

# **Bridging the gap between learning at work and in the classroom through a structured post-placement seminar**

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This educational research study describes the evaluation of the effectiveness of a structured seminar designed to facilitate reflective practice surrounding an overseas clinical placement for chiropractic students.

Twenty-two chiropractic students commencing their fifth and final year of the course in Perth, Australia participated in a voluntary clinical placement in Siliguri, India.

Four repeat structured seminars were run with groups of fifteen students two weeks after the students returned from India. Each group was comprised of students who participated in the overseas clinical placement and students in the same cohort who remained in their clinical placement in Australia. The seminar was designed to allow the students who participated in the overseas placement to share their experiences and, through this reflective practice, to identify how the overseas experiences might apply more widely.

A survey, designed to evaluate the effectiveness of the seminars, was administered two weeks later to thirty-six students: seventeen overseas placement students, nineteen students who remained in Australia. The response rate was seventy percent for the placement students and fifty-six percent for non-placement students. Descriptive statistics and inductive qualitative analysis were used in the evaluation of the survey results.

Ninety-one percent of respondents reported that the seminar was a useful exercise. Ninety-four percent of those who participated in the overseas placement stated that the seminar assisted them to reflect on their practice experiences. Responses by both groups indicated that the learning experiences generated by the seminars appeared to be associated with conceptual, procedural and dispositional dimensions of learning.

This study demonstrated that a structured post-placement seminar, by engaging students in listening, debate and personal reflection, can extend and transform their understanding of chiropractic practice, and promote conceptual, procedural and dispositional development. (*Asia-Pacific Journal of Cooperative Education, 2010, 11(3), 103-113*)

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## **INTRODUCTION**

Schon's concept of the reflective practitioner has been a foundation for teaching in professions such as law, education, and nursing for a number of years (Schon, 1983, 1987; Jay & Johnson, 2002; Drevdahl, 2002; Kenny, Styles & Zariski, 2004). The abundant literature on reflection has identified varieties of reflection such as 'critical reflection' and 'self-reflection' (Brooker & O'Donoghue, 1993; Rogers, 2001) with critical reflection, in particular, held to be the key factor in learning from experience (Lowe & Kerr, 1998; Simpson & Freeman, 2004).

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In practice, there are three kinds of reflective activity. Schon (1983) describes 'reflection in action' or 'thinking on your feet,' which is usually triggered by recognition that "something doesn't seem right" (Lachman & Pawlina, 2006). This can be contrasted with 'reflection on action,' whereby the participant thinks about a situation after it has happened and mentally reconstructs the experience, paying particular attention to context. Finally, 'reflection for action' guides the decisions of future action.

Schon considered that by engaging in reflection, professionals become competent in the grey area of 'professional artistry' of practice (1987). The value of reflective learning in professional development was highlighted by Boud, Keogh and Walker (1985). More recently, Jasper (2003) considers reflection essential to the delivery of quality care because it stimulates personal and professional growth, and suggests that it helps to close the gap between pure theory and directed practice.

Learning through discussions has been the focus of early research into theories of learning (Pask, 1976). This mode of learning has been recognized as a characteristic of quality teaching (Ramsden, 1992; Trigwell & Prosser, 1996), with Biggs (1999) arguing for its inclusion as an appropriate activity in tutorials. The importance of peer learning is also recognized as key in producing professionals who are lifelong learners, able to work in teams, and continue their professional development (Lincoln & McAllister, 1993). It can be argued that development of skills to enable peer learning is therefore essential in the clinical education process.

This project was designed to incorporate the principles of learning through discussion into a post-placement activity in the final year of a five-year undergraduate chiropractic degree course. The pedagogical approach used was guided discussion in a post-placement seminar, or what Boud et al. (1985) refer to as structured reflection or formal debriefing. Reflecting on the placement experiences back in the academic setting is particularly valuable (Schön, 1991; Kolb, 1984) as students do not often have time to reflect when they are in the work environment. While the academic setting traditionally allows time for deliberation and analysis, learning in the workplace emphasizes the integration of knowledge and skills under conditions that allow little time for such reflection. Further, an individual's interpretation and understanding of events may be influenced by the social and cultural norms of others (Giroux, 1985), and may be distorted due to the power dynamics of the workplace (Marsick & Watkins, 2001). Kolb (1984) suggests that embedded opportunities for reflection on experiences are critical in order for learning in the workplace to be transformative.

