Work-based learning curricula in nursing

A literature review

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Work-based learning curricula in nursing

Project brief

This report is a review of published material (journal papers, reviews and reports) relevant to curriculum models in nursing education that include both work-based learning and articulation that allows multiple entry and exit points.

Introduction

The goal of undergraduate nursing education is to prepare nurses for practice in a demanding and dynamic health care environment. Among other factors, the increased demand for nurses, the rapid growth in nursing knowledge, increased use of technology and the changing demographics of Australia's population have all resulted in significant challenges to educational institutions that are preparing nurses for practice. This report explores how some of these challenges can be met using curricular models that emphasise work-based learning and strong articulation between programs preparing division 2 and division 1 nurses.

Reviews of the nursing curriculum

Australia

There have been a number of recent reviews of the nursing curriculum in Australia, sometimes as part of a broader review of nursing education. The National Review of Nursing Education (NRNE) was commissioned in 2001 by the (then) Minister of Health and Ageing and Minister for Education, Training and Youth Affairs. The Review examined the educational needs of the current health, community and aged care system and advised on appropriate policy and funding frameworks. The final report from the review, released in 2002, described some of the rapid changes in health care that had led to changing educational needs for nursing education and called for 'solutions that set standards and build the capacity to address and plan for change –not prescriptive models of education and training that will be outdated before they are implemented' (Heath 2002, p.11).

As part of the NRNE, a research paper on models of nursing education and training was commissioned. After an exhaustive Cochrane-style systematic review, this paper concluded that 'there is no evidence to recommend particular models, nor is their evidence to recommend against the models of nursing education currently in place in Australia' (Clare, White, Edwards & Van Loon 2002, p 10).

At about the same time, another Cochrane-style review was commissioned by the Queensland Nursing Council and it concluded that 'Research addressing nursing curricula is small scale and fragmented. Little work has been undertaken on evaluating the success of nursing curricula in preparing students for practice despite there being many debates between industry and academia about the adequacy of preparation for practice' (Fitzgerald, Pincombe, McCutcheon, Evans, Wiechula & Jordan 2001, p 10) The authors went on to note that 'Studies only address issues within existing boundaries of nursing curricula. There is a need to explore innovative approaches to development and evaluation of nursing curricula' (p. 10).

Soon afterwards, the Australian Universities Teaching Committee (AUTC) commissioned a study entitled 'Learning outcomes and curriculum development in major disciplines: nursing' (Clare et al. 2002) which explored current curricula and clinical education models in nursing education. This report, too, highlighted the lack of empirical evidence for the effectiveness of existing curriculum models and concluded that the literature did not allow a conclusion to be drawn as to which curriculum model is superior. The comprehensive report arising from this study did, however, outline a number of broad principles for curriculum design in nursing and a basic framework for good practice in clinical

education. A second AUTC-funded study focused on clinical education environments (Clare, Edwards, Brown & White 2003).

New Zealand

In 2000 the Nursing Council of New Zealand contracted KPMG to conduct a strategic review of undergraduate nursing education in New Zealand. A summary of this review was prepared for the Australian NRNE (Hantas 2001). This review examined the changing context of nursing and recommended that the undergraduate nursing curriculum incorporate the following threads:

- professional nursing practice
- social and behavioural science
- Maori health
- mental health
- cultural safety
- evidence-based practice
- health assessment

(Hantas 2001).

In addition, the report highlighted the importance of nurses developing critical thinking, clinical inquiry and decision-making skills and recommended that education providers demonstrate how these skills are being achieved through their curriculum.

The New Zealand review acknowledged the challenge of managing the clinical learning components of nursing education, recommended establishing programs to prepare and support clinical facilitators, and strongly encouraged the use of the preceptorship (one-to-one) model of supervision. It also recommended that flexible learning and problem-based learning approaches be adopted as an important way of preparing nurses for practice.

The review noted that 'There are also groups who favour undergraduate nurse education programs modular in structure, in which second level programs can be embedded as a mechanism for addressing workforce issues and making access and exit points for undergraduate programs more flexible' (Hantas 2001). The enrolled nurse category is being phased out in New Zealand, to be replaced with that of nursing assistant.

United Kingdom

The UKCC Commission for Nursing and Midwifery Education undertook a review of pre-registration nursing and midwifery education in the UK. Its report *Fitness for practice* (United Kingdom Central Council for Nursing Midwifery and Health Visiting 1999) recommended revision of the pre-registration nursing and midwifery curriculum to emphasise the quality of practice learning experiences, longer clinical placements, greater flexibility for entry and exit from nursing programs, inter-professional learning and working collaboratively.

The Nursing and Midwifery Council (NMC), which replaced the UKCC, currently maintains a register of qualified nurses, sets standards for education, practice and professional conduct and deals with allegations of misconduct or unfitness to practice. The NMC's Standards of proficiency for pre-registration nursing education (Nursing & Midwifery Council 2004) and the Quality Assurance Agency (QAA) Subject Benchmark Statement for Health care programs (Quality Assurance Agency for Higher Education 2001) provide a general framework for providing consistency in pre-registration nursing curriculum in the UK.

