

## **'REFLECTION': A TEACHING AND LEARNING STRATEGY TO FACILITATE A DEEP APPROACH TO LEARNING DURING UNDERGRADUATE STUDENT CLINICAL PRACTICUM EXPERIENCES.**

Lynn Jamieson, Kerry Reid Searl and Trudy Dwyer  
Central Queensland University

### **ABSTRACT**

A 'deep' approach to learning may be optimised during undergraduate nursing student practicum experiences using 'reflection' as a teaching and learning strategy. This paper will explore the literature to clarify the concept of 'reflection' and to identify a structure and tools that can be used to facilitate reflective teaching and learning for this context.

### **INTRODUCTION**

Clinical practicum experiences are a fundamental component of some undergraduate courses. This is the case within undergraduate nursing courses because many nursing regulatory authorities require a mandatory minimum number of hours of clinical experience prior to licensing (Brammer & Zelmer 1996). It may be assumed that exposure to clinical experiences will result in student learning. However, will this experience merely result in the development of psychomotor and technical skills specific to the situations they have been learned in? Can educators ensure that students go beyond this 'surface' level of learning to a deeper learning that will enable graduates to effectively respond in a competent manner to the complexities, challenges, and uncertainties inherent in professional practice?

A search of the nursing literature has identified a wealth of published work suggesting that 'reflection' is a strategy used to enhance a 'deep' approach to learning within undergraduate and postgraduate tertiary nursing education, and that by the same strategy is also used by practicing professional nurses. Though there is little empirical evidence, published anecdotal evidence suggests that reflection can: assist with integration of theory and practice to gain understanding (Prowse, 1996; Carr, 1996; Johns, 1995a); encourage use of cognitive skills such as those described in the taxonomy of cognitive abilities described by Bloom, Engelhart, Furst, Hill & Krathwohl (1969) and others (e.g., Burton, 2000; Ertmer & Newby, 1996; Wong, Kember, Chung, & Yan, 1995); and support generation of new knowledge and theory (Burton 2000).

Widely acknowledged in nursing circles is Benner (1984) who identified that nurses begin

as novices and have the potential to develop into experts using reflection to learn in a systematic way through their experiences. The notion of encouraging undergraduate nursing students to develop a learning strategy that may be used throughout the continuum of professional development seems very appropriate.

There is support in the literature for utilising reflective teaching and learning to enhance nursing student clinical practicum experiences. However, anecdotal evidence suggests that the key concepts and processes are often not fully understood by clinical practicum educators who must facilitate use of this strategy, or by the students who are to learn from the strategy. This knowledge deficit presents a barrier to effective teaching and learning. The purpose of this paper is to explore reflection as a teaching and learning strategy by reviewing the literature to enable an understanding of pertinent key concepts and processes, and to apply this knowledge – enhanced by the authors' experiences as facilitators of clinical practicum learning – to identify an appropriate structure and tools so that undergraduate nursing student clinical practicum teaching and learning will be effective. Though the paper will focus on undergraduate nursing student teaching and learning, the issues explored may be applicable to other practicum learning contexts.

### **THE CONCEPT**

White & Ewan (1991, p. 196) assert that reflection "... is a legitimate and necessary aspect of professional education..." but there is little clarity to be found in the literature related to the reflective concept and processes. Stefani, Clarke, & Littlejohn (2000) suggest that it is important for educators to provide students with a concise operational definition to enable reflective learning to be valued. Boud, Keogh,

& Walker (1985, p. 19) may provide some understanding of the concept when proposing that,

"reflection in the context of learning is a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understanding and appreciations. It may take place in isolation or in association with others."

The definition suggests that the reflective learning concept goes beyond the intellectual to incorporate the emotional. Experience in clinical facilitation lends support to the appropriateness of this suggestion as nursing in the practicum environment deals "...with intimate and fundamental human events such as birth, death, and suffering" (Kozier, Erb, Berman, & Burke 2000, p. 71) that require personal involvement by the nurse. Evans (1997) adds another domain to reflection when suggesting inclusion of behavioural aspects – which is also appropriate when considering the educational context of the clinical practicum.

Consistent within all reviewed literature is the premise that 'experience' must form the foundation for reflective learning (Wong et al. 1995). Experience is presented as the catalyst from which learning occurs by a process of reflection. Boud, Keogh, & Walker (1985) definition suggests that a variety of processes and activities are included under the umbrella term 'reflection', indicating that reflective teaching and learning is a strategy that is flexible and adaptive to specific contexts.

