

# Factors Shaping Assessment Design in the Virtual Environment: A Case Study of Midwifery

**Deborah Davis**

*University of Canberra, Australia & ACT Government Health Directorate,  
Australia*

**Sarah Stewart**

*Australian College of Midwives, Australia*

## **EXECUTIVE SUMMARY**

*The Virtual Birth Centre was created to provide student midwives with an opportunity to develop their midwifery knowledge and skills through a variety of teaching and learning strategies including role-play with peers in a safe, flexible, immersive learning environment. Role-play in the virtual environment has been shown to create a sense of presence or “really being there,” which is associated with increased knowledge transfer from virtual to real world. Assessment in this project focused on formative “service user” (peer) feedback along with self-assessment against midwifery professional standards. The approach to assessment was shaped by a number of factors including the philosophical underpinnings and pedagogy of the programmes involved and the opportunities and limitations of the virtual world environment. Using the Virtual Birth Centre and midwifery as a case study, this chapter explores the factors influencing the development of assessments for the practice discipline of midwifery in a simulated, virtual environment.*

## **BACKGROUND**

The Virtual Birth Centre was developed as part of a larger project funded by the Tertiary Education Commission in New Zealand that aimed to broadly explore the possibilities of virtual worlds for tertiary education. The funding was secured by the SLENZ group (Second Life Educators New Zealand) and the Virtual Birth Centre was one of two projects to be included, with the other focusing on Foundation Skills for students aiming to enter the workforce (such as job interviews).

The Virtual Birth Centre was an ambitious project with multiple objectives including designing and creating an ideal birth environment and informing lay people (Second Life residents) who may visit the Virtual Birth Centre about factors that are important in the facilitation of normal birth. Most importantly the project aimed to provide teaching and learning opportunities for undergraduate student midwives in two Bachelor of Midwifery programmes in New Zealand (Otago Polytechnic, Dunedin and Christchurch Polytechnic Institute of Technology), with a view to augmenting existing courses by offering what we knew would be innovative, and hoped would be rewarding, learning experiences.

A variety of teaching and learning strategies were developed as part of the project with only those aimed at more senior midwifery students (normal birth scenario) incorporating any form of assessment. This chapter will begin by providing some context to the project and describing the Virtual Birth Centre and select teaching and learning strategies in more detail. Our reflections in the final section of this chapter will focus on the factors that influenced the design of the assessments developed for the project. While this project focuses on a discrete area of higher education the case study has implications for the higher education sector more broadly, particularly in the assessment of scenario based teaching and learning strategies in virtual worlds.

### **Midwifery and Midwifery Education in New Zealand**

The scope of practice of the midwife in New Zealand includes the provision of care on her own professional responsibility to women during pregnancy, labour and the postpartum period up to six weeks (Midwifery Council of New Zealand, 2010a). Midwives are able to practice in a variety of environments from primary birth units in rural and remote settings, to tertiary hospitals in urban centres. Midwifery education consists of a three-year baccalaureate program which leads to registration as a midwife. At the time of this project, five institutions offered midwifery programmes in New Zealand; two in the South Island. Whilst the programmes vary in terms of delivery and organisation across institutions, they must meet the requirements of

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