard Educational Review*, 57(1), 23-48.