Chapter 3 The Dedicated Education Unit in Nursing as a Community of Practice

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Glossary of Terms in Order of Appearance in This Chapter

Community of practice a community of people involved in mutual engagement (a network of multiple relationships between members of the community), having a shared repertoire ('routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions or concepts that the community has produced or adopted in the course of its existence') (Wenger 1998: 83) and collectively negotiating day-to-day practice (joint enterprise)

Preceptorship model one student allocated to one preceptor (an experienced RN who provides one-on-one support for nursing students)

students learn with and from peers; students across different year Peer learning levels learning together

Apprenticeship model old hospital-based model in which students learn from more senior clinical staff in the hospital

Principal Academic (PA) an academic lecturer in clinical (nursing school faculty member) who visits the clinical setting prior to student placement to

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facilitate clinical staff preparation for working with the students and thereafter visits the clinical setting regularly throughout each semester

Critical companionship a helping relationship in which an experienced facilitator accompanies another on an experiential learning journey, using methods of 'high challenge' and 'high support' in a trusting relationship (Titchen 2003)

Magnet Hospital a hospital that has been awarded recognition by the American Nurses Credentialing Center as a hospital that demonstrates excellence in nursing care

Introduction

Nursing in Australia, as in other developed countries, underwent significant changes in the latter part of the twentieth century. In an enormous undertaking, nursing education was moved from the health (hospital) sector into the higher education sector over a 10-year period from 1985 to 1994. The Dedicated Education Unit (DEU), a relatively new phenomenon in clinical education, arose in response to this change.

As with other courses in the university sector, it was assumed that learning about nursing was a cognitive activity and learning gained in the classroom could be applied to practice on graduation. Moving nursing students from a captive workforce into the world of learning (research) aimed to support the development of critical thinking about practice (Bolton 1981; Bottorff and D'Cruz 1985; Hart 1985; Watson 1982). Whilst nurse leaders at the time of the transfer valued higher education traditions, there were challenges to the assumption that learnt theory could be simply *applied* to practice for occupations such as nursing (Clare 1993).

The Transfer of Nursing Education into the University Sector

The transfer of nursing education into the higher education sector required new partnerships between higher education agencies and tertiary health services. Initially, higher education providers and health services formed exclusive partnerships that became unsustainable over time due to increased student numbers. New partnerships with services in the community (Bartz and Dean-Baar 2003) and aged care emerged to support student learning. They explored a range of student learning models, including:

- University-appointed clinical teachers working with groups of students—clinical supervision (Grealish and Carroll 1998; Kermode 1984)
- Health agency staff appointed as clinical teachers (Davies et al. 1999)
- An academic researcher appointed to the nursing team (Downie et al. 2001)

- Staff nurse preceptors for students in their final placement (Grealish and Carroll 1998)
- Peer learning (Aston and Molassiotis 2003; Lewis 1998)
- The Dedicated Education Unit (Edgecombe et al. 1999)

Early advocates for the transfer of nursing education argued for students to be supernumerary, rather than counted as a member of the team, so that they could be dedicated to learning whilst in the workplace (Watson 1982; Patten 1979). Despite general agreement that nursing students required learning opportunities in the workplace, the nature of that experience continued to be contested. Models for clinical education emphasised the need for nursing students to observe 'good' practice (role models) (Howie 1988; Kanitsaki and Sellick 1989) and openly examined the clinical workplace as a learning environment (Dunn and Hansford 1997; Hart and Rotem 1994).

By the turn of the century, nurse educators were arguing for immersion into nursing practice (Edmond 2001), suggesting that experience of nursing work increased critical thinking (Maynard 1996) and developed clinical scholarship (Elberson and Williams 1996). However, a devastating nursing shortage was emerging, and models of clinical learning favoured at the time of the transfer were proving problematic. Staff perceived students as a burden (Davey 2002), and students felt exploited as unpaid labour (Elliot 2002a). The exclusive relationships between higher education and health services were no longer satisfactory. Multiple relationships between the two sectors emerged, raising the need for explicit governance arrangements, such as contracts outlining the terms of specific relationships between organisations. Educational models that provided opportunities for students and staff to work together for longer periods were attractive for recruitment purposes, whereby students could 'try out' a particular workplace and managers could talk about future employment opportunities.

Learning in the clinical environment was the subject of research at the turn of the century, focusing on expert commentary in nursing specifically and in higher education more broadly. Some experts suggested that the workplace operated counter to a learning environment (Hughes 1998; Ward and McCormack 2000) because students, appreciating that the work experience placement is an opportunity to impress future employers, worked to hide their weaknesses. Thus, they avoided the challenges necessary to develop critical thinking and deep learning (Hughes 1998). Other authors describe this phenomenon as 'don't rock the boat' (Chapman and Orb 2001).

Teaching strategies to support learning shifted from the observational or limited participation models adopted initially in higher education programmes to a 'modified' apprenticeship in the form of preceptorship or mentorship (Morton-Cooper and Palmer 1993). In these two clinical learning models, the clinician was the primary source for learning, explaining her or his practice to the student. Such explanations are time-consuming for the clinician and can lead to their perception that students are a burden. The preceptorship model was not only demanding of the individual clinical preceptor, but there was emerging evidence that it continued to reproduce practice (Eraut 2004). It provided limited opportunity for students to question taken-

for-granted assumptions and develop critical thinking skills (Andrews and Roberts 2003; Smith 2001). Whilst preceptorship is not supported in the DEU model, students will often identify mentors within the DEU team and work more closely with these nurses.