Boud & Walker (1991) suggest that whilst reflection is a commonplace activity, the processes can be made more explicit and ordered so that the potential for learning can be enhanced. They propose that reflective learning is a complex process that if purposively directed to cause emotions and intellect to interact and interrelate, can enable exploration and discovery (Boud & Walker, 1991). Ertmer & Newby (1996) propose that students must be taught learning strategies. Thus, if reflective learning is to occur, students should be taught the strategies to be used.

## A STRUCTURE FOR REFLECTION

Boud & Walker's (1991) proposal that reflective learning is a complex process that requires order, leads to the suggestion that a process structure will be required to assist students to develop reflective learning techniques. This suggestion is supported by the personal

experience of the current authors as facilitators of clinical learning using reflective teaching and learning strategies. A review of the literature identified Carper's (1978 cited in Carr, 1996; Johns, 1995a; and Chinn & Jacobs-Kramer, 1991) four ways of knowing. Johns (1995a) suggests that by utilising Carper's 'empirical' (the science of nursing), 'aesthetics' (the art of nursing), 'personal', and 'ethical' domains of knowing, reflection can be structured "...in a valid way to help the practitioner frame his or her learning through practice" (p. 233). Cue questions based on Carper's 'ways of knowing' can provide the student with a framework (Table 1) that assists the learner to make a multidimensional reflective exploration of an experience. This exploration enables the experience to inform future practice by a process of reflexivity that assists the learner to use reflection to assimilate present learning with existing knowledge to permit changed responses to future situations (Johns, 1995a).

Describe experience using the cue questions below.	
Aesthetics	What was I trying to achieve? What was my response? Why did I respond as I did? What were the consequences of that for: the patients? others? myself? How was this person feeling? (Or these persons?) How did I know this?
Personal	How did I feel in this situation? What internal factors were influencing me?
Ethics	How did my actions match my beliefs? What factors made me act in incongruent ways?
Empirics	What knowledge did or should have informed me? Was there evidence to validate my practice?
Reflexivity	How does this connect with previous experiences? Could I handle this better in similar situations? What would be the consequences of alternate actions for: the patient? others? myself? How do I <i>now</i> feel about this experience? Can I support myself and others better as a consequence? Has this changed my ways of knowing?

Table 1. Cue questions using Carper's ways of knowing. Adapted from Johns, 1995a, p. 227.

Johns (1995a) and Carr (1996) substantiate the validity of using this structure to enhance reflective learning by providing realistic accounts of how Carper's 'ways of knowing' can be used as a reflective learning framework to identify knowledge imbedded in practice. Anecdotal evidence based on experience in facilitation of clinical learning demonstrates that the structure allows reflection to encompass cognitive, affective, and behavioural domains to provide a teaching strategy to assist undergraduate student nurses traverse the complexities of reflective learning.

Schon (1987) and Boud & Walker (1991) emphasise 'reflection-in-action' and 'reflection-on-action', whilst Evans (1997) perceives that the key times for reflection processes are past and future. Evans (1997) recommends that reflection is needed prior to a practice event so that good practice results, and this is appropriate when considering nursing student learning. Experience in facilitation of clinical learning identifies that nursing students are commonly inexperienced concerning the reflective learning

strategy. Within the clinical practicum many skills practiced are new to the student and there is a need to spend time reflecting prior to performance to promote competent practice. To encourage reflection 'during' an experience can cause additional anxiety for the student who attempts to cope with performance of a new skill whilst simultaneously developing reflective learning techniques (Pierson 1998). Consideration of these factors leads to the conclusion that reflective teaching and learning should be before and after student clinical practice experiences.

Reflective teaching and learning may be flexible and adaptive to specific contexts. Figure 1 depicts a model for undergraduate student clinical practicum reflective learning that has been informed by the literature. This model has experiences and practice at its core with these being the catalyst for learning, with knowledge and skills being gained by a process of reflective learning both before and after these experiences (Evans, 1997).

