# Knowledge in Action: doctoral programmes forging new identities

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ABSTRACT    *Pressures to link higher education to the workplace and industry environment have created a radically different climate for postgraduate research education, and, as universities struggle to accommodate new ways of structuring doctoral degrees and new ways of producing knowledge, there are indications that many traditional structures and management processes are under pressure to change. There are also suggestions that the emergence of new degrees could provide opportunities for innovative practices in the design of new curricula, new assessment methods and new types of supervision. As part of an empirical study, this paper will report on two doctoral programmes that explicitly link the theory and scholarship of the academy with the practice and professional knowledge of the workplace and community environment. The paper will explore strategies for managing research in this new environment for doctoral education, investigate the claims about new practice and discuss three aspects pertaining to the development of knowledge and new doctoral identities in these two programmes: context, supervision and pedagogy, and knowledge production.*

## Introduction

Both from policy sources and global developments, there has been a push in Australia to develop new forms of doctoral programmes that are more clearly designed to bring academic contributions together with needs of the economy and of work. These external pressures are producing a radically different climate for postgraduate research education, with the result that many traditional structures and management processes are under pressure to change. Running alongside these pressures are the distinctive agendas being forged by newer universities to establish their own place in the sector of higher education. We would argue that the doctoral programmes being developed in these newer universities are not simply a reaction to top-down policy pressure, or a filling in of templates for doctoral programmes, but also examples of the positioning of particular professional groups.

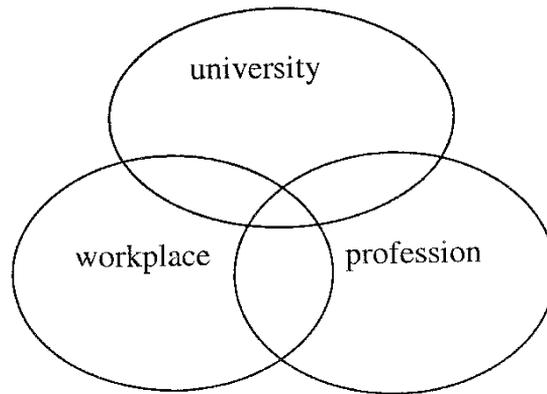   Research to date has focused particularly on: the nature of the forces driving the new

FIG. 1. The hybrid curriculum of the professional doctorate (Lee *et al.*, 2000, p. 127).

developments (Marginson, 1998; 2000); calls for a re-examination of the conceptual framework for doctoral education (Pearson, 1999; Green & Lee, 1998); mapping the development of new research programmes (Johnston, 1998; Maxwell & Shanahan, 1998); surveying students about their satisfaction with programmes or supervision (Burns *et al.*, 1999). Some writing (for example, Lee *et al.*, 2000) has raised the issue of the new types of knowledge and new types of relationship that may form when there is a deliberate attempt to conceive of high level knowledge as a partnership in which both higher education and the workplace have some expertise and authority which is mediated via the programme, supervision and other experiences of the students. Lee and colleagues (2000, p. 127) have used Figure 1 to represent the intersections between the university, the candidate's profession and the particular work site of the research. The intersection, as represented in this diagram, provides a setting for rich and useful research, but it also has the potential for confusion between different agendas. These sites offer opportunities for challenges to the binary of 'research' and 'practice' and, in order to accommodate these new ways of researching, Brennan (1998, p. 72) suggests that new practices may emerge, both in the universities and among the students themselves, which may include 'university legitimation processes, research practices, supervisory practices of research students, and university relations with other … workplaces'.

The present article is drawn from the early stages of a new study that is taking an ethnographic approach to investigate such claims. Unlike much of the research to date, it is setting out to investigate what is happening in some current doctoral programmes *qualitatively* and *in context*. The research study is not an evaluation of programmes, but rather an exploration into the tensions, relationships, new practices and new outcomes that are evident in these particular programmes. The article takes two different types of programmes—a professional doctorate programme for nursing and midwifery students, and a PhD programme that is specifically oriented towards local community and local environment—and identifies some of their developing features. This study seeks to de-emphasise the binary opposition between PhD and professional doctorate and recognises that in reality there is enormous variation in both degrees. As Brennan (1998, p. 84) states,

> What will be of most interest for future research is to note the continuities as well as the discontinuities of practice which emerge.

