

## Chapter XXXVIII

# An Analysis of Learning Designs that Integrate Patient Cases in Health Professions Education

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### **ABSTRACT**

*Health professional education is changing to meet the demands of a limited workforce and a focus on community-based clinical training. The change requires a focus on technology-supported learning in order to reach students and teachers who are separated by significant distances. The use of patient cases as reusable learning objects has received considerable attention in the sector and many support the use of such resources, but in order to do so the cases must be meaningfully integrated into the learning experience. This chapter reports the results of an analytical study that has developed eight generic case based learning designs categorised into three broad approaches supported by research evidence from the literature. These learning designs document common patterns in case based learning that could be adapted by teachers and designers to the specific requirements of different contexts. In closing, the authors consider how learning designs might be used as a vehicle for effectively integrating patient cases.*

## INTRODUCTION

Globally, health professional workforce demands have led to the establishment of new schools and the expansion of existing schools (Howe, Campion, Searle, & Smith, 2004; Lau & Bates, 2004; Lawson, Chew, & Weyden, 2004). Such increases in both supply and demand for nursing and medical education, and the necessary relevant clinical experiences, have caused educators to rethink curriculum foci and delivery models. As such, there is increasing emphasis on community-based and distributed education models. Technology-facilitated teaching and learning has been an essential component of this reconceptualisation of health professional education.

One initiative in this area has been in the development of learning object repositories with a health education and/or professional education focus (Chandler, Uijtdehaage, & Dennis, 2003; Harden & Hart, 2002; MedBiquitous Consortium, n.d.; Ward & Hartley, 2006). One important type of learning object is the patient case, which details the condition of a health service client. The context of a case may be a hospital setting, a community health clinic, or even the patient's home environment. A clinical case may be brief in only providing patient presenting information (i.e., the problem for which the patient seeks health care), or be extensive and include full medical records, investigations and reports, and case notes of one or more health care providers. Depending on how they are used in educational settings, clinical cases may allow students to analyse and reflect on real-world problems and/or apply reasoning and decision making skills in a contextualised manner.

While the value of learning objects (including patient case learning objects) to support such distributed education programs has been widely recognised, there is concurrently a call to investigate how they can be integrated into the curriculum (Ruiz, Mintzer, & Issenberg, 2006).

This chapter presents the findings of an analytical study that sought to identify a set of generic learning designs to document common patterns used in case based learning in a way that can be communicated to other teachers and designers. The aim of the project was to consider how learning designs might support pedagogically meaningful integration of patient case learning objects in health profession education.

## BACKGROUND

### Case Based Learning

Case based learning has been used extensively in education—particularly in professionally-focused disciplines such as medicine, law, business, and teacher education (Bennett, Harper, & Hedberg, 2002; Crang-Svalenius & St. Jernquist, 2005; Golich, 2000; Kim, Hannafin, & Kim, 2004; Tarnvik, 2002; Tomey, 2003). Case based learning refers to a suite of approaches that seek to engage students in analysis of specific, usually real-world, situations (or cases). This is usually achieved through individual and/or group analysis of a case description in which students develop an understanding of the events depicted and consider possible interpretations or resolutions. The role, structure, and application of cases in educational environments vary greatly depending on the intended purpose, which has led to a great diversity in case based learning approaches. Research across these disciplines has shown the power of using cases in their various forms to create vicarious or pseudo experience for learners that promote the development of knowledge and skills through a situated approach to learning (Bennett et al., 2002; Conyers & Ritchie, 2001; Floyd & Bodur, 2005; Malloy & DeNatale, 2001; Thomas, O'Connor, Albert, Boutain, & Brandt, 2001).

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