



University of South Australia



Experiential Placements in Pharmacy ‘Quality Indicators for Best Practice Approaches to Experiential Placements in Pharmacy Programs’

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Definition of Terms used in the report

Program: refers to tertiary education degree for example, Bachelor of Pharmacy

Course: refers to a unit of study, generally completed in a single semester, within a program for example Chemistry

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The views expressed in this report do not necessarily reflect the views of The Carrick Institute for Learning and Teaching in Higher Education.

This report maps experiential learning across Australian university pharmacy schools including learning activities, assessment and evaluation processes, with a key research methodology involving stakeholder consultation forums and interviews. Stakeholder views and de-identified handbook examples are presented to provide specific details and to share current practices. Grateful thanks are expressed to university academics, representatives from professional and registration organisations, preceptors and clinical educators and also students for their participation in the consultations and willingness to share their ideas and materials.

The focus for the report has been to use the available resources to capture the information and provide it to stakeholders in a timely manner, rather than to engage in extensive editorial processes.

Executive Summary

Context

The nature of the work for Australian pharmacists is changing. Key aspects of this include an ageing population demographic, overall redistribution of health workforce roles and rapid expansion of demand for new services. University pharmacy schools have the initial responsibility for nurturing the knowledge and skills, and also the personal attributes of the pharmacists of the future. Pharmacists need to be technically competent in both the generic and discipline-specific sense, have highly-developed interpersonal skills and the ability to problem-solve, adapt and respond to changing health needs.

The Australian Pharmacy Council Incorporated (APC, formerly the Council of Pharmacy Registration Authorities) provides a national accreditation framework which universities are required to meet for registration purposes, with the APC also overseeing an internship year upon graduation. The internship year assessment is based on the *Competency Standards for Pharmacists in Australia* (PSA, 2003) which outlines eight functional areas of generic and occupation-specific competencies required of pharmacists for entry to the profession, with the university accreditation process being linked to the competencies.

Experiential placements provide significant opportunities within the reality of the workplace in supporting undergraduate pharmacy students in skill-building for the internship year. However, little research has been undertaken about these placements and the outcomes of university pharmacy programs in preparing students for entry to the profession.

In December 2006, a Carrick Institute grant was awarded for the purpose of identifying and documenting current practice for experiential learning and placements in university pharmacy school programs in Australia. The Australian Pharmacy Council Incorporated (formerly Council of Pharmacy Registering Authorities - COPRA) and Committee of the Heads of Pharmacy Schools in Australia and New Zealand (CHPSANZ) endorsed the application for funding.

The purpose of this research has been to map experiential placements including learning objectives, teaching and learning activities and assessment processes across pharmacy schools in Australia, to highlight successful practices and to identify both areas for improvement and quality indicators for 'best practice' experiential placements.

Research methodology

This 'Experiential Placements in Pharmacy' research has been supported by a Steering Committee. Research methods have included preliminary forums, literature review, contact with other professions and also interviews with university pharmacy schools in Australia to map experiential learning placements at various year levels of pharmacy programs. Analysis of experiential placement handbooks; consultations in focus groups for professional/registration organisations, preceptors and students in each state and territory; and interviews with national groups, are other aspects of the research. Almost 250 participants from metropolitan and rural locations, including hospital and community pharmacists, aged care and profession situations participated in the consultation sessions. Most consultations were conducted face-to-face, with a preparatory paper distributed prior to the meetings.

This current report and a structured-response paper and survey 'Discussion and Options for Pharmacy Experiential Placements', as well as various conference papers and journal articles, are other products of the research process.

Background research aspects

This report outlines the key role that student experiential placements play in the preparation of future members of professions. The purposes of experiential placements include acquisition of professional knowledge, skills and attitudes; applying and developing classroom learning and theory in work settings; clarifying and determining career directions; utilising generic skills developed at university; establishing workforce contacts; and becoming 'work literate' including nurturing professional identity (Waters, 2001; Orrell, 2004). In general terms placements are important in supporting tertiary students in carrying out relevant tasks, in real environments, with actual clients.

Experiential placements differ from the structured university context in that the focus is on experiential learning, with the experiences of each student varying and dependent on the particular site and supervisor knowledge and skills. Kolb's experiential learning theoretical model highlights four elements in the learning process of concrete experience, review and reflection, the formation of abstract concepts and generalisations and experimentation and application of new concepts (Kolb, 1984). Therefore, new learning is related to personal experience and the quality of reflection is important for deep understanding. While learning can occur merely by being in the environment, Vygotsky (1978) has highlighted the importance of scaffolding which involves planning within a context and using people, texts, resources and mentors to accelerate the learning process.

In experiential placements the preceptor/supervisor is the mentor/coach who inducts the student as a newcomer, helping to nurture skills and values, 'with students gradually drawn into the practice of a profession...(it is) a safe form of legitimate participation in professional practice.... (involving) a deep rather than a surface approach to learning' (Loftus & Higgs, 2005). The university builds student skills prior to the placement and the preceptor/supervisor asks skilful and challenging questions to promote deeper personal reflection and learning, also providing guidance through various activities which lead to much deeper reflection.

The research also highlights that experiential placements in many professions support students in developing entry level competencies, with assessment occurring prior to graduation or within a pre-registration/internship year. Competencies are holistic in nature in their application to the professions and this acknowledges the complexity of the situations involved. However, in a traditional situation, competencies operate on a competent/not competent basis which is not well suited to the assessment of beginners. Some allied health professions are developing graduated descriptors approaches related to competencies to describe novice, intermediate and entry levels, thereby providing students with support and explicit feedback during the stages of skills acquisition. Level of support, time to complete tasks, focus on client or self, ability to link practice to theory and interpretation of rules in individual situations are the basis for detailed descriptors. Innovative university programs for some professions are also linking graduated descriptors, with university requirements based on high distinction, distinction, credit and pass categories.

A particular program of interest outlined in this report relates to the creation of a repository of laboratory experiments in the chemistry discipline, This is relevant because it demonstrates the use of an innovative template planning process which clearly links goals with learning processes and assessment and which also provides collaborative professional development as academics, peers and students work together to trial the depository experiments.

Pharmacy experiential placement overview and influences

University pharmacy programs and clinical placements are developed within a relevant set of university-specific graduate attributes, the national *Accreditation of Schools of Pharmacy in Australia and New Zealand* document (2005) guidelines and the *Competency Standards for Pharmacists in Australia* (PSA, 2003). Within these broader frameworks, pharmacy experiential placement programs occur which vary in relation to the overall amount of time, year levels, structuring (single ½ day, series ½ day, blocks and length), range of locations, metropolitan/rural opportunities, role of preceptors in assessment, types of assessment tasks and assessment marking schemes and criteria.

In the focus group consultations conducted there was agreement from all stakeholders that while competencies are not actually assessed until the internship year, there is a significant role for university programs in providing an opportunity to develop the essential knowledge, skills and attitudes. Relevant to Miller's clinical competency framework (Figure 5), experiential placements within the university programs provide the opportunity to move beyond the knowledge aspects of knows, knows how and shows how aspects and by the final year (s) of the program, students can actually undertake some learning tasks within the complexities of the workplace context in preparation for the internship year and registration.

While accreditation requires that competencies are evident in the structuring of pharmacy programs, for many university programs this is implicit rather than explicit. This report highlights that while there are varying views expressed about this, generally it is felt that there needs to be an understanding with all stakeholders about the role of the competencies within the university program. This would provide students with a better understanding of the competencies that underpin learning and assessment tasks during the years of the program, also increasing awareness that these need to be demonstrated by the time of completion of the pre-registration year.

Various student-organised and university-organised programs exist and across the states and territories students have varying exposure to community, hospital and other placements. With increasing student numbers there are many concerns expressed about insufficient hospital placements, with this becoming a very widespread issue for the future. Some states/territories are already dealing with this issue and they have introduced project work or a wider range of experiential learning opportunities including health education programs (for example in shopping malls), interdisciplinary clinics on campus and medication history services. Placements also occur in aged care situations and professional organisations.

A range of other aspects raised in the consultations are outlined in this report. A key point frequently raised is that while the structure of programs varies with the states/territories and between universities, it is considered important that some early exposure to pharmacy practice through experiential placement occurs in the first and/or second year. Another issue is whether students need a full year of pre-registration, given that some of them have extensive paid experience in pharmacy work and are likely to be able to demonstrate the competencies prior to completion of the pre-registration year. There are also concerns about short term placements which many believe lead to an over-emphasis on getting specific learning tasks completed, rather than building the relationship and taking initiative and seeking broader learning experiences available at the placement site.

Experiential learning

This report highlights the importance of pharmacy experiential placement programs being linked to pharmacy competencies and Graduate Attributes (also referred to as Graduate Qualities) within an outcomes-based education approach: 'starting with a clear picture of what is important for students to be able to do, then organising the curriculum, instruction and assessment to make sure this learning ultimately happens' (Spady, 1994: 1). Discipline-specific and cross-discipline generic outcomes are emphasised, with

the experiential placement providing an opportunity to link knowledge from a number of university programs with the complexities of the workplace site and nurturing a sense of identity as a pharmacist.

Mapping of university pharmacy programs and handbook analysis as outlined in this report indicates that in the final year of experiential placements, there is a similarity in the objectives of programs and considerable comparability in the learning tasks and types of assessments required. Developing student skills and knowledge in relation to the Competency Standards is evident. Frequently the link between developing student skills is implicit rather than explicit, with the link only being occasionally documented. There are also occasional links to Graduate Attributes. Key consultation views emphasise the importance of a balance between open-ended and structured placement situations.

This report provides some examples from university pharmacy experiential placement handbooks of a range of relevant learning activities. Given the focus on experiential learning, feedback and preparing students for a futures-oriented profession, some good practice models in building student reflection and communication skills are evident. However generally this is an aspect that still needs further development. Clarity regarding the purpose of reflection, notions of reflection-in-action, reflection-in-action and reflection-for-action and using a framework of challenging questions to encourage students to move beyond recall and comprehension to analysis, synthesis and deep and critical reflection is required. In addition, pre-placement activities and scaffolding to improve student oral communication skills through role plays, teamwork focused on case studies, negotiation with preceptors regarding placement role and issues, communication theory and practice tasks is occurring, but needs to be extended further. Similarly, structuring placement handbooks and making contact to build preceptor understanding of placement goals and increase their skills in providing explicit feedback to students, is essential and an area needing further development.

In terms of assessment modes, orals, workbook tasks and generic and/or occupational skills assessments are the most frequently noted, with assessment models including graded and non-graded approaches, also norm-referenced, competency-based and criterion-related rubrics. A more systematic approach to planning for experiential placements is highlighted as an area for future development.

Overall there needs to be a stronger focus on outcomes-based programming within experiential placements which involves the university, preceptors and students having a clear outline about what is to be achieved and using a more comprehensive planning process to reach this goal.

A model consisting of eight aspects to support a comprehensive planning process is outlined in this report:

1. Describing the knowledge, skills and dispositions that students must develop in order to achieve the outcomes, including any prerequisites and recognition of current skills;
2. Planning and scaffolding of a range of learning opportunities by the university and preceptor, with content being seen as a support which facilitates students' achievement of the outcomes;
3. Assessment linked to outcomes and the establishing of clear criteria;
4. Evidence of learning within the placement situation;
5. Feedback to the student and clarity about strengths and explicit information about areas for improvement;
6. Students negotiating their own goals and assessment criteria, as well as identifying continuing professional development areas;
7. Ensuring consistency through handbooks, and university contact with preceptors; and
8. Identifying student achievement, evaluation and planning for future learning and program development.

Assessment

The report presents many examples of assessment models and tasks with considerable consistency regarding orals, workbook exercises and preceptor feedback regarding generic and/or occupation-specific competencies. While there are implicit links to the pharmacy competencies of the profession and some university-specific requirements regarding graduate attributes, these are generally not explicitly identified. Norm-referenced, criterion-related and competency approaches to assessment are noted but the clarity and level of understanding about criteria and pass/fail or marks and other processes related to assessment aspects seems to vary with universities, as does the role of preceptors in the provision of marks. However, the significant issue raised, particularly by students, is the importance of explicit feedback highlighting areas of strength and those aspects needing further development.

As developed by some other allied health professions, some university pharmacy schools are using graduated descriptors with or without links to marks and/or university pass/credit/distinction grade bands to assess students in experiential placements. However, generally there is a lack of consistency in approaches even within a particular pharmacy school over the various year levels and types of assessment tasks. Relevant to universities using graduated descriptors, there was support for this approach especially as a basis for feedback and discussion between students/preceptors and university staff. The graduated descriptors approach, with or without marks and grade band links, would benefit from a more consistent application across tasks and year levels, especially if cooperative work is involved across universities and stakeholder groups.

The report highlights that the development of graduated descriptors linked to clearly identified competencies for novice and advanced beginner levels would significantly support preceptors and students. Furthermore it would provide clearer and more consistent outcomes on a national level for university experiential placement programs.

Evaluation and quality indicators

Evaluation is a key aspect in the learning process which is outlined in this report and which relates to ensuring quality experiential placements through gathering, measuring and interpreting information to make decisions about the effectiveness of the learning program.

Based on the mapping, handbook analysis, interviews and focus group information, this report provides a chart in relation to organisational aspects and responsibilities within pharmacy experiential programs and the degree to which related aspects are generally occurring across various pharmacy programs at pre-placement, during placement and post-placement stages. Indications are provided in terms of whether various aspects occur 'usually', 'sometimes', or 'rarely' in relation to university, preceptor and student responsibilities across Australian pharmacy programs.

The stakeholder consultations indicated that in providing support for experiential placements in terms of assessment and learning processes, many universities have a dedicated university coordinator available and some universities provide a handbook and a two page checklist outlining the range of experiences expected, with students and preceptors signing off on those tasks which are attempted. Other mechanisms of support are that students usually undergo university pre-placement orientation, with work booklets usually providing some clarity regarding experiential learning placements.

While many universities have processes for the evaluation of experiential placements involving students and preceptors, there was little clarity concerning the mechanisms used to follow through on the results of these evaluations in terms of informing the planning for learning. A few universities had collated results and systematically examined the issues and made changes, also informing their preceptors and students. However generally the evaluation results were not systematically collated but examined informally and

some adjustments made, with many preceptors indicating that they would appreciate some feedback on their own role or in a generalised format.

At the big picture level, the report highlights that there is widespread concern about the increasing numbers of students and the shortage of preceptors, with provision of sufficient quality experiential placements in jeopardy. It is noted by students, preceptors and professional groups that there are limitations in preceptor skills in teaching and assessment. Detailed student orientation and induction, negotiation of an educational plan with students and provision of feedback are emphasised as important but not currently being sufficiently provided by preceptors and sites, with funded time and training being essential. However without funding resources, any additional requirements such as compulsory training are likely to compound the preceptor shortage situation.

This report outlines a range of key issues and suggestions for improvements to experiential pharmacy placements which were made during the stakeholder consultations. These include concerns regarding:

- inequities among professions regarding funding;
- need for marketing regarding benefits of pharmacy preceptorship;
- increasing student numbers and existence of competitive rather than coordinated approach across universities;
- lack of cohesion and goal clarity regarding varying university experiential placement requirements of preceptors;
- insufficient additional budgets and personnel being provided by universities for experiential placement coordination given increased numbers of students.

Consultations with key stakeholders indicated considerable agreement among various stakeholder groups about indicators for quality experiential placements and there is also consistency with the United States research about quality indicators in terms of the pharmacy site, preceptors, university, students and the overall environment.

Ways forward

Experiential placements are regarded as an extremely important part of a pharmacy program by all stakeholders, with a wide range of models evident across Australian pharmacy programs, all operating within national accreditation and competency guidelines and university-specific graduate attributes. Brief early placement exposure, three to five blocks and some targeted half to one day sessions, a balance of open-ended and structured sessions, a range of placement opportunities and systematic university phone contact or visits were particularly valued.

Some models of using a comprehensive experiential learning planning process are evident, in which objectives are clearly linked to pre-placement preparatory and placement learning tasks and with opportunities for student negotiation of assessment tasks and criteria, also including a systematic evaluation process to inform future planning. However, planning for experiential placement learning including at the pre-placement, during placement and post-placement phases needs considerable additional attention. There is also a need for consistency of application within and across university pharmacy schools to improve the quality of work placements.

Recommendation One: It is proposed that a national repository of experiential placement learning and assessment tasks be established based on collaborative action research work and using an educational template and planning model incorporating learning outcomes, criteria for assessment and evaluation processes. The action research process which is

proposed involves stakeholder practical workshops for collaborative professional development, trialling and modification of learning tasks; data gathering and feedback from participants within specific experiential placement trialling, and final documentation and preparation for publication and dissemination within the central repository.

There was considerable consistency in the types of assessment tasks undertaken especially in the final year of programs when the main focus on experiential placements occurs, with oral presentations, workbook exercises and preceptor assessment of generic and occupation-specific skills generally being involved. However the clarity and level of understanding about criteria and pass/fail or marks and other processes related to assessment aspects varied between universities. There was support for a graduated descriptors approach especially as a basis for feedback and discussion between students/preceptors and university staff. The graduated descriptors approach, with or without marks and grade band links, would benefit from a more consistent application across tasks and year levels within specific university pharmacy schools, with benefits for cooperative work across universities and stakeholder groups. Descriptors used by other allied health groups such as relating to time taken to undertake tasks, rule bound versus flexible application to unique situation, degree of patient focus could be an initial consideration.

Recommendation Two: It is proposed that collaborative stakeholder work occurs in the development of standardised developmental descriptors related to competencies as applicable to university students at the novice and advanced beginner levels, with descriptors potentially considering aspects such as time taken to undertake tasks, rule bound versus flexible application to unique situation, and degree of patient focus. Preliminary information gathering, collaborative instrument development, refinement of graduated descriptors and pilot testing and finalisation and training package dissemination aspects are some processes involved.

This research identifies quality indicators in relation to preceptors, students, placement site, university and the overall environment, with some consistency with pharmacy research from the United States. These Australian pharmacy experiential placement success indicators could be further expanded in terms of the pre-placement, during placement and post-placement aspects.

Recommendation Three: It is proposed that further collaborative work be undertaken in conjunction with professional bodies and other stakeholders to further identify quality experiential placement success indicators in relation to preceptors, students, university, site and overall environment. This includes pre-placement, during placement and post-placement aspects to support improvements in pharmacy experiential placements.

1. Overview of Pharmacy Courses and Contexts

University pharmacy schools have the initial responsibility for nurturing the knowledge and skills, and also the attitudes and personal attributes of the pharmacists of the future. Pharmacists need to be technically competent in both a generic and discipline-specific sense. Highly-developed ethical practices and interpersonal skills are also needed, as well as being problem-solvers and able to adapt and respond to changing health needs.

1.1 Pharmacy and experiential placements for the profession

A range of approaches in pharmacy education and training have been used in nurturing personal attributes and developing the skills and knowledge required for membership of the profession. Initially apprenticeships and training models based entirely in the workplace were used and later the knowledge focus predominated, shifting the responsibility to the university sector. Over time, an emphasis on knowledge within a real context has been recognised as increasingly important and various approaches to bridge the theory-practice divide have emerged. Clinical problem-solving through studying individual health cases, developing generic and occupational skills of competent clinicians within tertiary studies, and reflective practitioner models involving self-directed and group learning with a strong client focus, have all been introduced. The current focus on interactive professionals highlights the importance of university-based knowledge complemented by opportunities for 'real' workplace learning and developing wider social and problem-solving skills through contacts with patients and customers (Higgs & Hunt, 1999).

1.2 Changing nature of pharmacy role

The emerging trends in the preparation of newcomers to the profession reflect the changing health care role of pharmacists and the complex range of factors which operate on the pharmacy labour market. These include structural changes in health services organisation and delivery, and redefining of the work of pharmacists, other allied health professions and the medical profession, with new pharmacist services including more patient counselling, medication reviews and clinical interventions. Provision of pharmacy services to rural and remote locations, the ageing of the Australian demographic population and increased general demands, have resulted in the full-time equivalent pharmacist workforce supply in Australia increasing from around 11000 in 2001 to an anticipated 14000 in 2010. Pharmacy schools have responded by enrolment growth, with 2% annual increase forecasted for this current decade (Pharmacy Guild, 2001).

1.3 Issues for pharmacy experiential placements

As the pharmacy student numbers grow, there are issues for universities in ensuring sufficient experiential learning placements. Pharmacy students are competing with other allied health occupations with similarly expanding workforces for clinical placements in hospitals and private practice. Pharmacy is uniquely aligned to some other health areas such as medicine in the requirement for an intern year upon completion of their programs. Of particular concern are issues arising because of fewer financial and infrastructure supports being available for pharmacy students and their preceptors and supervisors as compared to for example, medicine (HPCA, 2005).

1.4 Organisation of the report

This report has eight further chapters. Chapter 2 introduces the methodology used to conduct the research including the consultations, with further details provided in Appendix D. Chapter 3 presents some relevant background research aspects related to experiential placements and learning, also competency-based assessment models and implementation issues for entry to various professions.

Chapter 4 describes the key influences on the structuring of pharmacy programs including accreditation requirements for the purposes of registration, competencies for entry to the profession and meeting university graduate attributes. Chapter 5 is based on the consultations with university pharmacy schools in Australia providing generalised maps regarding the structuring of experiential placements, learning and assessment processes over the various year levels. Chapter 6 outlines further details of the teaching and learning processes, including presenting some specific information regarding some aspects of Australian pharmacy course experiential placement tasks and consultation views.

In order to examine assessment approaches in some detail, Chapter 7 presents some aspects of experiential placement handbooks to highlight varying approaches, also comments from consultations. In Chapter 8, evaluation approaches and quality indicators relevant to experiential placements are outlined. Chapter 9 concludes with a summary of the main themes arising from the research and consultations, also suggesting some future directions.

2. Background to the Consultation

In December 2006, a Carrick Institute grant was awarded for the purpose of identifying and documenting current practice for experiential learning and placements in university pharmacy school programs in Australia. The Australian Pharmacy Council Incorporated (formerly Council of Pharmacy Registering Authorities - COPRA) and Committee of the Heads of Pharmacy Schools in Australia and New Zealand (CHPSANZ) endorsed the application for funding.

The purpose of the research was to map experiential placements including learning objectives, teaching and learning activities and assessment processes across pharmacy schools in Australia, to highlight successful practices and to identify areas for improvement and quality indicators.

2.1 Preliminary work

Some preliminary workshops occurred at a university/professional organisations session in December 2006 and at a National Association Pharmacy Students of Australia (NAPSA) student workshop in January 2007.

At the university/professional organisations session, most pharmacy schools from around Australia and relevant national bodies were represented at a specially-convened workshop held in Adelaide. The Carrick grant objectives and processes were introduced and the nature of experiential learning, assessment approaches and links to competencies were a focus for discussion. Similarly, the national student workshop within the annual NAPSA conference introduced the Carrick grant and future consultation process, also seeking preliminary information about experiential learning within various pharmacy courses and issues.