This study is the beginning of an attempt to research empirically and in specific sites

some answers to suggestions that these doctoral programmes will provide opportunities for innovative practice to emerge. This research in progress is itself a doctoral project. Malfroy is an academic involved in supporting and improving supervision practices in her own university, and has previously researched congruence in supervisory relationships (Malfroy & Webb, 2000). Yates, the supervisor of the current project, is an academic with substantial experience of EdD programmes and PhD projects, as well as supervision relationships in two different types of universities. She has recently contributed to the symposium in the *Southern Review* on postgraduate research education (Yates, 1999).

The research follows the agendas, both explicit and implicit, of two doctoral programmes through a study of documentary materials relating to the course, interviews with course convenors, staff and students, and observations of meetings and seminars. The present article is based on the first phase of the research at these two sites. The sites have been assigned neutral labels to ensure anonymity and, for the sake of the discussion in this paper, to de-emphasise the particular location of each site.

*University 1, Nursing Faculty*

This faculty offers PhD and professional doctorates in both nursing and midwifery. However, for the purpose of this research project, it was decided to focus on just the two professional doctorates, since they aim to explicitly link the intersecting fields of workplace, the academy and the profession. The professional doctorates are three-year full-time or five-year part-time programmes. Since the first intake in 1999, they have proven to be very popular and have attracted senior managers and clinicians, directors of nursing programmes, health care workers and nursing academics, many of whom are attracted to the work-based and professional nature of the programmes. The Doctor of Nursing currently has 30 students enrolled, and the Doctor of Midwifery has nine students enrolled. The students, all part-time, are required to attend week-long doctoral sessions for the initial six semesters of candidature, during which their research project is discussed and refined and the coursework components are completed. The remaining period of candidature is focused on completing the dissertation, during which time students are required to attend the PhD seminars and present annual progress reports on their work.

This faculty has close links to various workplace sites, and has six clinical chairs sponsored by two Area Health Services, the incumbents being physically located, for part of their working week, in the hospital setting rather than the university. This creation of joint partnerships has been identified as a key component for the production of new types of knowledge production (Gibbons, 1997).

*University 2, Research Centre for Environmental Health, Tourism and Management*

This research centre has, as one of its three strategic aims, to 'place the University's multi-faceted research capacity at the service of local communities'. It is actively involved in collaborative research projects with local government and community-based organisations and all members interviewed for this study affirmed the aim to produce research outcomes that contribute to sustainable development in areas of environmental health, environmental management and environmental tourism. The research centre has received funding from an Australian Research Council (ARC) industry-research partnership grant to develop integrated management systems for the local government sector

and also has a research project that includes regional integrated monitoring for the 21 councils of a major river system in Australia. Most of the research students associated with this centre are employed by and are researching one of the sites mentioned. The centre currently has 11 PhD students. PhD research nights are organised monthly and honours and master's research students are also encouraged to attend and participate.

In relation to the questions that Brennan, Green, Lee and others have raised, in the remainder of the article we want to discuss three issues pertaining to the development of knowledge and new doctoral identities in these two programmes. One relates to context; a second to supervision and pedagogy; a third to new knowledge production.

## Context

### *The Context of Newer Universities*

Much previous discussion about postgraduate research education has focused on comparisons and contrasts with older ways of doing doctoral work. Something that is often not sufficiently noted in such discussions is that in many places where new forms of doctoral programme are flourishing, the universities themselves, in origin and in current agendas, have commitments that are different from those of the older-established universities.

