

Research lead curriculum: Early lessons from the field

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Abstract

Research conducted in the Faculty of Health Sciences, the University of Sydney (Adamson, Lincoln and Cant, 2000) identified eight managerial skill areas that Australian health care managers (n=503) perceived to be necessary in order to function effectively and efficiently in the current and future health care environment. Further analysis demonstrated that generic areas of competency expected of all managers irrespective of industry and cultural context underpinned these skill areas. The pedagogical dilemma was how to foster these generic competencies in a curriculum initially designed for Australian students which also immediately included international students in Australia, off-shore international students and distance students both in Australia and off-shore.

This paper presents an analysis of the educational design and its outcomes for a specific postgraduate unit of study delivered in this complex teaching and learning environment. The use of case studies formed the basis for learning activities and assessment. The intention of this approach was to provide choice for students and in the recognition that different solutions to the same case study problem would occur, depending on the student's national and cultural context. This paper discusses the development of these instructional strategies, and presents lessons from the field in catering to this diverse student population.

Introduction

This is a story of research-led curriculum, or, put in the language of the health professions, evidence-based practice in teaching. Research on the managerial skills required for the current and the future Australian health care environment was undertaken. The results were used to inform curriculum development, in particular curriculum content and the compilation of a set of case studies for a specific postgraduate unit of study, *Organisational Management* (BACH 5224) offered in the University of Sydney's Faculty of Health Sciences. In this paper we report briefly on the initial research, on the resulting curriculum design and implementation with particular attention to analysis of invited case studies, on the unexpected contextual complexity for the curriculum delivery, and on the outcomes, both intended and unintended. Finally, we consider the lessons so far learned and make suggestions for further educational development and research.

The University of Sydney's Faculty of Health Sciences

The Faculty of Health Sciences is the largest of five faculties in the University of Sydney's College of Health Sciences (the others being medicine, nursing, pharmacy and dentistry). Current postgraduate coursework enrolment is over 600 students. The Faculty is responsible for most of the allied health fields (e.g. health information management, orthoptics, physiotherapy, speech pathology). Traditionally, the Faculty's education programs have been delivered on campus. Increasingly, however, a range of flexible approaches are being used to meet the professional

development needs of busy professionals. In addition, an outcome of recent reviews of postgraduate courses has been the introduction of more unit of study choice within and across the more than 25 graduate program areas in the Faculty.

The Managerial Skills Research

To develop a unit of study at graduate level in the area of Organisational Management appropriate for allied health professionals from a range of disciplines interested in understanding managerial processes, pursuing a career in management, and/ or improving their management skills, a large scale survey (n=503) was conducted with Australian practitioners. Four of the major (in terms of current undergraduate student enrolments) fields (medical radiation sciences, occupational therapy, physiotherapy and speech pathology) were surveyed to determine what managerial skills are required for the current and future health care environment. This research was carried out to inform curriculum development within the Faculty of Health Sciences, the University of Sydney and was published in the *Journal of Allied Health* in 2000.

In general, the research findings are consistent with available evidence (albeit limited in terms of the number of studies that have been conducted in the area) from Australia and overseas on the areas of managerial competencies required for effective management. These are: 1) strategic and organisation-wide management processes-associated with change, vision, and environmental awareness; 2) problem solving and decision making-related to judgement, flexibility, and evaluation with regard to decision making; 3) administrative and operations management-involved with technical matters of management such as purchasing, cost accounting, and operational scheduling; 4) Leadership and team building and; 5) persuasion and influence-including the forging of alliances and understanding the political implications of decisions (Wallace and Hunt (1996). These skills and competencies appear robust in that they have now been identified across sectors including the health care sector, and appear to transcend cultural context.

Development of Instructional Strategies

Application of the research to the unit of study *Organisational Management* addressed two areas: a knowledge base for management studies and identified managerial competencies.