Appendix A provides further details about the preliminary work.

2.2 Research methodology

The project was supported by a Steering Committee, including representatives from the University of Sydney and University of South Australia, with detailed background information provided in Appendix B. The Steering Committee provided advice and support in the conduct of the key stakeholder consultations, contributed to the development of the report, provided links with professional bodies for organising presentations and website opportunities and was involved in a range of dissemination activities. Appendix C provides detailed information about the Project Plan

The key research approaches were as follows:

- Conduct a literature review of published works regarding educational approaches for quality outcomes indicators for the structure and assessment of professional placements and work-based learning, including other professions;
- Gather data from university pharmacy programs regarding explicit objectives, placement activities and assessment;
- Examine pharmacy experiential placement handbooks including experiential learning activities, assessment and evaluation processes;
- Gather data from universities, registration authorities, professional organisations, preceptors, and community and hospital pharmacies regarding outcomes-based education, successful strategies, issues and opportunities for students to be involved in experiential learning;
- Align data from this consultancy work with the *Competency Standards for Pharmacists in Australia* 2003 and Graduate Attributes; and
- Conduct student evaluations regarding experiential learning placements.

A key source of data involved interviews with university pharmacy schools in Australia to map experiential learning placements at various year levels of pharmacy programs and to discuss successes and issues, and all universities with established programs were approached. Experiential placement booklets were also examined regarding some aspects such as objectives, learning tasks and assessment. Focus groups for professional/registration organisations in each state and territory, and preceptor and student focus groups also occurred. Meetings and teleconference contact with national registration and professional bodies and various other professions were established. A discussion paper (see Appendix D) for the university consultations and focus groups was written based on the preliminary literature review including information about experiential placements and assessment approaches in other professions (Key parts of this literature are discussed in Chapter 3).

The interviews with universities were preceded by a request for them to prepare information on their current experiential placements for pharmacy students, and this information was discussed and finalised in writing within a few weeks of the consultation date.

Over 250 participants were involved in the various stakeholder consultation forums and interviews.

Appendix D provides further details about the consultation processes and report writing aspects. The report outlines the collation of the results, analysis and recommendations.

A 'Discussion and Options for Pharmacy Experiential Placements' paper is currently being disseminated to consultation stakeholders to seek their views regarding the key issues and recommendations (see details outlined in Appendix P).

3. Experiential Learning and Assessment: Background Research

This chapter presents information from a range of relevant research regarding theoretical models and practices for the professions in relation to experiential placements, experiential learning and assessment. The intention of this chapter is to provide a background context for the current project and its focus on mapping experiential placements within pharmacy programs, including experiential learning and reflection aspects, and assessment models such as competency-based approaches. Relevant details regarding innovative practices in other professions are provided.

3.1 Experiential placements

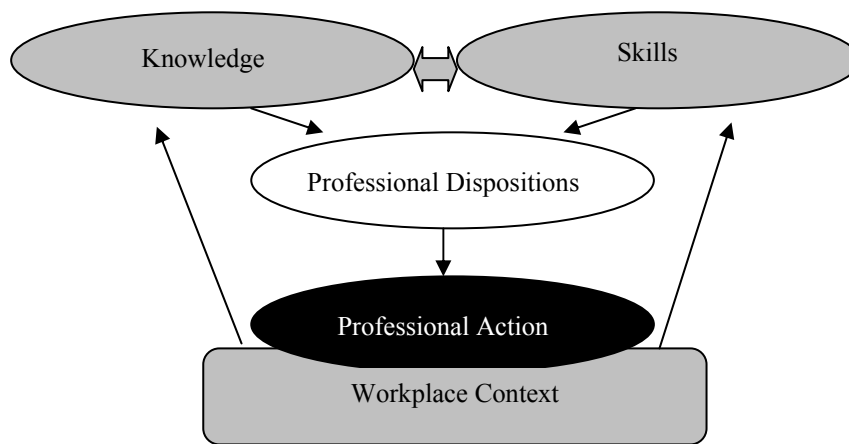
Universities have a significant role in ensuring students have the knowledge, professional attributes and practical skills for their profession, with experiential placements being required by many accreditation bodies. Through experiential placements, students go beyond the knowledge and teaching offered by university academics and become immersed in clinical/work settings under the supervision of current professional practitioners. Therefore, student experiential placements play a significant role in the development of future members of professions.

While role plays, excursions and laboratories can be undertaken within the university program to simulate the work context, high quality experiential placements are essential:

There is a growing awareness that recognition of adult learning cannot be restricted to learning which occurs in formal settings. The development of competency based training and enterprise agreements which take account of a range of useful skills and learning acquired in workplaces and other settings has enhanced the importance currently being accorded to EBL (Experience based learning) (Andresen, Boud, Cohen, 2000).

The purposes of experiential placements include acquisition of professional knowledge, skills and attitudes; applying and developing classroom learning and theory in work settings; clarifying and determining career directions; utilising generic skills developed at university; establishing workforce contacts; and becoming 'work literate' including nurturing professional identity (Waters, 2001; Orrell, 2004). In general terms placements are important in supporting tertiary students in carrying out relevant tasks, in real environments, with actual clients.

Figure 1 outlines Flinders University research (2003) regarding effective workplace learning within a workplace context as involving the interplay of knowledge and skills with professional dispositions, all leading to professional action.



(Source: Flinders University, 2003)

Figure 1: Effective workplace learning

This research highlights that compared with the university classroom, given the less predictable environment of the many and varied workplace learning contexts in which students operate in experiential placement, a planned approach is important. This includes the university, student and placement site/supervisors clearly identifying outcomes such as clear expectations, agreed criteria and learning outcomes, negotiated assessment and credit for learning achievement (Flinders University, 2003: 3). An online program has been developed to prepare students for experiential placements. It includes modules regarding familiarisation with the experiential placement organisation; attending to practical matters prior to commencement; negotiating the workplace etiquette, culture, and diversity; and surviving the placement in terms of occupational health and safety, legal, ethical and interpersonal issues (Flinders University, 2003).

The importance of preparation of students and clarity about the expectations is also highlighted in other research projects (University of Ulster, 2003; Blackwell, Bowes, Harvey, Hasketh & Knight, 2001; Orrell, 2004), with the following quality indicators being emphasised:

- The importance of purposefulness, partnerships and clear agreements for all stakeholders (including students, placement sites, academic teachers, professional bodies, higher education managers);
- Developing a transformative stakeholder ethos emphasising learning, and a long term and holistic view to experiential placements;
- Quality Monitoring (stakeholder commitment and prior induction for all involved, and facilitation of ongoing reflection, debriefing and identification of outcomes);
- Accreditation (towards an award or separate award);
- Assessment (formative and summative which shapes the learning process and supports ongoing reflection);
- Work Experience portfolio (recording learning and development over time);
- Reflection and Articulation through longer placements (involving deep and wide analysis and metacognition);
- Quality supervision (providing a healthy mentorship-type approach and environment which fosters competence).

3.2 Experiential learning

The university context usually involves a structured and standardised set of objectives and tasks. However in the experiential placement situation, the experiences of each student may vary dependent on the particular site and supervisor knowledge and skills. The focus of experiential learning is on the learner, with the particular environment being used as a stimulus and with learners constructing their own experience within a holistic and specific social and cultural context (Andresen, Boud, Cohen, 2000). New learning is related to personal experience, with the quality of reflection being important for deep understanding.

Figure 2 presents a theoretical model for an experiential learning cycle which highlights four elements in the learning process of concrete experience, review and reflection, the formation of abstract concepts and generalisations and experimentation and application of new concepts (Kolb, 1984):

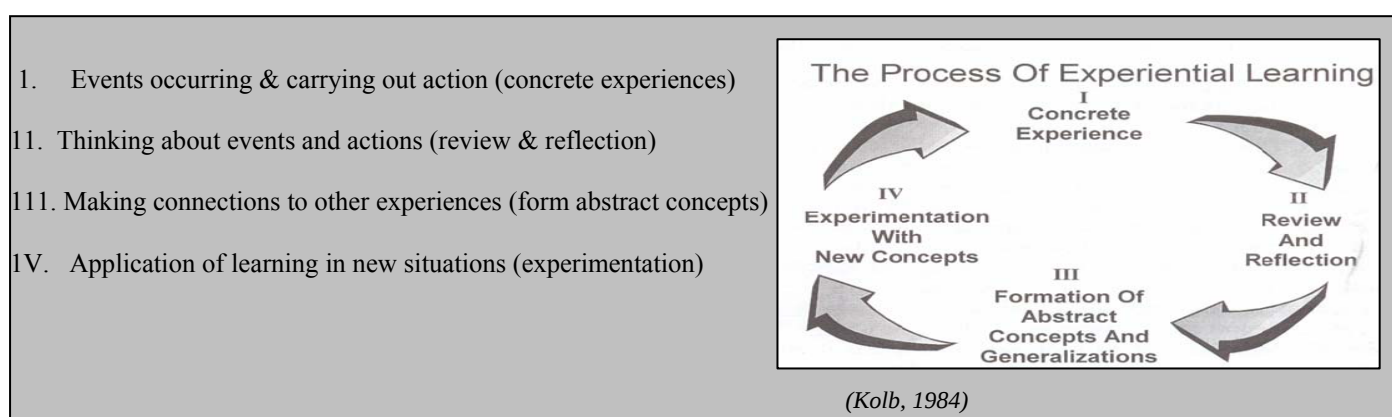


Figure 2: Experiential Learning Cycle

This model is very useful but tends to focus only on individual mind processes involved in learning. Alternatively, the social cognition model highlights individual learning occurring within a culture and involving a social context. Within this social environment, much of the learning happens informally on a day-to-day basis. However Vygotsky's notion of the Zone of Proximal Development (ZPD) emphasises that learning can be accelerated through a structured and scaffolded program, with scaffolding involving books, mentors, laboratory work, role plays and teachers who are all involved in guiding learners to perform tasks which are normally slightly beyond their ability (Vygotsky, 1978).

3.3 Structuring learning within experiential placements

Consideration of both Kolb (1984) and Vygotsky's (1978) concepts is useful in the context of experiential placements. In accordance with the principles of experiential education, the placements provide significant opportunities for students to actively engage in learning within the clinical environment in an informal manner on a daily basis. Highlighting Vygotsky's scaffolded learning approach some learning is also structured to meet program and experiential placement goals, with supervisors involved in planning and feedback. This includes scaffolding to develop the required competencies which are aligned to professional entry requirements, and creating 'authentic and meaningful learning experiences that enable the learner to acquire the knowledge, skills and attitudes required in professional practice ...the preceptor is responsible for planning for the experience, increasing the learner's awareness of the experience and providing feedback regarding the learner's performance' (Littlefield, Haines, Harralson, Schwartz, Sheaffer, Zeolla & Flynn, 2004: 9).

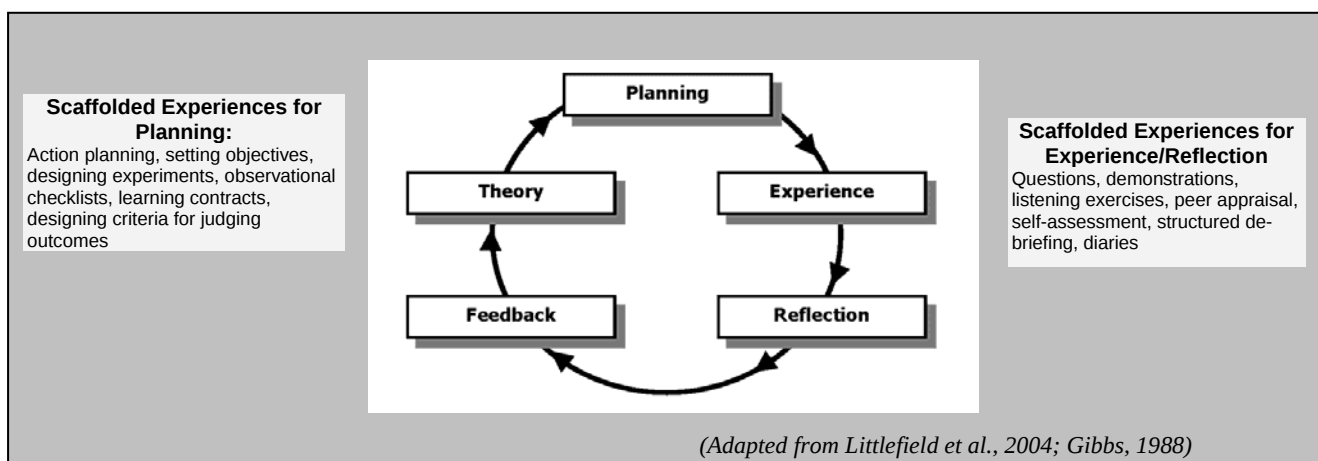


Figure 3: Experiential Learning and Planning

Figure 3 depicts the experiential learning loop previously outlined with some modifications (Kolb, 1984). This has been supplemented by the planning aspect (Littlefield et al., 2004), with the planner/supervisor having the role of accelerating the learning through providing scaffolded experiences (including action planning and learning contracts) and with various techniques for accelerating the planning and experience/reflection phases (such as self-assessment & journals) (Gibbs, 1988). The university has a key role in developing experiential placement programs, with their programs providing a framework for planned approaches for the student and preceptor to implement within the workplace.

Supporting others by scaffolding learning and social cognition learning models can be linked to the situated learning model of Lave and Wenger and communities of practice. This includes a process of apprenticeship for new members, with members of the community being bound together and learning through involvement in joint activities which occur over an extended timeframe (Lave & Wenger, 1991). The preceptor/supervisor has a role of being the mentor and coach who inducts the student as a newcomer, helping to nurture the skills and values, 'with students gradually drawn into the practice of a profession...(it is) a safe form of legitimate participation in professional practice with no direct consequences to patients' (Loftus & Higgs, 2005).

The experiential learning or problem-based learning component of programs involves the provision of opportunities to 'adopt a deep rather than a surface approach to learning' as they build their skills in professional practice (Loftus & Higgs, 2005), with guided reflection supporting deep learning.

3.4 Reflection and feedback within experiential learning

Reflective journals are commonly used in experiential learning processes within work placements. Reflective journals may include description, description and explanation, dialogue exploring possible courses of action, critical stances and broader contexts and theoretical positions (Van Manen, 1977; Hatton & Smith, 1995)

While personal reflection is important in the experiential learning approach, feedback from others is also a significant part of the learning process. In experiential placements, the role of the preceptor/supervisor becomes one of asking skilful and challenging questions to promote deeper learning, with the university building student skills prior to the placement and providing guidance through the workbooks which leads to much deeper reflection, as well as learning and understanding within the workplace environment. Providing specific feedback to help students to identify areas of strength and those needing improvement is essential.

Reflection-in-action (during events) and reflection-on-action (after events) are important aspects within the reflection process (Schon, 1983). Merely descriptive levels can be related to Bloom's cognitive domain taxonomy at the levels of recall and comprehension (Anderson, Krathwohl, Airasian, Cruickshank, Mayer, Pintrich, Raths & Wittrock, 2001; Anderson & Krathwohl, 2001). However, consistent with this, deeper

reflection involves application to action, analysis and considering alternative ideas, synthesis and linking to a broader context, also including evaluation and creation of new ideas. Deeper level reflection also includes consideration of emotional responses and values which exert influence and result in changing personal behaviours and action in the future (Anderson et al., 2001).

Critical reflection is taken to mean a deliberate process when the candidate takes time within the course of their work, to focus on their performance and think carefully about the thinking that led to particular actions, what happened and what they are learning from the experience, in order to inform what they might do in the future (King, 2002, citing QCA, 2001: 8).

Therefore, critical reflection moves beyond reflection-in-action and reflection-on-action and includes reflection-for-action.

Kolb's (1984) experiential learning model including Littlefield et al.'s (2004) planning aspect, may be reconsidered to include reflection-in-action, reflection-on action and reflection-for-action. This is shown in Figure 4 below:

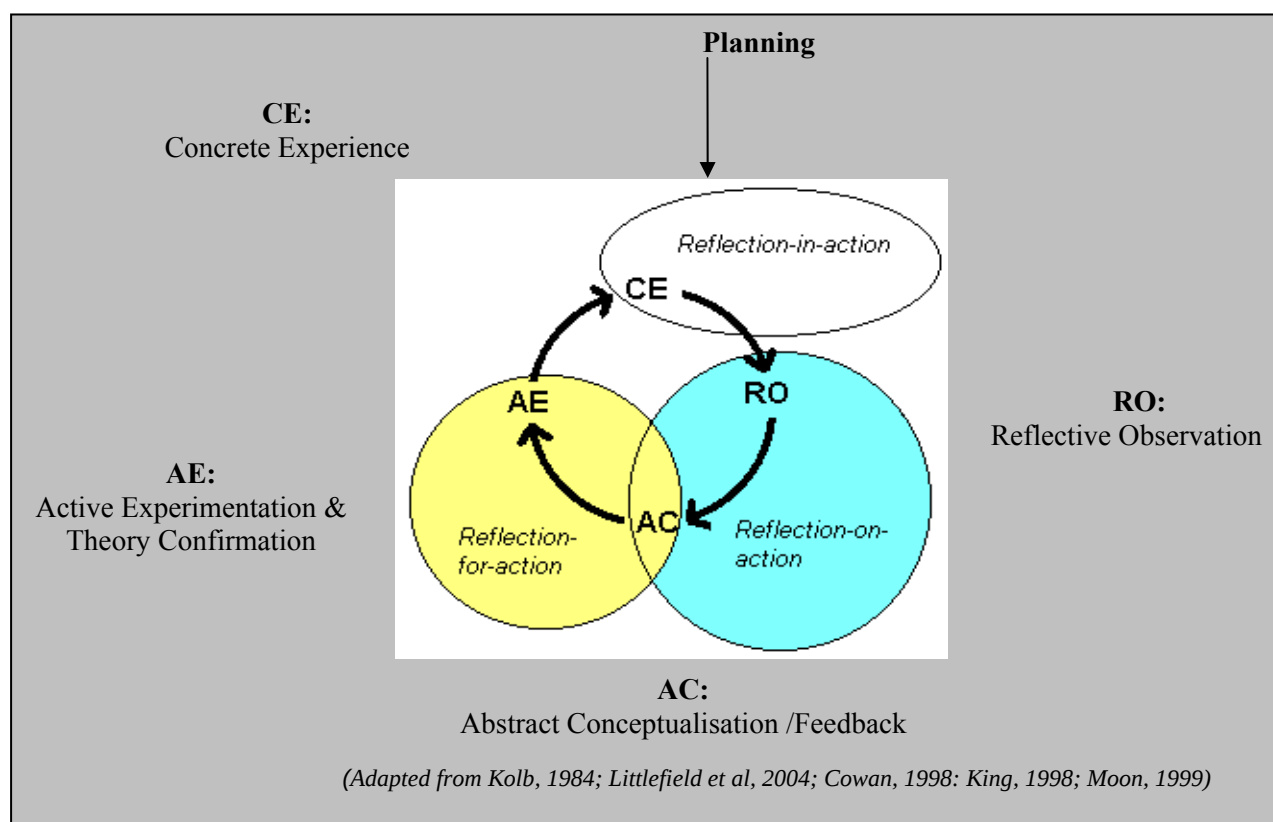


Figure 4: Reflection processes within experiential learning

This figure illustrates the reflection-in-action process which occurs while a learner is involved in a Concrete Experience (CE) of noticing, naming problems and questioning, with the Reflective Observation (RO) phase occurring after the event. During reflection-on-action, Abstract Conceptualisation (AC) (sometimes supported by feedback) occurs and hypotheses are generated. In Active Experimentation (AE) involving theory confirmation and generalisation, further reflection-on-action and reflection-for-action may occur (Cowan, 1998). Double loop learning including an examination of values may also be an aspect (Greenwood, 1998), thereby contributing to deep learning. Moon (1999:160) emphasises the importance of meta-cognition processes and revisiting material already learnt thereby supporting higher level learning processes, mulling over plans and theories and reflecting on implications. Similarly, Boud, Keogh & Walker (1985) discuss

returning to the experiences after some time and attending to the underlying positive and negative feelings and re-evaluation from the perspective of the current situation, again emphasising deep and critical reflection, synthesis and evaluation.

A further aspect shown in Figure 4 is the role of planning which may provide a structure within experiential learning for feedback and deeper reflection to occur. Through the university structuring of experiential placements and the role of preceptors, students can be guided prior to the placement to engage in deeper reflection. During the placement, preceptors can ask interrogative questions and provide feedback which challenges the student to go beyond surface learning, recall and descriptive reflection and begin to engage in analysis, also considering alternative courses of action and feelings.

3.4.1 Framework and questions for reflection

Frameworks and related questions for structuring experiential learning and deep reflection may be considered as shown in Table 1 (Smyth, 1989; Johns, 1995):

Table 1: Framework and Questions for Deep Reflection

Concrete Experience (reflection-in-action):

Reflective Observation (reflection-on-action):

- Reflection and self awareness (how are you feeling, what are you thinking, what are other peoples' feelings, what was the feeling about outcomes, what is the thinking now about the outcomes)?
- What was I trying to achieve?
- Why did I intervene as I did?
- What were the consequences of my action for myself, patient/family/other staff?
- How did I feel about the experience when it was happening?
- How did the patient feel about it and how do I know?

Influencing factors:

- What internal/external factors influenced my decision-making?
- What sources of knowledge did/should have influenced my decision making?

Evaluation: (good and bad):

- Could I have dealt with the situation better, what other choices did I have, how did I come to be like this?
- What would be the consequences of these choices?

Abstract Conceptualisation (Learning & conclusion/synthesis/analysis – breaking the event down):

- What went well, what did you do well, what did others do well, what went wrong, how did you or others contribute?
- How do I now feel about the experience?
- How have I made sense of this experience in the light of past experiences and future practice?
- How might I do things differently? What do my practices say about my assumptions, values, beliefs? Did my actions match my beliefs? Where did these ideas come from, what social practices are expressed, what is it causes me to maintain my theories, what view of power, whose interests are served, what is it that acts to constrain my views of what is possible, could I handle this better in a similar situation, what would be the consequences of alternative action for the patient, others, me?
- How do I now feel about the experience, could I support myself and others better as a consequence, has this changed my ways of knowing?

- How has this experience changed my ways of knowing – scientific, ethics/moral, personal self awareness, aesthetics, the art of what we do, our own experiences?

Active Experimentation and Theory Confirmation:

Action Plan (reflection-for-action):

- What to do in the future? *(Adapted from Smyth, 1989; Johns, 1995)*

3.5 Assessment

Experiential placements are generally required as part of registration processes so entry to the register needs evidence of the application of theoretical knowledge in practical situations. Some professions allow entry immediately after university and others require an internship year following graduation, with this being supervised by registration bodies with the support of the profession.

