

THE CHALLENGE OF CHANGE: INTRODUCING FLEXIBLE LEARNING INTO A TRADITIONAL MEDICAL AND HEALTH SCIENCES FACULTY

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Abstract

This paper reports on the experience of implementing a new strategic vision within a traditional Medical and Health Sciences Faculty at the University of Auckland, New Zealand. The aims of the strategic shift are mainstream uptake of mixed mode teaching and increased flexibility to serve the changing requirements of undergraduate, postgraduate and continuing professional development students. This requires a major shift in the way core activities are undertaken and is concurrent with a period of significant contextual change in terms of the structure of qualifications, the nature of professional practice, accreditation and regulation, and the demographics of the student population. While the trend towards flexibility and innovation in teaching and learning is common across disciplines, many unique challenges are presented by the nature of teaching and learning, and the prevalent traditions of the Medical and Health Sciences Faculty. The early stages of an ongoing research study designed to facilitate and track the process of change is described.

Keywords

Flexible learning, organizational change, contextual influences, medical education.

Introduction: The context for flexible learning developments

The University of Auckland has long recognised the increasingly important role of technology in education and professional practice, and has thus sought to encourage flexibility in teaching and learning modes. The University has stated its commitment in its Mission, Goals and Strategies to:

“become rapidly responsive to changing information systems and capture the benefits of technology for its staff and students” (University of Auckland, 2001).

The high priority given to the pursuit of this part of the University’s mission is underscored in both the Strategic Plan and the Operational Priorities for 2001 that commit the University:

“...to the development of programmes of flexible learning that can magnify the University’s reach and improve its productivity and quality of teaching. The programmes should be

accessible to new groups of students for whom institutionalised delivery methods are not suitable. The programmes should include adapting the new teaching and learning technologies – which transform both the acquisition and sharing of knowledge – to the needs of each of our faculties and departments, and developing a core competence in these new pedagogies”.

Introduction of a university wide policy on internationalisation was another driving factor. Competition in international markets was already strong and expected to increase with both educational and commercial institutions vying for position in high growth areas.

The Faculty of Medical and Health Sciences is also subject to Australian Medical Council (AMC) review. The purpose of the review is to ensure the faculty continues to produce graduates to a recognised international standard.

The AMC Accreditation Report of 1995 requested reports on the following specific issues:

- Its ongoing review of the curriculum and of assessment procedures to ensure better integration across disciplines and between years of the course;
- Its efforts to increase student involvement in School processes and to provide more explicit mechanisms for dealing with student feedback;
- The outcome of its review of assessment in sixth year;
- Its operational plans for further utilizing the clinical teaching facilities and opportunities that exist beyond the Medicine and Health Science campus;
- Efforts to enhance staff development programmes to engender more innovative teaching methods and programmes;
- The development of a strategic plan for Maori and Pacific Island Health and the means by which the School will facilitate the achievement of the plan's objectives; and
- Plans to improve study facilities in the library and the extension of library hours.

Most of these recommendations have particular relevance to developments in flexible learning.

The Faculty's considered response to these institutional strategic objectives and professional body requirements was that real potential benefits existed for students in terms of convenience, access and enhanced educational processes. Benefits for staff included increased efficiencies, access to innovative teaching methods and technologies and for the Faculty, access to wider markets, the opportunity to improve educational standards and maintain an established reputation within the international community. It was also recognized however, that these benefits would not be easily or quickly achieved and that the institution as a whole had a long way to go in facilitating and supporting achievement of its strategic goals.

A Faculty Strategic Plan

Within this context of organizational strategic change, professional body requirements and evolution of theories of effective teaching and learning with technology, a faculty wide approach was recommended (Scott 2000). The objectives of a faculty based strategic planning group that began meeting during 2000 were:

- To audit the existing range of teaching and learning modes and methods;
- To articulate short and long-term plans for development of more flexible educational opportunities for the increasingly diverse range of student groups. The plan included consideration of marketing, resource allocation, quality and educational issues
- To add instructional design and other mixed mode education staff to the faculty to ensure a project-based development of flexible learning could occur within the faculty.

The faculty was no new comer to non-traditional teaching with a 9-year history of offering postgraduate distance learning courses. These included diplomas in geriatrics, community emergency medicine, sports medicine, palliative care and paediatrics. These courses have attracted over 140 learners per year and used mixed mode teaching approaches that match the need of mature learners to obtain information and

engage in interaction wherever they live, whenever they choose, and in modes suitable to the learner and to their subject. Modes used include video, residential workshops, CD Rom, the Internet, printed material and email. Further opportunities for expansion were signalled by overseas interest in these and other potential courses.

