Organisational involvement in supporting the learned professional

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Abstract

This paper describes the Doctorate in Professional Studies (DProf) as developed at a UK University and specifically focuses on the specialist doctoral pathways in Health, Environment and Risk in the School of Health and Social Sciences. The paper considers the role of the major stakeholders; Doctoral candidate, Employer Organisation hosting the research, and the University. Since the inception of the DProf there has been recognition of the need for the employer organisation to be an active partner in the research by supporting it through being receptive to the emerging research findings. There is also recognition of the differences between traditional doctoral study and that of the work based professional doctoral candidate. Portwood (2000) considered the concept of the learned worker as the person who is able to develop a reflective and cognisant view of organisational developments and change. Armsby and Costley (2009) took the learned worker concept further by considering the potential risks and barriers encountered through the "situatedness" of the professional doctoral candidate in the organisation, and ultimately their vulnerability should there be internal resistance or apathy towards the research. The paper considers two examples of such resistance and analyses the support required for the learned professional doctoral candidate through utilising the resources of "organisation sapiens". Recommendations are made on strategy for leading the change process and understanding positive and constructive approaches to questioning organisational change. The paper concludes with a consideration of a more inclusive and participatory approach to organisation stakeholder involvement and potential methodologies that may enable greater partnership in the research.

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Introduction

Professional doctorates (DProf) have been offered at the University since 1997, much experience has been gained in the development of a work based learning ethos of doctoral level research. There has been growing recognition of the difference in the learning experience between the traditional PhD model of a research apprenticeship and the professional doctorate model of supporting the "learned professional" (Portwood, 1993). The ethos at the University gives recognition to the responsibility and position of the learned professional at doctoral level, who is referred to as a "doctoral candidate" rather than a "student". Support for the DProf is provided for each candidate by an academic advisor who offers guidance in the structure of the doctoral research and a consultant who provides professional work based technical support.

This paper considers the emerging role of the academic advisor and consultant and how best to understand the complex learning situation for the DProf candidate. Armsby and Costley (2009: 109) postulated the need for further understanding of the "situatedness" or situated learning position, within the organisation of professional doctorate candidates and the influence of the community of practice (Lave and Wenger, 1991). We explore this theme from the perspective of current candidates and recent graduates from the DProf pathways in Health, Environment and Risk.

There is also critical discussion on the role of the sponsoring or host organisation(s) and the question of how the learned professional is further developed within the culture of the organisation. For example, if the professional doctorate researcher fully engages with the idea of becoming a critically reflective practitioner as defined by Argyris (2000), s/he will turn their attention both to their own practice and that of the organisation. That is, how does the organisational culture mediate a sense of agency in the behaviour of the practitioner? In effect, the practitioner seeks to raise the "strategy ceiling" prevalent in the organisation by asking questions in relation to whose needs are privileged by particular ways of organising and why this way rather than any other (Boxer and Palmer, 1997). The result can be that the fit between the doctoral candidate

and their employer can change as questions of strategy, buried in the organisational woodwork are exposed to scrutiny.

Of course this is not just a theoretical possibility. The psychological contract, a form of tacit social exchange outlined by Argyris (1964), between the doctoral candidate and the employer can change. What may begin as simple support from a line manager, predicated on an implicit assumption that such programmes do not really affect anyone else other than the candidate, may paradoxically create a significant conflict.

In one of the candidate examples discussed here, the intellectual insights developed on the programme, catalysed a more robust confidence in his own skills and thinking. A consequence of this change was a willingness and capability to question what was going on in the candidate's organisation. This has had the result for some professional doctorate researchers of bringing them into private and/or public conflict with the prevailing management hegemony and strategy. As Minger's (2000: 220) notes, power systems when challenged can fight back.

Attention needs to be paid to the responsibility of the candidate to critically reflect upon their organisational context as they examine their own practice. This suggests that, with their academic advisor and consultant, they may need to find ways of bringing into the supervisory relationship what may be the silent organisational partner, in order to think about the effect of the programme on this relationship.

There are many examples of successful professional doctorate projects. However, there remains an area of uncertainty for organisations from both public and private sectors on how to effectively incorporate the professional doctorate researcher and grow with them.