3.5.1 Competency based assessment and approaches

Competency assessment differs from norm-referenced approaches in that, rather than using a grading of achievement, it is based on outlining very specific aspects as minimum requirements of the work. Behavioural evidence is then sought through observation or inference about whether the person has the knowledge, skills and attitudes to do specific aspects of the work, with competence being demonstrated on multiple occasions. The tradition of competency assessment is based on vocational occupations and a checklist of specific aspects (Bowden & Masters, 1993).

There has been some debate about the application of competency assessment models for the professions. Detailed checklists related to performing specific vocational tasks are sometimes used and the complexity of situations faced by professionals seems unacknowledged (Hager, 1993). However another competency assessment approach includes personal qualities and takes into account the context and this is then related to the knowledge, attitudes and skills underpinning occupational performance (Scheeres & Hager, 1994; Bowden & Masters, 1993). In this approach to competencies, attributes, generic skills and specific skills related to the profession are valued, with overall competence including knowledge and problem-solving capacities not necessarily being directly observable but being inferred from performance (PSA, 2003). The transparency of the competencies within a holistic application, and with criteria clearly identified, highlights its usefulness in assessment processes.

Competence or showing knowledge of how to do something in a laboratory/classroom needs to be distinguished from competency which is performing the skills in a real life situation, with all the complexities involved (PSA., 2003). This links to Miller's framework for assessing clinical competence (Figure 5). This framework progresses from 'Knows: knowledge' (essays, tests, written simulations) to 'Does: action' including opportunities to demonstrate skills and knowledge within experiential learning, with the highest level of the pyramid being focused on what occurs in practice (Does) rather than in artificial test performance situations (Shows how) (Beck, Boh & O'Sullivan, 1995; Norcini, 2003):

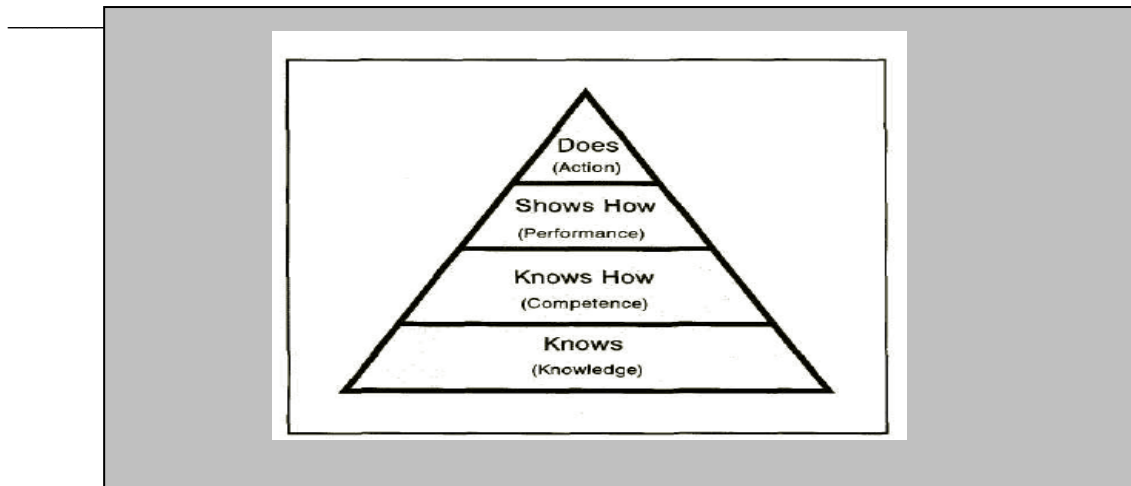


Figure 5: Competency assessment for the professions

3.5.2 Developmental approaches to competency based assessment

Researchers have highlighted the progression in skill development from novice to expert (Dreyfus & Dreyfus, 1996; Schoonenboom, Tattersall, Miao, Stefanov & Aleksieva-Petrova, 2006). The Dreyfus and Dreyfus (1996) model of stages in clinical competence has been applied to nurses in relation to nursing students and experienced members of the profession in their skills acquisition process. There are five stages from novice (rule bound, inflexible, dependent approach, no experience); advanced beginner (marginally acceptable performance, some prior experience guiding actions, requiring mentor guidance); competent (can see long-range goals, uses deliberative planning, some level of efficiency but lacks speed and flexibility, still developing overall context); also proficient; and expert levels (Benner, 1984).

For students at university who are able to register on completion of their program, the novice and advanced beginner stages are relevant, with competent being the goal to be achieved in some professions by the time of graduation. Therefore, for university students still developing the skills, rather than competent/not competent labels of assessment being used within experiential placement assessments, graduated descriptors relevant to the degree to which a range of performance criteria are met can be useful in providing feedback. These graduated descriptors relate to aspects such as the amount of support required, time taken for completion of tasks and the ability to apply rules in complex and unique situations. Stages such as novice, intermediate and entry level are used. For professions where internships are involved, competence is not required on completion of university studies but graduated descriptors are useful for supporting university students as they are developing the skills and knowledge required.

3.5.3 Assessment and experiential placements for the professions

Various professions are using differing experiential placement and assessment approaches in relation to university students, with examples provided relating to professions where there is a need to reach entry level competency or professional standards by the conclusion of their university programs.

3.5.3.1 Speech Pathology

McAllister (2006: 40) outlines an assessment tool for competency-based assessment of speech pathology students' performance in the workplace which is based on a rating of four generic (reasoning, communication, lifelong learning, professionalism) and seven occupational competencies and behaviours against descriptors for a novice, intermediate or entry-level (competent) student. Some examples of the types of descriptors (based on amount of supervision required, time needed for completion of tasks and focus on understanding of complexity of situations or self versus client focus) are shown in Figure 6:

Novice student	Intermediate student	Entry-level student
*high supervisory support	*recognises some aspects of problems	*can perform work independently
*time needed for clinical responsibilities	*developing automaticity	*seeks support for new situations
*focused on own performance not client	*needs support with prioritising, flexibility	*prioritises and works efficiently
*problem-solving/planning support needed	*recognises some aspects of problem	*identifies problem aspects & integrates
*can recall some aspects of theory	*some support needed if complex situation	*sufficient automaticity for client focus

(McAllister, 2006)

Figure 6: Skill progression characteristics for student speech pathologists

Specific graduated descriptors at novice, intermediate and entry level have also been developed for each of the eleven generic and occupation-specific competencies. Mid and end of placement assessments occur for each of the elements outlined under each of the competencies and supervisors determine along a continuum if students are at novice, intermediate or entry level (Not observed or above entry level categories are also available). The overall performance at mid placement and end of placement is then indicated as satisfactory or unsatisfactory.

3.5.3.2 Physiotherapy

New clinical assessment processes for Australian physiotherapy placements are also currently being developed and trialled by some university physiotherapy schools based on seven agreed domains for assessment (communication, professional behaviour, assessment, analysis, planning, intervention, evidence-based practice and risk management), with associated performance indicators. Draft rubrics have been developed for each of these seven domains reflecting graduated descriptors of achievement (Griffith University, 2007). Given that students must meet the entry standards for registration prior to graduation in physiotherapy in order to meet the university requirements, the rubric relates to high distinction, distinction, credit, pass, with a pass indicating that the profession-driven competency standards which enable entry to the profession and registration have been met.

As an example of the relationship between graduated descriptors and university high grading levels, a high distinction in professional practice has graduated descriptors which describe consistent demonstration of excellent rapport with patients and other personnel, consistent and independent seeking out of learning opportunities, completion of responsibilities in an efficient manner and accepting and acting on feedback. Distinction is described as consistently demonstrating good rapport, frequently seeking out learning opportunities but needing occasional prompting, completing responsibilities with minimal assistance, and accepting and acting on most feedback. Credit indicates generally positive professional practices but with communication skills being adequate although needing some assistance in complex situations, occasional seeking out of learning opportunities but needing some prompting, requiring some reminders for completion of tasks, and needing occasional prompting to act on feedback. A pass involves adequate communication skills, requiring frequent assistance to plan ahead, completing major responsibilities with reminders and accepting feedback but requiring regular prompting to act on it (Dalton, 2006).

3.5.3.3 Occupational Therapy

In the late 1990s the University of Queensland's Occupational Therapy School developed a framework for improving assessment in Occupational Therapy experiential learning. There are eight learning objectives

described relating to Professional Practice, Self Management Skills, Communication Skills, Documentation, Assessment/Information Gathering, Intervention, Evaluation and Group Skills. These are grouped under three broad categories of Direct Client Care, Case Management, Project Management/Consultancy. A five point rating scale is assigned related to unacceptable performance, concerns exist, developing competence, competent performance, exceptional performance. These scales are applied according to the degree of assistance required, consistency of performance, effective application of knowledge and initiative and creativity (University of Queensland, 1998). The occupational therapy scales are currently under review.

3.5.3.4 Teaching

Assessment of teaching students within the traditional model of block weeks of practicum usually involves the supervising teacher in completion of a report which is based on links to registration requirements. Registration currently occurs on a state and territory basis although greater collaborative work on a national basis is being undertaken and national frameworks for accreditation are being considered (Owen, 2007). Professional teaching standards for graduates are increasingly being developed and these are being used as the basis for the student teacher report which is written by the supervising teacher, with some support from a visiting university tutor also involved (Flinders University, 2007). Descriptive reports against various areas linked to professional standards such as Relationships/Professional Qualities, Programming and Planning, Assessment and Reporting, Curriculum Knowledge are generally commented on. Performance ratings rather than marks have traditionally been used and these relate to categories such as unsatisfactory, acceptable, sound, very good, and outstanding (Flinders University, 2007).

3.6 Disciplinary collaboration across universities in teaching and learning

The Carrick Institute Discipline-Based Initiatives Scheme provides an important opportunity to encourage greater sharing of quality practice, initiatives and learning within and across discipline communities. This Scheme promotes the Carrick Institute's objectives relating to the provision of discipline-specific development, dissemination and application of good practice (<http://www.carrickinstitute.edu.au/carrick/go/home/dib>). For example this current pharmacy project has examined work from speech pathology and physiotherapy (described above), with all of these projects being funded by the Carrick Institute.

Other discipline areas have also provided various ideas of relevance in informing the Experiential Placements in Pharmacy research, especially Engineering and Chemistry.

3.6.1 Engineering

Engineering students have traditionally undertaken at least one longer practicum of eight to twelve weeks during the university vacation in their final years. Descriptive reporting of the work undertaken occurs and this is outlined and commented on in the report, with the time spent on engineering-specific aspects clearly identified. No marks are required (University of Adelaide, 2007).

A wider range of experiential placements are increasingly evolving, often across various university engineering programs. This includes robotic peer mentoring with secondary school students, and peer assisted learning programs for senior tertiary years engineering students who are involved in supporting those in earlier undergraduate years (Sprok, Dansie, Nedic, Gol & Nafalski, 2005; Nafalski, Berk & Cropley, 2001).

3.6.2 Chemistry

A key longstanding example of collaboration across universities to address improvements in teaching and learning within a discipline is the Advancing Chemistry by Enhancing Learning in the Laboratory Project (ACELL). One key aim of ACELL is to improve the quality of learning in undergraduate chemistry laboratories by making available student-tested, peer-reviewed experiments which are chemically and educationally sound. A second aim relates to collaborative professional development work in developing and testing the repository of experiments and developing a broader community of chemistry education within the broader academic community in the Australasian region.

The process involves the submission of a laboratory task using a template which outlines the background, planning process, feedback data and documentation; workshops for the trialling of the task with students/preceptors/ academics in pairs and gathering of feedback data using a template; submitter refinement of the task and trialling with own students, also gathering further feedback data; resubmission of the task including all documentation and data to central repository, in preparation for publication; peer review through the central repository team and publication online and possibly in journals.

The template documentation includes the background to the task including year level and context, educational analysis regarding theoretical and conceptual knowledge, scientific and practical skills, thinking and generic skills; a student learning experiences questionnaire using a five point Likert scale; and additional notes to support the experiment for others using it.

The workshops for trialling the experiments involve students and academics coming together for several days involving demonstrations from the submitter of the experiment, carrying out the experiment in small groups involving academic and student only groups or mixed groups, and discussion and debriefing.

The experiment is then modified and trialled by the submitter in their local context with additional feedback and write up for submission to the central repository and journals.

3.7 Summary and conclusion

This chapter has outlined some background issues and aspects of relevance to experiential placements in pharmacy. A key area highlighted relates to experiential learning, including open-ended and more highly structured and planned experiential placements involving scaffolding. This includes opportunities for deep reflection and explicit feedback which are important in supporting students in developing the skills, knowledge and performance attributes for entering their chosen professions.

Achieving entry competencies is a requirement for many professions, with assessment occurring prior to graduation or within a pre-registration/internship year. Competencies are holistic in nature in their application to the professions and acknowledge the complexity of the situations involved. However, competencies operate on a competent/not competent basis which is not well suited to the assessment of beginners. Some allied health professions are developing graduated descriptors approaches to describe novice, intermediate and entry levels, thereby providing students with support and explicit feedback during the stages of skills acquisition.

Speech pathology is a profession of particular interest with their novice, intermediate and entry levels linked to the profession's competencies (also recognising above entry level). Level of support, time to complete tasks, focus on client or self, ability to link practice to theory and interpretation of rules in individual situations are some of the aspects considered as the basis for detailed descriptors associated with individual elements within competencies.

Innovative pilot-tested programs in some physiotherapy schools are also informative in linking competencies with university requirements based on high distinction, distinction, credit and pass categories

with the knowledge level, consistency of skills performance, need for prompting, and level of assistance in dealing with complex situations being considered in assigning grades.

Other programs of interest relate to the wider range of experiential placements in some engineering schools and the national chemistry repository of laboratory experiments which are supporting improved planning for student learning and assessment and providing professional development in the peer/student processes.

4. Pharmacy Program and Experiential Placement Structural Influences

Professions require a range of knowledge, skills, attitudes and capacities for professional practice including generic and discipline-specific competencies and knowledge, interpersonal skills, problem-solving and adaptation to change, as well as being socially and ethically responsive.

The Australian Council of Professions (2004) defines a profession as:

A disciplined group of individuals who adhere to ethical standards and who uphold themselves to and are accepted by the public as possessing special knowledge and skills in a widely recognised body of learning derived from research, education and training at a high level, and who are prepared to exercise this knowledge and these skills in the interest of others.

4.1 Accreditation of pharmacy schools in Australia

In relation to the pharmacy profession, the Australian Pharmacy Council Incorporated (APC, formerly Council of Pharmacy Registering Authorities: COPRA) accreditation processes and *Competency Standards for Pharmacists in Australia* 2003 (PSA, 2003) provide frameworks for structuring of university pharmacy programs at the national level.

The Accreditation of Schools of Pharmacy in Australia and New Zealand document (2005) outlines the guidelines of the New Zealand and Australian Pharmacy Schools Accreditation Committee (NAPSAC), (a sub-committee of APC), for managing the accreditation of pharmacy schools and programs in Australia and New Zealand:

The overall goal of pharmacy education is to produce broadly educated pharmacy graduates who have the knowledge, skills and attributes which enable them to practise safely and effectively in a range of pharmacy settings, including community and hospital pharmacies, the pharmaceutical industry, military forces, government service and research institutions. A period of supervised training or an internship may be necessary before full registration to practise as a pharmacist can be granted.

Teaching and learning outcomes as highlighted in the accreditation guidelines focus on assurance that: 'graduates of a pharmacy degree course (program in the context of the terminology used in this report)...will have the foundation for mastery of competencies at the level necessary for registration after a further prescribed period of pre-registration training' (p. i). This involves various generic and pharmacy-specific knowledge and skills. Generic skills include communication, critical thinking, cultural understanding, ethics, information literacy, interdisciplinary understanding, lifelong learning, numeracy, recognition of limitations, research, scholarship, self- motivation, teamwork and workplace-related skills.

In terms of specific pharmacy knowledge and skills, the curriculum required in the NAPSAC guidelines is not prescriptive but dynamic. It focuses on inclusion of a range and depth of pharmaceutical sciences to provide the knowledge and skills expected of graduates and to underpin the professional areas of pharmaceutical practice and applied pharmacotherapy (clinical pharmacy). Basic biological and physical sciences, communication skills, demonstrated scholastic ability, self-assessment, observational and practical structured clinical placement experiences within a program of validated student assessment methods and curriculum delivery to achieve educational outcomes, are all essential aspects required by the accreditation guidelines provided by NAPSAC.

In recognising the importance of developing practical skills and personal attributes as well as knowledge

within the university pharmacy program, an indicative figure of 250 hours of experiential placement time is outlined in the NAPSAC guidelines. This includes hospital and community placements and rural experience. Clinical placements are embedded in the curriculum and this occurs: ‘in a manner which integrates students’ experiences and the study of pharmacy practice, therapeutics and pharmaceutical science’ (NAPSAC, 2005:7).

The accreditation guidelines provide a framework which is used by individual universities in constructing their pharmacy programs and experiential placements. Generally some observations and brief workplace experiences occur as part of other programs in the earlier years, with final year students generally undertaking more extended blocks of experiential placement which comprise complete courses e.g. clinical pharmacy residency or pharmacy practice.

Undergraduate programs are generally four year degrees but post-graduate programs are also available, generally involving two years of study.

4.2 University pharmacy models

Sample models from undergraduate and postgraduate programs are as follows:

Model 1

Year 1

Pharmacy in Health Care
Pharmaceutical Science and Practice 1A and 1B
Pharmaceutical Science and Practice 1B
Human Biology (Pharmacy)
Chemistry A and B (Pharmacy)

Year 3

Therapeutics 3A and 3B
Clinical Pharmacokinetics 3
Toxicology
Chemotherapy and Infection
Clinical Pharmacy Residency 3A and 3B
Pharmaceutical Science and Practice 3A and 3B

Year 2

Medicinal Chemistry
Pharmacology
Pharmaceutical Science and Practice 2A and 2B
Biochemistry A and B (Pharmacy)
Organic Chemistry (Pharmacy)
Microbiology (Pharmacy)

Year 4

Research in Pharmacy 4A and 4B
Therapeutics 4A and 4B
Clinical Pharmacokinetics 4A and 4B
Clinical Pharmacy Residency 4A and 4B
Pharmaceutical Science and Practice 4A and 4B

Model 2

Year 1

Chemistry
Maths
Biological Science
Communication in Health
Pharmaceutical Chemistry
Statistics and Research Methods

Year 3

Pharmaceutics
Applied Pharmacotherapeutics A and B
Pharmacology A and B
Molecular and Chemical Basis of Therapeutics

Year 2

Biochemistry
Physiology
Pharmaceutical Chemistry
Pharmaceutics A and B
Molecular and Chemical basis of Therapeutics
Microbiology and Immunology
Pharmacokinetics and Biopharmaceutics

Year 4

Applied Pharmacotherapeutics Theory
Applied Pharmacotherapeutics – Professional Practice
Ethics in Pharmacy
Pharmacy Elective or Honours

Model 3 (2 year post graduate)

Full-time Program Structure

	Semester 1	Semester 2
1 st year	Health Professional Practice 1P	Applied Therapeutics 1P
	Research Planning P	Quality Use of Medicines 1P
	Medicinal Chemistry P	Pharmacology P
	Pharmaceutics 1P	Pharmaceutics 2P
	Semester 3	Semester 4
2 nd Year	Applied Therapeutics 2P	Applied Therapeutics 3P
	Quality Use of Medicines 2P	Health Professional Practice 2P
	Pharmacy Practice 1P	Pharmacy Practice 2P
	Pharmacokinetics P	Research Project P

Another key influence on the structure of pharmacy programs and experiential placements within accreditation guidelines relates to Competency Standards.

4.3 Competency Standards for Pharmacists in Australia

For entry to the pharmacy profession in Australia, evidence of competence following successful completion of a pharmacy program (including experiential placement) and a 12 month internship is required as part of the State/Territory registration process. The *Competency Standards for Pharmacists in Australia* 2003 (PSA, 2003) outline the entry requirements within eight Functional Areas and associated units. Details about specific elements and some performance criteria and examples of the type of evidence which may be provided to demonstrate competence are other aspects of the units related to the eight functional areas:

Under a competency-based assessment system, assessors make judgements, based on evidence, about whether an individual meets criteria specified in the competency standards... the decision should be whether or not the candidate is competent to practice according to the Evidence Examples, rather than being based on marks or grades... Evidence from performance may need to be supplemented by other kinds of evidence...as varied and sufficient in number as required to make the inference safe (PSA, 2003:135).

Competency is defined by the Pharmaceutical Society of Australia (PSA) as ‘skills, attitudes and other attributes (including values and beliefs) attained by an individual based on knowledge (gained through study at bachelor’s degree level) and experience (gained through subsequent practice) which together are considered sufficient to enable the individual to practice as a pharmacist’ (PSA, 2003: 11).

The Pharmaceutical Society of Australia also emphasises the importance of assessing clinical competence within real life situations where there are complexities and unique problems (PSA, 2003). Mapping to a relevant curriculum; having a clearly stated assessment purpose; and feedback being linked to educational planning are important work-based assessment principles (Davies, 2006), with pharmacy competency assessment methods relevant to experiential placements including medical chart audits, peer assessment, student diaries/portfolio journals and observations (Norcini, 2003; Beck, Boh & O’Sullivan, 1995).

