

Using simulation as a learning, teaching and assessment strategy to enhance employability

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Simulation can be defined as “reproduction of the essential features of a real life situation” (Medley and Horne 2005 p31). As such, simulation has been used within the aviation industry, armed forces, and industry since the 1960s to teach employees complex systems and psychomotor skills (Henrichs *et al* (2002); Haskvitz and Koop 2004; Garrett and Callear 2001). Simulation has been used within healthcare for the past fifteen years with an explosion of interest in the last few years (Seropian *et al* 2004).

A key feature of simulation is the incorporation of a debrief session directly after participation. This is vital to the success of simulation according to Medley and Horne (2005) as this is where most of the learning occurs and completes Kolb’s cycle (1982): that of reflecting on what has happened.

Research objectives

To evaluate simulation as a teaching, learning and assessment method from a student, lecturer and simulated patient perspective

Methodology

There are a number of modules within the undergraduate pre-registration nursing programme at Napier University which uses simulation (low and medium fidelity) as a significant learning, teaching and assessment method to promote employability skills of students undertaking the programme. The data were collected via a questionnaire over a period of 2-years from students (n=595), lecturers (n=8), and simulated patients (n=3) undertaking 4 modules.

Scope of investigation/findings

Both quantitative and qualitative data revealed that students and lecturers were overwhelmingly positive about this method to enhance students’ knowledge, skills and attitudes essential for employment as a newly-qualified professional. However, the study demonstrated that simulation provokes undue anxiety/nervousness in some students which they felt affected performance (Hotchkiss, Biddle and Fallacaro 2002). When simulation is new to the student, used as an assessment technique or used as a ‘once-off’ learning and teaching method, this anxiety is increased.

Simulated patients felt that the experience provided students with an opportunity to practice skills essential for employment which was much more than ‘simply doing the task’, but required skills, such as communication, interpersonal skills, and teamwork, to be developed. The literature, and findings from this study, supports these statements, stating that skills such as critical thinking, decision making, team building skills (Henrichs, *et al* 2002; Medley and Horne 2005; Mole and McLafferty 2004; Shaprio *et al* 2004; Whiteside 1997), and to enhance learning from others (Rodehorst, Wilhelm and Jensen 2005), can all be developed through simulation.

It is apparent that simulation is a powerful learning tool but knowledge of the capabilities and scope is required to maximise its potential (Seropian *et al* 2004). Further research will be suggested in relation to the transferability of these skills to real practice situations.

The opportunity to share the lessons learned from development, implementation and evaluation would emphasise the potential this learning, teaching and assessment approach has within this field.

Keywords: employability, simulation, skills, constructivism, contextual learning.