Developing a knowledge base for management studies

Having confirmed through research the key competency skills for managers, the challenge was how to foster these skills in students undertaking the unit. However, before tackling this issue, content covering an introduction to management was written with a view to underpinning as closely as possible the areas specified by managers as important in their day to day work role. Accordingly, written exposition of material normally delivered by lecturer was included in three modules: 1) Management knowledge and perspectives 2) Functions and methods of management, and 3) Power, conflict and control. In addition, an Australian textbook was set (Dunford, 1992), a collection of key articles not confined to Australia to supplement the text, study Guide questions to accompany each topic were written. The approach taken here was that there is a certain knowledge base to be acquired before higher order skills and competencies can be developed.

Developing managerial competencies – the case studies

How best to specifically address and develop competencies such as strategic and organisation-wide management processes, problem solving and decision making was debated by the teachers of the unit together with key contacts in each of the participating disciplines. The approach adopted was to invite local managers in the health fields specified above, working in various health facilities (eg private/public, small/large) to provide a case study illustrating day to day problems confronting managers. In this way, it was expected that real life management problems would of necessity address the skills and competencies we wished to develop.

An analysis of the case studies (n= 10) revealed several interesting features. One of the major issues to investigate was whether the case studies were suitable for students enrolled in the Faculty of Health Sciences from a range of disciplines. The initial survey (Adamson *et al*, 2000) generally indicated a commonality of views, in the sense that irrespective of the professional group of the participant, few managerial differences were found. The case studies submitted by managers were then scrutinised and considered by a range of academic staff across professional groups. The case studies were given the go-ahead as 'generic' in the sense that they were problems that transcended a profession-specific managerial context, but were seen to not fully address the identified competencies. Therefore, three more case studies published in American and Australian textbooks (Cuthbert *et al* 1992; Duncan *et al*, 1992; Lewis *et al*, 1993) were added along with a video which was considered to be a good way of introducing the material (based on a real life case study in the florist industry in the UK).

It was anticipated that this final approach of a range of carefully selected case studies would provide flexibility in that different solutions to the same case study could occur depending on the student's professional and workplace experience. This is an important local and contextual consideration since it was anticipated that students from a range of disciplines would enrol in the unit. This is a relatively new phenomenon in the Faculty as until recently programs have usually been developed to meet the needs and professional competencies of a specific professional group (sometimes with accreditation requirements).

The next step in the process was to classify the managerial competencies underpinning each case study and to link these to the knowledge base of the unit of study. In addition, it was considered appropriate to use these case studies for student assessment. Detailed guidelines about how to write a case study analysis were incorporated (Gilbertson & Stone, 1985; Duncan *et al*, 1992). Students had a choice in terms of analysing a particular case study falling within a set module.

Delivering the Unit of Study

As indicated above, the curriculum was developed for an Australian audience following on from the research aimed at meeting the needs of current and future health professionals in Australia. The actual delivery situation described here was more complex. Institutional decisions led to the unit of study being available to students enrolled both on-campus and as off-campus distance education students outside Australia.

The students. The first intake of five students for this unit of study in Semester 1 2001 were a diverse group. Two students were enrolled as off-campus students (Singapore, Canada), and the other three students were international students (Norway, America and Singapore) enrolled as on-campus students. All students specifically wanted to acquire/improve their skills in management. Students represented three health professional groups, namely nursing, occupational therapy and psychology. Only one student represented one of four fields in the management skills research.

The teaching-learning approach. Delivery was via a resource-based learning self-directed study approach using the learning resources outlined above. No formal methods of communication were incorporated within this approach although students were encouraged to communicate with each other and the two coordinators of the unit via email. In addition, on campus students were encouraged to discuss issues with each other and the coordinators in person and one coordinator took the opportunity to meet with one of the overseas students whilst teaching in Singapore.

Assessment for the unit involved analysing three case studies paced throughout the 13 week semester. Students were given explicit instructions on requirements for writing the case studies which were to be submitted in Report Format (not essay style) including an Executive Summary and references.