At the time the strategic plan was conceived, five postgraduate diplomas and three undergraduate courses were also offered as what may loosely be described as flexible learning options. Experience gained through these developments, together with high projected growth in demand, led to the establishment of a faculty-based Flexible Learning Centre. Formation of the Centre brought together existing media production and teaching support expertise, and added instructional design and project management. The initial remit involved developing six new flexible learning projects per year from 2001 to 2005 to service growing demand for undergraduate and postgraduate education from New Zealand students and to expand on existing levels of access to international educational markets. Significant social benefits as well as increased student numbers were anticipated as a result of these initiatives.

The challenge of managing change in a context with such diversity of courses and student groups was increased by the atypical staff profile. A large number of teachers are experts in their field but work only part time for the university and do not usually participate in professional development activities related to teaching innovation and improvement. While the organizational aspects outlined were within easy reach of the strategy group, many of these teachers were not.

Flexible learning management structure

The flexible learning management structure was designed to involve all staff in the development of a shared vision and to reflect the importance of service and support units as well as academic staff in flexible learning developments. The objectives in this respect were:

- Inclusion of representatives from the operational, administration and technical services on the flexible learning management group to promote greater role awareness and operational coherence among the different functional groups. Key tasks for the management group included ongoing development of appropriate infrastructure, instigating a review of relevant policy issues, (IP, IT, professional development, teaching and learning, assessment, enrolment) and devising ways to shift the existing “9-5” culture to something more appropriate for flexible access to facilities and support.
- Establish a flexible learning advisory body to oversee implementation of the various aspects of the strategic plan, the development and administration processes and definition and application of quality assurance measures.

Assessment of Strategy Implementation

The management tradition within the faculty could fairly be described as following the rational mindset which suggests a top-down and entirely logical approach to implementation of change (Butcher & Clarke 2001 chapter 2). It was recognized at the outset that the complexity of the faculty structure and membership might require a different approach and the aim was to allow for interpretation of strategic objectives within courses and programs. Under such circumstances, it is not uncommon for strategic initiatives that appear from the top to be successful to be viewed rather differently by players in other parts of the organization. A survey of teaching, administrative and support staff involved at the front line of flexible learning initiatives was therefore included in the study.

Methodology

The data reported in this section is drawn from face-to-face interviews conducted with staff members from the faculty during October and November 2001. The interview process, guided by a topic sheet for consistency, included questions that focused on the following general topic areas:

- Personal understanding of the concept, and role in flexible learning development;
- Initial motivation for implementing flexible learning;
- Flexible learning in practice;
- Impact on learning;
- Access, administration and support issues;

- Feedback from students;
- Implications of experience for future developments.

Within this framework, participants were asked open-ended questions about their experiences of flexible learning. Semi-structured interviews were conducted with twenty-one faculty members who were identified as being actively involved in flexible learning initiatives. Participants had varying roles and degrees of involvement in either flexible learning and/or distance learning. Predominant themes are identified and form the basis of the findings presented. The words of the participants are shown in italics.

Findings

Defining Flexible Learning

For the majority of the participants learning is flexible if it *“doesn’t take place traditionally”*, that is if learning is taking place *“outside the lecture theatre”*. One participant discussed *“student focused learning”* and suggested the *“all learning should be about meeting the needs of the students rather than the institution”*. However, it was suggested that this type of learning is most commonly thought about as *“based on information technology”*. This view was reinforced when stating that the faculty must become *“much more flexible about how we deliver teaching”* because flexible education has come out of the technology used within the institution rather than the teaching per se. Clear distinctions were not made between flexible and distance learning by most participants. Rather, the two forms often appeared to conflate. This is an increasingly common situation, (McNaught 2001), and one participant suggested adoption of the term ‘mixed modes’ of learning, to reflect the convergence of flexible and distance learning.

Learning flexibly

Keeping in mind that *“flexible learning is usually based on information technology”*, the ways in which learning is currently offered and taken up continue to make the idea of flexible learning a favourable one. However, there is a flip side to framing flexible learning around IT products. Practical problems when technology fails to work or is inadequate for teaching/learning purposes are an obvious issue. Less obvious but equally important is the assumed cross over from what is termed ‘traditional’ to ‘flexible’ learning that counteracts the very notion of flexibility. This is where *“some of the bad stuff has been reproduced on the web in the belief that this is delivering the material flexibly”*. However, there appears to be a tendency to think about flexible learning in these terms because *“everyone thinks that the Internet is the place to be. Everyone should do it”*.

