

# Chapter 1

## Introduction and Current Status of Technology in Teaching and Learning of Allied Healthcare Students: Use of Technology in Teaching and Learning of Allied Healthcare Students

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### ABSTRACT

*Allied healthcare professionals are an integral part of multidisciplinary healthcare teams requiring highly skilled and competent members from every discipline. Clinical and allied health education in Australia is challenged by increasing student numbers, changing healthcare practices, and service pressures impacting the clinical training of students. There is a need to optimise the effectiveness and efficiency of the way students develop their professional skills. New technological approaches deliver student-centered education involving work-integrated learning. This chapter covers different strategies developed and implemented over time, merging various technologies in an innovative manner providing better standardized skills and competencies to more students within limited resources to prepare them for a global inter-professional multidisciplinary healthcare team providing efficient service to society. It will also provide future directions to adapt technology from the non-healthcare industry to healthcare training and share some strategies of bringing the workplace to the classroom.*

DOI: 10.4018/978-1-5225-3850-9.ch001

## **INTRODUCTION**

The Allied Health sciences covers health professionals who are not doctors, dentists or nurses. Occupations for the Allied Health specialists includes physiotherapy, occupational therapy, medical laboratory science, pharmacy, nutrition and dietetics or speech pathology. The role of allied health professionals can be to prevent, diagnose and treat a range of conditions and illnesses. They often work within multidisciplinary health teams to provide patient care. Undergraduate education for these professions involves teaching the theoretical knowledge that underpins their disciplines with the practical skills which can involve analysis or measurement of biospecimens, dispensing advice or medicines, or healing patients depending on their scope of practice.

We are seeing significant changes in the way we deliver learning, teaching and student support as an outcome of the speedy uptake of technologies such as artificial intelligence, cognitive computing, adaptive learning and data analytics. These technologies will provide a more custom-made learning experience for students irrespective of where they are located.

With increases in student numbers and rapid changes in workplace technology it is essential that students have the skills, knowledge and experience to succeed and adapt to change in their chosen careers.

As such, the delivery of educational resources using technology needs to be designed and developed so that students learn a number of skills including mastering abstract principles, remembering factual information, assimilating methods, techniques and approaches, reasoning and critical thinking, debating ideas, or developing behavior appropriate to specific situations.

## **BACKGROUND**

This chapter will focus on original use of technology and information resources in the development of learning strategies for allied health students. Mentoring and training students for the world in which they will work is an essential role of the university. Firstly we will review the use of technology in the development of resources for online teaching, then the strategies that are being put in place for the education of allied health students.

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