Background to the doctorate in professional studies at the university

The DProf was first approved in 1997 and was designed and developed by an academic team experienced in the field of work based learning and employer partnerships (Portwood, 2000). The original focus for the DProf was to provide a generic doctoral pathway to enable senior and established professionals from any field of employment to focus research on their own practice. This theme was extended within the university

through the introduction of specialist validated pathways, the first of which were the DProf specialist pathways in Health and Environment, within the School of Health and Social Sciences (HSSc), approved by the university in 2002 (Rounce and Workman, 2005). The introduction of the specialist pathways enabled practitioners in the health and environment related professions to undertake doctoral research around specific organisation issues and opportunities. Critical reflective practice, as with the generic DProf, is central to the investigative process. The specialist validated pathways are supported by academic advisors and consultants immersed in the relevant subject culture, thus providing a learning resource in their field. Essentially, the specialist doctoral pathway facilitates the academic cultural link for Health and Environment related professionals to benefit from specialist academic support. The University has further extended the scope of professional doctoral study through joint collaborative partnerships with other institutions, for example with the Doctorate in Counselling Psychology and Psychotherapy by Professional Studies at Metanoia Institute (Orlans, 2009) and a Doctorate in Psychotherapy at another psychotherapy and counselling institution, both within HSSc.

Many successful DProf research projects have enabled candidates to introduce sustainable change within their practice and organisation strategy. One aspect of the DProf pathways in Health, Environment and Risk, is a doctoral level research module which focuses the candidate on their own leadership and followership both in the organisation and the wider professional arena. The module 'Explorations in Leadership' is intended to engage the candidate with the literature generally around leadership, followership and transformational change. The module involves a series of expert seminars where leaders from any of the three pathways, including academics in leadership or strategic change, present their experiences and research in the field. This is intended to form a critical commentary on the state of their (candidate's) own leadership and followership practice, with development of an individualised action plan for personal and professional change. The Explorations in Leadership module is intended to form an integrative aspect of the final research project.

Differences between the traditional PhD and the DProf

The professional doctorate offered at this institution has many similarities with the traditional PhD, as illustrated in Table 1. However, the professional doctorate is subtly different in that it requires a candidate who is established in their field and ideally has access and approval within their organisational or professional setting to undertake doctoral study. The PhD outcome of making an original contribution to knowledge is also represented in the DProf though is focused upon making an original contribution to practice. Other similarities and differences with the PhD include the requirement for the DProf candidate to give a presentation at the start of their viva voce which enables the candidate to demonstrate their authority in the field and impact on practice. Formal questioning by the internal and external examiners continues after the presentation in a similar way to the PhD. The PhD candidate is required to demonstrate detailed reflection on the subject matter, which can include practice. The DProf candidate is required to demonstrate detailed reflection upon practice relevant to the subject and professional field. Similar to the PhD, the DProf candidate must work within the university ethical framework and is required to gain ethical approval from the university before undertaking any proposed research. The assessment requirements for the DProf are intended to mirror the general good practice within doctoral education and also professional bodies. Many professional organisations for example, require their members to take a critical and ethical approach to practice, which is part of a professional code of conduct.

Table 1: Similarities and differences between the traditional PhD and Professional Doctorates	
Traditional PhD	Doctorate in Professional Studies
PhD demands a significant original contribution to the body of learning. This may relate to practice if the subject matter so requires.	DProf requires a similar level of original contribution but it has to be related to practice and impact on practice is a major consideration.
PhD is based on a substantial written thesis or dissertation.	The DProf requires a project with significant outcome and critical commentary on process.
The criteria for assessment of the PhD are not explicitly stated and the assessment is, in part at least, norm referenced through the general academic expectation of level.	Criteria are explicitly stated in terms of required learning outcomes. This applies to taught elements and a project which is assessed on generic criteria.
PhD assessment always includes a viva voce examination.	DProf project assessment includes a presentation and viva voce.
PhD requires detailed reflection on the subject matter, which can include practice.	DProf requires detailed reflection on practice relevant to the subject and professional area in a transdisciplinary form.
PhD students are usually identifiably either full time or part time.	DProf candidates tend to be full-time practitioners who are studying part-time; since the study is practice based, this blurs the distinction between full and part time modes.