Flexible learning was seen to mean *“using more variety”* in the teaching tools used *“in getting the information across”* to students.

“Our curriculum is traditionally designed around large group based learning; we are trying to gently shift to change in the faculty”.

Following on from the quote above, one person interviewed posited that flexible learning *“provides a set of alternative learning methods for students including alternatives such as working on the web”*. The majority agreed with this perception, and one suggested that in an ideal world flexible learning is a *“natural process whereby you’re matching the course objectives with...student learning needs and with the ability of the lecturers to deliver”*. While in some departments *“each staff member comes into an established mixed mode delivery system”*, staff in other departments find that *“it’s not about the actual teaching and environment, part of it is knowing the systems within the faculty just to get basic equipment and resources”*.

One participant spoke about the *“need for 24 hour a day support”* for international students *“because you have different time zones”*. Lack of 24 by 7 support has financial implications because students paying international rates expect good service. This was also considered necessary for those *“early birds and night owls”* who have no choice but to study outside office hours.

“Any good teaching is going to be expensive. I think it’s really important that students have the opportunity for that individual contact”. Lack of resources for learning that includes contact was discussed by some participants and included the quote above. While interaction within smaller groups

may prove worthwhile in some courses, the reality is that funding such group activities may not be cost effective.

While fiscal considerations are an important issue, academic excellence should remain paramount for an institution of excellence. There is a need to set a balance, which is possible by *“examining that tension that exists between freedom of learning and maintaining academic rigour. That’s a healthy tension – learning freedom and keeping that academic standard”*.

Some staff members appeared reluctant to allow their lectures to be used in forms other than lecture (paper) based ‘notes’. Mention was made that *“issues about ownership of CD rights and the way that information is packaged as intellectual property”*. Concerns about the knowledge expected or in some cases demanded by students who have paid high fees was discussed:

“One of the worries I have is that...the students that we are teaching, and not just in this faculty, seemingly have less critical facility and vision...it seems now that you give out the course notes and if you deviate from those at all the students get very upset. That’s a worry to a lot of us, so there is a perception, by some students, that they are paying for this stuff so they should get it, that we are just delivering a product”

From a teaching perspective, the issues were more about the rights of knowledge retention. Certainly, one participant was *“surprised somewhat at the different attitudes that people have towards material on the web site. Some feel sort of proprietary and that access should be restricted to students in their courses simply through the fact that they have created”* the material used.

Support Requirements

While the number of administrative staff interviewed for this research was small, the issues they raised illustrated how important competent administrative skills are to the implementation and success of flexible learning initiatives. Their commitment to students is shown: *“We...wouldn’t like to see our students disadvantaged in any way so we do our utmost to accommodate them.”* Further, these staff members offered an overview of the mechanics of how practicable flexible/distance learning is at present. The administrative staff commented about IT access and availability; *“the greatest problems are the initial enrolment stage and library access”*.

Among those who had spoken with students about their electronic access to the University resources, access difficulties had been noted. This was particularly relevant to the enrolment process that in turn affected library resource access. The present enrolment system is designed so that access to the university web sites for course work and the electronic library is denied until enrolment is complete.

The retention of students, and especially international students, means having adequate IT support. However, at present this is *“very frustrating because it is less than satisfactory”*. Key issues the university-wide systems need to address include examination procedures for distance courses that at present have to be co-ordinated centrally. As the courses and numbers increase, *“it’s just going to snowball”* and may prove unworkable. Potential increases in enrolments from overseas are challenges yet to be resolved in administrative as well as educational terms. There was a general feeling that more administrative support would be required to service both local and international students.

Interestingly, there was scant discussion about the availability of IT support for staff using electronic flexible learning techniques, other than a wishful view: *“technical support should be 24-7”*. It was stated that, *“increased demand for IT support roles is an unanticipated requirement of moving to on-line enrolment. Having people available here to tell us what to do”* is important. Although there are IT support teams scattered around the faculty, and a Flexible Learning Centre in the main faculty building, it appears that only some departmental staff within the faculty are aware of the service and utilise the available IT staff. Technical support issues may be a starting point for further exploration of perceived access to the range of teaching and learning methods.