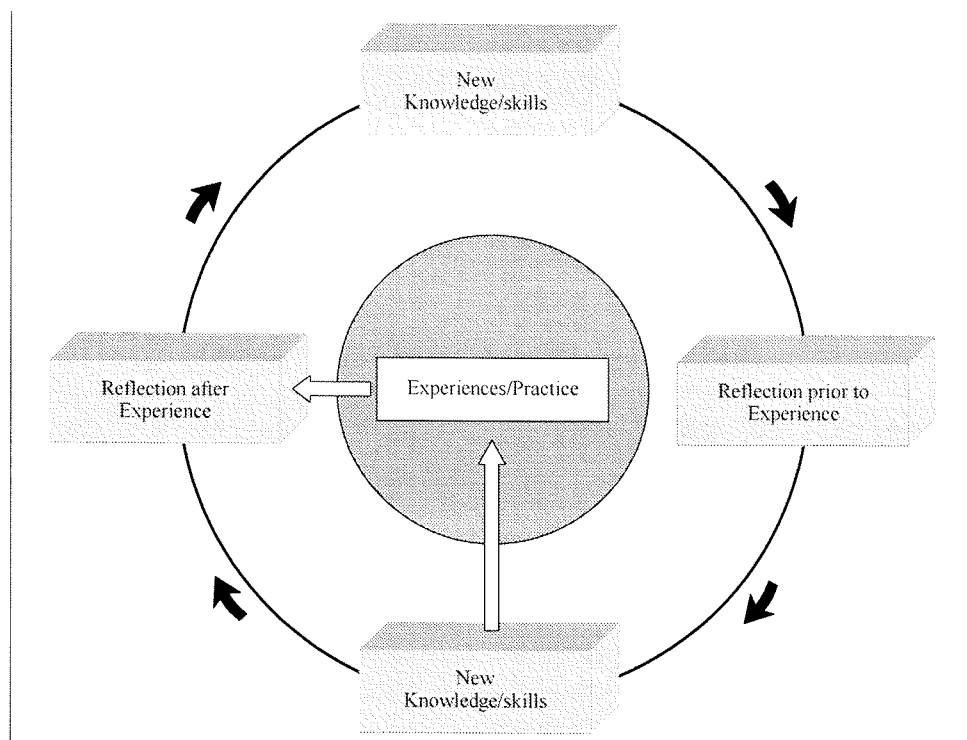


Figure 1. Model for undergraduate clinical practicum reflective learning

With each new experience, the model (Figure 1) identifies that new knowledge and skills are gained. The knowledge and skills base of the student continuously grows because reflective learning in this model is a cyclic process that provides a deep, continual approach to learning (Kolb & Fry, 1975 cited in Wong et al., 1995). As new knowledge and skills are learned they in turn impact on future experiences and practice, thus promoting practice that is reflexive (Johns, 1995a).

In this model, on-campus theoretical and practical learning enhance the depth of learning that occurs. Though experience is at the core of reflective learning, the bold outer circle of the model identifies that the student is able to learn without personally experiencing a situation. The student can learn by drawing on the experiences of others, such as educators or peers. In this situation, personalising others' experiences assists in learning new knowledge and skills that will inform future practice. Thus the model presents a structure for learning that occurs by reflection on personal and others' experiences. Reflective teaching and learning tools are perceived to be needed to enhance the process identified.

## TOOLS TO ENHANCE REFLECTIVE LEARNING

An important consideration for educators is to find useful tools to enable practical application of the reflective learning concept and the structure identified. Boud et al.'s (1985) definition of reflection indicates that this process can take place in isolation or in association with others, and the literature describes a diverse array of reflective teaching and learning tools utilising both methods. Exploration of the literature, enhanced by the authors' experiences, assisted to identify tools that are appropriate for the educational context upon which this paper focuses.

### Reflective Journals

The process of reflective journaling has gained some popularity in association with nursing student education (Richardson & Maltby 1995). Usher, Francis, & Owens (1999) suggest that writing permits revisiting and reworking by enabling coherence that anchors thinking, and Richardson & Maltby (1995), based on their study findings, suggest that this tool may be beneficial for all students. The School of Nursing and Health Studies at Central Queensland University support and encourage student reflective journaling as a means to enhance learning.

However, journaling for reflective learning objectives may be problematic for teaching and learning if also used for assessment purposes (Pierson, 1998). If reflective journals are used for assessment, students may journal to please the educator rather than for learning purposes (Marland & McSherry, 1997; Hogan, 1995). To avoid these problems, reflective journaling by students can be utilised primarily for personal learning. The activity can be conducted in isolation or may entail sharing the journal with the educator to enable feedback (Pierson, 1998). However, Wong, et al. (1995) assert that educators need to find an assessment approach to evaluate reflective learning. Hogan (1995) proposes that assessment is necessary as it may provide motivation without which students may not keep up the journaling process. The School of Nursing and Health Studies at Central Queensland University has used one approach to the assessment of reflective learning where students submit an 'exemplar' that originates from entries in the student's journal but is specifically written as an assessment piece. Another approach used by the School is the use of anecdotal notes that incorporate the skills of reflective journaling to demonstrate achievement of competency standards. These processes provide a vehicle to assess reflective learning without compromising free expression within the journal, thus optimising the positives of reflective journaling whilst reducing the potential associated negative factors.