## BACKGROUND

Of the fifty-six chiropractic students commencing the fifth and final year of a chiropractic course at Murdoch University in Perth, Australia, twenty-two participated in a voluntary, self-funded, two-week clinical placement in Siliguri, India. At this point in their education, they had completed one trimester of clinical experience at the university's chiropractic clinic, which involved primarily shadowing and assisting more senior students, who were themselves supervised by practicing chiropractors. In the final two weeks of the trimester, students are given more autonomy in managing patients, without the senior students present. In the fifth and final year of the course, students gain most of their clinical experience in a campus clinic of from twelve to sixteen hours per week.

The overseas placement is run by the students annually and affords them opportunities to both observe modeling of best practice by their supervisors in a novel environment and practice competent healthcare themselves. Nine registered chiropractors from Australia and New Zealand volunteered to accompany the students to Siliguri as supervisors. Several orientation meetings were held with the students and some supervisors before the trip to discuss procedural issues; however, no formal cultural awareness training was offered. Students set up four field clinics in the communities surrounding Siliguri, which provided free chiropractic care, first aid and basic medical supplies to the children and community members. While there, they set up a further three mobile clinics: one servicing a nearby orphanage and the other two traveling to local slums. As none of the participants were fluent in Hindi, interpreters were employed locally. The students and supervisors were accommodated in makeshift dormitories for the duration of their placement. At the end of each day's work, students and supervisors met as a group to reflect on their experiences and discuss their personal field observations.

The remaining thirty-four students in the cohort continued their clinical placement in Perth during this time. This placement consisted of twelve to eighteen hours per week of supervised practice in the University's campus chiropractic clinic.

#### POST-PLACEMENT SEMINAR

Two weeks following the students' return from the placement in Siliguri, four repeat one hour seminars were held. The purposes of this seminar were threefold: i) for students to share experiences of different chiropractic practices; ii) make explicit links between those experiences and program goals; and iii) to challenge students to think differently and critically about existing models of chiropractic practices.

Participants in each seminar comprised approximately five students who participated in the placement in Siliguri, and eight to ten of their classmates who remained in the placement at the University's campus clinic in Perth. The seminars were facilitated by the unit coordinator for the year-long clinical practicum unit within the chiropractic course.

It has been shown that the quality of students' experience of learning through discussions is improved if they better conceive of the close relationship between the purpose of the discussions and the subject's objectives. Without this, students are much less likely to approach discussions in a meaningful way (Ellis, Calvo, Levy & Tan, 2004). For this reason, a few minutes were taken at the start of the seminars to discuss the aims and process of the exercise.

Through discussion with peers, students are able to extract the underlying significance of their own experiences and learn from the experiences of others (Ellis et al., 2004) The principal means for fostering integration of workplace and academic learning in this project was discussions following reflection on action, which was primarily oriented toward reflection on theory and organizational practice, rather than personal growth.

The seminar design was informed by Gibbs' reflective cycle (Gibbs, 1988), thus, students who participated in the overseas placement were first asked to briefly describe their experience, in terms of their location, living and practice conditions, and daily routine. Discussion surrounding the evaluation of these experiences was informed by the perspectives of

students who participated in the placements as well as those of the students who remained in Perth.

In the first part of the seminar, students with experience in India were asked to identify common practices and particular requirements of the work by briefly stating the single most significant learning outcome for them personally, identifying aspects of practice that were the same as in Australia, and aspects of practice that were different from Australia. Following this, students without experience in India were encouraged to engage critically with their classmates' experiences by discussing their own personal experiences in clinic that supported or added to what had been described.

Students were then given ten minutes to individually consider and reflect on three issues:

1. how these experiences supported, extended, or contradicted understandings about chiropractic as taught in the university;
2. how these experiences supported, extended or contradicted advice about how to practice chiropractic; and
3. how these experiences reinforced or transformed their views about chiropractic practice.

It was considered essential to allow the students time to reflect before engaging in discussion so the conversation would be based on the information discussed, and not solely on their preconceived notions about these issues. It was hoped that this time for reflection would encourage the students to make connections between practice experience and curriculum content.

The students' responses to these issues were then discussed in the hope of developing a shared understanding of practice requirements and how these requirements are affected by the practice setting, whether in India or in Australia.

Finally, each student was given the opportunity to indicate one finding that was personally important.

#### ISSUES ARISING DURING THE SEMINARS

During the course of the seminar discussions, certain issues were raised by participants in all four groups. Students who participated in the overseas placement raised the issue of the central role of communication, particularly non-verbal communication in healing.