Facilitation of learning in the workplace by an 'outsider' can lead to deep learning (Hughes 1998). Facilitators, focusing on the learner's intent and developing learning strategies and activities appropriate to that intent (Boud and Walker 1990), can point out important things in what is a complex and murky clinical environment (Edgecombe and Bowden 2009; Papp et al. 2002). Facilitation is a foundational teaching strategy in the DEU model.

Peer learning is another foundational learning strategy in the DEU model. It is where students learn together in homogenous year groups (Lewis 1998) or where senior students work with junior students (Aston and Molassiotis 2003). Peer learning provides opportunities for students to develop their confidence around practice without observation by future employers or assessors. Whilst this approach is increasing in usefulness, the need for validation of learning through formative assessment is essential.

On the cusp of the twenty-first century, Dedicated Education Units emerged in Adelaide (Edgecombe et al. 1999), Clinical Development Units emerged in Sydney (Parsons and Mott 2003) and professorial units were introduced in Melbourne (Baker and Pearson 1991). In each of these models, the collaborative relationship between the health service staff and higher education staff is critical to student learning (Davies et al. 1999). The DEU model emerged in a time of change in nursing and nursing education, whereby initial assumptions about learning, based upon the academy's traditions, proved inadequate for nursing programmes and their graduates.

The Dedicated Education Unit Model

Edgecombe et al. (1999) suggest that the Dedicated Education Unit (DEU) model emerged for the pragmatic reasons outlined in Table 3.1, which Edgecombe discussed in Chap. 2 (this volume).

The impact of the transition of nursing education into the higher education sector is evident in these reasons. When the clinical environment is not structured to support student learning, staff express feelings of burden from having students from many different universities, and students do not have enough time in one practice setting to develop confidence in the practice and theory of nursing work. Research into the DEU model indicates benefits in the areas of student experience, service delivery, staff experience and partnership (Table 3.2). Whilst small sample sizes and qualitative design limit the generalisability of the findings, the evidence from each study in the table consistently reinforces the value of the DEU model for students, staff and the respective health and academic organisations. The personal stories shared in Chap. 10 (this volume) also reveal these benefits.

Table 3.1 Reasons for the DEU model (From Edgecombe et al. 1999)

Learning	Short condensed block placements do not give adequate opportunity for students to consolidate nursing skills performance, integrate theory and practice, promote
	understanding of the role and function of staff in clinical areas, allow for consolidation of <i>ANMC Competencies</i> and engender a sense of belonging
	Clinicians focus on task completion and may not facilitate theoretical integration
Teaching	Clinical staff expect to supervise and support student learning with little knowledge of their learning requirements
	Students express feeling that they receive insufficient assistance and guidance from academics
	Students report conflicting messages from classroom teachers and clinicians
Workload	Clinicians report feeling stressed by the student supervision role, and this may be exacerbated by short frequent student placements from a number of universities

Table 3.2 Research evidence related to the DEU

Students	Students value the weekly 2-day placement and associated opportunity to repeat practices to develop skills, experience different events, develop and consolidate knowledge and reflect on learning (Gonda et al. 1999)		
	Students feel accepted and that they are making a contribution to the unit (Moscato et al. 2007; Ranse and Grealish 2007; Wotton and Gonda 2004)		
	Students feel responsible for practice and that responsibility triggers learning (Grealish and Ranse 2009)		
	Student relationships are fostered (Wotton and Gonda 2004)		
Service delivery	Quality patient care is maintained (Wotton and Gonda 2004) and advanced (Mulready-Shick et al. 2009)		
Staff	Clinical staff report greater opportunities for 'teachable moments' (Mulready-Shick et al. 2009)		
	Clinical staff report valuing students for their 'fresh' eyes in residential aged care (Grealish et al. 2010)		
	Clinical staff report feeling that they are making an investment in the future of the profession (Grealish et al. 2010)		
Partnership	A greater sense of collaboration between clinicians, students and academics emerges (Wotton and Gonda 2004)		

In a recent editorial, Tanner (2010) suggests that the DEU may provide a clinical education framework that can lead to the deep learning required for nursing practice. As noted earlier, during the transfer of nursing from the health sector to the higher education sector, there were calls for nursing students to be supernumerary and observers of practice—calls to stop the apprenticeship model dominant in hospital education. However, the evidence that has emerged in the last 30 years supports the inclusion of nursing students into health service delivery teams and the value of holding students responsible for practice in order to facilitate deep learning. Billett's framework for learning in the workplace (Billett et al. 2004) provides the theoretical structure necessary to correlate the research findings to date and develop a robust research agenda around learning in the DEU.

A Theoretical Framework: Learning in the Workplace

Billett et al. (2004) provide a framework for understanding learning in the workplace as reciprocal processes between the affordances of the workplace and the individual agencies of those people, including students, who participate in that work. In this framework, learning is viewed as a social as well as cognitive activity, influenced by micro-social processes that shape activities and actions and, therefore, learning. In the workplace, routine work practices can reinforce and refine existing knowledge, and new knowledge can be produced by engagement in new activities and interactions.

