Professional doctorate research methodologies: new possibilities from beyond the social sciences

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1. Research into practice

The methodological approaches used by professional doctorate students often mirror those used by full-time academics within their fields of study. Costley & Armsby (2007) found that these are often dominated by a narrow range of social science approaches and suggest that alternative techniques could usefully be developed for use specifically in a practitioner research context.

This paper argues that different styles of practitioner research have different objectives, and that not all are adequately served by research approaches drawn from the social sciences. Indeed, the dominance of social science approaches within the professional doctorate academic community may betray a restricted view of what can potentially constitute valid research, and a lack of awareness of other possibilities.

Using a synthesis of the two models articulated separately by Frayling (1993) and Archer (1995) in an art and design context the paper explores the distinction between three styles of practitioner research, namely that which is undertaken *into* practice, *for* practice, and *through* practice. It equates the former approach with disciplinary (mode 1) research, including that in the social sciences. It suggests that the two alternative approaches – research *for* and *through* practice - are often likely to be more appropriate for insider practitioner researchers undertaking professional doctorates.

2. Alternative pragmatic approaches

Both of these alternative approaches are seen to free the researcher from the retrospective, description-driven analysis of what Simon (1969) refers to as the *explanatory sciences*. Instead, in drawing on Simon's alternative notion of *synthetic* rather than *analytic* research, they encourage the researcher to look to the future, and to develop solutions to real world problems which have a direct impact on practice. These forward-looking and instrumental approaches to research can be equated with the ideas of the American Pragmatists, including Dewey (1931, pp. 32-33):

> "Pragmatism…does not insist upon antecedent phenomena but on consequent phenomena; not upon the precedents but upon the possibilities for action….

> ….general ideas have a very different role to play than that of reporting and registering past experiences. They are the bases for organizing future observations and experiences."

The two alternative approaches, respectively research *for* and *through* practice, can be distinguished by the relationship, in time, between the research activity and the incidence of practice which they address. Whilst research *for* practice is necessarily undertaken in advance of practice, research *through* practice takes place either contemporaneously with the practice, or after the event.

3. Research for practice

Research *for* practice is presented here as research which is undertaken separately from the field of practice with the intention of developing new knowledge that can subsequently be applied in a practice setting. It embodies Schön's (1983) notion of 'technical rationality' and is, perhaps, synonymous with the traditional definition of applied research: an "original investigation undertaken in order to acquire new knowledge….directed primarily towards a specific practical aim or objective" (OECD 2002, p. 78).

In the fields of information systems (March & Smith 1995) and management (van Aken 2004) it is increasingly being described in terms of 'design science' (as opposed to traditional 'explanatory science') research. Within this tradition solutions to problems (or 'artefacts') are methodly developed and evaluated for subsequent implementation in practice. In van Aken's words (pp. 220-21) design science research is prescription-driven rather than description-driven; it develops knowledge for instrumental, rather than conceptual use (ibid, pp. 223-4) and, in business-related fields, generates management theory rather than organizational theory (ibid, pp. 229-30).

4. Research through practice

Whereas research *for* practice is probably best suited to practice-related problems which Schön (1983, p. 42) describes as occupying the "hard, high ground" of practice, research *through* practice addresses problems in what he describes as the "swampy lowland where situations are confusing 'messes' incapable of technical solution". There are, according to Archer (1995, p. 11) "circumstances where the best or only way to shed light on a proposition, a principle, a material, a process or a function is to construct something, or to enact something, calculated to explore, embody or test it".

In these circumstances research through practice involves a process of practitioner action, accompanied by contemporaneous or subsequent reflection as a means of making knowledge explicit that was previously an implicit part of the practitioner's 'knowing in action'. In some fields there is a tendency for these approaches to be constrained by conventional notions of what can properly be categorized as 'action research', and for research to focus disproportionately on matters relating to

organizational processes. Nevertheless, once the basic principle of unlocking implicit knowledge through a process of reflection is accepted, other techniques also become available to those who desire to achieve a particular outcome in the professional environment, whilst also contributing to the collective corpus of knowledge in their field.

The paradigmatic version of this approach is perhaps the 'practice-based research' often now undertaken in the arts and creative industries, typically involving the creation of an 'artefact' and a related 'exegesis' or reflective commentary. The principle is however of more general application and can be embodied in techniques that are tailored to particular practice situations in other vocational settings.

Without wishing to suggest the desirability of generic approaches and standardized labels, the concepts of action science (Argyris et al 1985), pragmatic-systematic inquiry (Cronen 2001), practical inquiry (Stevenson 2008), pragmatic inquiry (Metcalfe 2008), and practice research (Goldkuhl 2012) can perhaps all be viewed as embodying this single underlying principle. However described, such techniques all acknowledge Schön's (1983, p. 308) aspiration of "recast[ing] the relationship between research and practice" and his observation that "practitioners may become researchers in situations of uncertainty, instability, uniqueness and conflict".

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