Both the universities mentioned in this study are classified as newer universities; that is, their status was changed from college of advanced education to university in 1989. They have had from their foundation a different location, a different student body and a somewhat different sense of their missions than the established 'sandstones', and this has fed some new approaches to programmes of doctoral study. The newer universities have strong traditions of teaching linked to the workplace (for example, with a history of vocational training and applied knowledge fields) and more recent traditions of linking research to workplace knowledge, as demonstrated in publications from academic staff (see, for example, Garrick & Rhodes, 2000; McIntyre & Symes, 2000; Boud & Solomon, 2001) and conferences (for example, the international conference on 'Working Knowledge' held in Sydney in December 2000). Other newer universities have declared their strong regional commitment and developed joint partnerships with many local and regional organisations. Both the universities used in this research project explicitly link their *strategic* directions to a university framework based on involvement with workplace, community and industry, and these strategic commitments are highly evident in their websites and policy documents. Maintaining this commitment, many of the research groups at these universities deliberately link their research to practical and sustainable outcomes. This close liaison is a determined move by the newer universities to build on former relationships, attend to external pressures and, at the same time, forge a clear identity for particular research areas. The point we are making here is that in these contexts an attempt to develop different forms of doctoral work is not simply a forced condition of new policy times. It is a central part of the institutional identity of these particular institutions, and they attract staff and students desiring to work in new ways. That is, the existence and substance of the doctorates relate quite explicitly to a self-conscious assessment by those involved (university staff and doctoral students) of the specific needs of the *profession* at *this point in time*. The content of the programme is shaped by an agenda that is not merely about developing an appropriate research expertise, and not merely about serving individual career interests.

*The Context of the Client Profession or Group*

The two professional doctorates, in nursing and midwifery, discussed in this study represent two discrete professional groups. Both, however, explicitly aim to develop skills not only in research, but in policy, leadership and internationalisation, since these are attributes seen as necessary to prepare nurses and midwives to take up key positions at all levels of health care management, within hospitals, universities, private organisations or government. According to staff, this intention is driven by a belief that nurses and midwives will never be well represented until there are more of them in key positions in these organisations.

At the University 2 site, though many researchers come with a background in science or an applied science field, this particular research group also attracts students who are keen to develop grounded ways of working. In the sciences it has always been more common for PhD studies to have some collaborative form, in the sense that in a particular laboratory different students and staff will be working on different aspects of a common topic. With this programme, however, the collaboration is somewhat different from that traditional model, in that not only do students and staff come together, but, as stated earlier, they also choose to work collaboratively with organisations to make a socially and environmentally sustainable future. The students involved in the programme include not only some traditional science honours graduates, but also students with many years' professional experience but not necessarily with an identity as research students in training. The context of this particular group then exerts particular issues for teaching/ supervision arrangements (that which will make students comfortable and draw them into their new research tasks) and for the significance of the collaborative seminar programme (issues are not simply about sharing theories and findings, but also about moral/political framing and implications of different approaches).

*Context of the Research Site*

Students from both sites stated that they enrolled in their respective degree programmes because they were interested in research that was grounded and linked to practice, usually within a particular context. Gibbons (1997, p. 10) describes the production of contextualised knowledge as 'always produced under an aspect of continuous nego-tiation'. One student described this tension as follows:

> I had to juggle the consultancy contract and my research … and for a long time I felt it infected my study because I was principally trying to introduce a protocol document and using the same time to catch results for my PhD … and also trying to maintain a sense of trust in the field rather than being someone that makes them feel like they are being 'voyeured' over—that balance was really tricky.

In one of the doctoral programmes, it was reported that several students had experienced such problematic tensions between their workplace demands and their university re-search that, as a result, they had taken leave from the doctoral programme. However, from observations of seminars at which students presented and discussed their proposed research projects, it appears that the subject of risks and tensions of undertaking workplace-based research was not a prominent issue. One student did complain that she felt her supervisor at work might be resistant to her research. In response, one of the supervisors suggested strategies for including the work-based supervisor in an aspect of the research, in order to try to overcome the resistance. Several students mentioned that

they felt that, in some areas of their work environment, there was an anti-intellectual barrier that prevented support for new ideas and practice. However, because these students had varied work histories and responsibilities, they also had access to several work sites, and so hoped to resolve this problem by basing their research in sites that had a more supportive environment. The professional experiences of the nurses and their own standing in their workplace meant that they were often able to negotiate their way out of difficult situations. In the PhD programme, where students also worked within the professional organisations they were researching, those with substantial professional working histories negotiated the experience more smoothly than younger students with less professional history.