Billett (2001) uses the term 'the invitational quality of the learning environment' to describe the features of the environment that bring students into its business or work. Research work undertaken soon after the transfer of nursing education indicated clear characteristics of the workplace that influenced students' experiences of learning, including being welcomed by staff (Hart and Rotem 1994). Research tools to assess the workplace as a learning environment emerged soon after (Dunn and Hansford 1997; Papp et al. 2002). Situational factors and social negotiations influence the affordances offered by the workplace (Billett et al. 2004; Suchman 1996; Wenger 1998) but undergo constant transformation, rendering measurement at one point unreliable for the future. Repeated measures are required to monitor trends and new forms of evaluation of workplace learning environments.

The individual agency of the people participating in the work practices also plays a significant role in learning. Individuals' values, beliefs and sociocultural background mediate individual engagement in practice (Mak et al. 1998). Engagement in multiple social practices at any one time (Wenger 1998) means that individuals' engagement in each of these practices will not be consistent. A student can fully engage in one practice and not another (Billett et al. 2004). In summary, learners' identities, derived from personal and social histories unique to each individual, guide their agentic learning.

In the Billett et al. (2004: 238) framework, there is 'an interdependence between what is afforded individuals by social practice, and how they elect to engage with and construct what is afforded to them by the social practice'. This interdependence is multiple, situated and complex. The individual's level of engagement in practice and the purposes of that engagement mediate the learning derived from practice (Billett et al. 2004). Tensions can arise when workplaces cannot afford the types of practices (or learning) individuals desire or see as important to their personal development or promotion (Billett et al. 2004). This is frequently the case when placing nursing students in a residential aged care facility (Alabaster 2007).

The high value nursing students place on interpersonal relationships (Lee et al. 2002) suggests that negotiations are an important aspect of learning in the workplace. The Billett et al. (2004) framework of workplace affordances, student agency and negotiation of practice, and therefore learning, provides a conceptual tool for analysing the DEU model of clinical education's contribution to educational theory and practice.

Clinical Environment Design in the Dedicated Education Unit: Developing a Community of Practice

In the DEU, when the workplace is theoretically constructed as a community of practice, mutual engagement, shared repertoire and joint enterprise (Wenger 1998) serve as useful concepts to understand workplace affordances. This approach is quite different from traditional analyses of the clinical workplace as a learning environment. In traditional learning environment research frameworks, individual roles in the clinical environment are assumed to influence student learning. Nurses researching clinical environment design identify the nurse manager or charge nurse (Dunn and Burnett 1995; Elliot 2002b; Papp et al. 2002), the clinical teacher (Hart and Rotem 1994) and clinicians (Jackson and Mannix 2001) as key elements for student learning. A focus on individuals and their nature can be partially helpful, but in an environment where there is a shortage of nurses, a shift in focus from the individuals and roles to how nursing practices are negotiated may prove helpful in shaping clinical learning experiences (Manley and McCormack 2003).

Mutual engagement in the practices and actions of delivering care to patients, clients or residents of a health service implies membership of the community. Mutual engagement describes a network of multiple relationships between members of the community, some of which may be geographically located at a distance (Wenger 1998). Students must be mutually engaged in that community's practice in order to learn from clinical experience. Students are not only welcomed into the community but are allocated with challenging tasks suitable to their level of ability and afforded the opportunity to do these tasks with other members of the community.

The *shared repertoire* of a community of practice includes 'routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions or concepts that the community has produced or adopted in the course of its existence' (Wenger 1998: 83). Members create meaningful statements about their world, as well as their identities as members, from these repertoires. The inherently ambiguous nature of the repertoire of practice allows it to become a resource for negotiating meaning and therefore learning. Not only do students who are novices within the community learn from these negotiations, but there is potential for staff to learn as well (Grealish et al. 2010).

The third characteristic of a community of practice is the negotiation of a *joint enterprise*. Collective negotiations about practice involve members in mutually engaging in a complex network of relationships that define the community's joint enterprise (Wenger 1998). Rather than a mission statement or organisational goal, joint enterprise is situated and multiple; it is evident in the everyday practices of that community. It is the members' negotiated response to their situation and thus belongs to them in a profound sense—the community and individual identity is closely bounded through these day-to-day negotiations around practice. In an aged care facility, for example, joint enterprise is negotiated through giving medications, helping a resident with their meal, gently touching a relative's arm and singing a resident to sleep. Many people are involved in care delivery with many approaches

to practice that require continuous negotiation and sometimes reification through procedural policy. Mutual accountability, which can be a great motivator for continued learning, is developed within the construct of joint enterprise (Wenger 1998).

Learner Agency: Learning and Identity in a Community of Practice

The emphasis on the learning environment is only part of the story of student learning. As Billett et al. (2004) and Boud and Prosser (2002) suggest, how students learn is fundamentally related to how they perceive their learning environment—how it is experienced rather than how it is designed. The idea of agency as a concept can contribute to our understanding of how students' perceptions influence learning.

The negotiation of practice, addressed in the previous section, is not necessarily something that is discussed within a community of practice. Negotiation does not require words, but words can be used. Members in a community of practice may not address negotiation directly, but it is revealed in the ways they engage in action with, and relate to, each other. These practices guide how to be a human being. Therefore, the formation of a community of practice is also the negotiation of identities (Wenger 1998). Glen (1998: 96) supports this theory, suggesting that 'individuals achieve by transcendent self-realisation through their relationships with other persons'.