As access to interpreters was limited in Siliguri, students explained that they were required to prioritize their questions to patients in order to be able to offer safe and effective care. After some discussion, it emerged that the students' first priority was patient safety. In other words, could the patients' complaints be due to a serious or life-threatening condition? Once that question had been answered satisfactorily, the next priority, surprisingly was not arriving at a precise diagnosis, but rather ensuring that the patient understood the nature of their condition. Often, in the management of musculoskeletal conditions, particularly spinal conditions, pain cannot be ascribed to a single anatomical structure (Murphy & Hurwitz, 2007; Murphy, Hurwitz, & Nelson, 2008), although an attempt is usually made to do this. This attempt became less important to the students than ensuring the patients understood the biomechanical nature of their conditions. When asked to give reasons for this shift in

priorities, students suggested that this was because the need to motivate patients to continue to manage their own conditions once care was no longer available was perceived as more pressing than the need for precision in diagnosis.

Students remarked that they quickly became more adept at observing patients' posture and movement, looking for signs of pain and limitation, as they could no longer rely on verbal communication in many instances. Most felt that this newfound skill would be transferred to their clinical environment back in Perth.

It appears that, for many students, learning the importance of good communication requires active knowledge construction in a real setting. The seminar discussion allowed the students to make their learning surrounding patient communication explicit as well as share this learning with their classmates. For some participants, this may well have been a transformative learning experience.

Two main issues arose in most groups surrounding ethical aspects of offering healthcare in developing countries. Students who participated in the placement recounted how patients who had little or no understanding of chiropractic practice often had an expectation that they would be given pills as part of their treatment. Discussions centered around the students' ethical responsibility to give patients their autonomy, which would have involved a detailed explanation of chiropractic care (which is a drugless therapy), versus the utilitarian approach which involved simply dispensing multivitamins along with the usual chiropractic therapy. Although not all students in the group agreed as to the best approach to this issue, the discussion allowed them to consider an important ethical issue from different perspectives, and for some, to reflect on their own motivations for the first time.

A second ethical issue was raised by students who did not participate in the overseas placement. They questioned whether offering healthcare to the poor for such a short time was morally right. After some (at times heated) discussion, there was a realization that students who perceived it to be morally wrong tended to think about chiropractic primarily in terms of passive care, that is, the patient as the passive recipient of the treatment. Students who argued that offering chiropractic care for a short time was morally right, perceived that chiropractic included passive care as well as education for patients on how to manage their own conditions, that is, preventive care and health promotion. Although this seminar did not afford sufficient time to deal with such a complex issue in an entirely satisfactory manner, it served to flag the issue for discussion in tutorials at a later date. The nature of the discussion was such that some students became quite emotional and defensive, and for some, views may have become entrenched. This highlights the need to establish some ground rules and principles for how these discussions should progress so that different views can be expressed and those views engaged with and considered by others without too much recourse to emotion.

The most significant findings identified by the overseas placement students could be framed in terms of increased self-efficacy. Students' comments included, "I have much more confidence now that I've had the experience of treating patients with serious conditions," "I'm more comfortable dealing with people when there are problems with language," and finally, "I don't sweat the small stuff anymore."

The most significant findings identified by the students who remained in Australia involved the identification of congruence between the placement experience and the curriculum

content. Comments from these students included, "Now I understand why there's so much emphasis on diagnosis of non-musculoskeletal conditions in the program," and "I see why you teach evidence-based practice," and "It's good to know we're capable of helping all these different conditions you've been teaching us, even if we don't get to see them all here in clinic."

#### EVALUATION OF THE SEMINAR

Two weeks after the seminar, surveys were distributed to the fifty-six students who had attended. A total of thirty-four were returned anonymously, seventeen from those who had experience in India (77%), and nineteen from those who did not (56%).

The survey results indicate that the seminar was overwhelmingly supported by both the students who had experience in India, and those who had not. It appears both groups were able to gain from this interaction, albeit in different ways.

In answer to the question "Did you find sharing your experiences in India with other students to be a useful exercise?" sixteen respondents answered "Yes," and one answered "No." Positive comments in this section were typified by:

Thank you... It was stimulating and thought-provoking; ... a good opportunity for us to reflect on the experience; Thank you for giving us the time to talk about the trip.

Brought up some interesting issues surrounding the ethics of Humanitarian work; ... reinforced my views on what chiropractic is all about.