4.4 Functional areas of pharmacy competencies

The eight Functional Areas of the pharmacy competencies, including Unit and Specific Elements, are:

Functional Area 1: Practice pharmacy in a professional and ethical manner

Unit 1.1 Practise legally: *comply with state law; respond to Common Law requirements*

Unit 1.2 Practise to accepted standards: *personal/professional integrity; professional/ethical manner; maintain professional practice*

Unit 1.3 Pursue life-long professional learning and contribute to the development of others: *lifelong learning, maintain/extend professional competence; assist others to learn and develop*

Functional Area 2: Manage work issues and interpersonal relationships in pharmacy practice

Unit 2.1 Unit 2.1 Apply communication skills: *adopt sound communication principles; manage own input to communication.; facilitate the communication process*

Unit 2.2 Participation in negotiations: *prepare for negotiations; establish position of resolution*

Unit 2.3 Address problems: *explore problems potential; act to resolve problems*

Unit 2.4 Manage conflict: *clarify conflict situation; act to resolve conflict;*

Unit 2.5 Apply assertiveness skills: *consider rights of those involved; communicate & pursue a position*

Functional Area 3: Promote and contribute to optimal use of medicines

Unit 3.1 Participate in therapeutic decision making: *obtain patient history, review medication treatment, recommend treatment change, assist patient self-management, facilitate patient follow-up*

Unit 3.2. Provide ongoing pharmaceutical management: *follow-up selected patients, initiate interventions, manage patient records*

Unit 3.3 Promote rational drug use: *drug use trends knowledge, assess trends, share findings for improvement*

Functional Area 4: Dispense medication

Unit 4.1 Assess prescriptions: *validate prescriptions, clarify medication orders, confirm medicine availability*

Unit 4.2 Evaluation prescribed medicine: *consider prescribed medicine, examine medicine in context, promote optimal medication*

Unit 4.3 Supply prescribed medicine: *apply systematic dispensing procedure, maintain records, assist patient understanding*

Functional Area 5: Prepare pharmaceutical products

Unit 5.1 Consider requirements for preparing a product: *clarify equipment availability, review formulation and modify*

Unit 5.2 Compound pharmaceutical products: *consider legislation, confirm preparation needed, prepare documentation, assemble ingredients, apply compounding principles, apply aseptic techniques, optimise packaging/labelling*

Unit 5.3 Prepare cytotoxic drug products: *understand work environment, confirm need for preparation, prepare drug products, provide information on safe use, protect own health*

Functional Area 6: Provide primary health care

Unit 6.1 Assess primary health care needs: *elicit clinical info, identify management options, work cooperatively with other health professionals*

Unit 6.2 Address primary health care needs of patients: *facilitate supply, provide advise regarding selected medicines, maintain records for supply; provide advice on other health care products, advise regarding non-medical options, provide direct care*

Unit 6.3 Promote good health in the community: *provide advice re public health, assist patient to manage risk factors, gather information regarding improving primary health care*

Functional Area 7: Provide medicines and health information and education

Unit 7.1 Retrieve information: *maintain information reference base, clarify information, undertake research, identify information sources, access relevant information*

Unit 7.2 Evaluate and synthesise information: *clarify research findings, assess information, integrate information*

Unit 7.3 Disseminate information: *apply and share new information, provide information to assist patient care, educate public, evaluate disseminated information*

Functional Area 8: Apply organisational skills in the practice of pharmacy

Unit 8.1 Plan and manage work time: *plan use of time, manage time, complete tasks on time*

Unit 8.2 Manage own work contribution: *understand work environment, assess resource requirements, manage work activities, seek feedback*

Unit 8.3 Supervise staff: *accept supervisory role, delegate tasks, assist work effort of supervised staff, apply leadership, manage staff performance*

Unit 8.4 Work in partnership with others: *share relevant information, contribute to role definition, participate in teamwork*

Unit 8.5 Plan and manage pharmacy resources: *establish required structure, balance human resources and work commitments, inform & support personnel, acquire and manage products/equipment*

Unit 8.6 Plan and manage pharmacy services and the work environment: *address service quality, promote safe working environment, provide leadership, facilitate service delivery, plan pharmacy services*

These competencies are differentiated from performance standards which relate to systems and procedures which are designed to achieve a level of conformity and uniformity, with competencies being about attaining professional qualities and standards being about practising pharmacists maintaining quality using a set of professional benchmarks. It is assumed that pharmacists using professional standards involving personal aspects and quality procedures of standards are also competent (PSA, 2003).

4.5 Pharmacy subjects and links to competencies

The accreditation of all university pharmacy programs requires links to the competencies, although programs vary in emphasis and structural arrangements. Table 2 is an illustrative example of the possible connections between program units, including experiential placements and graduate attributes:

Table 2: Pharmacy subjects linked to Graduate Attributes sample

	FA1 Professional /Ethical	FA2 Interpers	FA3 Optimal Use	FA4 Dispense	FA5 Pharmacy Products	FA6 Primary health Care	FA7 Health Info/ Education	FA8 Organis Skills
Pharmaceutics			X	X	X		X	
Medicinal Chemistry							X	
Health Prof Practice	X	X	X	X	X	X	X	X
Pharmacokinetics			X				X	
Pharmacology							X	
Applied Therapeutics		X	X			X	X	
QUM	X		X			X	X	X
Research Project		X	X				X	X
Research Planning	X	X	X			X	X	X
Pharmacy Practice	X	X	X	X	X	X	X	X

While students undertaking pharmacy programs are not expected to be assessed as competent at the time of graduation (given the pre-registration year), it is anticipated that graduates will have sufficient foundation skills to undertake the internship year. However, consistent with other professions, pharmacy programs are also constructed such that students will demonstrate that they have achieved the relevant graduate attributes at the time of graduation.

4.6 University graduate attributes

All universities are required to have developed a relevant set of graduate attributes which are applicable to the programs within their institutions and which students need to meet prior to graduation. While graduate attributes vary in the specific descriptors used at each university, there are commonalities between graduate attributes from various institutions.

Table 3 provides some suggested links between the pharmacy competencies (shown in the first column: Functional Area 1: FA1 to Functional Area 8: FA8 as previously introduced) and graduate attributes from various universities, although other connections are also possible:

Table 3: Pharmacy competencies and links to graduate attributes from various universities

Generic graduate attributes and pharmacy competency links	University 1	University 2	University 3
Specialist knowledge FA3, FA4, FA5	Body of knowledge of sufficient depth to begin professional practice	In-depth professional knowledge about a discipline, including conceptual, theoretical, methodology for further independent learning & ethics & professional skills	Professional & disciplinary-specific knowledge
Lifelong learning FA1	Lifelong learning for personal development and excellence in professional practice		Life long learning as independent self-directed learners
Analysis/Problem solving FA2, FA3, FA6	Effective problem solving & applying logical, critical & creative thinking	Think clearly, crucially, creatively to fuse reason, experience, training into considered judgement	Identify problems, analyse, apply appropriate problem solving, implement & evaluate strategies
Independence/collaboration FA8	Working autonomously/collaboratively as professional	Social interaction & capacity for teamwork, tolerance, mutual respect, resolving conflict, negotiation of outcomes	*Independent thinkers & agents for change *Work with others in group, take responsibility, understand different roles *Evaluate group performance *Take initiative, respect rights
Ethics/Social responsibility FA1, FA6	Ethical action & social responsibility as professional and citizen	Social justice & respecting equality of opportunity of individual & community, awareness of values & differences	*Professional ethics & acting responsibly, ethically, & with integrity within social & cultural contexts
Communication FA2, FA7	Communicates effectively in professional practice & as member of community	Oral, aural, written & use electronic media for reports & presentations	Oral/written, present arguments, active listening, negotiate, create new ideas, info literacy/numeracy, ICT
Global FA6	International perspectives as professional & citizen	Understand & respect social, cultural, economic Interdependence life	*Work towards improvement in society, understand economic, political within international perspective
Interdisciplinarity FA6		Awareness of interconnectedness of knowledge and understanding beyond single discipline	

While Graduate Attributes are developed within the programs and courses at the university site, the enhancement of aspects such as oral and written communication, problem-solving, analysis, critical evaluation, information literacy, teamwork, ethics, leadership, and decision-making within the context of university work placements has been highlighted in research (Crebert et al, 2003).

4.7 Consultation Findings

The consultation with university pharmacy schools and other stakeholders highlighted consistent views that the purpose of pharmacy programs is generic, with students being prepared to undertake a range of roles in hospitals, community, industry and academic contexts. There are a range of influences on the structure of pharmacy programs and experiential placements including meeting accreditation requirements of the registration boards through programs based on the development of competencies, as well as a focus on graduate attributes.

There was agreement from all stakeholders that while competencies are not actually assessed until the internship year, there is a significant role for university programs in providing an opportunity to develop the essential knowledge and skills. Relevant to Miller's competency framework (knows, knows how, shows how, does), the experiential placements within the university program provide the opportunity to move beyond the knowledge aspects (knows) and showing of knowledge (knows how) or how to apply this to practice within university tasks (shows how). By the final year(s) of the program, students can actually undertake learning tasks within the complexities of the workplace context and related to the skills, knowledge and attributes required for registration in the profession:

- *The fact that someone can complete a task is the main thing....the experiential placements are there to meet undergraduate program requirements* (university academic)
- *The whole package of competencies is something students are working towards* (preceptor/professional organisation representative).

However, assessment of competencies occurs in the pre-registration year when it is possible for multiple sources of evidence of competence to be provided. The university program has a broader purpose:

- *Competencies occur in the pre-registration year...at placement sites preceptors are acting professionally according to these standards...learning tasks are derived from a whole stack of areas, including competencies...but if we were only to be based on competencies, we would miss out on a lot of undergraduate development* (university academic).
- *(The placement provides evidence of)...the work ethic and how to behave in a professional manner* (preceptor).

While accreditation requires that competencies are evident in the structuring of pharmacy programs, for many university programs this is implicit rather than explicit. Alternatively the link to competencies is only made explicit in the final year of the program. While there were varying views expressed about this, generally it was felt that there needs to be an understanding with students and with all stakeholders about the role of the competencies and other standards and guidelines within the university program:

- *There's no links between various standards and guidelines in various documents... you can't just put it in the back of a course booklet and expect them (students) to understand how it works in the real world* (professional organisation comment).

This would provide students with a better understanding of the competencies and other aspects that underpin learning and assessment tasks during the years of the program, also increasing awareness that these need to be demonstrated by the completion of the pre-registration year. There were also some views expressed about whether students need a full year of pre-registration, given that some of them have extensive paid experience in pharmacy work and are likely to be able to demonstrate the competencies prior to the completion of the pre-registration year.

Specific issues raised about the Functional Areas were as follows:

- **Functional Area 1** regarding ethics, professionalism, legal and lifelong learning is very important within the program and placement process, with ethics being especially relevant as the nature of the work of community pharmacies changes and other commercial retailers begin to consider pharmacies as part of their services. There is increasing awareness of competencies from the profession. Lifelong learning is a focus for re-registration. Unit 1.3 highlights the need to build professional responsibilities in terms of mentoring which will become absolutely essential for the many newcomers who are entering pharmacy as a career in the near future. Regular and closer connections with the state/territory professional organisations in the final year of the program was indicated as essential in several student consultations
- **Functional Area 2** regarding communication and working with a range of health professionals was viewed as extremely important and some believed there was insufficient focus occurring in pharmacy programs. There is a shift in community practice with emphasis on dispensing and towards customer care and involving people in decision making. This requires high quality communication skills and it was felt that there needs to be an understanding of communication theory to build the sustainability of the profession. Therefore while there are individual personality differences and varying levels of student experience in the workplace (pharmacy or other customer service experiences), many students, (particularly given the increasing number of international students), need more role plays, communication frameworks, psychology, scenarios, group assignments, orals, problem-based learning and case studies:

We've got a responsibility to at least try and improve their communication skills (Community Pharmacist preceptor with particular concern regarding International students).

- **Functional Area 4** (Dispense medicines), and **Functional Area 5** (Prepare pharmaceutical products) were viewed by some of those consulted as less evident in pharmacies given the increasing 'retail' focus, with small pharmacies more successfully providing a holistic range of experiential opportunities (Unit 5.3 cytotoxic drug products was rarely addressed, but this is essentially a specialist area within the competencies). Students in various consultations indicated that over-the-counter medicines have been given insufficient focus in their programs and could be introduced and discussed earlier in their programs. Included in this could be evidence about the usefulness of these products
- **Functional Area 6** is really about patient care and holistic approach and is very important, with some views expressed that this relates more to community than hospital. Rural/remote experiences build this, including development of inter-professional skills and confidence (Functional Area 2)
- Organisational/business competencies (**Functional Area 8**) was seen as important but mainly in the internship year although some of those consulted had strong views that this is inadequately focused on within the university program (it was noted that supervision of staff is unlikely to occur prior to the intern year or later). Generally it was felt that some aspects such as managing your own time, personal work contribution, and partnerships should be part of the university program. Writing Curriculum Vitae, developing business plans, objectives and self reviews were also valued and many universities are increasingly including these aspects and other more formal business processes in their programs.

5. Pharmacy Experiential Learning Placements and Contexts

This chapter builds on the background literature about experiential placements in a range of professions as presented in Chapter 3, and provides specific information related to pharmacy experiential placements. Some de-identified models of various pharmacy programs are outlined across the years of the course. These were discussed in the consultations with university pharmacy schools and other stakeholders.

5.1 Purpose

The purposes of experiential placements in relation to pharmacy courses were essentially agreed in the consultations with university and other pharmacy stakeholder groups as follows:

- developing professionalism and transitioning from student role to career professionals;
- developing student knowledge and skills in a range of specialist skill areas of pharmacy;
- practical application of theory;
- career choice check;
- employment options exposure to range of experiences – hospital, industry, community, university, nursing homes, aged care;
- prospective employer experience and exposure;
- developing whole person, patient care approach; and
- reinvigoration of whole profession and continuous updating of knowledge.

A key focus of experiential placements is to apply theory to the complexities involved in meeting individual patient needs in real life situations. This necessitates exposure to the workplace, to patients, and to people working in other health professions.

In the consultations with stakeholders, the importance of experiential placements in building student understanding about patient care was emphasised, with the focus being less on tasks and more on problem-solving in relation to real people and application of theory to practice:

- *Graduates are not aware of the nuances of professional practice...unless real cases are dealt with at that level, they become technical... and students think they're doing the whole problem solving.... and they don't have the problem solving skills* (response from professional organisation).
- *In 'a professional degree you're expected to be able to do something....learn how to gain information and how to use it'* (preceptor).

The important role of the preceptor and learning within the real workplace situation was emphasised repeatedly throughout the consultation process by all stakeholders as reflected in the following comments:

- *I might be telling you different things from the academic and the way I teach them they can eliminate mistakes if they do it the way I show them... it's so useful having practitioners as part of the courses* (program in the context of the terminology used in this report) (preceptor)
- *The experts can't (always) tell you what they're doingas they go on (in the placement) you can see them (students) learning the wisdom* (university)

- *There's something to be learned at that site...until the student actually experiences they can't grow professionally... if you're there for a while you can see the pharmacist doing it (university response).*

5.2 University structuring of placements

Each University has differing structures and registration requirements in terms of:

- Placements include hospital, community, rural, industry and organisations;
- Additional workplace requirements beyond internship year 2000 hours from state and territory registration boards;
- University placement structures, including single ½ days, series of ½ or full days in one placement location, extended blocks varying from 1 week to 5 weeks;
- University placement structures in varying year levels of pharmacy programs;
- Student organised or university organised;
- Fixed structuring from university or flexible and structured by student/preceptor;
- Focus on generic knowledge and skill building or more profession specific aspects;
- Degree of learner support provided by university or provided by preceptor/pharmacy site;
- Degree of responsibility of preceptor/site for assessment role; and
- Processes for evaluation by preceptor and student

(Adapted from Higher Education Academy, 2006)

In the consultations, various models of pharmacy experiential placements were mapped in terms of the year levels, time allocation and blocks/non-blocks, type of placement, objectives, roles of preceptors and universities, nature of support, assessment and details, links to competencies and evaluation details. The University of South Australia 'map' was provided as an example to support universities in preparing for the consultation meetings as shown below in Table 4:

**Table 4: Current Structuring of Experiential Placements : University of South Australia sample
(2006 only - currently under review)**

Yr	Structure of experiential learning placement	Documented goals/objectives of placement	Intended role of preceptor and university placement coordinator	Nature of supportive Resource Materials provided (please supply copies)	Assessment approach & tasks required	Details of Rating scale/marks/ other and overall course weighting	Links to PSA competencies	Details regarding Evaluation of the placement program
1 & 2	Unstructured work experience 200 hours prior to 4 th year (organised by student)	Socialisation into pharmacy -orientation -development of prof. ethics & standards	Preceptor role is as placement opportunity provider and signatory of log book hours Uni coordinator administers uni insurance and collects completed log book	Log book timesheet & insurance informat'n	None	N/A	None	nil
3	8 x 3 hour placement sessions in a public hospital 10% component of a course	Observation & limited participation in wide range of hosp pharmacy experiences to develop some specific skills towards competencies	Clinical tutor with coordination, supervision, assessment & feedback role Uni placement coordinator – coordination, admin, problem-solving role	Workbook & student exercises in orientat'n, dispensary case notes, clinical, medicines, final evaluation	Marks for Skills and Professional Behaviour Based on task completion for each ½ day placement	10% towards course mark 0-5 mark given by clinical tutor *Skills (knowledge, skills, communic'n, staff inter'n, patient interaction) & *Professional Behaviour (attendance, interest, dress, punctuality, initiative)	Linked but at a general level rather than specific comp	Student workbook evaluation of placement & CEI
4	2 x 4 week placements Separate courses	Gain insight into community pharmacy practice and opportunities for participation in pharmacy & patient care activities & discussion with pharmacist and other health professionals	Preceptor with coordination, supervision, assessment & feedback role Uni placement coordinator – coordination, admin, problem-solving role	Workbook of student oral & written exercises in: *Patient care *Dispens'y* Man & business *Purchase & stock control *Record keeping	Specific exercises and assessment of skills in 5 goal areas + oral presentation + Core Behaviours (Skills & Prof Behaviour) 25% preceptor assessment & 75% academic mark	*Preceptor provided marks at beg and end of placement for: * Skills in 5 goals (orientation, dispensing (x2), manufacture, med info) *0-10 mark for oral about recently released medicine *1-5 mark re Core Behaviours	Student workbook activities linked to PSA com	Student workbook evaluation on placement site & Course Evaluation Instrument

As shown in Table 4, the 2006 University of South Australia structure (currently under review) involves students in undertaking 200 hours of experiential placements in the 1st and 2nd year of the program. There are also eight three hour placements in a public hospital in the 3rd year and two four week placements (operating as a separate course) in the 4th year. Objectives, roles of preceptor and university staff, support provided and details regarding assessment and evaluation.

Further de-identified maps for many other university pharmacy programs are presented in Appendix E. More specific details about these tables are discussed in the following chapters.

5.3 Consultation aspects

Various issues were raised in mapping the university experiential placements and within the consultations, with the importance of this aspect of pharmacy programs being consistently highlighted. The importance of universities being clear with preceptors and students about the purpose of specific placements, objectives, student background experience and student level of knowledge and skills within their pharmacy programs was emphasised so that appropriate tasks could be undertaken during the placement. It was also emphasised that students need to have specific objectives for themselves for each placement so that all students, irrespective of background experiences in pharmacy work, can meet their own needs within the structures and objectives developed by the university.

5.3.1 Structural arrangements and impacts

Some states have very unstructured time-length requirements in the first two years (which are designed to meet registration board compliance), with increasingly structured placements by 3rd and 4th year in ½ day or continuous blocks, while others have ½ day structured experiences from 1st year. There are some universities offering placements well in excess of five or six weeks. Some students considered these to be too long and indicated that they want more variety. Three to five week placements were seen by students as providing a good balance to support structured learning as required by the university, and also providing more open-ended opportunities to learn and to become part of the placement situation. Some universities structure the senior years of the course using 2 day blocks interspersed with 3 days of lectures and this was viewed as supportive for learning because it creates a strong theory/practice connection.

In terms of other structural models not involving blocks of time, a view was expressed in various consultation forums that while ½ day one-off sessions do allow students to be exposed to a range of preceptors and experiences, there are difficulties. These include an over-emphasis on getting the task done in a reduced timeframe (and students sometimes seeking early departure), rather than building the relationship and taking initiative and seeking broader learning experiences available at the placement site. It was also noted that short placements are more time demanding for preceptors unless there is a paid coordinator available. There are also difficulties for some preceptors in providing the range of skill opportunities sought by universities, particularly in ½ day blocks where there are very specific requirements.

A key point frequently raised was that while the structure of programs varies with the states and between universities, it was considered important that some early exposure to pharmacy practice through experiential placement occurs in the first and second year. Some states have had registration board hours requirements (e.g. 500 hours) and therefore universities tend not to build many placements into the early years of their programs. It was widely considered that for students who did not begin meeting these requirements before structured fourth year university placements, that commencement at this time was far too late in the program. While it was appreciated that there are difficulties in ensuring appropriate tasks for practical work early in the program, most stakeholders indicated that this is absolutely essential in terms of checking career appropriateness, with structured tasks provided in the first few placements: ‘They need structured tasks in the first and second years and as they become more experienced and more competent, then let them fly’ (comment from an academic).

While some universities have restructured programs, there were also comments that pharmacology courses at all universities should occur earlier in the program so that specific pharmacy knowledge could be developed and more structured and focused placements could be established earlier. In placement sites used by several universities, there was some embarrassment expressed by students about their lack of pharmacology knowledge:

- *It's embarrassing for...students when students from other courses (programs in the context of this report) have done pharmacology...you feel you have to prove yourselves the whole time (student response).*

5.3.2 Widening the range of placements

Several universities have rural placement blocks. These were widely viewed as very beneficial, also providing a whole patient/community focus and frequently building interpersonal skills and confidence. Some students indicated that because they were exposed to rural/remote locations, this had led to a consideration of these locations for the future e.g. 'before starting this course I would never have considered a rural placement but now....' (student). The financial support was commented on very favourably as it provides some help to offset accommodation and travel expenses. There were some students who indicated that despite a positive rural experiential placement, they were wary of a longer-term commitment:

- *I've worked in a rural place before and I liked it but I know that the novelty wears off (student).*

For rural universities, there was an issue raised about metropolitan placements because these are unfunded and the costs for students can be very high.

While a range of student-organised and university-organised programs exist, and exposure to community and hospital placements varies with the states, with increasing student numbers there were many concerns expressed about insufficient hospital placements, with this becoming a very widespread issue in the future. Comments about the importance of hospital placements include:

- *Every undergraduate should have hospital training....many hospital based services have moved into the community ...in rural and remote, practitioners will work in hospital and community, lines are blurred...hospital practice is a way of thinking and needed by all...the focus is on the patient (professional organisation comment)*

Some states are already dealing with this issue and they have introduced project work to ensure all students actually participate in a variety of placements. The wider range of experiential learning opportunities includes health education programs in shopping malls, interdisciplinary clinics on campus and medication history services, and placements in aged care and professional organisations, as well as school education services.

6. Experiential learning and Pharmacy experiential placements

Key issues for successful experiential placements were outlined in Chapter 3. These include using a framework including purposefulness, asking challenging questions to encourage deep reflection, clear stakeholder agreement about outcomes and processes, quality monitoring, a long term holistic view, quality supervision, recognition of prior skills and thorough preparation of students (University of Ulster, 2003; Orrell, 2004; Flinders University, 2003; Blackwell et al., 2003).

Experiential learning has previously been introduced as generally important in workplace experiential placements, with this chapter focusing on student placements within the pharmacy profession.

6.1 Experiential learning

Kolb's experiential learning framework (1984) is relevant to pharmacy placements, using the learners' relevant life experiences and linking this with new learning and reflection. Various models of reflection-in-action, reflection-on-action and reflection-for-action were introduced in Chapter 3 and linked to the Kolb (1984) experiential learning process, with experiential placements providing the opportunity to 'adopt a deep rather than a surface approach to learning' as students build their skills in professional practice (Loftus & Higgs, 2005).

