Making A Difference In Teaching And Learning At University Level With ISO 9001

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ABSTRACT
This paper reports on the development of a quality management system for the teaching and learning processes and related support processes of a large Australian university. The system has been certified to ISO 9001 and represents an innovative application of the ISO standards for university-wide processes in higher education. Common criticisms of ISO systems, such as the quality system being seen as peripheral to business needs and possibly requiring excessive documentation, have been obviated through a focus on student-centred learning experiences and through the use of universally accessible intranet-based electronic documentation. Perceived benefits include a systematic approach to the management of university-wide processes, improved access to management information, a more coherent and integrated framework for quality improvement initiatives, greater understanding of the concept of business processes and an explicit framework of priorities for improvement and innovation. Feedback from staff has been positive and there is also evidence of strengthened client focus and an enhanced capacity to manage organisational change. Some of the challenges of adaptation of the ISO model to the educational context are discussed.

Keywords: Quality, Quality Systems, ISO 9001, Education, University, Teaching and Learning

1.0 Introduction
1.1 Context and Commitment to Quality
RMIT is a relatively large University with over 40,000 students. Both higher education and vocational programs are offered through various delivery options. The University has a strategic commitment to quality as reflected in its corporate goal “... to create and sustain a distinctive world-class university at the forefront of technical and professional education and real-world research, through continuous improvement and with all staff committed to quality management processes” (RMIT Strategic Plan 1999-2003). This commitment is reflected in various ways throughout the governance, management and resourcing of the organisation.

1.2 Approaches to Quality Improvement
RMIT has a range of quality improvement initiatives in place, which encompass existing ISO certification of various parts of the organisation including the International Division and some of the University’s associated commercial entities. This paper focuses in particular on the development of a quality management system for the teaching and learning processes as experienced by staff and students and the associated functions that support teaching and learning. While this is part of a continuum of longer-term quality management improvement initiatives, it is distinctive in that it addresses a university-wide corporate activity from a process perspective rather than a more traditional structural emphasis e.g. by division/faculty/group etc.. To adapt the ISO model to management of academic activities across a whole university in this way is believed to be rare, at least as far as can be ascertained from information in the public domain.

2.0 Teaching and Learning Quality System
2.1 Enabling Improvements
RMIT’s commitment to quality management in recent years has led to several enabling improvements that collectively became significant in the successful development of a quality management system for teaching and learning. Included among these is a strong commitment from senior management, which has ensured a consistent approach across the university, together with support resources such as a Quality Development Unit that works across the entire university and with a network of Directors of Teaching Quality who are based in each faculty.

The Centre for Management Quality Research at RMIT University
RMIT has also developed and uses a generic internal quality management system for policies and processes, a framework designed to enable the consistent management of the University’s core business activities. Application of that system has resulted in a number of vital teaching and learning processes being applied consistently and well-documented e.g. internal peer review of courses and course design and approval processes. There has also been a strong support for corporate leadership via a Teaching and Learning Strategy (RMIT Teaching & Learning Strategy 1998-2000) that is reviewed and enhanced annually. At the course and subject level a key element of the educational quality assurance process is the focus on teams working together to continually improve the quality of teaching and learning and taking responsibility for that quality and its evaluation (Bowden [1992]).

Similarly, improvements to functions that support teaching and learning activities across the University have also contributed to the enabling culture. Improvements to work planning for all members of staff, a major project to align information technology infrastructure with strategic teaching and learning goals and the adoption of a university-wide document management practices have been particularly important.

Another helpful aspect of organisational culture was the high acceptance and use of web sites. Most faculties, departments and groups use the internet or an intranet to communicate their policies and processes as well as courses and services.

2.2 Implementation of the ISO System

The specific implementation of the ISO system took eight months. This was a relatively short time given the size and complexity of the university but reflected the enabling changes already described, careful implementation planning and related generic improvements. Implementation of the system consisted of four steps: (i) initial preparation of a draft system using the existing RMIT Quality Management System framework, with reference to the ISO Standard (ii) verification of the system by consultation with the process owners and users (iii) internal reviews to confirm that the system was being followed and relevant records were in place, and (iv) development of an intranet site to provide access to the system and manage the documentation.

2.3 Development of the System

The initial development of a schematic outline of the components of the quality management system for teaching and learning was undertaken by the Quality Development Unit, in consultation with managers and a cross-section of staff. The approach selected was to focus on the essential processes of teaching and learning and directly related supporting processes. Each component in the system was represented with an underlying flow chart describing key inputs, process steps and outputs. This was further supported by a table that identified each step of the process and key information about documentation, management responsibilities and planned improvements. This concise format provided a brief, clear description of responsibilities and documents at a generic level whilst allowing for local initiatives that are crucial to the diversity and creativity of the academic environment.

A critical analysis of the system ensured that each element of the ISO standard was being addressed. To do this, it was first necessary to establish a relevant interpretation of the standard for the educational environment. For example, what does "Customer Supplied Product" or "Control of Non-conforming Product" mean in an educational environment? With seemingly little experience of the certification of teaching and learning at university level to draw upon, interpretation of the standard required careful consideration. Continued consultation with experienced auditors facilitated this step of the process. It is important to emphasise here that the system was designed for the needs of the organisation and was expressed in language familiar to university staff. These were regarded as essential prerequisites for acceptance of the system.