Very useful. It made me think about what chiropractic can do for people in any situation; You should do this again next year.

The single negative comment related to the discussion about the ethics of offering healthcare for a short time only:

... were rude & condescending & did not even attempt to diplomatically raise their point – which we had already considered & experienced for ourselves.

The students who traveled to India were also asked "Did the discussions assist you to reflect on your practice experiences?" In reply, again sixteen answered "Yes," and one answered "No." Comments in this section were uniformly positive:

The discussions helped me more carefully collate my thoughts and relate my experiences.

It made me think about how priorities shift when you only have a limited time with a patient.

... it made me think about my motivation for the trip in the first place.

Of the nineteen respondents who did not participate in the trip to India, seventeen answered "Yes," and two answered "No," to the question "Did you find discussing the experiences of students recently back from working in India a useful exercise?" Positive comments included:

Thanks! I have already contacted 'X' about going to India in 2010! – maybe I can help supervise; I found it very valuable; Definitely!; Very interesting.

There were two less positive comments, typified by:

I already talked to the students who went to India, so didn't really learn much.

One student expressed surprise that some students who traveled to India "had not considered ethics associated with their experience; especially 'informed consent' & giving of placebos ...".

These students were also asked the question: "In what ways were your values or interests associated with chiropractic confirmed or extended through this process?" Comments here included:

Extended my passion for chiropractic;

Confirmed that the power of touch is vitally important; Confirmed that there's more to treatment than adjusting – communication is most important – not just in words but in touch; ... made me realize why Murdoch doesn't teach as much 'philosophy' and is more evidence based.

Heightened concern over whether we should be doing this, in its current format; (going to India that is).

Comments made by students during the seminars and in the survey suggest that for some, the seminar experience served to extend their knowledge, allow them to examine issues from other perspectives, and clarify their understanding of certain aspects of the curriculum. The kinds of learning that appeared to arise were largely premised upon discussions about practice experiences. This learning was associated with conceptual, procedural and dispositional dimensions of learning.

#### CONCEPTUAL LEARNING

Conceptually, the students engaged in discussions about what constitutes chiropractic practice, how it is enacted, what is the scope of practice, and the variations and limitations that confront practitioners. Added to this were considerations of upon what basis should chiropractic work progress: philosophical or evidence-based. This kind of conceptual learning is central to professional practice and seemed to be particularly stimulated by discussions about practice in different contexts. For example, one student who participated in the placement described a case where a terminally ill patient in severe pain was helped substantially by care given by one of the chiropractic supervisors. Until observing the patient's response, this student had not considered that a chiropractor could play a role in this type of case. After discussion of this case in the seminar, there was general consensus amongst the students that chiropractors could play a role in caring for such patients, with one student commenting in the survey, "Made me wonder why we don't have a broader scope of practice."

#### PROCEDURAL LEARNING

Procedurally, the students engaged in discussions about the applications of chiropractic work in particular settings and on what basis particular procedures are valued. What is

significant about this kind of learning is the strategic qualities that arise through the students' considerations of and reflections upon these procedural issues. What we know is that rather than just the use of specific procedures, effective practitioners also require strategies to work out under what circumstances particular approaches are appropriate. One student commented that he "finally understood" why the School does not teach the "philosophy" of chiropractic, and instead teaches an "evidence-based practice" approach. There was much discussion about how busy the clinics were in Siliguri and what strategies the students employed to cope with the sheer numbers of patients. Students who did not participate in the overseas placement commented that they were surprised and "relieved that you could see so many patients" and still deliver a good service. Communication issues arose here as well, as the students were required to quickly adapt to working with interpreters, thus their approach to taking a patient history and obtaining consent required substantial modification. One student commented that she realized how "important being able to ask open ended questions was," only after this luxury was not available due to time constraints and language barriers.

#### DISPOSITIONAL LEARNING

Dispositionally, the students engaged in discussions about what constitutes appropriate and worthwhile values that underpin chiropractic work. One student commented that having seen how difficult life is in Siliguri, and how the people cope with their situation, issues he "used to complain about just don't bother me now." Other students related similar stories about how their attitudes had changed after seeing patients with serious health problems or difficult life situations. There was much discussion about the ethical issues surrounding the trip, with some students questioning the morality of offering health care for such a short period of time only. This was confronting for some who participated in the trip, and although most took the utilitarian view "at least we provided some care that they otherwise wouldn't have received," some suggested there were some long term benefits as patient education was provided in terms of hygiene, diet and exercise advice, and provision of school supplies, medical supplies and funds raised to build a local school. Here, there is evidence of diversity of views and values associated with this work, and discussions around what constitutes worthwhile practice and worthwhile goals. In this way, the experiences seem to have been generative of dispositional development. It is interesting to note that shortly after the seminar, students who participated in the seminar contacted other educational institutions with chiropractic courses in Australia and New Zealand with a view to organizing placements in Siliguri at three-monthly intervals.