### Group reflection

Reflection may also be undertaken as a group activity where peers collaborate together (White & Ewan, 1991). Brookfield (1987) suggests that totally independent learners are rare and that a network of supportive, learning peers can enhance critical thinking by endorsing risk taking. Collaborative reflection with small groups of student peers, facilitated by the educator, may assist participants to learn the potential benefits of peer collaboration as a means to active reflection and deeper learning for all (Brammer, Curry, & Mason, undated). Group reflective activities have the potential to allow reflection on experiences facilitated by peer collegiality and cooperation, and the knowledge and interest of the educator (White & Ewan, 1991). Scanlan & Chernomas (1997) propose that students choose different parts of an experience to reflect upon, suggesting that group reflection has the potential to enable insights from differing perspectives related to a specific experience. Knowles (1984) suggests

that sharing past experiences and learning from one another through this sharing are important to the adult learner.

### APPLICATION OF REFLECTIVE TEACHING AND LEARNING

The reflective teaching and learning process for undergraduate nursing student clinical practicum experiences at CQU is structured using Carper's (1978 cited in Carr, 1996; Johns 1995a; and Chinn & Jacobs-Kramer, 1991) four ways of knowing to provide the reflexive learning already discussed as being important. Students are given information to assist in using this structure. The teaching approach is that of 'facilitator' of learning – where there are shared responsibilities for learning with students – rather than that of traditional didactic teacher (Stefani et al., 2000). This is consistent with the philosophies of adult learning.

It is appropriate to utilise both reflection in isolation and in association with others to enhance potential learning in a diverse student cohort. Reflection prior to experiences and practice is conducted with either the educator or the clinical nurse 'buddied' with the student – with previous on-campus learning providing a foundation for this reflection. Students are supernumery during clinical practicum experiences allowing 'time out' for reflection (Pierson, 1998). As has been discussed, the reflective journal is a viable tool to enhance nursing student reflective practices. Reflective journaling is utilised for reflection after practice and based on the suggestions in the literature, is used specifically for learning rather than as an assessment strategy. A period of time is devoted at the end of each clinical practicum day to group reflection to promote positive learning after experiences and practice. Group reflection allows learning to occur from personal as well as from others' experiences as is presented in the undergraduate clinical practicum reflective learning model (Figure 1). This reflective activity is student generated but facilitated by the educator to ensure individual safety is not compromised.

Brammer et al. (undated) suggest that 'risk taking' is necessary to provide individuals with a personal learning 'win' that "... is perceived as an experience which empowers, elevates, challenges, endorses and invigorates the participants of learning" (p. 3). Reflection is one strategy that may result in learning 'wins'. Students' exploration into self during reflection processes will result in 'risk taking' due to

potential exposure of vulnerabilities and the associated intensity of personal feelings (Johns, 1995b; Wong et al., 1995; Rich & Parker, 1995). It is argued that the process identified in this paper provides the potential for reflection to be an appropriate teaching and learning strategy for undergraduate nursing students during clinical practicum experiences. However, the risk taking involved must lead to positive outcomes. Encouragement of risk taking necessitates the learning environment being perceived as 'safe' by the student (Pierson, 1998; Rich & Parker, 1995). The purpose and goals for reflective activity are made explicit to students (Pierson, 1998). Students are made aware of any reflective activities to be assessed. To encourage risk taking, a non-judgemental and supportive learning environment is promoted to develop student trust (Riley-Doucet & Wilson, 1997; Carr, 1996). It is the responsibility of the educator using the reflective teaching approach to ensure this safe learning environment.

## CONCLUSION

The literature has been used to inform an approach to reflective teaching and learning for the educational context upon which this paper focuses. Certain strategies were found to be necessary to ensure optimal reflective teaching and learning including the obligation to: ensure that the clinical educator is cognisant with the concept of reflection; provide a structure to the reflective process whilst students are developing individualised reflection skills; determine tools to be used to enhance reflection; and provide students with a safe learning environment.

Carper's (1978 cited in Carr, 1996; Johns, 1995a; Chinn & Jacobs-Kramer, 1991) 'ways of knowing', the model proposed by this paper for undergraduate clinical practicum reflective learning (Figure 1) and the tools identified, provide a process to enhance learning. Reflection is a paradigm with the real potential to facilitate deep learning during undergraduate nursing student clinical practicum experiences and may provide a foundation for learning throughout the continuum of professional development. Empirical evidence of these factors would be beneficial. However, educator reflection related to self-teaching practices substantiates personal use of this teaching and learning strategy (Scanlan & Chernomas, 1997). Though this paper has focused on undergraduate nursing student teaching and learning, the processes identified would be transferable to other students' practicum learning. This paper

has identified that educators need to clarify the reflective concept and provide a structure and tools to be used for the specific learning context. Provision of order to the complex process of reflective teaching and learning will optimise successful use of this approach.