The emphasis on inter-professional learning is also seen in the work of the Quality Assurance Agency for Higher Education towards developing benchmarks that apply across the health professions. Accordingly, an emerging health professions framework is included in a QAAHE document on nursing benchmarks:

> It was, therefore, agreed by each of the specialist benchmarking groups that their respective statements could be cast using a common structure. As work progressed it became increasingly apparent that there was considerable overlap within the details of the subject-specific statements and a common health professions framework was emerging. This emerging framework is, accordingly, displayed in each of the subject statements in order to illustrate on the one hand, the shared context upon which the education and training of health care professionals rests and, on the other, the uniquely profession-specific context within which programmes are organised.
> (Quality Assurance Agency for Higher Education 2001, p 1)

UK universities offer both three-year degree and diploma programs. Whether students take a diploma or a degree in nursing depends on their qualifications on entry.

There are three categories of registration: nurse, midwife and registered specialist community health practitioner. The UK is phasing out the enrolled nurse category and enrolled nurse programs are no longer accredited. The emphasis in articulation arrangements is therefore on the development of flexible and part-time conversion programs for enrolled nurses who are already in the work force.

In recent years attempts have been made to widen access into degree programs through National Vocational Qualifications (NVQ) in care and 'Access to Nursing' courses run by Institutes of Further Education. For example *Making a difference* partnership pre-registration nursing programs were designed to widen access to professional education through NVQs and were designed on a modular basis so that students had more opportunities to enter and exit at different points to suit their particular circumstances (Department of Health 2001, p. 28).

The NMC sets the standards for clinical placement arrangements and requires:

> The balance of learning .. [to] be 50% practice and 50% theory in both CFP and branch programmes. A period of clinical practice of at least three months, towards the end of the pre-registration programme, is required to enable students to consolidate their education and their competence in practice.
> (Nursing & Midwifery Council 2004, p. 17).

Nursing students are required to 'be directed throughout by the approved educational institution' and have 'supernumerary status in practice settings to enable them to achieve the required standards of proficiency' (Nursing & Midwifery Council 2004, p. 19).

Canada

Canada has also conducted a recent wide ranging review of nursing in 2002, entitled *Our health, our future; creating quality workplaces for Canadian nurses* (Canadian Nursing Advisory Council 2002). The main focus of this report was the nursing workforce in Canada and it dealt with nursing education in this context only. Not surprisingly, its recommendations regarding education focused on the number of 'seats' (places) available in baccalaureate and postgraduate nursing programs in Canadian universities. However, it did also recommend improved arrangements for clinical education, including 'Employers should work with universities and colleges to maximize links for students and faculty, including cross-appointments of nurses at every level' and 'Educators should collaborate with employers to offer creative clinical experiences for students and maximize readiness for the work world' (p. 42).

A recently published report on the implementation of the recommendations of the review concluded that while 'health care decision-makers have acknowledged the importance of improving quality of

work life for nurses…few of the CNAC recommendations will be implemented within the timeframes' (Maslove & Fooks 2004, p. 22).

The equivalent of enrolled nurses in the Canadian system are Licensed Practice Nurses (LPNs), who are educated in community colleges. Reports such as those outlined tend to be silent about this category. Articulation arrangements tend to focus almost exclusively on conversion courses that allow registered LPNs with at least 12 months experience to graduate with a baccalaureate qualification. There is, moreover, a strong emphasis on the use of flexible learning approaches that allow these students to continue working while they study (Athabasca University 2005).

Dalhousie University has a limited co-operative (sandwich) undergraduate nursing program (Dalhousie University 2005).

Themes in these reviews

These reviews of nursing education include a number of consistent themes that are relevant to the role of work-based learning in the curriculum. These themes are discussed below.

Critical thinking

Clare et al (2002) notes that there is broad agreement in the literature that critical thinking and reflection are characteristics that nursing graduates require. The development of critical thinking skills in the workplace as well as the classroom became a focus when nursing education moved from the service sector to the tertiary sector. 'Critical thinking and analysis' is one of the core competency standards in the ANCI National Competency Standards for the registered nurse (Australian Nursing Council 2000). Nurses must demonstrate a capability to apply critical thinking and analysis in a practice environment in order to be eligible for registration as a division 1 nurse.

Problem-based learning

All reviews make some reference to problem-based learning (PBL), however it is not always clear what is meant by this term. As others have noted (Boud & Feletti 1997, Savin-Baden & Major 2004), there is no single definition of PBL and it is most appropriately considered an approach rather than a single method or technique.

There is ongoing debate about the effectiveness of the PBL approach. A recent meta-analytic review conducted by the Campbell Collaboration (the educational equivalent of the Cochrane Collaboration) concluded that 'the limited high quality evidence available from existing reviews does not provide robust evidence about the effectiveness of different kinds of PBL in different contexts with different student groups' (Newman 2004, p. 7).

PBL is often advocated as a strategy for bridging the theory-practice gap but it is typically a classroom-based approach built on practice-derived situations rather than a workplace-based approach. It may, however, be used effectively in preparing students for practice.