Identity has a temporal dimension where it is continuously negotiated within the various communities to which an individual belongs (Wenger 1998). Whilst engaging in practice, an individual is simultaneously working with the situation at hand, participating in the histories (and possibly forming the futures) of certain practices and becoming, or transforming, identity. When identity is conceptualised as a trajectory, it provides a context within which to determine what is significant among the messy swamp of practice (Edgecombe and Bowden 2009); what becomes the focus of learning (Wenger 1998). This conceptualisation of identity is consistent with agency as defined by Billett et al. (2004), whereby the individual makes meaning, decides what is significant and, therefore, what is learnt, based on history and future goals. The individual perceives the world and, despite the 'best' learning environment as measured by contemporary instruments, may still not engage in the community's practice, thereby limiting opportunities to learn. It is paramount to design a curriculum to encourage individual participation as much as possible.

Teaching Practices and Assessment in the Dedicated Education Unit

Nursing is a practice-based discipline, and curriculum design inevitably must address the learning that occurs in the workplace. In an analysis of learning designs

Table 3.3 Four key areas for curriculum design (From Boud and Prosser 2002)

- 1. Engage learners from where they are, taking into account prior knowledge and intent
- 2. Acknowledge the learning context, the learner's context, the course of which the activity is part and the sites of application of the knowledge to be learnt
- 3. Challenge learners to be active participants, using other learners' support and stimulation, taking a critical approach to materials and to go beyond what is immediately provided
- 4. Provide practice where students demonstrate what is learnt, gain feedback and reflect on learning to develop confidence

for new technologies, Boud and Prosser (2002) outline four guidelines that would apply equally well in workplace learning design (Table 3.3).

Strategies to engage learners from where they are include finding out about them by asking questions about their backgrounds and using questions that reveal values, for example, 'What is most important in this situation for you?' Students can be encouraged to validate their conclusions with theory from their textbooks and the wisdom of more experienced nurses.

Recognising the reciprocal relationship between student agency and workplace affordances, strategies to *acknowledge the complexity of context* in clinical education might include:

- Prepare students for the learning context through information provision and a briefing or orientation session, being frank about what opportunities will not be available
- Support students to set learning goals that are consistent with what the placement experience can afford
- Recognise 'teachable moments' (Mulready-Shick et al. 2009) as they arise and use this to stimulate further learning
- Provide opportunities for students to repeat practices in different situations to develop confidence and recognise the influence of context
- Conduct workshops on negotiation theory and practice to support student participation in the clinical experience
- In debriefing or classroom activities, encourage students to share their experiences and think forward to other contexts in which this learning might apply

To challenge students to be active participants, teachers could:

- Provide a useful orientation to the nature of the work and values in that community of practice
- Encourage students to work in peer groups, across years as designed in the DEU, so that they can experience support from other students, and discuss what they are experiencing and learning with each other—reduce reliance on 'teachers'
- Avoid consistently explaining practice—let the students do the explaining, correct false conclusions and encourage further reading
- Ask comparative questions where the experience is compared to past experiences and possible future experiences
- Ask evaluative questions that require deep thought about value, quality and equity and require students to develop judgement

Finally, it is critical to students' development of confidence to provide them with opportunities *to demonstrate and receive feedback on what they have learnt* as practical, organisational or other skills and as knowledge. Whilst the *ANMC Competencies* (ANMC n.d.) provide a broad framework for giving feedback on performance, students also require specific feedback on authentic tasks or practices undertaken through participation (Elliot 2002b; Laurillard 1993).

Areas for Research

The DEU's theoretical underpinnings should be used as a guide to evaluation and research. We have identified four areas for research to stimulate thinking about possibilities in the development of the DEU model.

Curriculum design: Specifically, how learning and assessment are designed for integration into the overall programme is a key area for research. One of the core elements of the DEU is the extended placement in one area, visiting 2 or 3 days each week.

Pedagogies: These inform curriculum design, facilitate student learning, contribute directly to the invitational quality of the workplace and include assessment and feedback on learning.

Stakeholder engagement: This is foundational to the model, curriculum design and pedagogies. Ways of working with the increasing numbers of identified stakeholders in the DEU model are becoming increasingly important.

The DEU as a learning organisation: It shifts the focus from student learning to the organisation, and how working within a DEU model can improve organisational services and products.

Curriculum Design

The challenge of integrating learning from the workplace into the overall curriculum design is not unique to the DEU model. However, as the demand for clinical placements continues to rise, health agencies may seek to manage the workload associated with student placements through intensive or block, rather than extended placements. Further, some students prefer block placements for personal reasons. Universities are encouraged to support the increasing diversity of students as well as work with multiple placement partners, and, as such, curriculum design should integrate learning from both styles of placements.

Research into curriculum design could focus questions on the alignment of graduate outcomes, learning experiences and assessment practices using Biggs' (1999) concept of constructive alignment. Constructive alignment focuses on aligning the learning experiences (tasks, assessment, activities) with the intended learning outcomes. The focus is on how students piece together (construct) their

learning. Consistency of learning activities towards the stated goals is important. Variables of block or extended placements for learning experiences could be tested in relation to student learning to determine whether there are significant benefits in either model.