## Supervision and Pedagogy

*Supervision*

All doctoral work is required, by university legislation, to be managed through a process of supervision and, traditionally, doctoral students are assigned to one or more supervisors. Although there are claims about new forms of supervision in the literature (Lee, 1999; Hodgson *et al.*, 1998), in this study there is little evidence of substantially new practices being recognised formally in university governance. At both sites, doctoral work is managed predominantly through university supervisors, despite the close connections with workplace sites.

At University 2, students are assigned to one principal supervisor and a co-supervisor. As one senior research supervisor stated (personal communication, 2001), it is preferable for an individual supervisor to take prime responsibility for each doctoral student, because problems can develop if that responsibility is shared.

> I did find one person didn't take responsibility for the lost forms and the scholarship not being paid—all that technical stuff—knowing where the student is—if the student is away too long, are they having a breakdown or something … one person has to do that—you really can't have a panel—it is a parental role.

This supervisor claims that there are two complementary parts to the process of supervising:

> I use this phrase 'roots and wings' all the time—people need both; they have to know where their roots are but they also need wings … because you know it also needs to fly … the process needs both.

However, she explained many aspects of this relationship are 'hidden' and develop entirely differently according to each student's needs. She also spoke about the use of workplace mentors in an undergraduate programme and suggested this might be an advantage for doctoral students researching workplace sites.

At University 1, the appointment of supervisors appears to be conventional, since co-supervisors, mostly employed by the university, are appointed. For the coursework component of the professional doctorates, however, the course coordinator and research director also have substantial input. This has the potential to cause conflict of authority and, during doctoral sessions we attended, students expressed confusion about who they should report to, the subject owners of the coursework or their supervisors. Because of the joint positions with other organisations held by some academic staff, the reality of supervision and authority is even more complex. In fact, because of the joint professor-

ships, the professorial staff can occupy multiple positions; a professor can be both the research supervisor appointed by the university as well as the workplace supervisor or mentor. This appears to provide some advantages, since the supervisor is able to monitor both sites and is more readily accessible to students. As well, it provides opportunities for a clustering of research students, who meet regularly and support each other in their research work, around the workplace site.

Therefore, in terms of university governance, although there appears to be a reliance on fairly traditional supervisory models, in practice a broader picture of supervisory roles is emerging, which will be explored further in later phases of the study. Not enshrined in university governance and largely unrecorded in public documents, there is also evidence of group and collaborative knowledge sharing environments that work to support students (and often staff) in their research work.

*Research Seminars*

At both universities, the research groups choose to operationalise their doctoral programmes through research seminars. These serve the purpose of providing a curriculum for research and a rich research environment for the development of student and staff research knowledge, two important aspects according to Connell's (1985) description of supervision. One group had week-long seminars for different cohorts of students each semester, as well as specific research clusters around location or specialisation, whereas the other group had monthly meetings lasting three hours. Seminar sessions had formal but flexible agendas, with published lists of presenters and times and it was a feature of all research groups that other guests were invited to attend and contribute.

Green and Lee (1998) describe the powerful culture of seminars as a means of representing and authorising academic–intellectual work. There was evidence of this at all sites in this study. One of the research directors (personal communication, 2001) stated,

> I use the concept of 'dialogue' which is that you really only get new knowledge if two people (a) discuss it sincerely and (b) disagree—so that really the mix is sometimes more stimulating and more important than having them all together, knowing the same thing.

She also commented that not all academics appreciate the value of seminars, stating,

> A colleague has said those seminars are just chat, they are not reporting findings, they are not really seminars; but other people come, both from on campus and overseas visitors, and say it is the highest calibre intellectual discussion they have heard.