Cultural competence

New Zealand has led the way in developing a framework for the development of cultural competence in nursing education. In New Zealand the concept of cultural safety is broadly defined to incorporate cultural groups as diverse as social, religious and gender groups, in addition to ethnicity and is based on the understanding that 'all human beings receive nursing and midwifery services that take into account all that makes them unique'(Nursing Council of New Zealand 2002, p. 8). 'Unsafe cultural practice comprises any action that diminishes, demeans or disempowers the cultural identity of the individual' (Nursing Council of New Zealand 2002, p. 7). Cultural awareness is at the beginning of a continuum leading to the ability to practice in a culturally safe manner as a nurse or midwife.

The development of cultural competence may commence in the classroom but it is brought in to sharp focus in the workplace. This is reflected in the fifth of the Victoria University Core Graduate Attributes: 'A VU graduate can work effectively in settings of social and cultural diversity' (Victoria University 2003).

Information literacy

The notion of information literacy is often interpreted as computer or IT literacy and with informatics. However, the American Library Association definition of information literacy makes it clear that this is a broad set of capabilities:

> An information literate individual is able to:
> - Determine the extent of information needed.
> - Access the needed information effectively and efficiently.
> - Evaluate information and its sources critically.
> - Incorporate selected information into one's knowledge base.
> - Use information effectively to accomplish a specific purpose.
> - Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.
>
> (American Library Association 2005)

Information literacy in this broad sense is best developed in the workplace as well as in the classroom. It, too, is included in the Victoria University Core Graduate Attributes: 'A VU graduate can locate, evaluate, manage and use information effectively' (Victoria University 2003).

Inter-disciplinary or inter-professional education

Nurses need to develop the capacity to work in and across teams of various specialist professionals in health care settings:

> In order to promote successful professional teams with a client/patient focus, models of education and training that promote inter-disciplinary education and agreed practices standards for quality of care are needed.
> (Heath 2002, p. 175)

There has been a significant push towards inter-professional learning in the UK applying across the board to all health and social care education, where it was defined as:

> informal and formal opportunities for members of two or more professions to learn with and from each other, involving patients/users of health and social care where possible, with the aims of improving effectiveness of care delivery and increasing collaborative practice
> (United Kingdom Central Council for Nursing Midwifery and Health Visiting 2001, p. 33).

While inter-professional learning can be encouraged in the classroom by means of shared units, it is in the workplace where it is an integral part of practice.

Flexible learning

The AUTC review noted substantial agreement on the need for curricula to be flexible although they also draw attention to the limitations of flexible or open modes of learning (Clare et al. 2002). There are a number of examples in Australia of universities offering flexible delivery undergraduate nursing education programs, including both mixed mode and distance education programs.

A number of universities have adopted flexible learning approaches to widen access to nursing education for certain cohorts of students such as aboriginal students and students in remote areas.

A further argument for the use of flexible learning approaches is to support learners who are already employed as health care workers or who are currently based in the workplace on extended placements.

Clinical placements

The role of clinical placements in the nursing curriculum is critical. The clinical experience plays a key role in preparing nurses for clinical practice and integrating the theory learnt in the classroom into practice (Johnson & Preston 2001).

One Australian study found that the duration of clinical experience for pre-registration programs varies considerably across universities (Ogle, Bethune, Nugent & Walker 2002). Students spend between 600 to 1100 hours in clinical placements during a three-year degree program. In broad terms, this represents a 50:50 split of theoretical and clinical teaching hours (Clare et al. 2002). Most universities had significantly more hours of off-campus clinical experience than on-campus laboratory clinical experience. However, universities reported a great deal of flexibility in the minimum and maximum number of hours of clinical experience. In this study, Victoria University had the second lowest (after La Trobe) number of hours of clinical experience in the State (figures supplied did not include RMIT).

Curriculum models

As noted above, recent reviews of the nursing curriculum have identified a number of themes in nursing curricula but they have all commented on the fact that there is little systematic research into the effectiveness of existing nursing curricula and that most studies focus only on innovation within the existing boundaries of the traditional nursing curriculum rather than on the development and evaluation of innovative models. This is not only an Australian phenomenon. In an article from the US National League of Nursing (NLN), innovation in nursing education arising from the NLN's Curriculum Revolution of the late 1980s is described as concentrating on 'addition or re-arrangement of content within curriculum rather than on 'paradigm shift' - type changes'(National League for Nursing 2004). The NLN calls for the exploration of new pedagogies and new ways of thinking about curriculum, intensive dialogue between all stakeholders (educators, students and nursing service colleagues) and a fundamental re-thinking of clinical education so that it more effectively meets students' needs.

This sentiment is also reflected in a general review of curriculum reforms in a number of professions in the USA, where the author states 'it is no longer sufficient to change the curriculum by randomly inserting new topics into a few courses or re-arranging the sequence of courses'(Jones 2002, p. 36. This review also called for a radical reform of the nursing curriculum.

There appears to be no equivalent in nursing to the dramatic reform of the medical curriculum over the last 20 years based on the so-called SPICES (Student-centred learning, Problem-based learning, Integrated teaching and learning, Community-based learning, Elective curriculum, Systematic curriculum) model (Harden 1984).