## REFERENCES

- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park, California: Addison-Wesley.
- Bloom, B., Engelhart, M., Furst, E., Hill, W., & Krathwohl, D. (1969). *Taxonomy of educational objectives, Handbook 1: Cognitive domain*. London: Longman.
- Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: Turning experience into learning*. London: Kogan Page.
- Boud, D. & Walker, D. (1991). *Section 2: The learning experience. In Experience and Learning: Reflection at work*. Geelong, Victoria: Deakin University.
- Brammer, J., Currie, B. A., & Mason, K. (undated). *Collaboration in the clinical setting: Encouraging risk taking to empower learning*. Rockhampton, Queensland: University of Central Queensland.
- Brammer, J. D., & Zelmer, A. E. (1996). *Clinical teaching in the health professions*. Geelong, Victoria: Deakin University.
- Brookfield, S. D. (1987). In *Developing critical thinkers: Challenging adults to explore alternative ways of thinking and acting*. San Francisco: Jossey-Bass.
- Burton, A. J. (2000). Reflection: nursing's practice and education panacea? *Journal of Advanced Nursing*, 31 (5), 1009-1017.
- Carr, E. C. J. (1996). Reflecting on clinical practice: hectoring talk or reality? *Journal of Clinical Nursing*, 5 (5), 289-295.
- Chinn, P. L., & Jacobs-Kramer, M. K. (1991). *Theory and nursing: A systematic approach*. St Louis: Mosby Year Book.
- Ertmer, P. A., & Newby, T. J. (1996). The expert learner: Strategic, self-regulated and reflective. *Instructional Science*, 24 (1), 1-24.
- Evans, D. (1997). *Reflective learning through practice-based assignments*. Paper presented at the British Educational Research Association Annual Conference. [Electronic version] Retrieved August 24, 2001 from <http://www.leeds.ac.uk/educol/documents/000000468.htm>

- Hogan, C. (1995). Creative and reflective journal processes. *The Learning Organisation*, 2 (2), 4-17.
- Kozier, B., Erb, G., Berman, A. J., & Burke, K. (2000). *Fundamentals of nursing: Concepts, process and practice* (6th ed.). Sydney: Prentice-Hall.
- Johns, C. (1995a). Framing learning through reflection within Carper's fundamental ways of knowing in nursing. *Journal of Advanced Nursing*, 22 (2), 226-234.
- Johns, C. (1995b). The value of reflective practice for nursing. *Journal of Clinical Nursing*, 4 (1) 23-30.
- Knowles, M. (1984). *The adult learner: A neglected species* (4th ed.). London: Gulf Publishing Company.
- Marland, G., & McSherry, W. (1997). The reflective diary: an aid to practice-based learning. *Nursing Standard*, 12 (13-15), 49-52.
- Pierson, W. (1998). Reflection and nursing education. *Journal of Advanced Nursing* 27 (1), 165-170.
- Prowse, M. A. (1996). Linking knowledge and practice through teacher-led placements for students. *Nursing Standard*, 10 (33), 44-48.
- Rich, A., & Parker, D. (1995). Reflection and critical incident analysis: ethical and moral implications of their use within nursing and midwifery education. *Journal of Advanced Nursing*, 22 (6), 1050-1057.
- Richardson, G., & Maltby, H. (1995). Reflection-on-practice: enhancing student learning. *Journal of Advanced Nursing*, 22 (2), 235-242.
- Riley-Doucet, C., & Wilson, S. (1997). A three-step method of self-reflective journal writing. *Journal of Advanced Nursing*, 25 (5), 964-968.
- Scanlan, J., & Chernomas, W. (1997). Developing the reflective teacher. *Journal of Advanced Nursing*, 25 (6), 1138-1143.
- Schon, D. (1987). *Educating the reflective practitioner*. San Francisco: Jossey Bass.
- Stefani, L. A., Clarke, J., & Littlejohn, A. H. (2000). Developing a student-centred approach to reflective learning. *Innovations in Education and Training International*, 37 (2), 163-169.
- Usher, K., Francis, D., & Owens, J. (1999). Reflective writing: A strategy to foster critical inquiry in undergraduate nursing students. *Australian Journal of Advanced Nursing*, 17 (1), 7-12.
- White, R., & Ewan, C. (1991). *Clinical teaching in nursing*, Melbourne, Australia: Chapman & Hall.
- Wong, F. K., Kember, D., Chung, L. Y., & Yan, L. (1995). Assessing the level of student reflection from reflective journals. *Journal of Advanced Nursing*, 22 (1), 48-57.