At the University 1 site, the midwifery students have their own research group made up of both professional doctorate students and PhD students. This group has a strongly political focus and is explicit in its intention to influence government decision making and midwifery practice. As a visiting UK scholar and midwife explained, 'you can use research to push political levers'. Students spoke about 'destabilising the system' and 'redefining the profession'. Because of the cohesive and focused nature of this research group, when this group met more emphasis was given to sharing the power-knowledge formations of the discipline and enculturating new doctoral students. During doctoral sessions, Malfroy observed support provided with data analysis procedures, exchanges of literature, offers to link up with comparative studies, discussions about international policy decisions and so on.

At the University 1 site, overseas guests are also invited to participate and contribute to the doctoral programmes to ensure that students have access to international aspects of health policy. Apart from the overseas guests, other contributors at research meetings include peers, other supervisors, visitors and exchange staff.

Although the PhD students at the University 2 site referred to their relationship with the supervisor as paramount, all those interviewed also talked freely about the influence of the research group as a whole. Not only had students received formative feedback on their work during presentations, but many had used the networks established through the group to follow things up with individuals. Students also commented on how participation in the research group had broadened their own understanding of different research methods and ways of 'knowing'. There was also an international aspect to this, since this research group works in collaboration with a major world health organisation, and often international guests and exchange staff from international projects also attend the research seminars. These formal and informal discussions among doctoral students and staff contribute significantly to pedagogic practice and obviously need to be further explored.

## Process and Outcomes of New Knowledge Production

In a major international study on doctoral programmes (Noble, 1994, p. 32) it was reported that 'the most frequent issue identified was the problem of what constitutes appropriate doctoral research'. This section of the paper will examine the use of sources of data and the different types of textual productions put forward for doctoral examination. All the doctoral programmes mentioned in this paper require that students produce a dissertation or a thesis. These products (mostly textual but possibly including other components) are assessed by external examiners and need to satisfy several criteria, the primary criteria being evidence of a contribution to knowledge. There are also claims that there is a vast range of other outcomes that should be seen as part of the knowledge production of the doctoral programme. For example, Gibbons (1997, p. 19) suggest that new knowledge is likely to 'reside less in conventional paper publication … than in the collective memory of the problem-solving teams'. This part of the paper seeks to examine what 'new knowledge' might look like and what forms it might take.

Contextualised research offers greater access to data, in contrast to the traditional PhD programmes where considerable time is spent setting up research frameworks to obtain data. This access to rich sources of data was a major factor in the doctoral work at both sites, but particularly evident in the professional doctorates. For many of the nursing and midwifery students, the interface between workplace and university appeared seamless. Students with management positions within health care organisations spoke of their access to a wide range of databases that document the details of health care and outcomes. Students also referred to the creation of their own data, such as policy documents, education programmes and manuals detailing aspects of new practice, formed as part of their work. The biggest problem for doctoral work in this context appeared to be framing an appropriate research project around the data. This was evident in the presentations of work for the professional doctorates, where seminars operated very differently to PhD seminars because of the students' experience around a topic. The students were not expressing an emerging knowledge of a new topic—in fact, they knew their topic areas very well and referred to current literature frequently. Instead, their presentations focused on how to frame up a research project that would provide useful knowledge for improving practice. The dilemma in these professional

doctorates appears to be enabling students to move from an ackowledgement of current good professional practice, to working up a scholarly articulation of their applied knowledge at a deeper and broader level. As one student stated,

> We wanted a degree that was original, international, unconventional but scholarly. That's what attracted us—but that is what is the struggle.

It was clear from interviews with students, and attendance at doctoral sessions, that students from both groups struggled with what it is to do and produce doctoral work. For the PhD students, the expectations of a PhD thesis are clearer. For the professional doctorate students in nursing and midwifery, this was perhaps more problematic, since no students have yet graduated with this degree and both supervisors and students are trying to define the features of a dissertation. Debates in supervisor committee meetings made it clear that there is no one model, and that some supervisors see the final product as much the same as a PhD thesis, whereas others see it as also possibly quite distinctive from the PhD and including a range of documents produced during workplace practice, with an overarching critiquing document. These debates about how to articulate, in a textual form, workplace practice with the scholarship of the academy are continuing, as they are in other doctoral sites (Green & Lee, 1998).