Clinical placements

Since nursing education was moved from hospitals to universities the development of strategies to bridge the theory-practice divide has been an ongoing concern. Clinical experience in the workplace enables students to integrate theory learnt in the classroom, apply problem-solving skills, develop interpersonal skills and become 'socialised into the formal and informal norms, protocols and expectations of the nursing professional and the socio political health care milieu'(Clare et al. 2003). Clinical education, almost universally organised as clinical placements, is also recognised as the most challenging component of the pre-registration nursing curriculum (Clare et al. 2002). Many of these challenges are financial and organisational, and the National Review of Nursing Education recommended a reform of funding models for clinical placements (Heath 2002).

There are also substantial pedagogical challenges in clinical placements. There is evidence that student time on clinical placements is not always used in an educationally effective way (Clare et al. 2002) and that links between theory and practice are not always made on the job. The assumption that quantity of clinical practice necessarily correlates with the development of competent nursing graduates has also been challenged (Ogle et al. 2002).

The Discussion Paper for the National Review of Nursing Education acknowledged that working partnerships between education and the settings of practice are essential for effective clinical placements (Heath 2001). The report argued that strong links between theory and practice are achieved when students' clinical experiences are jointly designed by academic educators and practitioners and the experience take place in the practice context (Heath 2002).

Clinical placements need to be designed and implemented in ways that maximise the opportunities for student learning. In designing clinical placements decisions must be made about objectives, student activities, assessment, timing, duration and type of placement. But the best designed placement can still founder if it is ineptly managed within the health care setting. The ability to develop and foster effective partnerships with health care organisations is undeniably a strong determinant of success.

Several models of clinical placement are currently in use in Australia. The AUTC report concluded from their review of the clinical education literature that there is insufficient evidence for the selection of a best practice model (Clare et al. 2002). However, the AUTC report does highlight certain elements that were necessary to all models:

> it is clear that models which involve genuine partnerships between clinical agencies and the university, where student learning is central and valued and where academics and clinicians are well prepared to meet the objectives of student placements, provide a quality learning environment.
> (Clare et al. 2002, p. 6)

The second AUTC report summarised best practice for undergraduate clinical education as follows:

- open and accurate communication between all parties involved in teaching and learning
- quality preceptorship of students for each placement
- quality mentoring and role-modeling by experienced registered nurses
- adequate orientation to each new area of practice
- an environment of practical realism that linked theory and practice by:
  - clear delineation of graduate requirements using ANCI competencies
  - articulation of specific learning goals by the university and the nursing student
  - development of opportunities to achieve practical and cognitive competence in varied skills
- consolidated clinical learning experiences for continuity of process learning
- appropriate collaborative assessment of students' clinical learning
- continuing development and use of innovative clinical education models that promote teaching and facilitate learning
- responsive evaluation of the clinical learning environment to ensure its adequacy to teach students.

(Clare et al. 2003, p. 19).

Clinical supervision models

There are a range of supervision models with a variety of staffing arrangements to support these models. Supervision and preceptorship and the development of dedicated educational units in the clinical setting are all models of managing student clinical placements and structuring guidance and support to students in the workplace (Clare et al. 2002).

- Supervision generally refers to a 1:8 relationship between clinician and students.

- Preceptorship involves each student having a one-to-one relationship with a clinician called either a preceptor or facilitator. This model often also involves a supervisor in charge of the larger group.
- Health organisations work in partnership with universities to provide clinical placement to undergraduate nurses through Clinical Development Units (CDU) and Dedicated Education Units (DEU). See the Royal North Shore Hospital/University of Technology example.

Timing, duration and variety of clinical placements

There are a variety of views on the duration, distribution and variety of clinical placements in the literature. While at present there is support for a model of diverse experience for students through a range of clinical placements, there is a concern that shorts stays in multiple health care environments do not result in worthwhile clinical education experiences (Heath 2002). The National Review of Nursing Education report offers more support for longer periods of placement in the one setting rather than a succession of short-term placements. This allows time for the supervisors/preceptors to address the students' needs in the workplace (Heath 2002).

Providing students with exposure to clinical practice early on in their degree is recognised throughout the literature as beneficial. Early clinical placement provides a framework upon which the students can 'build their theoretical studies' (Clare et al. 2002, p. 43). In one example students were being introduced to the clinical environment for short periods of time within the first six weeks of the course (Clare et al. 2002).

Collaborative partnerships

Effective partnerships between universities and health organisations are widely recognised as vital to the development and provision of quality clinical learning placements and nursing education regardless of the clinical supervision model utilised (Clare et al. 2002, Heath 2002).

There are a number of models employed to structure the relationship between heath care providers and universities. Downie et al describe the following three models:

- Joint appointments where a person is first employed with one agency then divides their time between the two agencies e.g. Deakin University School of Nursing's Clinical Partnership Program involves each partner having a joint appointment with the School of Nursing in the form of either a professor of Clinical Nursing or a Senior Research Fellow.
- Academics hold honorary positions in health care organisations based on a specific area of research or practice.
- A person is appointed to promote best practice in a clinical area through research.
  (Downie, Orb, Wynaden, McGowan, Seeman & Ogilvie 2001, pp.27-32).

