

## **ADDRESSING OBSTACLES TO SUCCESS : WHAT SCIENCE DO MIDWIVES AND NURSES REALLY NEED ?**

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**Research questions** were based on the assumption that science is a potential barrier to overall success for midwifery and nursing students.

- Phase 1 – What aspects of science do newly graduated midwives and nurses really need to know?
- Phase 2 – How can science be taught more effectively to enable students to make more meaningful theory/practice links?

### **Introduction and insights from the literature :**

The overall aim of our research project is to remove “the problem” of science for students in the nursing and midwifery programmes. Students reported science as difficult and time-consuming, and their achievement results reflected this. Science was seen as a barrier to overall course success (Gibson et al, 2005). Other research (Zepke, et al, 2006; Otrell-Cass et al, 2006) has focused on problems of retention and completion in the tertiary sector, claiming the student or the tertiary context as the problem. Our research rests on a different proposition, arguing the content or curriculum is at the root of “the problem”.

We want to make the links between science and practice explicit, so that students could see the relevance of their learning, make links to prior experience and link the science to their chosen careers. We asked ourselves: What science do nurses really need? How can science be taught more effectively to help students make more meaningful theory/practice links?

### **Research design :** (applies to nursing students only at this stage)

Phase 1 - Narrative approach : Focus groups with new graduates and educators provided rich stories. These were analysed and provided meta themes.

Phase 2 – Implementing teaching strategies : Stories and visuals were introduced to make the links more explicit. There was content reduction and students were asked to document any outstanding questions. Comparisons between the implementation of lectures, laboratories and tutorials in 2006 and 2007 were made in peer review sessions.

Although it will be difficult to quantify the impact, student evaluation will be sought and test results will be looked at.

**Limitations of the research :**

- The initial stories related mainly to pathophysiology which is only covered in the second year of study.
- Changes in assessments will have to be done to include stories.

**Conclusion :**

The implementation will be continued in the first year nursing course in 2007 and will also be translated into the first year of the midwifery program.

The literature which supports the research draws from both science and nursing education. It explores practice-to-theory and theory-to-practice links, highlighting the largely tacit nature of these links (Chin et al, 2004).

For nursing and midwifery to remain a profession with a theoretical body of knowledge and practical skill foundation, radical changes will have to be made to the curriculum. This will require institutional support and staff commitment.

**References :**

- Chin, P., Munby, H., Hutchinson, N., Taylor, J., & Clark, F. (2004). Where's the science? Understanding the form and function of workplace science. In E. Scanlon, P. Murphy, J. Thomas & E. Whitelegg (Eds.), *Reconsidering Science Learning*. London: RoutledgeFalmer.
- Gibson, K., Stewart, J., Christie, D., Dannenfeldt, G., Anderson, V., McHaffie, J., & Stewart, K. (2005). *Executive summary of the scoping project for addressing obstacles to success: Completion and retention issues for Maori students in science modules in applied health programmes*. Faculty of Health, Arts and Social Sciences, Wintec.
- Otrell-Cass, K., Campbell, A., Cowie, B. (2006). What determines perseverance in studying science at university? Paper presented at NZARE National Conference 2006, Rotorua.
- Zepke, N., Leach, L., Prebble, T. (2006). *Improving tertiary student outcomes in their first year of study*. TLRI, Wellington.