In the Billett et al. (2004) framework, students are agentic learners and seek value in their learning; they make meaning based on their history and future goals. Therefore, curriculum design enables exposing students to experiences requiring negotiation and, as a result, meaning making or learning. The effectiveness of methods to facilitate negotiation and meaning making required in the clinical setting is worthy of further investigation.

The area of clinical assessment remains a challenging component of nursing education for clinicians and academics (Cowan et al. 2005; McAllister 1998). Further exploration would be valuable into how feedback on performance is practised best in accordance with the *ANMC Competencies* (ANMC n.d.) and on authentic tasks or practices undertaken through participation.

Pedagogies

A number of pedagogies can be seen to underlie the DEU. Further exploration of whether the high support, high challenge (Johns 1994) DEU environment can be seen to increase the reflective practice (Schön 1983; van Manen 1977) of students who experience it could be beneficial. Recent university emphasis on Graduate Attributes as an underpinning component of teaching philosophy may be clearly displayed in the DEU model and offer scope for evaluation (Barrie et al. 2009). Formative and summative assessment in the DEU (Biggs and Tang 2007), with a large emphasis on self-assessment, could be examined in comparison to other models. There is also increased scope in the DEU for 'ongoing summative assessments' because students are encouraged to plan their learning objectives for each component of their degree from year to year (not just subject to subject), based on their knowledge, experience and learning needs. Boud (2000) refers to 'sustained assessment' that fosters lifelong learning, which is well aligned with the DEU principles. This link offers an avenue to explore whether his theory applies to the DEU model.

One of the key pedagogies in the DEU is the use of peer learning, where students across year groups work together in the same clinical setting. Often, the 3rd year students are given the opportunity to lead in these environments. As Aston and Molassiotis (2003) note, when 3rd and 1st year students work and learn together, the 3rd year students require some preparation (pedagogies). The DEU model provides the opportunity for further investigation of student learning with peers and the phenomenon Billett et al. (2004) label 'interdependence'—how students in the workplace affect staff and student learning.

The role of the Principal Academic (PA) offers a wealth of information as to how pedagogy is applied in a clinical setting. Principles and theory on moderation

of marking (Krieg et al. 2004), assessment (Biggs and Tang 2007) and even deep versus surface learning (Biggs 1999) are challenged when taken out of the academic context. Clinical support roles such as 'critical companionship' (Titchen 2003) may offer fruitful avenues of exploration. The ongoing tension between a student-focused 'critical companion' approach to academics' clinical engagement with students and the role of assessor is also worthy of investigation. Research into how nursing practices are negotiated may prove helpful for planning and evaluating clinical learning experiences (Manley and McCormack 2003).

Using the Billett et al. (2004) framework as a conceptual tool for analysing the DEU model of clinical education's contribution to educational theory and practice in different locations across the world would offer insight into what components of the DEU might consistently support the framework.

Stakeholder Engagement

In clinical education, there is a range of stakeholders (Lockwood 2003). Often, stakeholders can be grouped into 'industry' or 'employers', with little appreciation of the diversity of individuals in that group. For example, agency managers and senior university staff made the decision to establish and implement a new DEU in one tertiary level ward. The clinicians in this ward were not consulted in the process, and as a result the DEU was reported to be unsuccessful (Grealish and Kaye 2004). Research into stakeholder engagement must clearly identify the range of stakeholders involved in clinical education. Table 3.4 contains a beginning list.

The management of a range of relationships between universities and health agencies is a rich area for research. Relationship management is under-researched generally, and there is almost no research into the work of providing clinical learning experiences. The need for a governance or reference group in establishing the DEU is acknowledged (Owen and Grealish 2006) for ensuring a smooth transition and addressing issues and incidents as they emerge. However, many relationships exist between a range of stakeholders outside the governance group, producing a rich network which, to date, has not been mapped. Another area for research is the management of these networks and relationships, their subsequent impact on student learning and other possible relationships such as clinical research.

An expanding phenomenon is the use of clinical placement management systems. What would be the effect on established relationships of implementing computer programmes? How would it affect negotiation strategies? What would be the effect on student learning, patient care, clinician satisfaction and administrative workload? Thus, the implementation of computer programmes offers an interesting area of research.

University	Health agency	Other
Students	Chief executive officer	Chief nurse
Academic staff	Director of nursing	Professional associations
Sessional staff	Clinical nurses	Regulatory authorities
Administrative staff	Other clinicians	Alumni
Vice-chancellor	Patients/clients/residents	Specialist nurses
Head of nursing dept.	Families	Other education providers
	Unit manager	

Table 3.4 Potential stakeholders in clinical nursing education

The Dedicated Education Unit as a Learning Organisation

Whilst there is an agreement that learning experiences in the clinical environment are critical to nursing education, research to date has been constrained by limiting the conceptualisation of the clinical workplace as a learning environment to its people and surroundings. The development of the Clinical Learning Environment Scale (Dunn and Burnett 1995) and subsequent adoption of the 'clinical learning environment' as a researchable concept (Dunn and Hansford 1997) have led to significant levels of research in this area (see Chan 2002; Elliot 2002a; Papp et al. 2002; Saarikoski and Leino-Kilpi 2002). There has been limited commentary or research on the relationship between student learning and organisational learning. In one small qualitative study, Grealish et al. (2010) investigated the effects of having students in the residential aged care workplace and found that the presence of students encouraged staff learning as well. This falls short of the need for investigations into the role that the DEU could play in the learning organisation.