Another model described by Clare et al (2002) involves clinicians spending some time teaching in universities and academics having affiliate roles in the service sector in their areas of expertise. This model supports the clinical credibility of academics and allows clinicians to gain skills in education.

Clinical Education Units (CEU) or Dedicated Education Units (DEU), described in the previous section, are also a method of structuring partnerships between universities and health care organisations. Clare and colleagues describe CEUs and DEUs as promising innovations as they are based on close collaboration between nurse clinicians and academics. Key features of these models include 'support and training for clinicians, peer teaching, and extended placements of students in particular clinical settings'(Clare et al. 2002, p.92). The authors noted that 'These units have been found to offer considerable improvement on previous clinical models, especially in terms of collegiality of the clinical environment and in depth and breadth of learning of students who develop high levels of clinical competency' (Clare et al. 2003, p.43).

The key to successful clinical placements appears to be the collaborative partnership. This notion is examined in more detail in the next section.

Partnerships

The importance of strong collaboration between education and service sectors for the provision of effective clinical learning experiences is well highlighted in the literature. 'The literature indicates that the culture of universities and health care agencies, relations between university staff, clinical staff, students and the organisations are significant determinants of successful and unsuccessful clinical education experiences' (Clare et al. 2002, p. 94).

Despite recognising its importance, both tertiary and service sectors find collaboration challenging. Focus group participants in the AUTC study identified poor relationships between universities and the health sector as a key area of concern (Clare et al. 2002). While this is partly to do with financial constraints it is also a product of well recognised tension between the two sectors. The focus group participants highlighted 'inadequate linking of theory and practice with knowledge divorced from practical skills, lack of teaching realities of professional practice, insufficient contribution by clinicians to theoretical teaching, out of date or out of touch academic staff' as areas of concern (Clare et al. 2002). The two sectors also have quite different expectations and needs. For instance the service sector tends to expect graduates to be able to 'hit the ground running' whereas the education sector believes that the expectations of the service sector are unrealistic (Clare et al. 2002).

Another issued identified in the AUTC review was the large numbers of institutions affiliated with a single university. In some cases universities had 70 separate affiliations with health care providers (Clare et al. 2002). It is doubtful whether a productive relationship with so many partners is possible. The need to rationalise the number of agencies with which universities have partnerships is also recommended in other studies (Davies, Turner & Osborne 1999).

Effective collaboration

Downie defines a collaborative partnership as an association that provides mutual benefits to all partners and is premised on trust and commitment (Downie et al. 2001). Service providers need to recognise the important contribution of undergraduate nurses. This is highlighted in the following statement 'the value of student activity to the service provider …appears to outweigh the value of time spent by qualified staff on their supervision and education' (Lloyd Jones & Akehurst 2000, p. 94).

A powerful theme that emerges from the literature is the need for joint responsibility for the education of nurses. Mutual respect based on recognition of each party's role and contribution, commitment from both parties and effective communication are all recognised as factors that underpin successful partnerships between universities and health care agencies.

The AUTC report indicates that both parties should decide on the 'knowledge, skills and attitudes they want nurses to have' and these should be 'endorsed at policy and practice level in the organisation and addressed in the framework for curriculum development' (Clare et al. 2002, p.9). Among the practices recommended is for universities and health care agencies to collaborate in joint long term planning for all clinical education and in jointly establishing standards for credible and appropriate clinical experiences (Davies et al. 1999).

Also highlighted is the importance of using clinical educators who are well-trained, familiar with the clinical environment in which they act and informed about the 'student's curriculum and learning needs'(Clare et al. 2002). This can be supported by professional development activities for mentors.

Drawing on the literature on industrial and business partnerships, Clare et al (2003) developed a set of values and principles for partnerships between universities and health service providers. Partnerships require:

- A shared vision and purpose for collaborating;
- All partners to understanding why they are involved and taking equal responsibility and accountability for the outcomes;
- People choosing to be involved in clinical education partnerships must have:
- Requisite knowledge, skills and attitudes to teach effectively; and
- Proper preparation to facilitate students' clinical learning;
- Reciprocal and equal partners at every level of the partnership based on values of respect, trust and integrity;
- Communication that is open, honest, accurate and timely; and
- Supported by the establishment of formal frameworks to share governance.

(Clare et al. 2003, p. 36)

The AUTC conducted a Participatory Action Research (PAR) project at three site specific partnerships in three states of Australia between three universities: Flinders University, Adelaide, University of Technology, Sydney, and Queensland University of Technology and three major public teaching hospitals, Flinders Medical Centre, SA, Royal North Shore Hospital, NSW, and Royal Brisbane Hospital, Qld, respectively. The outcomes of the project were three specific clinical learning environment evaluation tools that are context and partner specific and the development of a set of six national best practice benchmarks for successful partnerships between universities and health care agencies (Clare et al. 2003).

The six national benchmarks are:

- Partners will develop a shared formal agreement between a university and a health service regarding clinical education of undergraduate nurses.
- There is effective and timely communication between partners.
- The rights, roles and responsibilities of persons at every level of the clinical learning partnerships are clearly defined.
- Scholarly teaching by both partners occurs in the clinical learning environment.
- The partnership elements that promote high quality learning for students are provided within the clinical learning environment.
- There is regular monitoring of agreed partnership elements that affect learning, teaching and progress of students.