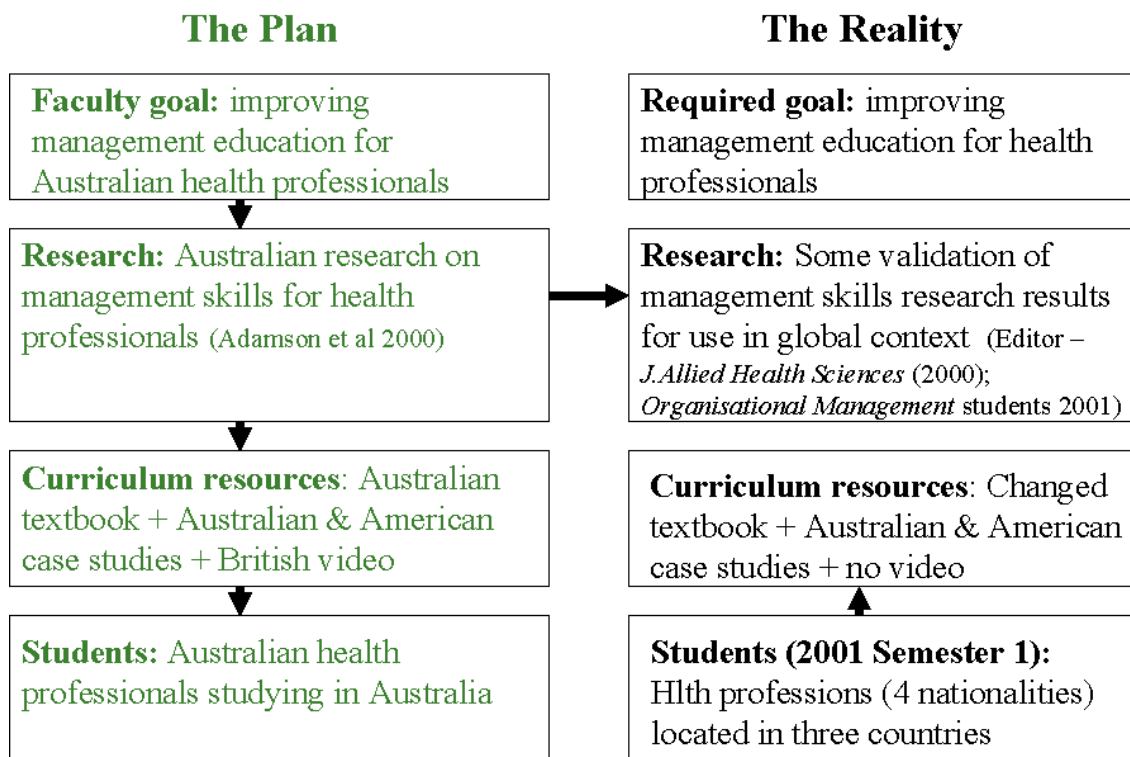
Some challenges of delivering to students overseas. Several unanticipated problems emerged such as the unavailability of the textbook for students studying overseas and difficulties in providing the supplementary video in appropriate format. An alternative text was identified to resolve the textbook situation. Whilst these and other teething problems were quickly resolved, they meant that students did not have a smooth and stress-free beginning to their studies in the unit. The success of the case study approach in catering to the diverse needs of students was put to the test in this challenging context.

Student feedback. On the whole, informal feedback from students at the completion of the unit of study indicated that whilst the case study analysis was perceived to be difficult it was also perceived to be a usefully challenging. From a teacher's point of view it was interesting to note different case study solutions derived from the same case by different students. Feedback from students indicated that the case study problems they selected were ones that illustrated managerial scenarios that they readily identified with from their previous workplace experience.

Reflections

This paper has reported an exploratory study of delivering a research-informed curriculum in health professional management within Australia's changing higher education context. Curriculum development was informed by appropriate research for a specific professional context: Australian allied health management, together with expectations of delivery to on-campus and off-campus Australian students. Actual curriculum delivery occurred in a more complex environment: not only to a mixture of on- and off-campus students from varied professional backgrounds but also including international students both on-campus and overseas. This provided a curriculum delivery challenge (noted above), an opportunity for testing the robustness of the research-informed curriculum, a requirement for reflection on the context of the curriculum's development and delivery. Figure 1 compares the plan and the reality. In the remainder of this section we comment on some aspects.