Organisational perspectives about the value of learning environments for nurses and patients, including the Magnet Hospital movement in the USA (Ulrich et al. 2007), could offer insight into how the DEU pedagogy aligns with preferred hospital providers' structure and function. Considering that the workplace as a learning organisation has developed traction in the discipline of management, Edmondson and Moingeon (1998) suggest that organisational viability in an environment characterised by uncertainty and change depends on individual and collective learning.

Learning organisations are those in which people continually expand their capacity to create the results they truly desire (Senge 2006). The presence of supportive values and beliefs that encourage employee inquisitiveness and creativity, a willingness to learn from error and openness to sharing knowledge are viewed as significant contributors to a learning organisation culture (Lee-Kelley et al. 2007). These qualities, noted in every instance of the recognisable learning organisation, are also valued in a clinical learning environment. Senge (2006) reinforces this view in relation to aspects of individual and team learning in organisations, referring to

the fact that individuals learn all the time, yet there is no organisational learning. However, as teams learn, they become a 'microcosm for learning throughout the organisation' (Senge 2006: 219).

There is an emerging body of management literature describing interwoven workplace learning, employee engagement, organisational performance and broader economic, regulatory and social contexts within which organisations operate (Unwin et al. 2007). Unwin et al. (2007) point out that workplaces often have an advantage over 'formal' *educational* institutions in that pedagogic activity is likely to be spread across a broader range of people. Indeed, workplaces that recognise the pedagogic potential of their employees (and arguably hosted 'learners' in the context of the clinical environment) afford a stronger learning environment than those that conceptualise transmission of skills and knowledge as solely a top-down hierarchical approach (Smith and Billett 2006; Unwin et al. 2007). Investigations of student learning, within the broader context of learning organisations and management theories, may provide new and unique insights into the value of the DEU for health service agencies and universities.

Conclusion

This chapter set out to establish the underpinnings of the relatively new DEU clinical learning model by providing an overview of the history of clinical nursing education and research. Understanding the DEU as a community of practice and the value of social theories of learning for reconceptualising the workplace as a learning environment provides opportunities for further development of the DEU model. The consideration of literature beyond that of nursing education, including management literature on the learning organisation, is necessary to advance clinical nursing education theory and practice.

References

- Alabaster, E. (2007). Involving students in the challenges of caring for older people. *Nursing Older People*, 19(6), 23–28.
- Andrews, M., & Roberts, D. (2003). Supporting student nurses learning in and through clinical practice: The role of the clinical guide. *Nurse Education Today*, 23(7), 474–481.
- ANMC (n.d.). ANMC competencies. Australian Nursing and Midwifery Council. http://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Codes-Guidelines.aspx. Accessed 16 Aug 2012.
- Aston, A., & Molassiotis, A. (2003). Supervising and supporting student nurses in clinical placements: The peer support initiative. *Nurse Education Today*, 23(3), 202–210.
- Baker, H., & Pearson, A. (1991). The experience of patients in a professorial nursing unit. *Australian Journal of Advanced Nursing*, 9(1), 15–19.

- Barrie, S., Hughes, C., & Smith, C. (2009). *The national graduate attributes project: Integration and assessment of graduate attributes in curriculum*. Sydney: The Australian Learning and Teaching Council, University of Sydney.
- Bartz, C., & Dean-Baar, S. (2003). Reshaping clinical nursing education: An academic-service partnership. *Journal of Professional Nursing*, 19(4), 216–222.
- Biggs, J. (1999). Aligning teaching for constructing learning. York: Higher Education Academy. http://www.heacademy.ac.uk. Accessed 13 Feb 2010.
- Biggs, J., & Tang, C. (2007). Aligning assessment tasks with intended learning outcomes: Principles. In Society for Research into Higher Education (Ed.), *Teaching for quality learning at university* (3rd ed., pp. 163–194). Buckingham: Society for Research into Higher Education.
- Billett, S. (2001). Learning through work: Workplace affordances and individual engagement. *Journal of Workplace Learning*, 13(5), 209–214.
- Billett, S., Barker, M., & Hernon-Tinning, B. (2004). Participatory practices at work. *Pedagogy, Culture and Society*, 12(2), 233–257.
- Bolton, G. (1981). A training in discipline and conformity? *The Australian Nurses' Journal*, 11(4), 34–36.
- Bottorff, J. L., & D'Cruz, J. V. (1985). The nursing curriculum and knowledge of most worth. Australian Journal of Advanced Nursing, 2(3), 9–17.
- Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, 22(2), 151–167.
- Boud, D., & Prosser, M. (2002). Appraising new technologies for learning: A framework for development. Education Media International, 39(1), 237–245.
- Boud, D., & Walker, D. (1990). Making the most of experience. *Studies in Continuing Education*, 12(2), 61–80.
- Chan, D. (2002). The development of the Clinical Learning Environment Inventory: Using the framework of clinical learning environment studies to assess students' perceptions of the hospital as a learning environment. *Journal of Nursing Education*, 41(2), 69–75.
- Chapman, R., & Orb, A. (2001). Coping strategies in clinical practice: The nursing students' lived experience. *Contemporary Nurse*, 11, 95–102.
- Clare, J. (1993). Change the curriculum or transform conditions of practice? *Nurse Education Today*, 13(4), 282–286.
- Cowan, D., Norman, I., & Coopamah, V. (2005). Competence in nursing practice: A controversial concept—A focused review of literature. *Nurse Education Today*, 25(5), 355–362.
- Davey, L. (2002). Nurses eating nurses: The caring profession which fails to nurture its own. *Contemporary Nurse*, 13(2–3), 192–197.
- Davies, E., Turner, C., & Osborne, Y. (1999). Evaluating a clinical partnership model for undergraduate nursing students. *Collegian*, 6(2), 23–27, 40.
- Downie, J., Orb, A., Wynaden, D., McGowan, S., Zeeman, Z., & Ogilvie, S. (2001). A practice-research model for collaborative partnership. *Collegian*, 8(4), 27–32.
- Dunn, S. V., & Burnett, P. (1995). The development of a clinical learning environment scale. Journal of Advanced Nursing, 22, 1166–1173.
- Dunn, S. V., & Hansford, M. (1997). Undergraduate nursing students' perceptions of their clinical learning environment. *Journal of Advanced Nursing*, 25(6), 1299–1306.
- Edgecombe, K., & Bowden, M. (2009). The ongoing search for best practice in clinical teaching and learning: A model of nursing students' evolution to proficient novice registered nurses. *Nurse Education in Practice*, *9*(2), 91–101.
- Edgecombe, K., Wotton, K., Gonda, J., & Mason, P. (1999). Dedicated Education Units 1: A new concept for clinical teaching and learning. *Contemporary Nurse*, 8(4), 166–171.
- Edmond, C. B. (2001). A new paradigm for practice education. *Nurse Education Today*, 21(4), 251–259.
- Edmondson, A., & Moingeon, B. (1998). From organizational learning to the learning organization. *Management Learning*, 29, 5–20.