(Clare et al. 2003, pp. 57-65)

Each benchmark includes a rationale and good practice criteria. The authors suggest that the benchmarks may be used as the basis of internal university auditing of quality teaching and learning in nurse education (Clare et al. 2003).

Examples of partnerships

The University of Notre Dame reached agreements with key health providers to ensure clinical placements so that students would be assigned to one healthcare provider for the length of their course (Heath 2001).

Royal North Shore Hospital is currently participating in a new clinical arrangement with the University of Technology whereby their wards act as Clinical Development Units for the third year undergraduate nursing students (Heath 2001).

In New South Wales the enrolled nurse Certificate IV program is a collaborative program between the State Government's Area Health Service and TAFE. Enrolled nurses are employed for the 12 month

program. They undertake concentrated blocks of full-time classroom instruction and clinical experience as well as on-the-job learning through their employment with the Area Health Service (McKenna, Sadler, Long & Burke 2001).

Learning in the workplace

What is notable about learning in the workplace in the undergraduate nursing curriculum is that it focuses almost exclusively on one model, that of the clinical placement or practicum. This pre-service model assumes that the learner is essentially campus-based but makes occasional, and sometimes quite abbreviated, forays into the workplace as a supernumerary for clinical experience. There is little emphasis on other models of learning in the workplace, such as the co-operative model (MacDonald & Whitty-Rogers 2004) or the internship model (Paul, Day, Giblin & Rich 2004). This University's Work Integrated Learning Task Force identified seven main models of learning in the workplace and these are included as Appendix 1 (Work Integrated Learning Task Force 2003).

Apart from these reports of work in progress, there is little emphasis on using employment as a learning opportunity, perhaps because of the relatively recent demise of the hospital-based apprenticeship model. However, the AUTC report included the following amongst its best practice principles for clinical education:

> structures that facilitate employment of students in nursing positions while completing their studies. There are many suggestions identifying this as best practice and although there are different rationales also provided, many refer to the positive aspects of such practices providing students with the ability to further develop the knowledge and skills gained in their studies, and also assisting with overcoming culture shock which is faced by graduates who have had minimal opportunities during clinical education to participate in a meaningful way in the provision of patient care. These recommendations are qualified with the need to recognise that such employment opportunities should be structured in such a way that they contribute to learning and do not detract from it. For example, concern is voiced that bad nursing practices may, in some cases, be learnt in these circumstances, and therefore this strategy would not demonstrate best practice.
> (Clare et al. 2002, pp. 122-3)

This reflected responses from both DoNs and graduates who favoured employment as AINs or ENs while studying. As one DoN commented 'Most have part time jobs in McDonalds or elsewhere. By working in a clinical environment they would learn time management skills and have a better idea of nursing practice.' (Clare et al. 2003, p. 116).

There is a growing realisation elsewhere in higher education of the effectiveness of learning that is based not on the campus but in the workplace (Billett 2001, Boud & Solomon 2002b, Beckett & Hager 2002). In what is known as work-based learning in the UK, learners who are already employed in a workplace earn a qualification by following a course of study that is based on their day-to-day work but shaped by the development of a set of broad capabilities defined by the university. In other words, their study is of the working knowledge of their workplace. One model is the so-called Capability Envelope, a curriculum framework developed by Stephenson and Yorke (Stephenson & Yorke 1998). This uses a set of predefined capabilities as the main organising principle and students are then supported in developing these capabilities in the workplace and in building a portfolio of evidence from their own work environment that they have achieved these capabilities. The framework includes three stages: an *Exploration Stage*, where learners plan and negotiate their program of study; a main study stage that includes a *Progress Review Stage*, where learners monitor and review their progress; and a final *Demonstration Stage*, where learners present evidence from their own work environment for their achievement of the capabilities.

We could find no evidence of the use of models such as this in nursing, though they are increasingly used in business and in education. In one way, this is surprising as one of the key difficulties in developing such a program is in defining capabilities, standards and levels and nursing already has a

ready-made set of capabilities in the form of the ANCI competencies. The difficult task of explicating standards and levels for each capability remains. Such an approach would also be very suitable for students who are already employed as division 2 nurses. On the other hand, the superficial resemblance of a return to hospital-based training may make such an approach politically unattractive. In the Capability Envelope model, it is still the university that is responsible for the quality of student learning in such a course as it must approve the study program negotiated by the learner and it must assess achievement against its capabilities, standards and levels (Boud & Solomon 2002a).

Articulation

The National Review of Nursing Education considered articulation arrangements in some detail. It recommended that 'all new course designs should consider how to maximise student transfer between different levels of related courses efficiently' (Heath 2002). However, the issue of articulation received little attention in most other national reviews, sometimes because enrolled nurse programs were being phased out (e.g. UK). In this situation, the only articulation arrangements required were conversion courses to upgrade existing enrolled nurses.