Chapter 3 also introduced Littlefield et al.'s (2004) and Vygotsky's (1978) models which can be considered to provide more clarity about planning and structuring for pharmacy experiential placements using a scaffolded learning approach. These models highlight a key role for preceptors of pharmacy students in providing mentoring and an environment and opportunities for informal learning within the day-to-day life of the workplace, as well as planning and feedback in relation to more formal learning experiences. Therefore feedback and university handbooks need to provide a structure which encourages students and preceptors to ask challenging questions and promote deep and critical reflection Chapter 3 provides some reflective questions as models. The importance of the university and preceptors scaffolding for the development of skills and knowledge aligned to the *Competency Standards for Pharmacists in Australia* 2003 and also to university Graduate Attributes and other aspects is emphasised. Competency assessment occurs in the internship year which follows after graduation.

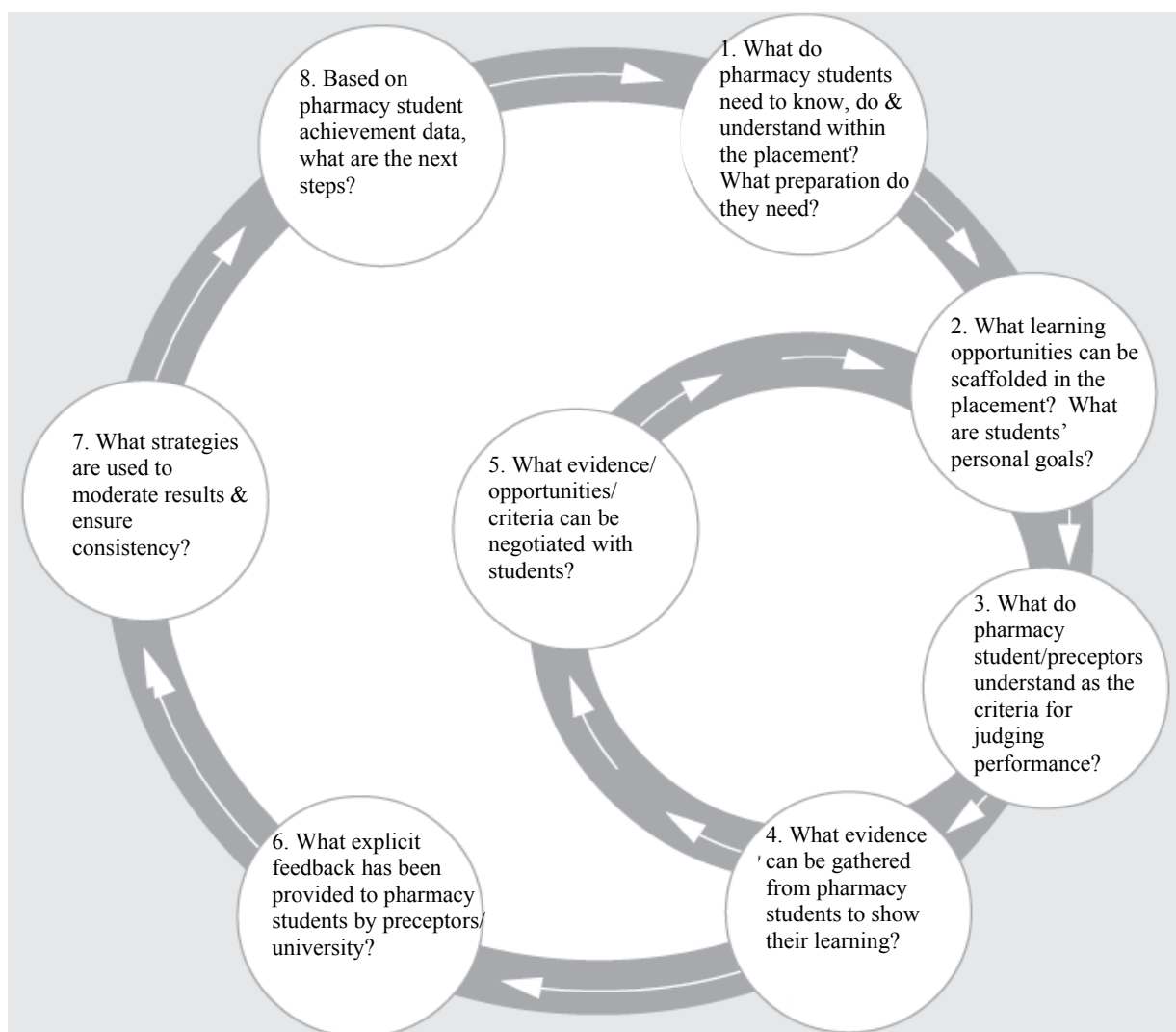
6.2 Structuring experiential placement learning for outcomes

The pharmacy competencies and Graduate Attributes of each university and other aspects represent an outcomes-based education approach: 'starting with a clear picture of what is important for students to be able to do, then organising the curriculum, instruction and assessment to make sure this learning ultimately happens' (Spady, 1994:1). Discipline-specific and cross-discipline generic outcomes are emphasised, with the experiential placement providing an opportunity to link knowledge from various university courses with the complexities of the workplace site and nurturing a sense of identity as a pharmacist.

Figure 7 depicts some questions related to a process for outcomes-based programming within experiential placements which involves the university, preceptors and students in having a clear outline of what is to be achieved. Eight aspects are outlined:

1. Describing the knowledge, skills and dispositions that students must develop in order to achieve the outcomes, including any prerequisites and recognition of current skills;
2. Planning and scaffolding of a range of learning opportunities by the university and preceptor, with content being seen as a support which facilitates student achievement of the outcomes;

3. Assessment linked to outcomes and the establishing of clear criteria;
4. Evidence of learning within the placement situation;
5. Feedback to the student and clarity about strengths and explicit information about areas for improvement;
6. Students negotiating their own goals and assessment criteria, as well as identifying continuing professional development areas;
7. Ensuring consistency through handbooks and university contact with preceptors; and
8. Identifying student achievement, evaluation and planning for future learning and course development.



(Adapted from DECS, 2007)

Figure 7: Planning for learning process questions

6.3 Pharmacy experiential placement handbook analysis

To gain further understanding about the learning process within experiential placements, a selection of university handbooks were examined. Table 5 presents information from a range of universities in relation to final year experiential placement programs and connections with Figure 7 are also provided.

Given the final year of experiential placements, similarity in the objectives of programs was generally identified, and there was considerable comparability in the learning tasks and types of assessments required. Developing student skills and knowledge in relation to the Competency Standards was evident. This link was sometimes explicitly documented although frequently this was implicit rather than explicit. There were occasional links to Graduate Attributes.

In terms of assessment modes, oral assessments, workbook tasks and generic and/or occupational skills assessments were the most frequently noted. Assessment models included graded and non-graded approaches, also norm-referenced, competency-based and criterion-related rubrics. These aspects will be further discussed in Chapter 7.

Table 5: Selected handbook analysis regarding final year experiential placement aspects

	University 1	University 2	University 3	University 4
Structure of 4th year placements	2 x 4 week placements (Community/hospital/other) Separate course	3 x 35 day blocks (incl one community pharmacy) Separate course	2 week community pharmacy placement+ 2 hours day for 2 weeks in local hospital each semester + 2 weeks full time in large metropolitan hospital (including ½ day) Observation of GP	2 days/week for 10 weeks + 3 week block including at least 1 week hospital (mandatory) +optional rural (community and/or hospital)
Broad Aims/Goals (see Figure 6: 1)				
Experience range of pharmacy services/roles	X	X	X	X
Dev Pharmacy practice understand'g/ & skills (coordination, stock control, storage, laws)	X	X	X	X
Medication management reviews	X	X	X	X
Links to range of health professionals	X	X	X	X
Develop Patient counselling/advice skills	X	X	X	X
Oral Communication, research, reports	X	X	X	X
Placement Learning activities, specific objectives (Figure 6: 2)				Negotiate own goals
Patient medication review case studies	X	X	X	
Patient counselling & other communication/reports	X	X	X	
Adverse drug reaction documentation	X	X	X	
Dispensing	X	X	X	
Compounding	X	X		
Primary Health Care/Education	X	X	X	

Assessment Tasks and criteria (see Figure 6: 3 & 4)	University 1	University 2	University 3	University 4
Oral (or exam)		Oral 30% QUM seminar presentation – university assessed (=audience feedback & student self assessment) using descriptors of exemplary, competent, developing, non-competent for: Speech, pronunciation, language, non-verbal, eye contact, pauses & mannerisms checklist	Oral 10% rated on descriptive indicators and marks given by preceptor: poor, below average, good, excellent regarding: clarity of speech, poise, organization of material, introduction, discussion of disease state & drug therapy, general conclusions, rapport with audience, answers to questions, stimulation of discussion, emphasis of pharmacist role	
Preceptor Generic Core Behaviours assessment	Up to 5% Mark and descriptors: 1=significant deficit exists 2=below standard 3=acceptable 4=good 5=excellent Initiative, interaction, communication, interest, attendance, dress, name badge, punctuality			Final appraisal of student performance by preceptor: Competent with merit, competent, not competent *Communication *Organisation *Initiative *Reliability *overall assessment
Workbook task Exercises related to Learning Activities (may include daily diary/journal, written reports, CPD plan): marked by university &/or preceptor (see Figure 6: 6)	Up to 75% of total marks dependent on type of placement	40% including uni visit tutor assessment aspects being rated as well below standard =1, below standard =2, to the standard =3, above standard = 4, exceptional =5 Aspects for rating: workbook progress, drug knowledge, professionalism, preceptor report	Various exercises including daily journal	Preceptor evaluation of exercises, evidence based evaluations, learning goals, daily reflection journal Review by university course convenor of clinical placement manual
Major Written Research Report			Placement report 10%	

	University 1	University 2	University 3	University 4
Preceptor overall occupational skills assessment or preceptor assessment of specific competencies aligned to particular tasks (may include oral)	Up to 25% of total marks Marks & Descriptors + comments: 1=Very poor (extensive prompting/knowledge lacking) 2=Poor (consistent prompting/directed questioning) 3=Average (occasional prompt, within expectations with supervision, knowledge average) 4=Good (little prompting, minimal supervision, knowledge good) 5=Very good (no prompting, above expectations, little supervision)	Student knowledge & abilities 30% (+mid rotation assessment) 1-5 Mark + Outstanding Achievement/HA/SA /Improvement required/Unsatisfactory achievement + overall mark + comm. Mark		
Preceptor or university tutor overall assessment – generic & occupational skills		Overall performance rating of: Unsatisfactory achievement =1/5 Improvement required = 2/5 Satisfactory achievement =3/5 High achievement =4/5 Outstanding achievement = 5/5 In relation to workbook, drug knowledge, professionalism, preceptor report aspects	Rating & mark from excellent, above average, average, below average, poor Regarding Core behaviours & specific aspects : application to work, quality, attitude to co-workers, personal behaviour, communication, learning	
Links for assessment (see Figure 6:1)				
Explicit PSA Competencies	X	X		
Explicit Graduate Qualities	X			
Competencies but not explicit			X	X
Assessor (see Figure 6: 7)				
University			X	X
Visiting University Tutor		X		
Preceptor	X	X	X	X

	University 1	University 2	University 3	University 4
				X
Other (see Figure 6: 5)				
Assessor /preceptor signature	X	X	X	X
Student Signature or discussion requi	X	X	X	
Assessor/preceptor comments	X	X	X	X
Student comments			X	
Evaluation (see Figure 6: 8)				
Student comments re preceptor/site/u	X	X		X
Preceptor comments re university/stu		X		X
University tutor comments re precept		X		

	University 5	University 6	University 7	University 8
Structure of 4th year placements	Hospital, community, clinic, aged care placement 1 x ½ day for 10 weeks (faculty organised) + 2 weeks full-time rural or other Or 2 x ½ day week for 10 weeks (faculty organised)	6 weeks, including min 2 weeks hospital & 2 weeks in rural/remote (hospital organised by uni and rural/remote by student)	3 wk (can up to 6 wks to include elective) + 3 wk hosp & 3 wk university based + ½ day hosp clinical rounds	2 x 4 week placements of various kinds + 18 x 4-6 hour Community Pharmacy visits
Broad Aims/Goals				
Experience range of pharmacy services/ roles & career opportunities		X	X	X
Dev Pharmacy practice understanding & skills (coordination, stock control, storage, laws)	X		X	X
Build drug knowledge & Medication review skills	X		X	X
Workplace social skills and Links to range of health professionals	X	X	X	X
Develop Patient counselling/advice skills	X		X	X
Oral Communication, research, reports	X		X	X
Placement Learning activities & specific objectives		Students develop own learning objectives		Students develop own learning objectives & checklist of possible tasks provided for completion & signature regarding dispensing & counselling, Communication, Professional/ethical, business
Patient medication case studies	X		X	
Patient counselling & other communication/reports	X		X	
Adverse drug reaction documentation			X	
Dispensing			X	
Compounding			X	
Primary Health Care and Education	X		X	

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Assessment Tasks and criteria	University 5	University 6	University 7	University 8
Oral (or exam)			Case presentation and marks for each heading: Oral presentation skills, patient background, content, discussion & interpretation	Graduated descriptors & marks for oral presentation: e.g. very poor, poor/incorrect, some points, most points, good, excellent Regarding: Clarity of speech Poise Org of material Presentation Content QUM Emphasis Awareness of lit/prac Conclusion Question answers
Preceptor Generic Core Behaviours assessment	Unsatisfactory Satisfactory Good Very Good Excellent Regarding: Interaction, punctuality, communication, initiative, clinical knowledge, work completion, work quality	Punctuality Dress Interaction questions and yes/no + comments	Generic – 60% average across criteria = pass Rated descriptors of from ineffective/incomplete to usually does to exceeds expectations/regularly does + 1-5 mark *Communication *Reliability *Response to feedback *Timeliness *Motivation	Preceptor evaluation of student Rating scale using descriptors (e.g. consistently inappropriate, rarely demonstrates, sometimes/mostly does, usually demonstrates) *dress *cooperation *courtesy *communication *responsibility *time management *theory aware *apply theory *commitment

Experiential Placements in Pharmacy

	University 5	University 6	University 7	University 8
Workbook task Exercises related to Learning Activities (may include daily diary/journal, written reports, CPD plan): marked by university &/or preceptor	10% reflective diary for each of 5 weekly entries (x2) + online submission of 3 cases (10%) + Group debrief presentation (5%) (plus other assessment activities)	Weekly objectives+ Daily reflective journal of situation, pharmacy services, objectives, therapeutic encounters, other health care professional and client interaction	*Log *Extemporaneous *Counselling reflection *Case reports *Care plans for various topics	Reflective case studies Daily reflection log & written placement & project report Attendance Rated descriptive comments & marks regarding: e.g. no effort, some attempt, isolated examples, most points covered, all points covered/well written, all objectives covered/very well organized for: Spelling, language, layout, content, QUM emphasis, Addressing obj, ref
Preceptor overall occupational skills assessment or preceptor assessment of specific competencies aligned to particular tasks (may include oral)			Occupational skills- 60% average across criteria = pass Mk+ outstanding/ex/gd/fair/poor + overall mark Regarding: Dispense/care plans Ethics Professionalism Counselling Communication + indicators	Rated scale of N/A Unsatisfactory (despite assistance) Developing Developed Exceptional For specific aspects regarding: *Dispensing & Counselling *Communication *Professional/Ethic
Preceptor overall assessment – generic & occupational	*Preceptor ticks rating scale boxes of 5 to 1 for Ex, VG, Sat, Needs some Improvement, Needs Significant Improvement. The ratings are described from extremely effective and very consistent to ineffective and /or inconsistent Ratings relate to 25 professional attributes, skills, knowledge.			

Links	University 5	University 6	University 7	University 8
PSA Comp explicit			X	
Graduate Qualities explicit				
Competencies but not explicit	X	X		X
Assessor				
University	X	X	X	X
University Tutor				
Preceptor	X	X	X	X
Other				
Assess/preceptor signature	X	X	X	X
Student Signature or discussion required	X		X	
Assessor/preceptor comments	X	X	X	X
Student comments				
Evaluation				
Student comments re preceptor/site/university	X	X		X
Preceptor comments re university/students	X	X		X
University tutor comments re preceptor				

In relation to Figure 7 and Table 5 and identifying what students need to know, do and understand, there is considerable consistency in the goals/aims and these are being implicitly or explicitly linked to competencies and to a lesser extent to Graduate Attributes. A few universities encourage students to establish their own learning objectives for the placement.

Regarding Learning Opportunities (Figure 7) and learning activities involved in final year pharmacy experiential placements, the following are identified in Table 5 as frequently occurring:

- Patient medication case studies
- Patient counselling and other communication/reports
- Adverse drug reaction documentation
- Dispensing
- Compounding
- Primary Health Care and Education

A range of approaches to the learning activities was provided, some being highly structured, others being quite open-ended. Some universities provide a checklist of various learning tasks which might be part of the experiential placement program, supporting preceptors and students to negotiate specific aspects as relevant to the situation, with sign-off indicating activities undertaken. Appendix E is provided as an example checklist. Other universities provide quite detailed specific exercises which need to be undertaken during the work placement. In terms of the Figure 7:3 (what do pharmacy students/preceptors understand as the criteria for judging performance) and Figure 7:4 (what evidence can be gathered from students to show learning), Table 5 identifies a range of assessment tasks and criteria which will be discussed further in Chapter 7. Regarding Figure 7:5, there were few examples of students negotiating the criteria for assessment.

Examples highlighting the importance of provision of preceptor feedback to students about successes in their learning and explicit areas for improvement (Figure 7:6) were only sometimes documented in the handbook. Regarding Figure 7:7, the handbooks were used to support students and preceptors and ensure some consistency in assessment, with visiting university tutors also providing support.

A range of evaluation strategies were used to make decisions about student learning and future experiential placement courses (Figure 7: 8 and Table 5: Evaluation), with further detail provided in Chapter 8.

6.4 Learning activities

Presenting further details about the handbooks, workbook task exercises including reflective writing were frequently included as learning activities and/or assessment tasks, although scaffolding and using challenging questions to ensure deep reflection including reflection-on-action and reflection-for-action as outlined in Chapter 3 were only sometimes evident.

To capture the variety of learning and assessment activities and to share some ideas of interest, de-identified examples from handbooks across various year levels are provided in the Appendices Report as follows (with relevant permission from the universities concerned):

Reflection	Appendix G
Placement and CPD Objectives	Appendix H
Orientation to pharmacy site	Appendix I
Professional services	Appendix J
Presentation reports	Appendix K

Medication management	Appendix L
Preparation of Extemporaneous Products	Appendix M
Dispensing	Appendix N
Wound Management	Appendix O

Learning activities and handbooks for experiential programs were variously discussed during the consultations.

6.5 Consultation views regarding experiential placements and learning processes

Some key aspects about the experiential learning processes which were raised at the stakeholder consultations were related to goal clarity and structure, communication and reflection, with details provided as follows.

6.5.1 Goal clarity and structure

The consultations showed that most universities have a mixture of firstly, some highly structured experiential placements with very specific tasks outlined in the handbooks which need to be undertaken and secondly, opportunities for students to construct their own learning goals to meet pre-specified and broad objectives in a range of ways dependent on the pharmacy situation. To support the balance between highly structured and more open-ended situation-specific experiential learning, some universities have guidelines about how much time in the workday can be devoted to workbook activities: ‘you need a structured program but it’s got to have flexibility and the majority need a fair bit of structure’ (preceptor).

Students in the early placements need more structure...if there is not a good preceptor, structure helps....preceptors should provide scaffolding but some don’t have the skills for this....it’s a trade-off between giving them enough guidelines and giving them too much (professional association response).

There was some concern that in the case of less structured experiential placement situations, they can be too open-ended and students become cheap labour and undertake repetitive tasks or are underutilised:

- *Some people have no clue...they don’t really care... they see an undergraduate as cheap labour* (professional association)
- *You feel at times like you’re in the way* (student)
- *You’re in the way and demanding time from them that they just don’t have* (student).

Some additional structures were suggested such as having clear goals, including a checklist of various potential activities and a requirement for any experiential placements based on timesheet completion only to reflect a range of work being undertaken, not just evidence of the required hours being undertaken. An example comment regarding structure and flexibility states:

You need some structure but it needs to be horses for courses... some students are not up to working independently... but if you’re able to create flexibility.. (preceptor).

Students commented positively about university placement programs where a checklist of possible activities was included as this provided structure and flexibility to select learning activities according to the situation and needs of the student (see Appendix F).

Overly-structured experiential placements were especially raised as an issue, with concerns expressed about students being focused on completing a prescriptive list of structured tasks, some of which were difficult to

undertake within a particular situation or restricted timeframe. There were many comments that students in very structured placements, especially in short ½ day blocks, can become overly-focused on worksheet completion and this distracts from the importance of building relationships or seeking broader experiential learning opportunities or showing interest and initiative. As one student commented:

...the overstructuring takes away from the placement...they do make you transcribe and it's a waste of time (student response).

Highly structured work placements with very specific tasks to be undertaken were particularly raised as issues in terms of catering for the individual needs and backgrounds of students. In consultations with students and with other stakeholders, it seemed that well over half of students by the final year of the pharmacy program had ongoing paid work in a pharmacy. Highly structured activities or very open-ended experiential placements without clear purposes were seen as time-wasting as students felt that there was no recognition of prior learning and placements could potentially become another time burden in busy lives and with little new learning resultant:

... that was another four hours where I had to go to work and not get paid (student).

However even those in paid employment did acknowledge that with a supportive and knowledgeable preceptor or placement site which had a variety of pharmacy services available, they could explore different work aspects than in their paid employment:

....there's things you look at that you wouldn't do as a technician (student).

As well as the university establishing clear expectations and structured learning for the placement, an orientation process involving negotiation between the preceptor and student was considered absolutely essential in terms of students feeling comfortable within the placement situation:

When you arrive you don't know where you stand. The pharmacist says make up your own objectives – pharmacists need more ideas about what to do with students....Older pharmacists have forgotten what it's like to be a student (student).

6.5.2 Communication

Another aspect receiving significant comment in the consultations was related to the importance of high quality communication skills in pharmacy work, particularly due to the increasing focus on primary health care and working more closely with other health professions:

A huge amount of being a pharmacist is being able to communicate with the patient...it's the interpersonal where everything starts to go wrong (preceptor).

Students learning to communicate and being prepared for the placement as part of their coursework was seen to be very important, with student involvement in conducting tutorials and giving orals providing this opportunity:

....when students are doing the work (presenting orals) and talking to each other they listen better (university representative).

Role plays, scenarios to improve communication skills, oral presentations and group work were indicated as an increasingly important aspect of most programs, with experiential placements providing further opportunities to develop confidence in talking to a range of people.