An interpretive document was generated to provide guidance for external auditors on how specific ISO elements were addressed in the RMIT system. A corollary of this approach was that while staff needed to be familiar with the RMIT system, few actually needed to be fully acquainted with the language of the ISO Standard, which may not have been well suited to the prevailing culture.

2.4 Management of Change

Implementation of the system was guided by a “concerns-based” adoption model (Hall et al. [1973]) in which it is argued that reactions to change move through a continuum. Focus shifts progressively from information gathering and personal concerns, to managing the task and finally to how the change will impact on others and how this could be improved. In the light of this model, steps were taken to ensure that
managers and their staff were well informed about the project, that they had the opportunity to explore how it would impact on their work and that resources were available to collaborate with them when they offered ideas for improvement.

Consistent with the underlying principles of the generic quality management framework adopted previously by RMIT, the teaching and learning system was always presented as an enabling facility, relevant to and supporting daily work. To further foster ownership and acceptance of the system, the documentation of each process was undertaken in collaboration with the process owners. The documentation was then validated with the users in a series of presentations and workshops. This was done throughout the organisation with deans, directors and senior managers, departmental and unit managers and teams involving or representing all staff. In addition to clear communication of core policies and processes, these workshops resulted in enhancement of the system through supplementary information, incorporation of local practices and opportunities for improvement being noted for later action.

2.5 Internal Audit of the System

In addition to specific review processes that exist within the system, a process of internal audit was established to maintain and continually improve the overall system. The validation of the system documentation led to the development of recording mechanisms that could be used by staff and the Quality Development Unit to record the level of adherence to the system. Further internal audits generated additional information about the strengths and weaknesses of the system. These two sets of information were used as the basis for refining the internal auditing system and to develop agreed improvement plans in consultation with the relevant staff.

2.6 Intranet Site Development

In addition to the presentations and workshops, it was necessary to have a cost-effective way of communicating the Quality Management System for teaching and learning across the University. Booklets were utilised initially but distribution and control of these was neither feasible nor cost effective in the longer term. With a high acceptance of the World Wide Web in the University and the need to have the documentation controlled by the Quality Development Unit, it was decided to publish the system on an intranet site. There were several specifications for the site. It had to be easily accessible to the users, with logical and consistent navigation and linked to related existing sites, while being able to be controlled for the purposes of ISO certification. Expert assistance was employed for the design and presentation of the site. The site address was communicated in a variety of ways to ensure all staff were aware of its existence and the opportunities it presented to help in day-to-day work.

2.7 Document Management

A document management policy was introduced to the University and implemented at all levels. It applies to all documentation created and distributed for information and action in managing RMIT and where offers are made to clients or prospective clients. It requires that all management documentation at RMIT (whether paper or electronic) is to include within the document a record of the document name and its status, authority, currency, location and full pagination. This formalisation of good practice was a significant supporting factor in certification of the system.

3.0 Discussion

The quality management system developed for teaching and learning at RMIT has been certified to ISO 9001. While this has attendant benefits in the marketplace, in the present context it is important to note other benefits to the organisation as summarised below.

a) Most of the management information concerned with teaching and learning has been aggregated into a single readily accessible intranet site. Aside from improved access, this also has benefits in facilitation of document control through management of a single controlled site.

b) The use of an electronic system has also obviated the difficulties of management of a paper-based system, which is sometimes seen to be a shortcoming of ISO systems.

c) The explicit articulation of a teaching and learning management system has increased awareness among all staff of the interactions within the system.

d) The customer focus of ISO has reinforced RMIT’s other initiatives to enhance student centredness.
e) The management system provides a useful tool for evaluation and analysis of roles and activities at all levels of the organisation.

f) The system has provided an explicit framework for improvement priorities and highlighted areas of gaps in process ownership.

g) A focus on the elements of the ISO standard has helped to enhance aspects of management of the organisation that are often not as strongly emphasised as they might be in traditional academic management models e.g. control of documentation, robust systems for management of data and reliable mechanisms for handling material supplied by students.

h) The internal reviews required for ISO certification have provided an additional opportunity to link academic and management objectives through improvement projects.

i) There is evidence of an increased shared purpose among staff across the organisation and the capacity for academic and support staff to work together on improvement projects has been further enhanced.

j) A coherent intranet site focused on a core activity has been welcomed by most staff who have had difficulty in locating information concerned with teaching and learning across a plethora of related but not necessarily linked sites.

k) The timetable for external audits provides a convenient timeline for internal improvement projects. Information in the public arena indicates that there is not much evidence of the application of ISO in this way in universities, particularly in academic activities and across the whole organisation. The experience at RMIT demonstrated that ISO certification can be achieved across a university and that it can be beneficial. The perceived benefits at this early stage are that the organisation is now more likely to consider further innovations and change initiatives. There is a clearer understanding of the need to be client focused in management systems, to improve systems and processes and to work across traditional staffing groups to achieve these aims. The University now has a set of explicit improvement targets to which it is working and these will strengthen and enhance the existing quality management systems. It is clear that sensitive adaptation of the ISO model to the academic context has been critical to its acceptance. So too has been an understanding that the ISO certified system is part of a coherent set of improvement approaches, which will be built upon as a foundation for sustained improvement, rather than being seen as an end in itself.

References