- Elberson, K., & Williams, S. (1996). Innovative strategies for promoting nursing scholarship: A holistic approach. *Holistic Nursing Practice*, 10(3), 33–40.
- Elliot, M. (2002a). The Clinical Environment: A source of stress for undergraduate nurses. *Australian Journal of Advanced Nursing*, 20(1), 34–38.
- Elliot, M. (2002b). Clinical education: A challenging component of undergraduate nursing education. *Contemporary Nurse*, 12(1), 69–77.
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247–273.
- Glen, S. (1998). The key to quality nursing care: Towards a model of personal and professional development. *Nursing Ethics*, *5*(2), 95–102.
- Gonda, J., Wotton, K., Edgecombe, K., & Mason, P. (1999). Dedicated Education Units 2: An evaluation. *Contemporary Nurse*, 8(4), 172–176.
- Grealish, L., & Carroll, G. (1998). Beyond preceptorship and supervision: A third clinical teaching model emerges for Australian nursing education. *Australian Journal of Advanced Nursing*, 15(2), 3–11.
- Grealish, L., & Kaye, L. (2004). Change and challenge: The implementation of a new model of clinical learning for undergraduate nursing students in a cancer setting. *Australian Journal of Cancer Nursing*, 5(2), 3–4, 6–7, 9–11.
- Grealish, L., & Ranse, K. (2009). An exploratory study of first year nursing students' experience of learning in the workplace. *Contemporary Nurse*, 33(1), 80–92.
- Grealish, L., Bail, K., & Ranse, K. (2010). Investing in the future: Residential aged care staff experience of working with nurses in a 'community of practice'. *Journal of Clinical Nursing*, 19(15–16), 2291–2299. doi:10.1111/j.1365-2702.2009.03133.x.
- Hart, G. (1985). College-based education: Background and bugs. *The Australian Nurses' Journal*, 15(4), 46–48.
- Hart, G., & Rotem, A. (1994). The best and worst: Students' experience of clinical education. *Australian Journal of Advanced Nursing*, 11(3), 26–33.
- Howie, J. (1988). The effective clinical teacher: A role model. *Australian Journal of Advanced Nursing*, 5(2), 23–26.
- Hughes, C. (1998). Practicum learning: Perils of the authentic workplace. Higher Education Research and Development, 17(2), 207–227.
- Jackson, D., & Mannix, J. (2001). Clinical nurses as teachers: Insights from students of nursing in their first semester of study. *Journal of Clinical Nursing*, 10, 270–277.
- Johns, C. (1994). Guided reflection. In A. Palmer et al. (Eds.), *Reflective practice in nursing; The growth of the professional practitioner*. Oxford: Blackwell.
- Kanitsaki, O., & Sellick, K. (1989). Clinical nurse teaching: An investigation of student perceptions of clinical nurse teacher behaviours. *Australian Journal of Advanced Nursing*, 6(4), 18–24.
- Kermode, S. (1984). The role of the clinical supervisor in college programs. The Australian Nurses' Journal, 13(6), 34–35.
- Krieg, S., Sharp, S., & Campbell, A. (2004, February 9–10). Blurring the boundaries between teaching, learning, and assessment in a social constructivist framework: The use of rubrics as an educative tool. In Seeking Educational Excellence. Proceedings of the 13th Annual Teaching Learning Forum, Murdoch University, Perth. http://lsn.curtin.edu.au/tlf/tlf2004/krieg. html. Accessed 10 July 2010.
- Laurillard, D. (1993). Rethinking university teaching: A framework for the effective use of educational technology. London: Routledge.
- Lee, W., Cholowski, K., & Williams, A. (2002). Nursing students' and clinical educators' perceptions of characteristics of effective clinical educators in an Australian university school of nursing. *Journal of Advanced Nursing*, 39(5), 412–420.
- Lee-Kelley, L., Blackman, D., & Hurst, J. (2007). An exploration of the relationship between learning organizations and the retention of knowledge workers. *The Learning Organization*, 14(3), 204–221.
- Lewis, M. (1998). An examination of the role of learning environments in the construction of nursing identity. *Nurse Education Today*, 18(3), 221–225.