However, given the increasing numbers of students in pharmacy programs and widening of the range of students including international students, many preceptors and professional groups commented that while students have high academic scores, communication is an aspect which requires further work: ‘the best pre-registrants have life experiences and can communicate, not necessarily the best scores’ (preceptor). Concern was expressed about communication skills and selection of students based on marks alone:

Universities don’t do enough to make sure students are suited to this.. if they can’t then do the practical work ..one top theory student took 20 minutes to dispense a script (preceptor).

Many universities have introduced English communication tests or interviews as part of selection of students, with selected incoming students being counselled to undertake additional language lessons, although many students are reluctant to attend: ‘students will hold up a transcript showing HD (high distinction)’ (university representative comment). The communication tests include tests for grammar, breadth of word knowledge, colloquialisms, and inference. Examples were given of lack of knowledge of colloquialisms (e.g. ‘screaming blue murder’, ‘under the weather’, ‘loose stools’) and the impact that lack of understanding of such language may have in terms of patient relationship-building and ease of communication.

6.5.3 Reflection

Reflection and portfolios are a very important part of most experiential placements particularly in the later years of the pharmacy program, enabling the student to present evidence of problem-solving and patient-focused approaches. The value of reflection is shown by various comments:

- *You learn lots in reflection and you identify issues that you need to work on (student)*
- *I like basic structure.... but then reflection used to show interesting things (student)*
- *Daily reflective journals do get time wasting but they offer a bit more freedom (than completing structured exercises) (student)*
- *We found we needed to give them quite specific guidelines (university)*
- *We should develop these processes in so many different ways and reflection processes help structure learning so this can be put into their own practice (preceptor)*
- *As a profession pharmacists haven’t been good at the reflection processes (preceptor).*

Many students indicated that little structure and preparation was provided by the university for reflection activities and these exercises had essentially become daily logs, descriptions of events with limited usefulness and which involved considerable amounts of time. However as presented in Chapter 3, reflection needs to be taught by university lecturers so that deep reflection/analysis and personal commentaries by students are more effectively undertaken:

- *I didn’t understand what to write in there... (I).needed a bit more instruction in what to write (student)*
- *A lot of time potentially wasted because you had to do it everyday (student).*

Reflecting poor understanding about the purpose of reflective writing, some students indicated they only wrote positive things in the journal, like a log:

- *....Reluctant to write certain things (student)*
- *But if you don’t actually agree with something a journal would be a great place to write (student)*
- *It’s hard making it assessable- it’s worth 40%...We don’t really know what to write about (student response).*

One view indicated that students with higher degrees doing Masters programs sometimes are able to reflect at a deeper level and some students indicated that they are reflecting all the time and do not feel the need for written reflections.

6. 5. 4 Feedback

The Kolb model and models related to planning for learning processes as presented in Chapter 3 and earlier in this chapter noted the importance of feedback in the learning cycle. There was some concern expressed about preceptor abilities to undertake this role. Some universities have not given the assessor role to preceptors focusing instead on mentoring, with feedback sometimes forwarded directly to the university without student knowledge.

A repeated comment from students and preceptors was the importance of transparency of assessment and the role of feedback and skilful questioning:

- *it's really important that you 're aware of the feedback.. it allows you to grow and improve* (student response)
- *students go in with a positive attitude and want to make the most of it but feedback depends on how it happens* (student)
- *feedback is absolutely essential and the more opportunities for feedback in an informal way, or just as important formal through critiquing their work, the better* (preceptor)
- *preceptors should be giving useful feedback to the students...it should be useful to the student rather than useful to the university* (preceptor)
- *the good preceptors 'know which questions to ask to get you thinking* (student)

6.6 Summary

This chapter has focused on experiential learning within university pharmacy placements. It introduces a planning model which emphasises the importance of clear outcomes linked to planned and scaffolded learning activities. The planning cycle also includes assessment involving explicit criteria, opportunities for negotiation of assessment and criteria, explicit feedback to improve performance, and strategies to ensure consistency and systematic evaluation to inform the next planning cycle. Examples of various learning and assessment tasks from pharmacy experiential placement handbooks have been provided.

Key consultation views emphasised the importance of a balance between open-ended and structured placement situations. While there were many positive comments about experiential placement programs, some key areas for improvement generally relate to greater goal clarity; scaffolding at the pre-placement, during placement and post-placement stages and the importance of building student and preceptor skills in reflection and feedback in the learning process. Reflection-in-action, reflection-on-action and reflection-for-action and using a framework of challenging questions to encourage students to move beyond recall and comprehension to analysis and deep reflection have been highlighted. A more systematic approach to planning for experiential placements was highlighted as an area for future development.

7. Assessment of Pharmacy Experiential Placements

Pharmacy is similar to other professions in Australia with the competency requirements of the profession being initially developed through experiential placements and within other aspects of the university program. The student progresses over the extended timeline of their university program from being an unskilled novice, towards developing more knowledge and skills by the time of graduation. In pharmacy, the assessment of competency then occurs within an internship year, and this process is overseen by the state and territory registration authorities.

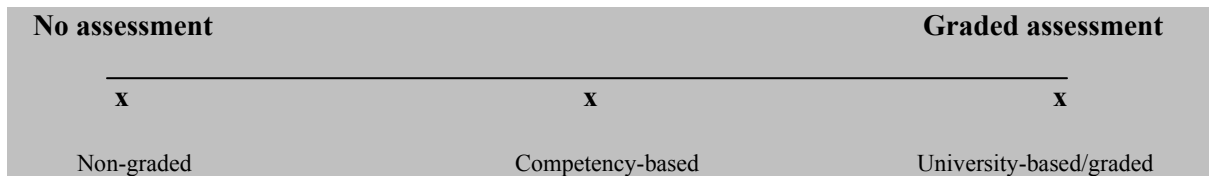
Assessment of student pharmacy experiential placements usually involves the university (and frequently also the preceptor) in making judgements about specific aspects of student learning arising from the placement. It is generally focused on student achievement, including demonstrated skills and application of theory to the practice environment. Reflecting Miller's (1990) pyramid of assessment as introduced in Chapter 3, within experiential placements students are able to move beyond 'knows' and 'knows how' or 'shows how' to actual action in the real workplace situation, with demonstrated and observed behaviours inferring the knowledge, skills and attributes (Norcini, 2003).

Chapter 6 highlights a planning process which may be applicable to pharmacy experiential placements. The university establishes the framework for assessment, linked to the program and placement objectives which are framed within university Graduate Attributes, pharmacy school requirements and the pharmacy professional competencies. While a range of structured and more open-ended learning experiences occur within the placements, students benefit from ongoing feedback to build their skills and knowledge. The university and preceptor have the responsibility for formative assessment which involves monitoring progress and also summative assessment which is focused on making judgements about the level of attainment achieved. Clarity of assessment criteria was emphasised in the Chapter 6 planning model.

7.1 Assessment modes and models

Various modes of assessment are generally included in pharmacy experiential placements, with preceptors frequently providing an assessment of generic and occupation-specific student skills as demonstrated during the placement. Portfolios or workbooks (frequently assessed by the university) and observations are commonly included and these may involve reflective journals, structured learning and assessment task documentation, development of learning goals and audience feedback on orals. Oral presentations and written projects are also involved in placements.

Models of assessment vary from university to university and are also dependent on the student year level and type of placement. Some models are based on work being completed with no grading of the work. Other models include competency-based work which is usually based on students meeting the standards of the competencies. Lastly models also include graded work within the traditional university assessment approach. This may be represented along a continuum from no assessment to graded assessment as shown in Figure 8:



(Adapted from Cooper, Orrell, Jones, 1999)

Figure 8: Models of assessment from no assessment to graded

Universities traditionally operate within a norm-referenced assessment context which describes individual performance in relation to other students and assigns marks and grades, with competency approaches for specific professions being a more recent approach. Competency-based approaches usually outline very specific aspects as minimum requirements of the work and assessment involves behavioural evidence that can be observed or inferred about knowledge, skills and attitudes. Competence needs to be demonstrated on multiple occasions.

Criterion-related approaches involve explicit specification of the level of performance required and determination about whether students have achieved this (Spike, 1999). Criterion-related approaches sometimes use a rubric which involves a list of criteria and gradations of achievement. The purpose is to give informative feedback about progress towards specifically-described achievements. Dreyfus & Dreyfus (1996) and Benner's (1984) research using descriptors of novice, advanced, beginner was outlined in chapter 3. Various allied health professions such as physiotherapy and speech pathology are using graded descriptors for assessment experiential placements within university programs. These have been described above (Chapter 3).

In relation to the pharmacy profession, a United Kingdom group has developed a criterion-related descriptors approach for pharmacy which uses three competency clusters and a four point scale of 'always', 'usually', 'sometimes' or 'never' in reference to specific behaviours of junior pharmacists (McRobbie, Webb, Bates, Wright & Davies, 2001).

Some American pharmacy experiential programs are using graduated descriptors linked to the profession's competencies for their undergraduate programs (Virginia Commonwealth University). Performance rating levels of 1-5 for each competency are assigned based on descriptors connected to broad categories, with Honours being 4.5-5.0, Pass being 2.5-4.49 and Fail being 0-2.49. The competencies relate to:

- Communication/Education Skills (including interaction/education with health professionals, patient presentation to health professionals, patient interviewing skills/medication history, patient or family education/counselling, drug literature retrieval/evaluation, written documentation)
- Pharmacy Care Plan (including assessment and plan development, monitoring for therapeutic endpoints, monitoring for adverse events/toxicity, disease knowledge)
- Professional (formal presentation skills)
- Practice Specific Competencies (dispensing, compounding, physical assessment, health promotion/disease prevention, operations knowledge)

Broad categories are poorest anticipated performance level, less than expected performance level, average performance level, better than expected performance level, best anticipated performance level.

An example of the graduated descriptors for Communication/Education Skills (Interaction/Education with Health Professionals) is given in Table 6, with the poorer performers not really engaging with the health professionals:

Table 6 : Graduated Descriptors for Communication/Education Skills for Experiential Placements

(1) Poorest Anticipated Performance Level	(2) Less than Expected Performance Level	(3) Average Performance Level	(4) Better than Expected Performance Level	(5) Best Anticipated Performance Level
Independent of health professionals and faculty member. Apprehensive, not assertive. Educational attempts result in confusion, frustration.	Rarely contributes to discussion, and/or contributes inaccurate information	Interacts with health professional when asked, provides accurate but minimal information. Organised minimal apprehension, some assertiveness	Provides organised, pertinent information relevant to issue. Assertive but does not probe for questions or misunderstandings	As above, but probes for questions and misunderstandings. Becomes an essential group member.

7.2 Handbook analysis: specific aspect modes and assessment models

Chapter 6, Table 5 presented overall results from a Pharmacy Experiential Placements Handbook Analysis in relation to various university programs. Norm-referenced, criterion-based and competency-based approaches are evident, with mixed approaches being used by some university experiential placement pharmacy programs. Assessment tasks including oral presentations, workbooks and generic and specific-occupation skills were outlined, with further detail about assessment processes now being provided.

7.2.1 Oral task

7.2.1.1 Handbook Example 1

Oral presentations are a frequent assessment task in many pharmacy experiential placement programs, particularly in final year courses. The assessment task frequently relates to a case presentation. Rubrics reflecting criteria and descriptive graduations of achievement and sometimes marks are evident, as shown here in Handbook Example 1 and Handbook Example 2:

	10 marks	9-8 marks	7-5 marks	4-3 marks	2-1 marks
Contents/analysis	Your choice of content was highly relevant and you demonstrated a comprehensive understanding of the topic. All or most of the essential concepts were analysed and explained in a highly effective manner	Content relevant, good understanding of topic. Most concepts effectively analysed and explained	Content choice mostly relevant, fair understanding of topic. Some essential concepts analysed and explained, but not always effectively	Choice of content often lacked relevance, limited understanding of topic. Few concepts analysed or not always essential to topic, lacking effective explanation	Choice of content lacked relevance and little understanding of topic. Difficulties in analysing and explaining essential concepts
Structure	Your presentation had a very clear and effective structure. The material was delivered within a suitable time frame. Highly appropriate pacing of presentation	Presentation with clear appropriate structure. Delivered within time frame. Pacing appropriate	Fair structure. Delivered in suitable time frame. Pacing sometimes appropriate.	Some structure but unclear. Lack of suitable timeframe and pacing	Presentation unstructured, not delivered in timeframe, pacing frequently inappropriate
Non-verbal	Your body language and movement were highly appropriate, with gestures used confidently and naturally. You maintained consistent eye contact throughout. There was a very high level of audience interest and attention.	Body language, movement, gesture appropriate, reasonable eye contact, high level of audience interest and attention	Some movements/ gestures appropriate and mostly held audience interest	Few gestures used, rare eye contact, attempted to get audience interest but some difficulties	Presentation read with little use of gestures, audience inattentive, displayed little interest
Verbal	Words were pronounced correctly and confidently. Language was highly appropriate to audience and topic. Your tone, pace and vocal variation were used highly effectively	Words pronounced correctly. Language appropriate to audience/topic. Tone, pace, vocal variation used effectively	Familiar words pronounced correctly. Language used appropriately in most places. Tone, pace, vocal variation often correct but could be more effective in some places	Some pronunciation problems, pace/vocal variation lacked effectiveness in some places	Pronunciation problems make presentation difficult to understand, tone, pace often inappropriate

Handbook Example 1: Oral rubric of criteria, descriptors of graduated achievement and marks

7.2.1.2 Handbook Example 2

Present'n of material	Unacceptable presentation	Most overheads/ handouts unclear/untidy	Overheads/handouts poor	Overheads/handouts fair	Overheads/handouts good, adequate use of techniques	Overheads/handouts clear/concise, techniques well used
15	0	3	6	9	12	15

Handbook Example 2: Oral : sample rubric criteria: descriptors of graduated achievement and marks

7.2.1.3 Handbook Example 3

Handbook example 3 shows another rubric of one criterion concerning speech and uses gradations of achievement and developmental heading descriptors:

	Exemplary	Competent	Developing	Non-competent
Speech: volume, rate, pitch	Spoke clearly, slowly, loudly enough, with excellent modulation of voice tone and quality	Spoke clearly with modulation of voice tone/quality but speed too fast/slow	Mumbled, spoke too fast/slow, whispered/shouted, droned but intelligibility not compromised	Mumbled, spoke too fast/slow, whispered/shouted, droned and intelligibility was compromised

Handbook Example 3: Oral: sample rubric criteria: descriptors of graduated achievement and heading descriptors

7.2.1.4 Handbook Example 4

Some tasks did not include a rubric but used excellent, good, satisfactory, unsatisfactory to poor with associated marks, as shown in Handbook Example 4:

Assessment Criteria	Ex (5 mks)	G (4 mks)	S (3 mks)	US (2 mks)	P (1 mk)
Ability to communicate information accurately, concisely and confidently					

Handbook Example 4: Oral, sample criteria and marks

7.2.1.5 Handbook Example 5

Examining a range of university handbooks and oral tasks, the specific criteria aspects included in the assessment grid using various graduated descriptors or not, with or without marks are reflected in the following:

Communication of information	Answering questions	Non-verbal
Engagement of audience	Speech	Eye contact
Organisation of information	Pronunciation	Pauses
Usage of audiovisual	Language	General conclusion
Accuracy of information	Presentation skills	Rapport with audience

Handbook Example 5: Criteria variously used in orals

7.2.2 Workbooks

Workbooks are frequently included as assessment tasks within experiential placement programs. Specific aspects of workbooks vary from university to university but reflection journals, patient counselling, dispensing tasks, establishing personal learning objectives and continuous professional development plans are frequent inclusions. Some examples of assessment practices in relation to workbooks are provided.

7.2.2.1 Handbook example 6:

This example is task based, using Excellent to Very Poor categories and making links to competencies and graduate attributes/qualities:

Key components of assignment	Ex	Good	Fair	Poor	V Poor	Comments to competencies/Graduate qualities
Ex 1: dispensing process						FA4 Dispense medicines
Ex 2: NPM consults						FA3: Promote and contribute to optimal use of medicine (Unit 3.1/3.2/3.3) & FA7: Provide medicines and health information and education (Unit 7.2/7.3)
Ex 3: marketing plan for HMR service						FA1 Practise pharmacy in a professional/ethical manner (Unit 1.3, 1.2) FA8 Apply organization skills in the practice of pharmacy (Unit 8.5/8.6 & GQ6, GQ5)
Ex 4: HMR						FA 3: Promote and contribute to the optimal use of medicines (Unit 3.1/3.2/3.3 & GQ1, GQ3, GQ4, GQ5, GQ6)
Ex 5: Selection of NPM						FA3: Promote and contribute to the optimal use of medicines (Unit 3.1/3.2/3.3 & GQ1, GQ3, GQ4, GQ6)
Ex 6 Patient counselling reflections						FA2: Manage work issues & interpersonal relationships (Unit 2.1) FA1: Practise pharmacy in a professional and ethical manner (Unit 1.3 and GQ6, GQ2, GQ3)
Ex 7 CPD						FA1: Practice pharmacy in a professional/ethical manner (Unit 1.3, GQ 2)
Core behaviour assessment						

Summary comment

The graduate qualities/attributes being assessed by this assignment are indicated

GQ1: operate effectively with and upon a body of knowledge	GQ5: are committed to ethical action and social responsibility
GQ2: are prepared for lifelong learning	GQ6: communicate effectively
GQ3: are effective problem solvers	GQ7: demonstrate an international perspective
GQ4: can work both autonomously and collaboratively	
Assignment grade:	

Handbook example 6: Assessment feedback on placement workbook linked to Assessment task exercises, Competencies and Graduate Qualities

7.2.2.2 Handbook example 7:

This example represents another workbook assessment approach based on tasks and marks:

	Excellent (5 marks)	V. Good (4 marks)	Good (3 marks)	Satisfactory (2 marks)	Poor (1 marks)
Community Pharmacy exercises: (20 marks) • Communication skills • Drug information & pharmacy regulations • Professional and retail pharmacy services • QCPP, Occupational Health & Safety and staffing					
Hospital Pharmacy exercises: (20 marks) • Hospital Orientation • The Pharmacy Department • The Role of the Pharmacist • Comparison					
Reflective Journal: (20 marks) • Answered questions as specified (14/20) • Writing clarity and style (3/20) • Evidence of extra reading, original thought (3/20)					
Total mark	/ 60				
Percentage	out of 5				

Handbook Example 7: Workbook assessment tasks related to marks

7.2.2.3 Handbook Example 8:

Rubrics for the overall written workbook assessment have been used by other universities with graduated descriptors and marks. Criteria include:

- spelling, sentence construction, punctuation
- language
- layout
- content
- links to objectives
- referencing

Handbook Example 8: Various written workbook assessment criteria

7.2.2.4 Handbook Example 9:

An example of one criterion and the rubric using graduated descriptors and marks is shown in Handbook example 9:

Spelling, sentence construction, punctuation, grammar	No effort	Text too many errors	Text errors significantly impede text flow	Text has many errors but no significant impede to text flow	Well written with few errors	Well written with grammar/sentence construction clarifying topic
5	0	1	2	3	4	5

Handbook Example 9: Workbook assessment task with sample criterion, graduated descriptors & marks

7.2.3 Preceptor assessment of students

Preceptor assessments of students are an important part of the experiential placements process. Some assessment processes relate to occupation-specific skills and core behaviours, other to generic skills only or to occupation-specific skills only. There are a range of graduated descriptors and marks or grading processes being used for assessment purposes.

7.2.3.1 Occupation specific skills and core behaviours

7.2.3.1.1 Handbook Example 10:

Handbook Example 10 provides a model related to assessment by a preceptor of occupation-specific skills and core behaviours using specific criteria and graduated descriptors and marks.

Rating descriptors

5=student demonstrated excellent skills, was extremely effective and /or very consistent (could serve as a model)

4=student demonstrated very good skills, was average in effectiveness and/or consistency

3=student demonstrated satisfactory skills in this area, was generally effective; and/or consistent (appropriate for this level)

2= student needs some improvement, was somewhat ineffective and /or inconsistent

1= student needs significant improvement in this area, was ineffective and/or inconsistent, performance was unsatisfactory

N =not enough evidence to evaluate

	5	4	3	2	1	N
Student is competent in history taking and information gathering i.e. student obtains comprehensive education and lifestyle history						
Student utilizes appropriate drug information resources i.e. student uses many references efficiently including database references and journal to search for information						
Student identifies issues relevant and important to the medication review i.e. student identifies minor and major drug and disease state issues including recognition of potential drug interactions, contraindications, side effects, adherence issues and life style factors (diet, smoking, exercise) which could impact on the patient's education profile						
Student understands the education review case and makes appropriate recommendations i.e. student makes appropriate recommendations for a range of drug, disease state, social and lifestyle issues such as referral to a medical practitioner, change in therapy and additional non-drug measure						
Student demonstrates good overall therapeutic knowledge i.e. the student demonstrates understanding of therapeutics, pharmacokinetics, considers effects, basic understanding of diseases and the role of education in therapy						
Student is reliable and dependable i.e. can be counted on to fulfil responsibilities and meet expectations						
Student is empathetic i.e. demonstrates appreciation of others' position, attempts to identify wit others' perspectives, demonstrates consideration towards others						
Student behaves in an ethical manner i.e. acts in patients' best interests, respects patient privacy, acts in accord with the profession and/or practice site code of ethics						
Student communicates articulately i.e. clearly communicates thoughts, uses appropriate terminology and vocabulary for indebted audience						
Student is punctual i.e. arrives at practice site and meetings early or on time, meets deadlines for completion of tasks and responsibilities						
Student uses time efficiently i.e. allocates and utilises appropriate amounts of time to fulfil responsibilities, utilizes others' time wisely						
Student is self-directed in undertaking tasks i.e. after initial instruction of task/assignments/responsibilities, initiates activities to complete them, self motivated, functions independently, seeks additional tasks after completing originals						
Student is respectful i.e. demonstrates regard for patients, superiors, colleagues, other personnel and property, acts in a manner that shows recognition that he/she is a guest at the practice site as a professional student						
Student communicates using appropriate body language i.e. utilizes gestures and mannerisms that enhance formal and informal communication						
Student demonstrates accountability i.e. holds oneself liable for tasks/duties/responsibilities that he/she is responsible, does not blame others for mistakes or mishaps, nor avoids responsibilities						
Student prioritises responsibilities effectively i.e. organizes and approaches multiple tasks and assignments in a manner to produce desired outcomes						
Student accepts and applies constructive criticism i.e. responds openly and positively to feedback, modifies behaviour if necessary						
Student is non-judgemental i.e demonstrates an attitude of open-mindedness towards others and situation, does not stereotype others or prejudge situations						
Student communicates assertively i.e actively and appropriately engaged in dialogue or discussion, not afraid to provide his/her viewpoint						
Student is an active learner i.e. seeks knowledge, asks questions, searches for information, takes responsibility for own learning						
Student cooperates i.e. non-argumentative, willing and helpful						
Student follows through with responsibilities i.e. if task is left incomplete or problem is not resolved, student seeks aid or explains situation to parties who can follow up on tasks or problem						
Student wears appropriate attire i.e adheres to dress code, written or unwritten, attire is acceptable to practice setting						
Student demonstrates confidence i.e acts and communicates in a self assured manner yet with modesty and humility						
Student demonstrates a desire to exceed expectations i.e. goes above and beyond the call of duty, attempts to exceed minimal standards and requirements for tasks/assignments/ responsibility						

Have you encountered any problems with the student?