Figure 1 Planning and Reality



Research-lead health professional management development

In fact, all research by Adamson and her colleagues (another example is Adamson et al 1997) conducted in the Faculty of Health Sciences, the University of Sydney involving key stakeholders (supervisors of new graduates, graduates and workplace managers) indicates the importance of health science graduates acquiring managerial skills in order to perform efficiently and effectively in a changing workplace environment. The development of this unit of study for postgraduate students reflected the growing demand for allied health professionals not only to be competent within their own discipline-specific clinical skills but also to demonstrate competency in areas underpinning managerial skills. This preliminary study has reported two levels of testing of the curriculum outcomes of this research. First, the case studies prepared by practicing managers in the health professions were confirmed by academics in the fields of study as having validity and transferability. Second, students undertaking the unit in Semester 1, 2001, confirmed this both anecdotally and through their responses in learning and assessment activities.

Curriculum management and planning

Everingham and Ferletti (1999) highlight the complex array of factors which need to be considered in curriculum management. Their work signals the necessity of taking the ‘helicopter’ view at all times. The actual experience in the development and delivery of this unit of study demonstrates the more usual approach in higher education – individual units of study are approved in a curriculum for a program. That program more often than not does not have a curriculum manager who will proactively manage the whole system to take account of changing circumstances. Instead, individual unit coordinators carry out in good faith their responsibilities to develop and deliver an approved curriculum at the unit of study level. This study has reported the changing institutional factors which appeared ‘unexpectedly’, impacting on the principles of research-informed curriculum by changing the boundaries at the moment of delivery, and

emphasizes the importance of the role of a curriculum manager using the curriculum framework espoused by Everingham and Ferletti.

The impact of globalisation

The experiences reported here also support the claim that globalisation has come to stay in the health professions as demonstrated by increased cultural and linguistic diversity in both health care and health care education (Mullavey-O'Byrne 1999)

Curriculum designers, developers and implementers are now faced with serving these global challenges:

- 'globalisation of the professions and the need to prepare students to work in a global community
- the range of different ways of viewing and making sense of the world, of communicating and behaving that can be present among students in a teaching-learning situation
- evidence that diversity is present not only across cultural groups and within a multicultural multiethnic society but also within a cultural group
- the need to understand and value diversity and to develop the skills necessary to maximise the benefits it has to offer in a teaching-learning situation and in preparing students for future practice in health care'- the need to maintain equity and excellence in teaching and learning within a context of diversity
- the need to confront one's own cultural orientation' (Mullavey-O'Byrne 1999, p.144)

While testing of the unit of study's curriculum against this framework was not an initial intention, it was an unexpected outcome. Anecdotally, the research-informed curriculum was demonstrated to be robust in the globalised educational environment. The experiences reported confirmed views presented by Bates and Escamilla de los Santos (1997) who posed a set of requirements for effective globalised education. While their views are set within a presumed technology-supported distributed learning system, they are no less relevant to the story told here. Success depends on :

- developing curriculum that is relevant to learners where ever they happen to reside
- well-developed information technology infrastructures whatever the location of the students
- developing curricula that transcend local cultural and language barriers
- providing high quality learner support services wherever the learner happens to be. (p.49)

Suggestions for Further Research and Development

This 2001 exploratory study of delivering a research lead curriculum in management for health professionals raised a number of questions and delivered some anecdotal answers. These questions deserve further attention through further research and development. They include:

- Is the managerial skills research valid for other cultural and/or international contexts?
- What factors influence student perception that a case study is personally relevant (e.g. applicable locally, relevant to the student's professional area, previous work experience)?
- Does use of the case studies promote multi-professional collaborative learning for health professionals? If so, how?
- How can the expectations of students who enroll across courses and even institutions be identified and met in a timely manner in the new flexible, globalised educational context?

Conclusions

Research led curriculum paved the way for the development of this unit. With its delivery many challenges (some unexpected) have been addressed by the unit coordinators and in the context of a changing workplace environment (both for academics and students) these challenges are ongoing. These challenges enabled testing and resulting confirmation of the robustness of the unit of study's research-informed curriculum. This preliminary study has led to the identification of a number of useful research questions concerned both with research-led curricula and more generally with postgraduate education in an expanding, increasingly flexible and globalised context.

Some work directed towards the questions above and with other groups of students (including use of a subset of the case studies with a group of Singapore students) has already been undertaken and more is necessary.

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