#### INTEGRATING WORKPLACE LEARNING AND ACADEMIC LEARNING

Learning that arises from experiences in clinical practice settings differs from that which arises in academic settings. Skills gained in placements off-campus are mostly behavioral people skills such as communication, time management, an understanding of workplace culture, treating others with respect, a good work ethic, and developing a sense of professionalism, culminating in an appreciation of what it means to be a professional. (Eames & Cates, 2005; Fleming, Zinn, & Ferkins, 2008)

Accepted wisdom dictates that experiences in both academic and workplace settings are best for the development of robust professional knowledge, skills and dispositions, as both have



their strengths and weaknesses, and may be seen as complementary. Although much has been written on learning in the workplace, there is a dearth of literature on methods to explicitly integrate the learning acquired in the workplace with that acquired in the academic setting, and exemplars of connecting activities are particularly scarce. This leads one to suspect that, in practice in many cases, opportunities for extending and transforming the learning arising from both settings are lost. Social learning theorists posit that social interaction plays a fundamental role in learning (Bandura, 1977; Brockbank & McGill, 2007; Tudge & Winterhoff, 1993). Most models of reflective learning suggest that reflective discourse is a necessary component of transformative learning (Atkins & Murphy, 1993; Boud et al. 1985; Mezirow, 1991; Moon, 2004; Schon, 1983). The post-placement seminar described above afforded students the opportunity to reflect on the learning acquired in the clinical setting, make explicit links with the curriculum, make comparisons and judgments about worth, and share their observations with peers through semi-structured discourse.

The seminar reinforced course concepts and influenced the students' perceptions of the value of chiropractic practice. Studies have shown that individuals can expand their understanding of concepts by engaging in various forms of discussion (Back, Arnold, Tulskey, Baile, & Fryer-Edwards, 2003; Graham, 1995; Platzer, Blake & Ashford, 2000). Through sharing reflections on learning experiences, greater understanding of those experiences can be achieved than by reflection as a lone exercise (Johns, 2000). In this case, discussion with peers may have served as a mechanism to expand the student's understanding of concepts such as evidence-based practice and the role of communication in the patient encounter.

The post-placement seminars provided an eminently suitable forum for students to reflect on what they had learned and experienced. They were also able to share their thoughts and experiences with each other, and this was perceived to be a very useful experience, particularly by those students who did not participate in the overseas placement. The further knowledge that students acquire during the seminars can be integrated into their year-long placement in the on-campus clinic and/or their community service placements throughout the year.

Thus, for these students, the process of learning about chiropractic that is begun in the classroom and continued and enhanced during clinical placement is consolidated in the post-placement seminar.

A strength of this study is the high participation rate of the students who attended the seminars. However, as this study involved only a relatively small cohort in a single institution, the results cannot be generalized to other student populations. Responses to the survey questions about whether the seminar assisted their reflection and how their values or interests associated with chiropractic were confirmed or extended indicated that some conceptual, procedural and dispositional learning took place; however, this was not confirmed with an objective measure such as a formal assessment.

## CONCLUSION

The results of this study support a constructivist view of learning whereby conceptual development is an active, evolving process in which individuals use their own experiences as a context for constructing meaning. This is facilitated by affording students the opportunity for interacting with others in discussion groups, sharing and articulating different

experiences and considering different perspectives. Gibbs' reflective cycle (Gibbs, 1988) appears to be a useful approach in a post-placement seminar to achieve greater integration of learning between academic and workplace settings.

The effectiveness of workplace learning is widely considered to hinge on the act of critical reflection on the experience, thus clinical placements need to have embedded in them some opportunities for such reflection. The post-placement seminar helped students make connections by giving them a structure within which to reinforce and extend their learning, and undertake the crucial activity of critical reflection within an environment which was distant from the actual clinical setting. In addition, through guidance from the facilitator, it was possible to engage in critical perspectives on practice and learning processes. It is hoped that by enabling the students to see the connections between academic theory and clinical practice they will develop greater clarity about their own academic goals.

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