Articulation is an important issue in Australia. It is difficult to obtain accurate figures for the number of students articulating from VET enrolled nurse programs to higher education Bachelor of Nursing programs. The best recent estimate is that approximately one third to one half of students completing enrolled nursing programs across Australia articulate into Bachelor of Nursing programs (McKenna et al. 2001). The amount of credit granted to these students varies widely, from none at all to a full year or even more. There is no reliable data on the success of these articulating students, though interviews with course coordinators conducted as part of the same study suggested low attrition rates and high completion rates.

Most enrolled nurse programs are described as 'traditional' in structure, using 'classroom learning supplemented with supernumerary status on clinical placements' (McKenna et al. 2001). An exception is the NSW model, where students are employed in the health system for the whole of their program, and the Victorian traineeships model. For other programs, obtaining and managing clinical placements for enrolled nurse programs is problematic, just as it is for degree programs. However, enrolled nurse programs may also face the added difficulty of low status relative to degree programs in competition for places.

The same study described the number of higher education nursing students who elect to discontinue their degree programs and seek entry into a VET nursing program as 'small'. The low level of credit they are offered for their higher education study often dissuades those who explore the possibility of such a transfer. This is due, at least in part, to the rigidities of the VET competency based training model.

On the other hand, the Nurses Board of Victoria has recently established a system whereby Bachelor of Nursing students may be granted registration in division 2 on the basis of their undergraduate studies to date, the completion of a module on the role and function of the division 2 nurse, and assessment of their clinical competence (Nurses Board of Victoria 2004). This mechanism will allow students wishing to exit from their BN program with division 2 registration. It also opens the way for BN students to be employed as division 2 nurses while they complete their degrees.

Most existing articulation arrangements in Australia are, in effect, conversion programs for division 2 nurses. They may be built on partnerships between specific VET providers and higher education providers, or it may be left entirely to the individual applicants. Some arrangements involve bridging programs jointly designed and conducted by staff of both providers (e.g. Illawarra TAFE and University of Wollongong).

No examples could be found of existing BN curricula that included an enrolled nurse program as an integral part of that curriculum. On the other hand, a number of submissions to the NRNE included discussion of such integrated curricula. For example, Deakin University included the following as one of a series of possible models:

> A 1 plus 2 year program whereby the successful completion of one year of study in the TAFE sector is followed by two years of study in the University sector. This would allow students to be registered as a Division Two nurse after one year of study. Students would have the option of continuing their studies to exit with a degree following an additional two years studying within a University setting.
> (Deakin University 2001, p. 5).

Similarly, La Trobe in its submission recommended that:

> An articulated educational pathway be developed which accepts there will be three levels of worker and which offers multiple entry and exit points.
> (La Trobe University 2001, p. 2).

This proposal was elaborated on in other recommendations, where it is clear that what is envisaged is a structure involving courses for personal care attendants, enrolled nurses and registered nurses in a four year integrated program. As part of this structure, enrolled nurses would be able to progress to the BN qualification after two years of additional study. At the same time, however, a four year undergraduate program with high ENTER cut-offs for RNs alone is also advocated.

In its submission, UTS expressed its interest in developing a 1+2 integrated model but noted that it had already experienced difficulty in obtaining accreditation for such a program:

> Integration of enrolled nurse, Bachelor and post-graduate programs remains a dilemma. In 1999 UTS attempted to instigate the Reid Report recommendation for a university to pilot the incorporation of an E/N program within our Bachelor of Nursing. At that time the proposal was rejected by the NSW Nurses Registration Board. We intend to revisit the proposal later this year as it has much merit to have BN students at the end of first year undertake a summer semester of clinical work and apply to be enrolled by the NRB. This would mean they could work as nurses during their studies rather than in non-health related jobs.
> (University of Technology Sydney 2001, p. 6).

On the other hand, RMIT sounds a warning about the cost implications of an articulation arrangement that provides direct entry to the second year of its BN course for enrolled nurses:

> The articulation between the Division 2 (SEN) and Division 1 (BN) programs has, however, had a serious cost implication that was neither anticipated nor provided for – nor, at present, is it being formally recognised at a political level. The current position favouring articulation cannot be sustained unless the additional expense incurred by articulating the named programs is substantively addressed.
> (RMIT University 2001, p. 14).

Unfortunately, the submission does not provide further information on this 'additional expense'. It may lie in the cost differential between first and subsequent years or it may be the cost of offering the program at several sites throughout the state.

Other submissions from other universities to the same review advocate strengthening articulation between EN and RN programs (Charles Sturt University 2001, Monash University 2001).

On the face of it, there are some obvious advantages in an integrated 1+2 program. As noted above, it would allow students the option of exiting with the EN qualification after one year without any of the difficulties of translating learning outcomes into competencies or undertaking extra tuition and/or assessment of clinical competence. It would also qualify students to work as division 2 nurses while

they completed their BN program. This, in turn, would open up the possibility of different models of work-based learning, perhaps based on work as an employee rather than supernumerary placements.

There are also substantial challenges in such a model. One is that it would require substantial re-engineering of the curriculum. Most existing BN curricula are based, at least implicitly, on a sequence from conceptual understanding (theory) to procedural knowledge (practice). The emphasis on procedural knowledge in the EN program would require rethinking of this sequence, with a greater emphasis on reflection on practice and conceptual understanding built on this reflection in the second and third years of the course.