If appropriate please discuss any important issues with the student

If you have any comments which would aid in the future development of placements please forward

Handbook Example 10: Preceptor assessment of student core and generic skills using graduated descriptor ratings and marks

7.2.3.1.2 Handbook Example 11: Generic and core behaviours preceptor assessment using graduated descriptors:

Overall Effort Assessment Tool

Attendance and Contribution

- ☐ **Unsatisfactory:** The Student was repeatedly not punctual or failed to attend without proper reason.
- ☐ **Satisfactory:** The student was mostly punctual and attended as expected
- ☐ **Good:** The Student was always punctual and attended as contributed well to the activities of the pharmacy
- ☐ **Excellent:** The Student was always punctual and offered to assist the pharmacy in its activities beyond that expected of a student.

General Attitude

- ☐ **Unsatisfactory:** The Student displayed a poor attitude to work or learning
- ☐ **Satisfactory:** The student mostly displayed appropriate attitude to work or learning
- ☐ **Good:** The Student was always displayed a good attitude to work or learning
- ☐ **Excellent:** The Student displayed an outstanding attitude to work and learning and as a result stimulated an overall interest in learning within the team.

Pharmacy Procedures

- ☐ **Unsatisfactory:** The Student displayed a poor interest or understanding of the quality standards in place and failed to apply those standards in practice
- ☐ **Satisfactory:** The student mostly displayed appropriate interest and understanding of the quality standards and mostly applied those standards in practice
- ☐ **Good:** The Student was always displayed appropriate interest, understanding of the quality standards and always applied the standards in practice
- ☐ **Excellent:** The Student displayed an outstanding interest and understanding of the quality standards, always applied those standards and was able to contribute to the further development of standards for the team.

Further Comments?

Have you encountered any problems with the student during the Clinical Pharmacy Placement? If yes, please comment.

Handbook Example 11: Generic and Core behaviour preceptor assessment using graduated descriptors

7.2.3.2 Generic Core Behaviours Assessment by Preceptor

7.2.3.2.1 Handbook Example 12:

Preceptor evaluation of students using sample criterion of generic core behaviours and using rubric of graduated descriptors e.g.

Dress/appearance	Rarely appropriate despite feedback	Sometimes appropriate	Usually dressed appropriate	Always dressed appropriate and well presented

Handbook Example 12: Generic core behaviours sample criterion & graduated descriptors

7.2.3.2.2 Handbook Example 13: Other generic core behaviours areas of assessment included:

Initiative, interaction (patients and staff), initiative, communication, interest, attendance, name badge, punctuality, dress, application of appropriate professional/scientific/clinical knowledge, completion of assigned task/activity in a timely manner, completion of assigned task to appropriate level of quality

Handbook Example 13: Generic core behaviours areas of assessment

7.2.3.2.3 Handbook Example 14: Some grading of generic core behaviours which are used are:

NA	Unsatisfactory	Satisfactory	Good	Very Good	Excellent
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Handbook Example 14: Generic core behaviours grading sample

7.2.3.2.3 Handbook Example 15: Other grading of generic core behaviours, including marks:

1= significant deficit exists
2=below standard
3=acceptable
4=good
5=excellent

Handbook Example 15: Generic core behaviours grading sample with marks

7.2.3.2.4 Handbook Example 16: A competency rating of generic core behaviours is as follows:

Competent with merit	Competent	Not competent	Comment
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Handbook Example 16: Competency rating of generic core behaviour

7.2.2.3 Preceptor Report on Occupation-specific skills

7.2.2.3.1 Handbook example 17:

This example uses a graduated descriptor which is related to the Functional Area 6 competency.

Functional Area 6: Provide Primary Care

Unit 6.1.1. Assess Primary Health Care Needs- Elicit Relevant Clinical Information.

When assessing this unit please consider whether the **student seeks appropriate information about symptoms from the patient or carer** when they present or are referred by other members of staff. Students should be aware of pharmacy protocols for the supply of non-prescription medicines and incorporate them into their practice. (n.b. The student is not yet being assessed on their recommendations)

Activity Unit 6.1.1 Elicit Relevant Clinical Information from over-the- counter requests.	Description	Please Rate (tick correct box, there is room for comment)
Level 1	The student is able to work independently	
Level 2	Works within a 'reasonable' time frame. Completes activity and is efficient (rather than proficient). At times, the student requires advice and/or assistance (supportive cues) to complete the activity.	
Level 3	The student has some knowledge to perform a task but is not as efficient, becoming flustered, anxious or worried easily	
Level 4	The student demonstrates inefficiency with a limited knowledge and thought process.	
Level 5	The student is unable to perform or complete the activity and/ or becomes unsafe for the patient, self or others.	

Assessors Name:Signed:.....Date.....

Students Name:.....

Handbook Example 17: Primary care task assessment using graduated descriptors

7.2.2.3.2 Handbook Example 18:

Handbook example 18 shows preceptor assessment of core behaviours and occupation specific skills based on criteria, levels (High standard, satisfactory, unsatisfactory) and marks.

	High standard	Satisfactory standard	Unsatisfactory
1. Counselling			
Patient asked if they have time for counselling	2	1	0
Pharmacist reviews what consumer already knows and understands and summarises any changes after conversation with Dr (if applicable)	2-3	1	0
Clarifying questions are asked as necessary	3	1	0
The particular characteristics of the patient are considered e.g. age, hearing, sight, cultural background, existing knowledge	2	1	0
Provides appropriate accurate information on drug, dose, application, what to expect, unwanted effects	4-5	2-3	0-1
Provides appropriate and accurate information in Plain English on disease state if necessary	3	2	1
Consumer Medicines Information and other written aids, as appropriate are provided and used interactively if available	4-5	2-3	0-1
Provides opportunity for patients to ask questions	3	2	0
Responds to patient questions appropriately	3	2	0-1
The patient's understanding of instructions and advice is checked	2	1	0
Main points summarised	2	1	0
Offer of follow-up	2	1	0
2. Clarity of presentation			
Jargon free language	4-5	2-3	0-1
Tone of voice, professional not condescending, sarcastic, meek non-assertive; conversational not rigid	3	2	0-1
Clear pronunciation – clear and not muffled, student's accent should not interfere with patient's ability to understand student's message	4-5	2-3	0-1
Use of fillers, um, oh, minimised	2	1	0
Rate of speech – gauged to patient's ability to comprehend	2	1	0
Length of consultation appropriate	2	1	0
The episode was carried out in a conversational manner	3	2	0-1
3. Questions from patient			
Answered correctly	3	1-2	0 wrong
TOTAL Max mark =60			

Handbook Example 18: Counselling assessment task with specific criteria, levels and marks

7.3 Assessment issues raised in consultations

The consultations raised a range of issues in relation to assessment, with key aspects focused on the nature of assessment approaches, clarity of assessment criteria and feedback and the preceptor role in assessment.

7.3.1 Nature of assessment approaches

The consultations with university pharmacy schools highlighted that there are varying university policies and pharmacy accreditation policies which frame programs, assessment and experiential learning (including policies of inter-professional work, misconduct, assessment), but generally the requirements of registration boards in the states and territories and national accreditation requirements are highly influential. However, it was consistently emphasised by all stakeholders that the assessment of students as competent using the *Competency Standards for Pharmacists in Australia* 2003 (PSA, 2003) occurs at the conclusion of the internship year: 'As long as you're up the top before you finish...as long as you're seen to be progressing' (preceptor). While there were varying levels of understanding of competence and competency assessment shown across stakeholder groups, building towards the competencies but not being limited by them was frequently emphasised.

Consistent with Dreyfus & Dreyfus (1996) and Benner's research (1984), many views were expressed that a competency scale from novice and advanced beginner to competency/proficient/expert is useful, with advanced beginner being the level achieved at the completion of a university program. There seemed to be a reasonably strong view from some preceptors and professional associations that this could be developed further so that there is a common understanding across universities, preceptors and professional groups around Australia towards identifying a consistent level of skills, knowledge and personal attributes of graduates, prior to their pre-registration year. Making more explicit links to the *Competency Standards for Pharmacists in Australia* (2003) and using graduated descriptors within the university experiential placements was emphasised.

7.3.2 Clarity of assessment criteria and the importance of feedback

The importance of clear assessment criteria and feedback in planning within the learning process has been emphasised in the previously-introduced literature (Kolb, 1984; Littlefield et al., 1992) and this was highlighted extensively by stakeholders in the consultations.

Many students indicated that this is an aspect which needs attention by the universities in their handbooks and communications with preceptors, as well as supervisors providing clarity within the placement itself.

Universities varied in the degree to which ungraded or graded approaches to assessment were used, with many using a pass/fail or completed/not completed process rather than marks.

There were some students who commented that they preferred to get a mark:

You naturally put more effort into things that are being marked...when it's being marked you focus on spelling, grammar, punctuation (student).

However, most students emphasised that it was more important to receive clear and detailed feedback from their preceptor:

- *You go through the placement and don't get told what you're doing wrong (student)*
- *You need to know this is how you could improve (student)*

Some marking processes sought feedback from the preceptors about the students but the students were not given ongoing feedback and this form was sent directly to the university:

- *The form itself you didn't see...it gets faxed to the uni. You don't get feedback from the preceptor (student response).*

Some assessment forms were too general anyway and students from a few universities indicated that they did not really understand how the assessment process worked or did not have clarity about the criteria being used for assessment:

- *We don't know what's gauged as competent and not competent (student).*

Some preceptors using rating scales or marks also seemed to be unclear about the differentiation between various levels of achievement.

7.3.3 Role of preceptors in assessment

There were a range of views expressed in the consultations about the role of preceptors in assessment. Some stakeholders indicated difficulties in undertaking this role and differentiating between students, with most preceptors having little formal training and insufficient time for detailed assessment. This led to inconsistencies, with some preceptors considering what stage students are at in their program and others not taking this into account in providing a rating or mark.

There were varied views expressed about the role of preceptors in assessment. Some of the views expressed indicated:

- *Preceptors provide a support role but it's not their place to assess. They're not accredited, there'd be discrepancies (university lecturer).*

Other stakeholders believed that having about 30% of marks being provided by preceptors was a reasonable expectation, as long as other assessment processes were also involved:

- *Most preceptors wouldn't like to be entirely responsible for assessing the students (preceptor).*

Some preceptors believed the role was essentially one of being a mentor and they should not be involved in the provision of marks, although they were generally comfortable in providing some checklist ticks and comments to the university to consider when assessing student handbook activities in relation to initiative, punctuality and other generic skills. Some felt this was appropriate although perhaps needing to be more focused on actual pharmacy skills observations dependent on the level of the program of the student.

A range of other issues received comment. Many preceptors remarked that there is a pressure on preceptors to pass students, especially as students generally have high academic skills and are up-to-date in terms of knowledge. Some universities are getting preceptors to give informal feedback and sending marks directly to universities to avoid conflict and obsession with marks by students.

7.3.4 Support structures and preceptor training

Significant concerns exist, especially among preceptors and professional/registration groups, about the expansion of numbers of students in university programs and subsequent need for more experiential placement locations. The availability of quality preceptors to ensure students have positive experiences during placements is the concern:

...whether the people who take students are able to provide a quality experience on the professional side as well as day-to-day work (professional body response)

It was widely noted by students, preceptors and professional groups that there are limitations in preceptor skills in teaching and assessment and a need for funded time to be available given that community pharmacies are essentially businesses. There is a view that universities are paid to teach and they are giving away that responsibility to unpaid and essentially untrained preceptors, with preceptor commitment to the future of the profession becoming increasingly important:

- *Without the support of the hospitals and preceptors, universities don't have any idea of what gratis teaching is given...some health areas get paid (preceptor)*
- *(The) preceptor has to be willing to develop the pharmacy student of the future (student).*

Preceptors having access to training was certainly believed to be highly desirable and would alleviate many of the concerns raised and this was frequently suggested by students, preceptors, universities and the profession during the consultations.

- *If there were some consistency and preceptors got training and information on how to assess to make sure there was consistency, I would welcome that sort of thing. We would step up to it. We'd regard it as a learning experience...it could be different if we were given support and consistency (preceptor)*
- *Preceptors need training as they're dealing with a new generation of health professionals but they don't get paid...they should know how to relate to people, strategies to get students talking (student response).*

However, there was a strong view expressed during the consultations about the importance of training for preceptors being balanced with reality. Given the increasing numbers of students undertaking pharmacy programs and experiential placements, it is very difficult to obtain sufficient numbers of preceptors. Unless funding for supervision of students is available, any additional requirements such as compulsory training are likely to compound the situation:

- *If this was made compulsory it could be counterproductive (preceptor).*

Currently, even when states have preceptor training programs there is low attendance. Online preceptor courses are available with units including introduction to preceptor education, focus on the student, focus on the preceptor, challenges and problems in support, putting theory to work. Aspects covered include benefits of preceptor role, quality assurance, definition of learning, learning styles, definition of teaching, styles of teaching, individual supervision, role of preceptor/supervisor, ethics, challenges in rural situations, accommodating gender/age/cultural differences, expectations of preceptors, planning for learning and assessment (Marriott, Taylor, Simpson, Bill, Galbraith, Howarth, Leversha, Best & Rose, 2005).

Lack of awareness of courses, time involved and costs were raised as issues by some who participated in the consultations, with courses such as these not being widely undertaken by preceptors even when the universities provided funding for the course.

Various alternative support processes were raised as available by those attending the consultations. Some preceptors receive support through university visiting tutors and discussions but this service cannot be supported by all universities, with most universities providing telephone contact, sometimes randomly occurring and sometimes happening on a more systematic basis. Some universities have introduced half or full day weekend training courses or after-work sessions with drinks and nibbles to provide some support for preceptors undertaking the role. One suggestion was for Guild quality care program accreditation to be pursued, with training available as a voluntary section to the accreditation process to improve student feedback/assessment quality. A one to two page outline of the requirements of experiential placement programs to supplement the detailed handbooks now sometimes provided was suggested in many of the consultations to ensure more focus for busy preceptors about the task.

Most universities have established positive rapport with local preceptors, but with increasing numbers of students, the quality of preceptors cannot be guaranteed and universities are now using a wider range of smaller hospitals, community pharmacies and aged care and other placements. Many stakeholders raised the issue of promoting the value of preceptorship to pharmacists as a profession and researching why preceptors are involved and what rewards would make the role more attractive. Certainly one key reason for being a preceptor was the value in locating future employees although with the increasing numbers of international students, this is not always applicable. A range of rewards were suggested with current strategies including access to tutorials, free newsletters, meeting continuing professional education requirements, access to the university library and honorary titles. Some universities have conjoint appointments with hospitals.

Many preceptors also indicated in the consultations that they want feedback about their own performance, such as through generalised collation of student evaluation feedback by the university.

7.4 Summary

The pharmacy experiential placements mapping in university schools, handbook analysis and stakeholder consultation feedback highlighted a range of assessment models including norm-referenced, criterion-related and other approaches. Handbook analysis focused on final year handbooks and tasks such as orals, workbook exercises and preceptor feedback regarding generic and/or occupation-specific competencies.

While there are implicit links to the pharmacy competencies of the profession and some university-specific requirements regarding graduate attributes, these were generally not explicitly identified. The role of preceptors in the provision of marks which contribute to university processes varied with university pharmacy schools. However, the significant issues raised, particularly by student was the importance of explicit feedback highlighting areas of strength and those aspects needing further development.

As developed by some other allied health professions and American university pharmacy schools, graduated descriptors for generic and occupation-specific aspects related to competencies provide a model for the provision of feedback. Some Australian university pharmacy schools are using graduated descriptors for some tasks but explicit links to competencies and graduate attributes were rare and overall, there was a lack of consistency in approaches.

The development of graduated descriptors linked to clearly identified competencies may provide a more consistent set of outcomes from university experiential placement programs and is suggested as an area requiring further collaboration

8. Evaluation and Quality Indicators for Pharmacy Experiential Placements

Chapter 3 outlined the importance of purposefulness and clarity between universities, preceptors and students about experiential placements, appropriate preparation of students for placements; the influence of committed supervisors who are willing to invest time and provide feedback and mentoring to future members of the profession; arranging for scaffolded learning activities and authentic assessment during the placement; and reflection and debriefing aspects after the placement experience (University of Ulster, 2003; Blackwell et al, 2001; Orrell, 2004).

A key aspect in the learning process and in ensuring quality experiential placements is ongoing evaluation. Evaluation is the process of gathering, measuring, interpreting and using information to make educational decisions about the effectiveness of the learning sequence or program.

This chapter focuses on organisational aspects supporting successful placements and alignment to experiential placement handbooks, in addition to evaluation processes used by Australian university pharmacy schools, consultation views including improvements needed and quality indicators.

8.1 Organisational aspects supporting learning in experiential placements

Australian and international research highlight placement success factors involving significant commitment in relation to organisational aspects and responsibilities for students, preceptors and the university at the pre-placement, during placement and post-placement stages (Orrell, 2004; University of Ulster, 2003).

In this current research, examination of handbooks and consultations with stakeholders provided information about organisational aspects and responsibilities within pharmacy experiential programs and the degree to which related aspects are generally occurring across various pharmacy programs (usually, sometimes, rarely). Table 7 outlines results as follows:

Table 7: Degree of availability of experiential placement organisational aspects

Responsibility	Placement checklist of relevant aspects	University staff	Preceptor/ Supervisor	Student	Codes regarding generalised availability of aspects, as evident from national consultation & Comment ● usually ■ sometimes ○ rarely NA not applicable
Pre placement					
University	Communication *prepare handbooks *clarify placement dates *letters to preceptors: tasks, objectives, level of student skills, key points	● ● ■			
	Focused knowledge *preparatory lectures and relevant skills practice	●			
	Orientation briefings for students *researching placements, wider situations, cultural context *building student professional attitudes *domestic work, travel, accommodation arrangements *workplace learning objectives & understanding *rights & responsibilities, legal, ethical *managing organisational problems & interpersonal relationships	■ ■ ■ ● ● ■			
	Administration *procedures & requirements, insurance documentation *OHS, first aid, police checks, immunisation	● ●			
	Accreditation & training of site/preceptor *course information *T & L styles/methods *learning contracts *supervision/supervisory process *mentoring *reflective practice *assessment	○ ○ ○ ○ ○ ○ ○			
Student	Placement preview *student letter, visits, phone contact, CV *explore placement context *complete administration, criminal record checks, immunisation *plan transport			■ ■ ● ■	
Preceptor/site	Site culture *identify values & educational approach * identify work methods & learning opportunities *site attitudes, enthusiasm, future profession commitment		■ ■ ■		

Responsibility	Placement checklist of relevant aspects	University staff	Preceptor/ Supervisor	Student	Codes regarding generalised availability of aspects, as evident from national consultation & Comment ● usually ■ sometimes ○ rarely NA not applicable
	Preceptor skills & aspects *time availability *understanding of students * learning styles understanding *role of preceptor *strategies for overcoming challenges		■ ■ ■ ■ ■		
	Preparatory Activities *Clarify university expectations & confusions/conflicts *Prepare orientation plan		■ ■		
During Placement					
University	Preceptor/student handbook availability *purpose *objectives *coursework background * tasks * assessment * teaching tips *named university contacts/contact for difficulties *action if required *scheduled university tutor visits	● ● ■ ● ● ■ ● ● ■			
Site/preceptor	Induction/orientation to site *introduction to staff *site tour *conduct/clothing requirements *parking, personal item storage, personal work area, lunchroom, computer/email use, phone use, telephone answering protocols *hours of work/lunch breaks & absence policy *dispensing system & patient records *special activities *emergency procedures *confidentiality		■ ■ ■ ■ ■ ■ ■ ■ ■		
	Negotiate educational plan with student *clarifying previous pharmacy experience *student objectives/goals *student strengths/weaknesses * placement tasks *student role * expectations *clarifying assessment requirements *establishing regular meeting time		■ ■ ■ ■ ■ ■ ■ ■		
	Provide supportive learning environment *mid point review & ongoing feedback *opportunities for modelling *organised approach *sufficient opportunities for completion of uni tasks *ask questions of students *answer questions		■ ■ ■ ■ ■		

Responsibility	Placement checklist of relevant aspects	University staff	Preceptor/ Supervisor	Student	Codes regarding generalised availability of aspects, as evident from national consultation & Comment ● usually ■ sometimes ○ rarely NA not applicable
	Provide formal feedback & summative assessment *oral & written formats *specific about areas of strength/areas of improvement *discuss with student, giving specific information *encourage self-assessment *prompt completion/forwarding of uni documentation		■ ■ ■ ■ ■		
Student	Task completion *negotiate/discuss assigned tasks with preceptor *show professional attitude & dress *show initiative, enthusiasm, interest *complete other tasks as required *undertake observation, read, listen, ask questions *seek constructive feedback			■ ■ ■ ■ ■ ■	
Post placement					
	Student Debriefing session organised	■			Especially for 3 rd /4 th year, sometimes less clear for 1 st /2 nd year of courses
	Student Reflection			■	
	Student evaluation completion			■	
	Processes for collation and communication of overall student & preceptor evaluation of placement program	○			
	Finalise learning tasks , assessment & submit			●	
	Preceptor completion of documentation		●		
	Acknowledgement of preceptors by students/university including letter of thanks	■		○	

(Adapted from University of Ulster, 2003)

Table 7 illustrates that at the pre-placement stage, there is generalised availability of many legal and administration tasks by the university such as insurance documentation, Occupational Health and Safety and preparation of handbooks. Formal preparatory lectures were also generally available. Orientation briefings, students researching placement sites and cultures, and letters to preceptors regarding student knowledge background and key points for assessment sometimes occurred, dependent on the university concerned. Preceptor/site preparation in regard to clarifying their own culture regarding students and time availability and preparing an orientation plan occurred sometimes, dependent on the persons involved. Student responsibility in regards to pre-placement essential administration was generally undertaken but other organisational aspects were not common. Accreditation and training of preceptors prior to placements was only rarely available.