Issues for Academic Staff

A common theme identified in this research was the need for professional development and training support for academic staff. One participant stated *"I've had encouragement rather than support"*. Others made comments to the effect that the *"faculty as a whole should make more resources available"* to staff. One participant stated that extra resources would be useful because;

"I'm not particularly computer literate. I've been dragged kicking and struggling over the last 5 years...for somebody who had to learn the hard way the people here at university have been helpful but the actual IT systems are not user friendly – and trying to access from home does not work most of the time".

Lack of time and workload were indicated as significant issues. This includes lack of time to join in existing professional development opportunities. Some academic staff find little *"time to deal with the paperwork and there really needs to be a whole support team, a small group of people with the necessary skills, to take on the jobs as they come along"*. For others, flexible learning meant that teaching staff needed to be available to students outside of office hours. A faculty wide strategy was considered to be the best approach because one person working alone is inefficient. But *"the reality for most of the staff is trying to implement various teaching modes individually"*. An identified need was for the experience of these individuals, the lone rangers described by Taylor (1998), to be extended across courses and for someone with experience to take responsibility for that. One participant spoke about the lone ranger as being the harbinger to incorporating some of these issues in a way that results in a workable overall strategy;

"The lone ranger approach is great because this means that there are some people out there working in new ways and that is exciting and innovative. Others see what's going on and want to do the same and that is the point where you have to start dealing with the structural and financial issues. That's why the university is designing a flexible learning centre, to have a clear strategic direction". Along similar lines as the participant quoted above, some were of the opinion that *"the lone ranger approach allows one to bring on other people and other issues such as support start to be dealt with"*.

Issues for Students

Discussion about student use of, and access to, university systems were topics brought up by most participants. Support, both technical and administrative, has already been discussed. Another aspect was the importance of *"making sure the staff know enough to support students gaining access to the on-line system"*. The changing ability of students was recognised along with an awareness of the place of information technology in the future. As one participant stated *"students coming out of this university are going to be living in a world of IT so they need to know how to use computers and the learning of that process also"*. Difficulties identified were *"you can't guarantee how computer literate the distance students will be, which could be a problem"* and the *"assumption that students have access to computers and that they can type, some students don't have the basic computer skills so anyone who can't use a computer is disadvantaged"*. For students, time can also be a scarce commodity due to work and family commitments so flexibility remains important. Another issue surrounded students with special needs. Flexible learning was thought to be a contradiction in terms when being taken up by students who have visual or hearing impairments. With all the talk about flexible learning, there was little focus on the special needs aspects. Generally speaking though, the research showed that at this relatively early stage of flexible learning strategy implementation, few formal evaluations of the impact on students had been conducted.

Limitations of the report

It is important to note that the views expressed in this report are an interpretation of the participants' perceptions about flexible learning, and not a representative sample of the views of all faculty staff. Rather, the narratives offer a starting point for further study of what flexible learning 'is', and where it should be directed in future.

The reticence encountered when speaking with participants was compounded by the absence of any formal, or indeed informal, evaluation of courses offered as flexible learning by staff within the faculty. A statement that *"we've been asked to come into line with the university policy, yet the Centre for*

Professional Development (CPD) evaluation question pack has only three questions out of 400 that relate to distance or flexible learning", serves to reinforce the need for a review of formal evaluation processes.

Where to from here?

A number of participants spoke in positive terms about the future of flexible learning within the faculty and offered views on how future developments could be initiated. Some of these possibilities are as follows:

- A university-wide definition of flexible learning, (one has since been developed);
- University initiated on-going consultation about the development and implementation of a more user friendly infrastructure than that currently available;
- Copyright, ownership of knowledge and the rights to dissemination of that knowledge be clarified;
- Examination policies developed to accommodate the needs of distance students;
- Instructional design support be made available for academic staff;
- Formal evaluation of teaching practices at periodic times i.e. the *"need to question what capabilities we actually have and also our assumptions about flexible learning"*;
- Current roles should be examined, including re-evaluating the culture of teaching practices *"through reaction to feedback from students and changes to the lectures as the result of feedback"*.