PhD students may be involved in long term strategic research (or not).	DProf candidates contribute to immediate issues or longer term strategic development of organisations/professional practice.
PhD can be very much individual, but some HEIs are starting to operate more on a cohort basis, following the introduction of research methods training.	DProf is sometimes cohort based where the university links with other organisations (often in leadership or consultancy roles). This is a feature of the richness and complexity of the operational context of the DProf.

Source: Middlesex University (2007) Information for examiners: Work Based Learning Institute.

Congruence with professional bodies

The objectives for the professional doctorate are enshrined within the level descriptors for the DProf, shown in Tables 2 and 3 below. The level descriptors include key objectives for initiating change and ethical practice. Interestingly, this is congruent with many professional body codes of practice and aims to provide transparency in understanding the academic level of practitioner research.

Table 2: Masters in Professional Studies (Health, Environment, Risk) Level 4 Descriptors

- O Self directed research and development, depth of understanding and the
- O creation and articulation of knowledge of significance to others are the hallmarks of this level:
- O identification and appropriate use of sources of knowledge and evidence will be wide ranging, critical and often innovative
- O analysis, synthesis and evaluation of information and ideas will result in the creation of knowledge of significance to others
- O application of learning will transcend specific contexts
- O selection and justification of approaches to task/problem will be self-directed and involve recognition, articulation and critical evaluation of a range of options from which a justified selection based upon a reasoned methodology is made
- O action planning leading to effective and appropriate action will be complex and is likely to impact upon the work of others
- O effective use of resources will be wide ranging and is likely to impact upon the work of others
- O effective communication both in writing and orally will be in an appropriate format to appeal to a particular **target audience and will be clear, concise and persuasive**
- O working and learning with others will span a range of contexts, often in a leadership role, and is likely to challenge or develop the practices and/or beliefs of others

- O self appraisal/reflection on practice will lead to significant insights which are likely to make a lasting impact upon personal and professional understanding
- O ethical understanding will span a range of contexts, where applicable prescribed codes and their rationale will be critically understood and sensitively applied.

Source: Middlesex University (2009) M/DProf Framework Handbook. HSSc.

Table 3: Doctorate in Professional Studies Level 5 Learning Descriptors (Additional to the level 4 descriptors)

- O Ethical understanding: Is sensitive to the complexities of ethical issues and the influence of values; is able to work from a sound theoretical base towards practical resolution of issues. Seeks out and uses appropriate professional and legal frameworks and guidelines
- O Knowledge: Demonstrates the ability to interpret existing knowledge and to create new knowledge and new applications. Such knowledge is expected to be both discipline specific and interdisciplinary in order to reflect the complex nature of professional work
- O Professional Practice: **Evidence of the ability to take initiative in complex and unpredictable situations in professional environments**. Shows evidence of a high level of performance and influence which is acknowledged by peer and expert review
- O Project Development: Has the general ability to conceptualise, design and implement a project for new knowledge, applications or understanding at the forefront of the discipline and adjusts the project in the light of unforeseen problems
- O Communication: Can communicate complex or contentious information effectively to a range of audiences in academic, work related and other fields. Consults and collaborates with others appropriately in order to formulate ideas, plans and conclusions
- O Reflection and Self appraisal: Is able to use reflection and self-appraisal to identify the emergence, development and demonstration of capabilities across the spectrum of professional activity
- O Collaborative working: Can lead and work effectively within a group, including interdisciplinary teams and with specialist and non-specialist members. Is able to clarify the task, managing the capacities of group members and negotiating and handling conflict with maturity
- O Resource management: Displays effective use of human, technical and financial resources in the selection and operation of work

Source: Middlesex University (2009) M/DProf Framework Handbook. HSSc.

