Chapter V
A Faculty Approach to Implementing Advanced, E-Learning Dependent, Formative and Summative Assessment Practices

Paul White
Monash University, Australia

Greg Duncan
Monash University, Australia

ABSTRACT
This chapter describes innovative approaches to E-Learning and related assessment, driven by a Faculty Teaching and Learning Technologies Committee within the Faculty of Pharmacy, Monash University, Australia. Using this group as a driver, we have caused institutional change in a Faculty that was previously quite traditional in its approach to teaching and assessment. The authors implemented a strategy for the pilot testing and broad adoption of innovative technologies, using a purpose-driven approach. They have used a range of technologies to increase the level of formative assessment that occurs during lectures to large student cohorts. They have used an audience response system to allow students to test and improve a range of cognitive skills in an “active” lecture environment; they will present an evaluation of this tool. The authors found that student perceptions of the level of feedback rose with the use of the audience response system, as did their perceived use of critical thinking skills. They further discuss the benefits and limitations of the use of audience response systems within the chapter and discuss our use of E-Learning technologies for summative assessment purposes.
BACKGROUND

Whilst many higher education institutions have developed policies on e-learning, these are usually broad-ranging in nature and often signify intent rather than practice. In particular, strategic use of e-learning for formative and summative assessment is notably absent in policy documents, and changes to practice occur on an ad-hoc basis. This ‘organic’ approach has the advantage of allowing academics and innovators in information communication technology (ICT) the freedom to try many new technologies to meet specific or individual needs. However, it does result in some cases in the parallel development of equivalent technologies, with consequent inefficiencies of infrastructure, cost and workload. Also, the benefits of such innovations are sometimes not provided to the broader University community. This chapter describes the systematic implementation of technology innovations at the Faculty (School) level within the Faculty of Pharmacy, Monash University, Australia, using both opt-in and mandatory innovation approaches. A need was identified within the Faculty for e-learning alternatives to content-driven, teacher-focused approaches to teaching and learning that were seen to predominate. We describe the nature of the structural changes in Faculty e-learning implementation, and the outcomes of some of the major innovations.

INTRODUCTION: DRIVERS FOR CHANGE

The Faculty of Pharmacy is one of ten Faculties within Monash University, with around 60 full-time academic staff and over 1000 undergraduate students studying Bachelor of Pharmacy and Bachelor of Pharmaceutical Science degrees. Senior Management in the Faculty has identified high quality, efficient teaching, and independent learning as high priority outcomes for the Faculty. In recent years, significant funding has been provided to create systems and procedures to support high quality education. From a senior management perspective, the Faculty performance identified in student experience surveys was both a key driver for change, and a key indicator of performance. As an example, scores on survey items related to the adequacy of ‘feedback’ were consistently low within the faculty. While other faculties shared this problem to some degree, our senior Faculty management staff were motivated to improve the teaching within the Faculty to address this issue, among others, in accordance with the desire for high quality, efficient teaching that promoted the independent learning attributes of students.

In addition, in our personal view, we saw a Faculty that historically had a deeply embedded history of traditional didactic teaching, with lectures, practical classes and tutorials being the major teaching and learning activities. A typical subject within a course consisted of around 36 lectures, six practical classes of three hours duration, and a number of tutorials. The advantage of this system largely stemmed from the efficiency of content delivery via lectures. Faculty staff, particularly those within basic sciences subjects, were not required to teach large numbers of small group classes, and were free to prepare lectures of high quality. This resulted in students consistently attending lectures given by experts in particular fields of Pharmacy and Pharmaceutical Science. Attainment and understanding of content were generally the major student requirements, and assessment results over time indicated that student attainment of these types of learning objectives was at a high level.

The disadvantage of this approach was that there was little in the way of active learning in many of the lectures – few teaching and learning activities gave students ‘time on task’ to develop their critical thinking skills, and few assessment tasks evaluated student capabilities in these areas. Students thus began each learning cycle (i.e. content topic) with lectures which initiated /