Go bold…

While we were unable to find an existing model of a nursing curriculum that includes a strong emphasis on both work-based learning and articulation, there is considerable support in the literature for such a model. There is an opportunity here to design a bold new undergraduate nursing curriculum that is distinctively Victoria University's. This model must be consistent with the University's key strategic priorities: its cross-sectoral convergence, its commitment to its region and its increasing emphasis on learning in the workplace. Such a curriculum would have an integrated structure, use work-based learning approaches, use flexible learning to support students in the workplace and be based on strong partnerships with selected health service providers in the west of Melbourne. It might be a 1+2 model where the first year leads to an enrolled nurse qualification (Cert IV), including clinical placements, and subsequent years are completed part time while employed by a health service provider.

The subsequent years might use a work-based learning model, where the learning is closely linked to the work environment of the learner, using a version of the Capability Envelope, perhaps. What is envisaged here is not university-based learning complemented by episodes of clinical experience but a distinctive model that emphasises negotiated learning in the health care environment that is guided by the University's clear requirements. While this may appear at first blush to be a shift back to the hospital-based apprenticeship model, it is fundamentally different in that it is the university that sets the requirements, standards and levels and approves the program followed by individual learners. Such a program could support many elements of the model proposed by Mayne Health Australia in its submission to the NRNE:

> Articulated Conversion Program for Division 2 Nurses to a Bachelor of Nursing Program involving a scholarship model. The aim would be for an 18-month course, which includes a Summer School. In this model students undertake all their clinical placements at Mayne Health or an existing hospital group. They would be "badged" as MAYNE HEALTH students/nurses or hospital students and would be offered part time work at Mayne Health/hospital group as Division 2/EN Nurses. Students would receive funding for their textbooks. On successful completion of their course students would be offered a 2-year full time contract.
> (Mayne Health Australia 2001, p. 1).

Recommendations

1. That a feasibility study be conducted of the development of a distinctive nursing curriculum that includes:
   - integration of the existing Certificate IV in Health (Nursing) as the first year of the program;
   - a work-based learning approach in the second and third years of the program;
   - flexible learning to support students studying in the workplace; and
   - strong partnerships with a small number of health care providers, preferably based in the University's region.

2. That, as part of the feasibility study, the accreditation of such a program be explored with the Nurses Board of Victoria.

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Appendix 1: Work Integrated Learning Task Force models of learning in the workplace

Model	Characteristics	Good practices[1]
Preparation for practice		
Project Students undertake a limited project in the workplace.	• Short term (one semester or less) • Often part of a module or subject • Supervised by VU staff	• Preparation for entry to workplaces • Site visits by VU staff • Co-supervision by workplace and VU staff • De-briefing and evaluation
Practicum/placement Students attend a workplace to learn about practice.	• Short or long term (up to 50% of course of study) • Supervision by workplace and VU	• Preparation for entry to workplace • Clearly defined role for student • Site visits by VU staff • Co-supervision by workplace and VU staff
Apprenticeship/ internship Students combine work and structured training in a course.	• Long term (one year or more) • Delivery at VU and/or workplace • Learning tasks determined jointly	• Strong links between teaching in the classroom and experiential learning • Evaluation of integration of workplace and classroom based elements.
Co-operative education Students spend time in relevant employment as a component of a course.	• Long term (one semester to one year) • Supervision almost exclusively by workplace • Administrative supervision by VU	• Preparation for entry to workplace • Co-supervision by VU and workplace staff • Ongoing face-to-face and online support by VU staff • Effective use of workplace learning in subsequent on-campus teaching
Improvement of practice		
Workplace project Students undertake a project in their place of employment.	• Usually a component of a course delivered on VU campus • Often an individual task • Supervised by VU staff • Assessed by VU staff	• Preparation for entry to workplace • Co-supervision by VU and workplace staff • Ongoing face-to-face and online support by VU staff • Assessment task related to work context.
Workplace learning A group employed by the same organisation undertake a customised course of study in the workplace.	• Partnership with an organisation • Students are employees of that organisation • Delivered in workplace by VU staff • Customised program negotiated with employer • Workplace assessment by VU and/or workplace staff	• Recognition of current competence is emphasised • Workplace mentors work with VU staff • Face-to-face and flexible/online teaching by VU staff • Course content is tailored to and integrated with work requirements • Action learning approaches used where appropriate
Work-based learning A group of students employed by the same organisation undertake a course based on their work.	• Partnership with an organisation • Students are employees of that organisation • Commences with assessment and recognition of current competence • Work is the curriculum • Includes learning projects in the workplace • Assessment based on defined capabilities, standards and levels	• Clear specification of broad capabilities, standards and levels to be achieved • Assessment and recognition of current competence based on capabilities, standards and levels • Co-supervision by VU and workplace staff • Credit for programs offered by employer and others • Face-to-face and flexible/online teaching by VU staff

[1] Biggs, J 2003, *Teaching for quality learning at university: what the student does,* 2nd ed., SRHE & Open University Press, Buckingham.