An example of the Chartered Chemistry professional attributes is shown in Table 4 below. There is a similar requirement to follow ethical practice through demonstrating integrity, respect and confidentiality on work and personal issues (Royal Society of

Chemistry professional attribute no. 5). The Chartered Chemist must also be able to demonstrate the ability to work as part of a team (attribute no.11) which is similar to the Level 5 DProf Descriptor for collaborative working. Interestingly, the last Chartered Chemist attribute is 'exert effective influence' and this would seem to have relevance to the DProf descriptors around contribution to practice and change.

Table 4: Professional attributes of the Chartered Chemist (CChem) RSC, 2008

- 1. Make significant personal contributions to key tasks in your employment area and understand fully the chemistry objectives of the work done and its relevance to the employer or others.
- 2. Demonstrate a high level of appropriate professional skills in the practice of chemistry.
- 3. Develop your chemistry and other professional skills as required for the work undertaken and career development.
- 4. Demonstrate an understanding and appreciation of Health, Safety and Environmental issues and adhere to the relevant requirements relating to your role.
- 5. Evaluate critically and draw conclusions from scientific and other data.
- 6. Demonstrate integrity and respect for confidentiality on work and personal issues. Demonstrate other professional attributes such as thoroughness and reliability.
- 7. Plan and organise time systematically, demonstrate foresight in carrying out tasks, and offer suggestions for improvements to tasks/duties.
- 8. Demonstrate an interest in broader developments in chemical science and make a contribution to the profession of chemistry outside your direct work environment.
- 9. Write clear, concise and orderly documents and give clear oral presentations.
- 10. Discuss work convincingly and objectively with colleagues, customers and others. Respond constructively to, and acknowledge the value of, alternative views and hypotheses.
- 11. Demonstrate the ability to work as part of a team.
- 12. Exert effective influence.

Source: Royal Society of Chemistry, 2008.

The Institute for Healthcare Management professional code is another that has synergy with the DProf level descriptors, particularly around ethical approaches to change in practice. This is illustrated in the quote below taken from the IHM Healthcare Management Code, element 4.5. Moreover, this approach to a professional code provides explicit descriptions of excellence in practice and also descriptions of unacceptable practice:

"4.5 Respect – Respecting ones colleagues, employers and employees, patients and the public by recognising that their cultures, beliefs, race, lifestyles, sexuality, age or their professional culture may be different from one's own. It also means respecting others by giving of one's best at all times and keeping up to date with best practice.

The excellent manager:

- In all dealings with patients, staff, colleagues and the public, treats others with respect and equality.
- *Is prepared to listen to the views of others even if conflicting.*
- Uses reasoned argument and evidence to persuade a change of view.

The Unacceptable manager:

- Treats others as of no consequence.
- *Is discriminatory.*
- *Uses intimidation rather than logic.*"

Source: IHM Healthcare Management Code (2000).

The level descriptors for the DProf are intended to provide a benchmark for clarity of academic level and professional practice.

Two examples of organisation responses to research and change

The two vignettes, included below, of professional doctoral research help to illustrate the scenario of what may be defined as organisational anxiety (Kets De Vries, 1995) whereupon the researcher embarks on an agreed programme of research, often supported financially by the organisation. Many organisations proudly sponsor their professional doctoral candidate and happily countersign the learning agreement that forms their research proposal. However, there have been a preponderance of projects where clearly the organisation is signatory to supporting potentially transformative change, though not fully able to embrace the consequences of the research findings and recommendations for change. This may be aligned with Argyris's (1999) concept of espoused theory versus theory in practice, where, in this case the organisation representatives espouse their support for the learning organisation, though in practice (theory in practice) behaviour may be different to that espoused.

The reluctance to contemplate change other than that initiated by organisation management accords with the concept of management hegemony and is often associated with organisation hierarchy, power and gender bias (Learmonth and Harding, 2004). Such organisational responses can prove extremely challenging for a professional

doctoral candidate, though seems inevitable where the organisation is change averse. A reluctance to embrace or consider particular change can be understood in terms of industrial relations theory developed by Fox (1974) in his analysis of management frames of reference including a unitary management perspective (of one view) as opposed to the more pluralist approach to change (willing to accept other views). Considered in light of the learning organisation concept (Senge *et al.*, 1994), it can be seen that dialogue and a systematic approach to understanding organisations is consistent with the aims of professional doctoral study. In order to overcome barriers presented by management hegemony and potentially closed unitary frames of reference, the candidate would need to develop sensitivity to anxieties within the organisation. Such an approach may help to build confidence and strategy, through dialogue and incremental change, which may be more acceptable.