The participants' narratives have been used liberally throughout this section in an attempt to present an overview of how flexible learning is currently perceived by the staff members interviewed, and which directions they perceive it could take in the future. While some spoke about how an ideal flexible learning environment might look, most were aware that rapid and radical change remains unlikely in the present institutional climate. The following quote sums up a common view among participants, though hardly one that is conducive to implementation of a faculty-wide strategy. *"Realistically, things will stay the same, largely lecture based teaching. But there will be pockets of innovation or small flexible learning opportunities. In our faculty I don't see any big change, just pockets of flexible learning initiatives but that is interesting and exciting."*

Discussion and Conclusions

This is a limited study but has identified the fact that the vision of the leadership of the Faculty of Medical and Health sciences is not widely shared. Issues identified include the following:

- A means to ensure students are able to use technology and to have continuous access to technical support when the system breaks down;
- Meet the need for staff to be trained and supported to develop and deliver mixed mode and flexible teaching
- Meet the need for instructional design, administrative and technical support
- Ensure appropriate quality improvement systems for mixed mode teaching
- Design for appropriate student-student and student-staff interaction at a distance and asynchronously within campus based courses;
- Address copyright and ownership issues
- Address the challenge of continuous turnover of staff as this creates a significant barrier to faculty wide implementation.

Most of these findings are common to flexible and distance learning and mixed mode education initiatives under development in other tertiary institutions (see e.g. Sharrat 1997, Bates 1997). They are also common educational issues in medical and health science education (Ribbons and Hornblower 1998). The biomedical model of medical education puts emphasis on education about the knowledge skills and attitudes required to enable a student to diagnose and appropriately manage a disease. Over the last 30 years, in both the Faculty of Medical and Health Sciences, and other overseas Universities, a steadily increasing emphasis has been placed on wider skills loosely classified as professional development. These require the students to be adaptable to change, to practice quality enhancement, to be able to add to the field of knowledge, to be professional and to be ethical. The core knowledge skills and attitudes have

been enhanced to add an increasing emphasis on community, psychosocial and lifestyle issues in health. The faculty is not yet at the stage of teaching the students concepts such as the integrated mind-body Salutogenic model of health, (i.e. why are people healthy and what produces invincibility when any organism is constantly shifting between perceptions of being healthy and not healthy). However, the concern expressed that “if you deviate from (the course notes) at all the students get very upset” implies that sadly the students are even more “stuck” in a didactic and content driven mode of medical education than some of the more traditionally minded lecturers.

These comments, when considered together with the findings from this study, suggest that the faculty’s decision to adopt a project-based model of flexible learning implementation is correct. It also supports the intention to shift the ‘traditional’ culture where research was valued more highly than teaching to one where both are afforded equal value and teaching innovation is high on the agenda. New processes involve flexibility and responsiveness to staff and student feedback with increased focus on instructional design within courses and programs. The objective in this case is to offer better educational opportunity and process to the diverse student population through approaches such as problem based learning.

Initial projects have included its postgraduate diplomas such as gerontology, community emergency medicine, sports medicine, lifestyle change and palliative care. Some of these diplomas are now being offered as far away as Micronesia using a mixture of video conferencing, DVDs, web based asynchronous discussion, videos and residential workshops. Other initiatives have included the implementation of web based student discussion, notice boards, posting of assignments and timetabling in year 1 of the faculty. Electronic learning resources have been introduced such as ADAM, an electronic dissectible model of the human body.

Continuation of this approach will enable the development and integration of not only lone ranger, flexible and mixed mode learning delivery, but also a staged process of enabling other staff and students to be exposed to successful projects and to build their own as resources, support and training become available. The shift within the faculty is happening concurrently with institution-wide developments stemming from establishment of a new Centre for Distance and Flexible Learning that should fill some of the gaps identified during the course of this study. The main focus of this Centre will be on quality, infrastructure, funding and development support. Other faculty initiatives include:

- Appointment of a new Dean with a strong philosophy on teaching excellence;
- Establishment of a full time senior lecturer position to promote the practical project driven approach to flexible learning implementation across the faculty;
- Set up of a Faculty Education Unit to promote staff understanding of educational processes and emerging supportive technologies and to increase the focus on student expectations and feedback;
- Internal restructuring to improve communication within and between Schools with clear identities;
- Promotion of pedagogical research and development within the disciplines;
- Initiatives aimed at speeding the acceptance of new disciplines such as Nursing and Health Sciences within what was exclusively the Faculty of Medicine.

If the Faculty’s project based strategy produces the growth of understanding and commitment that is expected, then a repeat of this survey in due course should indicate a wider understanding of, and commitment to, integration of flexible learning processes within the faculty. This should better enable student growth in both the biopsychosocial model of health and in the student’s professional development. Other key issues for ongoing research will be the implementation and impact of new teaching and learning strategies associated with flexible learning and the reactions of students to these developments.

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