Several students from the Doctor of Midwifery programme are close to submitting their theses and have been preparing their portfolios of scholarly publications or texts, which have an overarching dissertation of around 15,000 words. Of those near completion, the articles being considered for inclusion in the thesis are submissions to Senate inquiries, contributing documents that have helped formulate new policy, handbooks and manuals that have been developed as part of the research work, published articles, and contributions to government reviews. These living documents have been developed as scholarly pieces of work, but not just to be read by doctoral examiners—they have been produced as part of a particular context in order to contribute to knowledge and understandings about issues in midwifery practice and policy, and have been read by a range of influential people, both inside the profession and outside the profession.

Apart from textual outcomes, what other outcomes are evident in these new doctoral programmes? For an individual, the outcomes are a sense of achievement and a new identity. Green and Lee (1999) argue that

> what is at stake in doctoral work and postgraduate supervision, over and beyond the much vaunted contribution to knowledge, is precisely the (re)production of an intelligible academic identity—a certain kind of (licensed) personage.

In an article by Lee and Williams (1999) and a subsequent symposium with contributions by a range of writers, there was considerable discussion of the identity issues that had surfaced from a study of those who had previously completed PhDs. The project on which Lee and Williams wrote had portrayed stories of trauma and crisis, as an outcome of the processes involved in creating the new identity of the licensed academic. By contrast, in this study a group of seven doctoral students currently enrolled in one of the professional doctorate programmes discussed their expected outcomes from doctoral study and, although they recognised identity issues as part of the process in which they were involved, it was clear it was not the same type portrayed in the research on PhDs in previous times. Here students were self-confident about their choices in undertaking the programme, and expected increased personal confidence and self-mastery as primary outcomes. Most also spoke of the increased 'mantle of responsibility' that came with their new identity and acknowledged that their new role would bring with it more ability to

articulate concerns and interests in a public arena and to a broad range of people, such as colleagues, students, children, conference participants and readers of publications. The high professional standing from which these students embarked on their doctorates, and their self-consciousness in choosing to take this particular path, appears to produce different perspectives to change and development than as is often the case in stories about traditional PhDs.

The title of this paper uses the phrase 'knowledge in action' and it is clear that the outcomes of knowledge production do not just reside in texts and individuals, but also reside in other changes that occur during the process of contextualised research. During this study, students from both sites listed some of the other outcomes that had emerged from their doctoral work and their workplace. These examples included major policy developments, changes to government practice, changes to health practice models, shifts in professional thinking and new directions in education. These monumental influences have not just grown out of external pressures by governments or industry to contextualise research, but have also grown out of specific directions and agendas being set by particular research groups within universities who are themselves keen to establish their place within the higher education sector.

## Conclusion: doctoral research as an enterprise of the group, not just of an individual

As we mentioned, this work is still at a relatively early stage, but these preliminary impressions seem highly relevant to debates within the arena of higher education policy and management. One thing in particular seems highly significant in what is happening in the two sites described here, and yet relatively little acknowledged in previous accounts of new forms of doctoral programme. Too often the discussion in the literature on doctoral education continues to be about a relationship, process and outcomes conceived individualistically: that is, that what is being theorised is a relationship between *a* hypothesised student and *a* hypothesised academic and *a* hypothesised workplace. But in the sites under study what was highly important was the *group*, both in the sense of the joint student/staff group that made up the blocks and seminars and the new knowledge that was seen by all as developing in this context, and in the sense of the overall profession or community group. In these situations, it seems to be not simply the case that academics with identities as academics are learning to work with senior professionals; nor that students are struggling to reconcile their workplace needs with the modes of the academy. Rather, the different participants in these two programmes do seem to have some sense of some *common* agendas of new knowledge development, and of some commitment to a reshaping of the professions and communities of which they are part.

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