Vignette 1: Community leadership development

This example is based on a study carried out by Naylor (2009) as part of his doctoral research. The theoretical framework for the research was based on critical realism, where the research is primarily based on a critical analytical perspective of power and materialism, this perspective is often considered as an ontological approach (being or existence of what is in the world) as opposed to an epistemological perspective (theory of knowledge about what is in the world) (Ackroyd and Fleetwood, 2004). Naylor's research was to develop a theory of enabling sometimes uncomfortable truths in organisations to be brought to light, through an approach he has termed 'constructive awkwardness'. The research highlighted a number of real life cases where practitioners from health related institutions had witnessed poor practice but were not empowered to speak out about this. One such example was with a surgeon who was asked to perform a procedure without the necessary equipment. The process of self silencing by individuals who do not feel empowered to question directives from senior managers or practitioners is ubiquitous to many work scenarios. The research aimed to test out a potential organisation training and development programme aimed at community voluntary sector leaders in their role of questioning how government funds are allocated. This innovative training was well received by the community leaders. The concept of constructive awkwardness was postulated as a method to encourage the process of questioning within a true learning organisation, and overcome slavish adherence to

often flawed management hegemony. Naylor's employer organisation was not supportive of the concept of constructive awkwardness and at heart there seemed to be a conflict of interest with his organisation, where it was felt that the proposed development programme may result in tarnishing relationships with potential funding institutions. The research was successfully completed, though Naylor parted company with his organisation shortly after completing his study and now works as a private consultant to health related organisations. The training and development around constructive awkwardness was not continued by his employer.

Vignette 2: A study of how professionals cope with trauma

The second example concerns ongoing research that was arranged in relation to an emergency service organisation (Sherry, 2009). The research examined how individuals adapt to trauma in their work. Participants included emergency service personnel, Hospital out-patients and Student volunteer participants. The study utilised a combination of qualitative and quantitative tests, administered through means of a series of questionnaires involving psychometric methods and also considering emotional intelligence responses to trauma. The researcher is a qualified counselling psychologist and had been working previously with the emergency service organisation on a therapeutic consultancy basis. The research study was discussed with the emergency service organisation, and the senior management agreed that the service personnel could be invited to participate.

However, after the first round of questionnaires, which were administered to active emergency service personnel, the organisation did not support a second round of questionnaires. One factor that may have caused some irritation for the organisation was that the research was delayed due to extra time needed to validate the questionnaires and also to gain ethical approval via the university. There was no discussion of the reasons why the organisation chose to halt involvement of its personnel in the study. The senior manager involved simply refused to speak with the researcher.

The researcher has latterly considered the cultural factors in the organisation and believes that the refusal to enter into dialogue about the research may be due to an attitude response endemic amongst those in the emergency service. The response of

avoiding discussion and analysis of dangerous incidents seemed prevalent. In this case the senior manager may not have wanted the research to continue as it had the potential to dredge up memories or subjective feelings about the risks of fire death and dying. There may have also been senior management concerns that the study might encourage claims for compensation from employees who consider that they are suffering from trauma as a consequence of their work.

The research was able to continue by seeking additional participants from hospital outpatients and university student volunteers and re-focusing experiences of trauma. Such research is essential in understanding how individuals cope with trauma and was considerably delayed as a result of the withdrawal of support from the emergency service organisation.

The silent partner organisation: A critical analysis

The above vignettes demonstrate the way in which organisations can be passive stakeholders in professional doctoral research projects. Organisations are often unprepared for transformative change emanating from research. This may have consequences for the organisation in how strategic change occurs and may provide insight into how the organisation can evolve in terms of the business or service delivered. The community of practice concept (Wenger, 1998) is interesting to consider in light of the professional doctoral researcher. In addition to the perceived benefits of the community of practice, where knowledge and practice is shared and developed mutually, there may also be a deficit model, where an insider or practitioner researcher (Fox *et al.*, 2007) could be viewed as a threat to established practice.