- Lockwood, C. (2003). The effectiveness of undergraduate clinical placement, models, methods and meaningfulness for key stakeholders in South Australia (pp. 1–38). Adelaide: Centre for Evidence based Nursing South Australia, The Joanna Briggs Institute.
- Mak, A., Westwood, M. J., Barker, M. C., & Ishiyama, F. (1998). The ExceLL program for developing international students' sociocultural competencies. *Journal of International Education*, 9(1), 33–38.
- Manley, K., & McCormack, B. (2003). Practice development: Purpose, methodology, facilitation and evaluation. *Nursing in Critical Care*, 8(1), 22–29.
- Maynard, C. A. (1996). Relationship of critical thinking ability to professional nurse competence. *Journal of Nursing Education*, 35(1), 12–18.
- McAllister, M. (1998). Competency standards: Clarifying the issues. *Contemporary Nurse*, 7(3), 131–137.
- Morton-Cooper, A., & Palmer, A. (1993). *Mentoring and preceptorship: A guide to support roles in clinical practice*. Oxford: Blackwell.
- Moscato, S. R., Miller, J., Logsdon, K., Weinberg, S., & Chorpenning, L. (2007). Dedicated Education Unit: An innovative clinical partner education model. *Nursing Outlook*, *55*, 31–37.
- Mulready-Shick, J., Kafel, K., Banister, G., & Mylott, L. (2009). Enhancing quality and safety competency development at the unit level: An initial evaluation of student learning and clinical teaching on Dedicated Education Units. *Journal of Nursing Education*, 48(12), 716–719.
- Owen, J., & Grealish, L. (2006). Clinical education delivery. A collaborative, shared governance model provides a framework for planning, implementation and evaluation. *Collegian*, 13(2), 15–21.
- Papp, I., Markkanen, M., & von Bonsdorff, M. (2002). Clinical environment as a learning environment: Student nurses' perceptions concerning clinical learning experiences. *Nurse Education Today*, 23, 262–268.
- Parsons, M., & Mott, S. (2003). Royal Rehabilitation Centre Sydney: Towards clinical development units (nursing). *Collegian*, 10(1), 27–29.
- Patten, M. (1979). College-trained for primary care. *The Australian Nurses Journal*, 9(2), 36–38, 52.
- Ranse, K., & Grealish, L. (2007). Nursing students' perceptions of learning in the clinical setting of a Dedicated Education Unit. *Journal of Advanced Nursing*, 58(2), 171–179.
- Saarikoski, M., & Leino-Kilpi, H. (2002). The clinical learning environment and supervision by staff nurses: Developing the instrument. *International Journal of Nursing Studies*, 39(3), 259–267.
- Schön, D. (1983). The reflective practitioner: How professionals think in action. New York: Basic Books.
- Senge, P. (2006). *The fifth discipline: The art and practice of the learning organization* (2nd ed.). London: Random House.
- Smith, A. (2001). Nursing in a time of change: A case for critical thinking. *Contemporary Nurse*, 19, 194–200.
- Smith, R., & Billett, S. (2006). Interdependencies at work: Reflection, performance, dialogue and reward. *Journal of Adult and Continuing Education*, 12(2), 156–169.
- Suchman, L. (1996). Constituting shared workspaces. In Y. Engestrom & D. Middleton (Eds.), Cognition and communication at work (pp. 35–60). Cambridge: Cambridge University Press.
- Tanner, C. (2010). From Mother Duck to Mother Lode: Clinical education for deep learning. *Journal of Nursing Education*, 49(1), 3–4.
- Titchen, A. (2003). Critical companionship: Part 1. Nursing Standard, 18(9), 33-40.
- Ulrich, B. T., Buerhaus, P. I., Donelan, K., Norman, L., & Dittus, R. (2007). Magnet status and registered nurse views of the work environment and nursing as a career. *Journal of Nursing Administration*, 37, 212–220.
- Unwin, L., Felsted, A., Fuller, A., Bishop, D., Lee, T., Jewson, N., & Butler, P. (2007). Looking inside the Russian doll: The interconnections between context, learning and pedagogy in the workplace. *Pedagogy, Culture and Society*, 15(3), 333–348.
- Van Manen, M. (1977). Linking ways of knowing to ways of being practical. *Curriculum Inquiry*, 6(3), 203–228.

Ward, C., & McCormack, B. (2000). Creating an adult learning culture through practice development. *Nurse Education Today*, 20, 259–266.

- Watson, J. (1982). Traditional v. tertiary: Ideological shifts in nursing education. *The Australian Nurses' Journal*, 12(2), 44–46, 64.
- Wenger, E. (1998). Communities of practice: Learning, meaning and identity. Cambridge: Cambridge University Press.
- Wotton, K., & Gonda, J. (2004). Clinician and student evaluation of a collaborative clinical teaching model. *Nurse Education in Practice*, 4(2), 120–127.