During the placement, the university handbook provided general advice on many aspects; sometimes university tutor visits provided additional support. Site and preceptor orientation of students to various aspects of the workplace sometimes occurred. Also, negotiation of many aspects of an educational plan with students, including provision of a supportive learning environment and providing formal feedback, was sometimes available for them.

Post-placement, responsibilities of universities, preceptors and students in aspects such as debriefing, letter of acknowledgement to preceptors and student reflection after the placement variously occurred. This is shown in Table 7.

8.2 Consultation views about learning supports

The consultations indicated that in providing support for experiential placements in terms of assessment and learning processes, many universities have a dedicated university coordinator available. The role of the university coordinator varies from one pharmacy school to another but includes communication with students and preceptors, dealing with issues raised, preparation of workbook materials, site visits, and matching students to sites. Some universities also provide paid and trained hospital tutors to coordinate programs and undertake assessment of students.

Other mechanisms of support are that generally students undergo university orientation to placement expectations. Similarly for students, introduction to the concepts of asking questions, seeking feedback and showing initiative was sometimes available. Work booklets generally provide clarity regarding experiential learning placements:

- *Potentially the preceptor will put in a bit of effort if the university has taken the time to provide a framework* (professional association representative).

However a booklet can be threatening and restrictive for preceptors (and difficult for them to provide the range of experiences required). Some universities provide a handbook and a two page checklist outlining the range of experiences expected and the student and preceptors sign off on those tasks which are attempted. It is useful if the additional brief document provides the essential points including some information about student program background experiences:

- *Universities are notorious at giving you great reams of paper which you don't need...one or two pages is needed* (preceptor).

Open-ended reflection and learning opportunities were also valued, with a balance of structured and unstructured experiential learning being considered important:

- *The manual's supposed to be a guide.. the rest of that time is to do things for themselves* (university).

Rural placement funding is currently available for Australian resident students and provides accommodation/travel/living allowances. Conversely, funding for rural university school students to undertake placements in metropolitan locations (also costly) is not available.

8.3 Handbook analysis and evaluation processes

Most universities have some established evaluation processes for Pharmacy experiential placements to continuously monitor their programs. University handbooks were analysed to examine evaluation processes in

regard to student feedback about the placement site/preceptor and university and preceptor feedback about university support.

8.3.1 Student evaluation of placement site/university experiential placements

8.3.1.1 Handbook Example 19: Student evaluation of placement site and university

Purpose: each student is asked to complete this evaluation. The information enables the placement coordinator to evaluate the current year's program in preparation for the 2008 placement program. This evaluation is not sent to the individual preceptor but all evaluations are collated to produce a general report, the recommendations of which are distributed to all preceptors as feedback. Every student is asked to complete an evaluation form when you hand in your workbook. There is space at the end of this survey for more detailed comments.

Rating scale: ranges from 1=strongly disagree to 5=strongly agree

Overall the clinical experience was a pleasant experience	1	2	3	4	5
I was well prepared for the placement	1	2	3	4	5
The venue was well prepared for your placement	1	2	3	4	5
There was adequate orientation provided	1	2	3	4	5
I was expected by the venue	1	2	3	4	5
I met my objectives to my satisfaction	1	2	3	4	5
The placement enhanced my learning	1	2	3	4	5
The placement enhanced my clinical skills	1	2	3	4	5
The placement was supportive of my professional growth	1	2	3	4	5
The staff members were very willing and available to assist my learning	1	2	3	4	5
There were many learning opportunities at this venue	1	2	3	4	5
As a result of my experience I feel confident working at this venue	1	2	3	4	5
The length of this placement was too short	1	2	3	4	5
The length of this placement was too long	1	2	3	4	5
The clinical experience would benefit other students	1	2	3	4	5

Would you recommend this pharmacy site to other students ?

List two areas that you considered were highlights in your placement

List two areas that you considered as negatives in your placement

Any other comments

Handbook Example 19: Student evaluation of placement site and university orientation process

8.1.3.2 Handbook Example 20: Various other evaluation areas for student comment

Other areas for student comment on placements from various handbooks included the following:

- Becoming more competent
- Overall accomplishment
- Leadership skills
- Valuing new viewpoints
- Sense of personal responsibility and confidence
- Developing professional approach
- Relevance to future and to other studies
- Sufficiency of background knowledge for the placement
- Appropriateness of site
- Site provision of wide variety of learning experiences
- Professionalism of site staff in creating conducive learning environment

- Site provision of constructive feedback to students
- Site staff demonstration of up-to-date knowledge and practice
- Site staff flexibility in facilitating student learning objectives
- Site staff introductions, orientation and being welcoming
- Supervising pharmacist giving clear directions
- Supervising pharmacist assisting with enquiries
- Supervising pharmacist ensuring student understanding of instructions
- Supervising pharmacist encouraging application of theoretical knowledge and communication
- Supervising pharmacist establishing effective and non-threatening teaching relationships
- Sufficient time to complete tasks in workbook
- Supervising pharmacist being sensitive and responsive to student needs
- Balanced feedback being useful and accurate
- Relevance of exercises
- Sufficient time provided by site staff member to assist with required tasks
- Sufficient quantity and range of activities for experiential placement required by university
- Sufficient information given at university orientation session
- Dissemination of information and correspondence from university being satisfactory
- Usefulness of Orientation Checklist during orientation period of rotation
- Mid -rotation assessment giving indication of progress towards goals

Handbook Example 20: Various evaluation areas for student comment

8.3.2 Preceptor evaluation of university

8.3.2.1 Handbook Example 21: Preceptor comment on student preparation

Support on placement

1= Well supported; 2=somewhat supported; 3= inadequately supported; 4=not supported; NA= not applicable

Areas of support from university	Ratings
Personal /telephone contact when required with university staff	
Dealing with problem in pharmacy/dealing with problem student	

Relevance of placement exercises comment

Other comments

Handbook Example 21: Preceptor evaluation of university

8.3.2.2 Handbook Example 22: Preceptor evaluation : Supervising Pharmacist: _____

How would you rate the following aspects of the placement? (please circle appropriate number)						
	Excellent	Good	Satisfactory	Unsatisf	Poor	Not Applicable
The information provided to you regarding the nature of the externship	5	4	3	2	1	N/A
The information you received regarding the details of the externship, such as the number of students, time of attendance etc	5	4	3	2	1	N/A
The scheduling of the time of the externship	5	4	3	2	1	N/A
The relevance of the tasks undertaken during the externship and quality of the manual	5	4	3	2	1	N/A
The students' understanding of what was expected of them during the externship	5	4	3	2	1	N/A
How would you rate your overall experience of this externship?	5	4	3	2	1	N/A

How would have you improved this externship?

What were the best parts of the externship?

Were there any negative aspects to this externship?

Handbook Example 22: Preceptor evaluation of university

Consistent with Figure 6 and planning for learning, while many universities have processes for the evaluation of experiential placements involving students and preceptors, there was little clarity concerning the mechanisms used to follow through on the results of these evaluations in terms of informing the planning for learning. A few universities had collated results and systematically examined the issues and made changes, also informing their preceptors and students. Generally, the evaluation results were not systematically collated but examined informally and some adjustments made. Many preceptors indicated that they would appreciate some feedback on their own role. While this was understood to be problematic in terms of confidentiality, there were some mechanisms currently being used or suggested as part of the consultations to deal with this including collating evaluation results and forwarded key issues to those involved.

8.4 Issues arising from consultations and improvements suggested

A range of key issues and suggestions for improvements to experiential pharmacy placements were made during the consultations. These include:

- Various views about lack of funding for being a preceptor, especially since many other professions have access to financial recompense;
- The importance of encouraging students to participate in rural placements, with support from university tutors ensuring availability of accommodation;
- The need for marketing of the role of preceptors including opportunities to try out potential new employees and contribute to mentoring within the profession while revitalising pharmacy skills;
- Difficulties in finding placements for the number of students currently undertaking pharmacy programs, with students expected to find their own placements in some year levels and some students not having the opportunity to do hospital placements at any time in their programs;

- Concerns about the cost of placement programs in terms of university personnel for coordination, visits and potentially payment of hospital tutors during a time of expanding student numbers within constrained budgets;
- Students in some states wanting more contact with professional organisations/registration within the university program, not just in the pre-registration year;
- The need for clarity by universities/registration/professions about the outcomes of the university program prior to the pre-registration year when competencies must be achieved;
- Need to re-visit selection processes for students entering pharmacy programs to ensure genuine interest and appropriate communication skills, rather than merely using year 12 scores;
- The need for more communication and coordination between universities in some states to develop a preceptor database to ensure there are sufficient placements. This may include working with registration/professional/government bodies to obtain more hospital placements and Pharmacy Guild involvement (with coordination and administration hopefully having positive impacts on preceptors);
- Australia-wide coordination with respect to student requirements to avoid confusion for preceptors who are juggling the requirements of various universities (in some cases, preceptors are supervising students from multiple universities);
- Real time and money pressures existing for full fee paying Master of Pharmacy students who are grappling with heavy course load, paid pharmacy jobs and unpaid work placement;
- Too much or too little information about what students need to do is given to preceptors, with placement sites needing awareness of the goals and with clear a 1-2 page document sometimes preferred; and
- The importance of evaluation of the course was highlighted: ‘there’s no real educationalists who are reviewing how they’re taught...simple to the complex...abstract to the concrete.... (students) don’t seem to have the basics’ (preceptor).

8.5 Quality Indicators

A key to the success of the experiential learning placements for pharmacy students involves a complex interplay of factors. Various key interrelationships have been identified (within the United States context) between the preceptor, site, student and the university school, operating within a particular environment (O’Sullivan, Hammer, Manolakis, Skelton, Weber, Dawson & Flynn, 2005: 10-11), as shown in Figure 9:

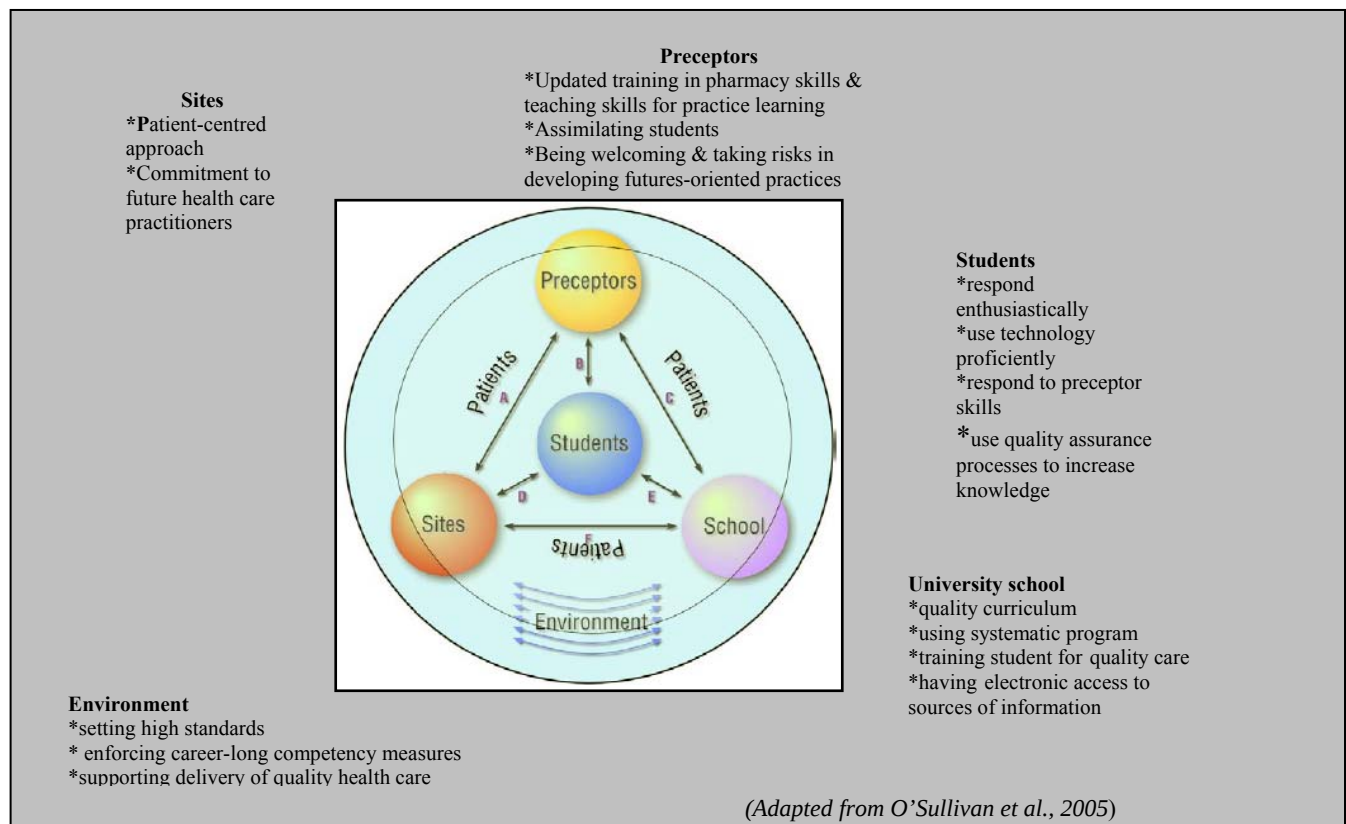


Figure 9: Quality indicators

8.5.1 Quality Indicators from the Australian consultations

Consultations with key stakeholders indicated considerable agreement among various stakeholder groups about indicators for quality experiential placements. There was also consistency with the United States research about quality indicators in terms of pharmacy site, preceptors, university, students and overall environment. Details of the key consultation aspects which were raised are as follows, with the most frequently identified quality indicators being shown using *:

Pharmacy site

- Sufficient space for students
- Sufficient resources available - online references, computer access: having patients available and willing to interact with students, funding to support preceptors and students,
- Sufficient time for students
- **Sufficient learning opportunities available*** - being well prepared, providing varied and ethical experiences, using patient centred approach, high professional and ethical standards, valuing education
- **Good working relationship*** - welcoming, introducing students widely to others to support questions, thorough induction, commitment to future health practitioners & placement programs, inter-professional learning, high quality professional interactions

Preceptor

- **Personal attributes of preceptors*** – enthusiasm, making the time, being welcoming, conducting themselves professionally, committed to profession, passionate

- **Rapport building, clear expectations & course understanding***-conveying importance of social interaction, respecting students knowledge and skills and not feeling threatened
- Orientation to workplace & broader community- introducing students widely
- **Supportive learning context***- up-to-date and being able to structure practical experiences and use scenarios linked to placement objectives, feeling included, accommodating different student learning styles, cultural sensitivity, willing to teach and giving detailed explanations to questions, nurturing improvement and application of student knowledge, two way learning
- Organised & structured training plan- fully informed of university requirements
- Facilitated learning, encouragement to question & pursue own learning- allowing students to have a go, sense of contribution, room for self directed learning
- Assigned time for discussion & feedback- providing honest and constructive feedback

University

- Regular preceptor training/education: Verbal/written communication including seminars, info sessions
- Preceptor workbooks: Clear curriculum and assessment information
- **Clear aims linked to assessment tasks***: structuring experiential learning clearly for preceptors and students, clear outcomes evident so processes can be varied as relevant to the placement situation
- **Placement preparation & support for students and preceptors***- students well prepared to undertake explicit placement tasks, point of contact to answer questions and deal with difficult situations, regular contact with students during placement, reimbursement, approachable uni supervisor and support staff, adequate staff levels

Students

- **Personal***: positive and professional/ethical attitude, dedication, enthusiasm to learn from placement situation to maximise learning, taking initiative, good work ethic
- **Learning approach***: asking questions, being flexible, doing boring jobs sometimes, self reflection and awareness of strengths/weaknesses
- **Social***: willingly interacting with patients/customers, effective communication (oral and written), responsive to feedback, team member,
- Preparation: clarity re expectations, sound knowledge base and ability to demonstrate practical skills and application of knowledge, good technology

Overall environment

- Profession/registration/universities having an organized approach
- Sufficient and sustainable situation to support student experiential learning and a strong professional ethos
- National guidelines on being a preceptor/student supervisor and supported professional development, with continuing education of preceptors and academics

The quality of the preceptor was consistently highlighted by all stakeholder groups as the key to successful experiential placements for pharmacy students.

8.6 Summary

This research highlights quality indicators for successful experiential placements focused on preceptors, students, universities, placement sites and overall environment and application at the pre-placement, during placement and post-placement phases. While there are many positive models from pharmacy schools, there are certainly some areas which would benefit from more comprehensive preparation of students and preceptors for placement experiences including clearer goals and ensuring students have the necessary pre-requisite skills to undertake learning and assessment tasks. During the placement, negotiation of expectations and tasks between preceptors and students would provide additional support and explicit feedback. Debriefing and systematic evaluation of pharmacy experiential placements and reviewing current programs and providing some generalised and/or specific feedback to preceptors (as appropriate) is also highlighted.

9. The Way Forward

Experiential placements are regarded as an extremely important part of a pharmacy program by all stakeholders. They are acknowledged as having a significant role in developing student knowledge, skills and attributes in the workplace, linking theory and practice, career choice checking, and employment exposure in a range of situations, as well as potentially reinvigorating the profession.

This research indicates that key influences on experiential pharmacy placements are the eight functional areas of the PSA competencies, linked to registration accreditation requirements and to university-specific graduate qualities (which have considerable consistency). A wide range of structural models for pharmacy experiential placements exist varying from university to university, and across student year levels, with placements generally operating as separate courses within the overall pharmacy programs by the final year. Brief early placement exposure, three to five week blocks and some targeted half to one day sessions, a balance of open-ended and more structured situations and a range of placement opportunities and systematic university phone contact or visits were particularly valued.

Some models of using a comprehensive experiential learning planning process were evident, with objectives clearly linked to pre-placement preparatory and placement learning tasks and with opportunities for student negotiation of assessment tasks and criteria, also including a systematic evaluation process. However, in general, planning for experiential placement learning including at the pre-placement, during placement and post-placement phases needs considerable additional attention and consistency of application within and across university pharmacy schools with a view to improving the quality of work placements.

Given the focus on experiential learning, feedback and preparing students for a futures-oriented profession, some good practice models in building student reflection and communication skills are evident, although still needing further development. Clarity regarding the purpose of reflection, notions of reflection-in-action, reflection-on-action and reflection-for-action and using a framework of challenging questions to encourage students to move beyond recall and comprehension to analysis, synthesis and deep and critical reflection, including university pre-placement preparation, is required. In addition, pre-placement activities and scaffolding to improve student oral communication skills through role plays, teamwork focused on case studies, negotiation with preceptors regarding placement role and issues, communication theory and practice tasks is occurring, but needs to be extended further. Similarly, structuring placement handbooks and making contact to build preceptor understanding of placement goals and increase their skills in providing explicit feedback to students, is an essential aspect.

This research presented some models from various sources and professions for more comprehensive planning linked to clear educational outcomes, with research-based professional development also involved. University-led establishment of student and preceptor evaluation processes varies but generally a more systematic approach is needed, especially in terms of formally collating results and documentation and dissemination of key ideas and actions to stakeholders and in reviewing programs. Developing models representing comprehensive planned experiential learning and assessment tasks and evaluation processes would be extremely beneficial for the pharmacy profession as exemplars. This needs to involve collaboration and professional development thereby supporting good practices on a wider level, and with preceptor accreditation and training also requiring further development.

Recommendation One:

It is proposed that a national depository of experiential placement learning and assessment tasks be established based on collaborative action research work and using an educational template and planning model incorporating learning outcomes, criteria for assessment and evaluation processes. The action research process which is proposed involves stakeholder practical workshops for collaborative professional development, trialling and modification of learning tasks; data gathering and feedback from participants within specific experiential placement trialling; and final documentation and preparation for publication and dissemination within the central depository.

The pharmacy experiential placement research indicated that there was considerable consistency in the types of assessment tasks undertaken especially in the final year of courses when the main focus on experiential placements occurs, with oral presentations, workbook exercises and preceptor assessment of generic and occupation-specific skills generally being involved. However the clarity and level of understanding about criteria and pass/fail or marks and other processes related to assessment aspects varies between universities. Links to the competencies of the profession and university-specific Graduate Attributes needed to be far more explicitly indicated.

Some Australian universities are using graduated descriptors for some of their assessment tasks, with or without links to marks and/or university pass/credit/distinction grade bands. There was support for this approach especially as a basis for feedback and discussion between students/preceptors and university staff. American pharmacy school experiential placement graduated descriptors provide some models for consideration.

A graduated descriptors approach, with links to competencies and other relevant aspects, with or without marks and grade band links, would benefit from a more consistent application across tasks and year levels within specific university pharmacy schools and there would be benefits in some cooperative work across universities.

Recommendation Two: It is proposed that collaborative stakeholder work occurs in the development of standardised developmental descriptors related to competencies as applicable to university students at the novice and advanced beginner levels, with descriptors potentially considering aspects such as time taken to undertake tasks, rule bound versus flexible application to unique situation, and degree of patient focus. Preliminary information gathering, collaborative instrument development, refinement of graduated descriptors and pilot testing and finalisation and training package dissemination aspects are some processes involved.

This research highlights stakeholder concern regarding the increasing numbers of students and the shortage of preceptors, with provision of sufficient quality experiential placements being in jeopardy. It was noted by students, preceptors and professional groups that there are limitations in preceptor skills in teaching and assessment. Student orientation and induction, negotiation of an educational plan with students, provision of a supportive environment, feedback and assessment were emphasised as important but not currently being generally provided by preceptors and sites. There is a need for funded time and training to be available. However without funding resources, any additional requirements such as compulsory training are likely to compound the preceptor shortage situation. University systematic phone contacts and tutor visits which are provided by a few universities give some support and were commended by stakeholders. Promoting the value of being a preceptor including meeting continuing professional education requirements and Guild and professional organisation involvement was highlighted as essential.

Quality indicators were identified in relation to preceptors, students, placement site, university and the overall environment, with some consistency with pharmacy research from the United States and with Australian indicators warranting further consideration and development. These Australian pharmacy experiential placement success indicators could be further expanded in terms of the pre-placement, during placement and post-placement aspects, with Table 7 within Chapter 8 highlighting varying degrees to which particular aspects are currently embedded. At the pre-placement level, university responsibilities related to clear goals and detailed university orientation briefings and comprehensive preparation for learning tasks are aspects only sometimes occurring. During placement, preceptor responsibility in orientation and negotiation of an educational plan with students and provision of feedback are aspects for further development and university responsibilities post-placement in regard to evaluation feedback to stakeholders and systematic approaches are highlighted as potential areas for more consistent application.

Recommendation Three: It is proposed that further collaborative work be undertaken in conjunction with professional bodies and other stakeholders to further identify quality experiential placement success indicators in relation to preceptors, students, university, site and overall environment. This includes pre-placement, during placement and post-placement aspects to support improvements in pharmacy experiential placements.

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