Moon (1999: 154) has analysed the process of understanding transformative change through a continuum of reflective awareness. The continuum starts with noticing, and then continues through making sense. However, progression to transformative change is possible only through deeper reflection and meaning making and then working with meaning before true transformative learning can be achieved.

For the professional doctorate researcher, Moon's reflective process is an essential part of the learning and researching process and can involve a good measure of anxiety on

the part of the researcher in their being able to successfully complete the doctoral research project. However, as mentioned earlier in this paper, there may also be anxiety held by the organisation in terms of how the outcomes of the research should be accepted and incorporated, or rejected (James *et al.*, 2004). Such anxiety may be understood as increasing as the research progresses towards completion. Where, at an organisational level there is superficial involvement, there is likely to be difficulty in moving through Moon's making sense stage. Agyris (1999) identifies this difficulty, where there is a need to capture meaning which continually changes through implementation into actionable knowledge. In order to carry out effective research, the candidate will need the support and active involvement of the organisation and its leaders. A manager to champion the research is essential in terms of legitimating the relevance of the research.

"A major factor affecting a person's learning at work is the personality, interpersonal skills, knowledge and learning orientation of their manager" (Eraut *et al.*, 1999: 79).

Therefore, the active involvement of organisations is imperative if learning and research outcomes are to be sustainable.

A strategy for organisation involvement

The organisation needs to be an active stakeholder throughout the doctoral research and there would seem to be a lack of theory on the need for enhanced integration of the organisation at a cultural and strategic level. Active stakeholder involvement might include relevant communities of practice as well as key strategic managers and leaders. Ultimately, the organisation needs to embrace and own the change. This can be understood in terms of systems operation, where every action in a change process will have a reactive response, the key to success must be for that response not to be a barrier. A systems thinking approach may enable an organisation to understand the process and avoid barriers to learning; in line with Senge's (1990) fifth discipline. Furthermore, the university stakeholder needs to be adept at fostering the relationship through regular dialogue around research progress with the organisation representatives in support of the potential organisation change.

Soft Systems Methodology (SSM) was developed by Checkland in the late 1970s as a tool for modelling organisation change, a key component of which was the recognition of stakeholders in organisations (Checkland, 1981). His SSM modelled organisational change from the perspective of the customer, actors, transformational process, worldview (Weltanschauung) and owner(s) of the system. Checkland sought to learn about the activities of the organisation through dialogue with learned members of the system, who were not necessarily represented by managers. This enabled a more impartial understanding or the organisation as a system. He recognised that knowledge and understanding of an organisation can exist at all levels and this tacit knowledge does not necessarily conform to organisation hierarchy. Checkland termed these knowledgeable members as "organisation sapiens" (etymology: from the Latin sapiēns, wise, rational, present participle of sapere, to be wise.) meaning organisationally wise people. It is postulated here that if we are to consider enhancing the stakeholder involvement of the employer organisation, there would seem to be a benefit in seeking to involve relevant organisation sapiens (Checkland, 1989).

Summary and conclusions: Tools for convivial participation

Throughout this paper we have considered the development of the professional doctoral project and have focused on the experience within a University School of Health and Social Sciences. We have traced some of the aspects of supporting the doctoral candidate as an insider researcher in their organisation. There is recognition of the need for greater facilitation of employer/organisation stakeholder participation, and particularly involvement of key organisation sapiens. A practical approach to enhanced employer involvement could be pursued through means of the research methodology used. Such approaches could include:

- Participatory action research
- Expert reference group
- Project steering group
- Nominal groups
- Delphi technique

 New emerging means of stakeholder inclusion and adapted research methodological approaches, for example Appreciative Inquiry and Soft Systems Methodology.

Inclusive organisation sapien research group meetings could be held at employer premises or rotated across organisation, university and other participant locations. This paper outlines work that is ongoing. In future, issues of inclusion, equity and organisation power structures will form the basis of further study. The paper forms part of a research strategy for the Doctorate in Professional Studies pathway team in Health, Environment and Risk.

References

Ackroyd, S & Fleetwood, S. (2004) *Critical realist applications in organisation and management studies*. London: Routledge.

Argyris, C. (1964). *Integrating the individual and the organization*. London and New York: Wiley.

Argyris, C. (1999). On organisational learning (2nd Edition). London: Blackwell.

Argyris, C. (2000). Flawed advice and the management trap. Oxford: Oxford University Press.

Armsby, P. & Costley, C. (2009). 'Developing work based learning at doctoral level' in J. Garnett, C. Costley, B. Workman (Eds.) *Work based learning: Journeys to the core of higher education*. London: Middlesex University Press.

Boxer, P. & Palmer, B. (1997). *The architecture of quality: The case of the specialist care organisation*. [Internet] available from: http://www.brl.com [Accessed 20/02/10].

Checkland, P. (1981). Systems thinking, systems practice. Chichester: Wiley.

Checkland, P. (1989). Unpublished seminar note. Lancaster: University of Lancaster.

Eraut, M., Alderton, J., Cole, G. & Senker, P. (1999). 'The impact of the manager on learning in the workplace' in F. Coffield (Ed.) *Speaking truth to power: Research and policy in the workplace*. Pristol: Policy Press/ ESRC.

Fox, A. (1974). Beyond contract: Work, power and trust relations. London: Faber & Faber.

Fox, M., Martin, P. & Green, G. (2007). Doing practitioner research. London: Sage.

Institute for Healthcare Management (2000). *IHM Code of Conduct*. http://www.ihm.org.uk/about/code-of-conduct (accessed 15th February, 2010).

James, K., Huffington, C. & Armstrong, D. (2004). 'What is the emotional cost of distributed leadership?' in C. Huffington & C. Armstrong (Ed.) Working below the surface: The emotional life of contemporary organisation. London: Karnac.

Kets De Vries, M. (1995). *Organisational paradoxes: Clinical approaches to management*. London: Routledge.

Lave, J. Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Learmonth, M. & Harding, N. (2004). *Unmasking health management: A critical text*. Nova Science Publishers.

Middlesex University (2007). Information for examiners: Work Based Learning Institute.

Middlesex University (2009). HSSc M/DProf Framework Handbook.

Mingers, J. (2000). What is it to be critical? Teaching a critical approach to management undergraduates. *Management Learning*, 31 (2), pp. 219-237.

Moon, J. A. (1999). Reflection in learning & professional development: Theory and practice. London: Kogan Page.

Naylor, D. (2009). A critical realist investigation into constructive awkwardness to investigate how public sector and community-based practitioners authorise their interventions. Unpublished DProf final project: Middlesex University.

Orlans, V. (2009). 'Challenges in the delivery of professional doctorates: Integrating clinical and research training for psychologists'. Paper presented at the International Conference on Professional Doctorates: Conference Proceedings. London: Middlesex University and UK Council for Graduate Education.

Portwood, D. (1993). 'Work based learning: Linking academic and vocational qualifications', *Journal of Further and Higher Education*, 17 (3), pp. 61-69.

Portwood, D. (2000). 'An intellectual case for work based learning as a subject' in D. Portwood & C. Costly (Eds.) *Work based learning and the university, new perspectives and practices*. SEDA paper 109. Birmingham: SEDA Publications.

Rounce, K. & Workman, B. (Eds.) (2005). Work based learning in health: Innovations and applications. Chichester: Kingsham Press.

Royal Society of Chemistry (2008). *Professional attributes of a Chartered Chemist* (CChem). http://www.rsc.org/Education/Qualifications/AttributesCChem.asp (Accessed 21.02.10).

Senge, P.M. (1990). *The fifth discipline*. NY: Doubleday Currency.

Senge, P. M., Kleiner, A., Roberts, C., Smith, B. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. NY: Doubleday Currency.

Sherry, R. (2009). Unpublished doctoral assignment for the IPH5001 Explorations in Leadership, followership and transformational change: Middlesex University.

Wenger, E. (1998). *Communities of practice: learning, meaning and identity*. Cambridge: Cambridge University Press.