Managing Projects for Change: Contextualised Project Management

Belinda Tynan, Rachael Adlington, Cherry Stewart, Deborah Vale, Rod Sims and Peter Shanahan

Abstract

This paper will detail three projects which focussed on enhancing online learning at a large Australian distance education University within a School of Business, School of Health and School of Education. Each project had special funding and took quite distinctive project management approaches, which reflect the desire to embed innovation and ownership at the instructor and student interface. By responding to the stakeholder requirements these three projects provide insight into a) how integrated professional development serves to enable change in practice; b) why leadership at both junior and senior levels of the organisation is an important driver to support instructor engagement for real change; c) what role external private contractors can play; and, d) how instructors were integrated through the varied project management approaches. The integrating theme of the paper is instructor engagement for real change. Each project will be detailed as mini-cases and key lessons drawn out that describe and explain the challenges, opportunities and scope of varied project management approaches to suit the distinct four contexts. This paper builds on and brings together considerable investigation into how we can support and enhance dissemination of a variety of project-based models that respond to contextual needs and issues. The multiple-school case study methodology serves to provide an approach that is both robust and cognisant of current trends in increased university investment through short-term project funding. The final recommendations will highlight how different approaches to project management are both desirable and essential for successfully embedding change of instructor practices for enhancing student learning in distance education modes.

Résumé

Cet article décrira trois projets qui avaient un focus sur l'amélioration de l'apprentissage en ligne dans une grande université d'éducation à distance australienne au sein d'une école d'affaires, une école de la santé et d'une école de l'éducation. Chaque projet était financé à même des fonds spéciaux et a emprunté des approches de gestion assez distinctes, lesquelles reflètent le désir d'implanter l'innovation et l'appropriation au niveau de l'interface instructeur et étudiant. En répondant aux exigences stakeholder ces trois projets fournissent un éclairage sur

a) comment le développement professionnel intégré sert à permettre le changement dans la pratique; b) pourquoi le leadership aux niveaux junior et sénior de l'organisation est un moteur puissant pour soutenir l'implication de l'instructeur pour un changement réel; c) quel est le rôle que peuvent jouer les entrepreneurs privés externes; et d) les indicateurs de comment les instructeurs ont été intégrés par l'entremise de diverses approches de gestion de projet. Le thème intégrateur de l'article est l'implication de l'instructeur pour un changement réel. Chaque projet sera détaillé en tant que mini-cas et une esquisse sera faite des leçons clé qui décrivent et expliquent les défis, opportunités et l'étendue de diverses approches de gestion de projet choisies pour convenir aux quatre contextes distincts. Cet article appuie builds on et rassemble une enquête considérable sur comment nous pouvons soutenir et améliorer la dissémination d'une variété de modèles fondés sur des projets qui répondent à des besoins et des questions contextuels. La méthodologie de l'étude de cas d'écoles multiples sert à fournir une approche qui est à la fois robuste et en ligne avec les tendances courantes pour des investissements accrus dans le milieu universitaire par l'entremise de financement à court terme de projets. Les recommandations finales mettront en relief comment des approches variées en gestion de projet sont à la fois souhaitables et essentielles pour réussir à implanter le changement dans les pratiques des instructeurs afin d'améliorer l'apprentissage des étudiants dans le cadre des méthodes d'éducation à distance.

Introduction

The University of New England (UNE), set on the Northern Tablelands of New South Wales, Australia, is one of Australia's oldest and largest distance education providers. Established in the 1950s it has a broad and diverse student cohort. Approximately 17,000 students study at UNE of which 80% study by distance. At its inception UNE was largely conducting distance education (DE) by correspondence but over the years has moved, like many institutions, towards the haphazard incorporation or 'clip-on' of technologies with perhaps less attention to their pedagogical integration. This has included a range of audio and video resources, CD-ROMs, DVDs, web-based learning management systems and, increasingly, towards social technologies.

In recent times the university has undergone an academic renewal process whereby programs were analysed for their relevance, pedagogical approach, and, amongst other factors, their viability. Teghe & Knight's (2004) contention for universities is that "…the uptake of the Internet-based technology is not a matter of choice - rather, it is more of a necessity if they are to remain competitive" (p. 152). Furthermore, there were complications surrounding the use of technology for a largely regional-based student cohort. A diverse demographic cohort has a range of needs, one being their level of access to the internet. Australia's vast landscape has yet to produce a national broadband network (NBN) as

such, although this is currently being considered by the present government. Furthermore, an aging academic population with similar variable skill levels in using technologies and particularly web-based learning environments emerged as a further key consideration for the projects described here. As Jamieson (2004) notes, the introduction of online learning environments has altered the culture of universities:

> In terms of its impact on the instructional techniques of existing academic staff, the emerging pedagogical paradigm represents an order of change not previously experienced. Whereas academics have traditionally progressed from the experience of learning in the classroom to teaching in the classroom, it is not possible to predicate the adoption of online learning environments on the academic's firsthand experience of such practices. Very few of the current generation of academics have themselves been students in formal online learning programs. (p. 22)

As has been noted by others such as Beetham (2005) there have been numerous investigations in the area. However, as Kirkup & Kirkwood (2005) indicate:

> In campus-based contexts, teaching staff appropriate those technologies which they can incorporate into their teaching activity mostly easily, that offer affordances for what they already do, rather than those which radically change teaching and learning practices. (p. 188)

There is less however that specifically relates to project management in relation to introducing change when incorporating technology within academic renewal processes even though project management is a substantive field of research and practice. Numerous articles describe how technology was introduced and how change was undertaken but the reader is mostly left to unravel the project methodology [Oliver & Harvey (2002), Comeaux & McKenna-Byington (2003), Segrave, Holt & Farmer (2005), Collom, Dallas, Jong & Obexer (2002), Telg, Lundy, Irani & Bielema (2005), Brack, Samarawickrema & Benson (2005), Alonso, Lopez, Manrique & Vines (2005)]. We contend here that much development work is undertaken using project planning techniques but remains largely within the 'war stories' of small descriptive case studies. Goodyear, deLaat & Lally (2006) noted recently that:

> practitioner experience gets represented as 'war stories', case studies, vignettes or teaching tips—which are not easy to connect to theory. Meanwhile research produces evidence and theory that can be hard to connect back to the particular, situated concerns of the practitioner. What we need are ways of bridging between theory and praxis: ways of mediating conversation. (p. 213)

There is a lack of interdisciplinary affordance in education and management. This is easily observed in the discourse utilised by the education academic who might say, for example, the *project framework*, where, by way of contrast, the management academic might say *project methodology* and both mean different things to each area. There is no doubt that there is a tension between disciplinary areas who do not readily take from each other.

So, what of the project management approaches within the case studies presented in this article? Are they still just war stories or have they been articulated thoughtfully? Would management experts label them differently to us? Our intention was a desire to embed innovation and ownership at the instructor and student interface through a range of approaches which reflected the needs of the context. With this is mind what now follows is insight into: a) how integrated professional development serves to enable change in practice; b) why leadership at both junior and senior levels of the organisation is an important driver to support instructor engagement for real change; c) what role external private contractors can play; and, d) how instructors were integrated through the varied project management approaches. The integrating theme is of academic engagement for real change. Each project will be detailed as a mini-case and key lessons drawn out that describe and explain the challenges, opportunities and scope of varied project management approaches to suit the four distinct contexts. The conclusion then builds on and brings together how we can support and enhance dissemination of a variety of project-based models that respond to contextual needs and issues. The multiple-school case study methodology serves to provide an approach that is both robust and cognisant of current trends in increased university investment through short-term project funding. The final recommendations will highlight how different approaches to project management are both desirable and essential for successfully embedding change of instructor practices for enhancing student learning in distance education modes.

The Cases

The result of our academic process is still ongoing but between 2006-2008 several projects emerged which were directly related to special project-based funding (soft-funds) to assist staff in analysing their curricula and pedagogical approaches so as to improve student learning outcomes. 'Soft funds' as referred to in this context relate to those funds allocated to a specific project for a specified amount and time period to achieve a set of clearly articulated outcomes. The projects to be detailed in this article were located within one Faculty in the School of Business, School of

Health and School of Education. Each project approached their academic renewal using distinct project management approaches which in one instance was articulated through a methodological framework but in the others while present, was not labelled as such. Of significance here is the faculty support of a range of project approaches to academic renewal of distance education programs as proposed by academics leading both small and large projects.

Case 1—Sakai Distance Education Project

The Sakai Distance Education (DE) project in the School of Education sought to rejuvenate the Bachelor of Teaching (Primary) and Master of Education (eLearning) to take advantage of evolving online learning environments to address the tyranny of distance that external students historically face, as well as address specific concerns regarding communication between students and academics. In total, twenty-four units of study were redesigned for effective online learning and teaching, utilizing a range of tools, such as wikis, blogs, forums and chat rooms. Multimedia teaching resources, such as podcasts, vodcasts and video tutorials, were also incorporated. Teaching strategies were designed to create constructivist learning and assessment opportunities, using, for example, collaborative small-group wikis. Unit coordinator participants were supported in their journey with 45 hours of release time and a dedicated educational designer for the duration of the 2-year project. The educational designer worked with unit coordinators to redesign units for effective online learning, and provided professional learning opportunities. Additionally, the university IT Department and Teaching and Learning Centre (TLC), and a contracted web developer and graphic designer were engaged to provide resources and create materials as required.

A combined Participatory Action Research and proactive evaluation (Sims, Dobbs & Hand, 2002; Sims 2009) methodological framework was used to manage and articulate the project. This methodology provided opportunities to establish a shared vision, determine and meet the needs of the participants, formatively evaluate processes and make informed alterations during the project, and showcase the achievements of participants throughout. On a practical level, the approach also allowed for a manageable number of units to be worked on in each semester of the project, and was flexible enough to ensure all participants were involved despite commitments such as special purpose leave.

The project was divided into a *Reconnaissance phase* and the *Action Research Cycle phase*. The Reconnaissance phase included an initial planning workshop and individual meetings with all participants. These activities were the foundation of the project, and actively involved

participants from day one. Importantly, the Reconnaissance phase achieved a shared vision of the outcomes and processes of the project, the barriers to overcome and the needs of participants, particularly in terms of professional learning. The action research cycle included three iterations, with eight units developed, implemented and evaluated in each cascading iteration. As the first cohort of units was implemented, the next cohort was being designed. Lessons learned by one group of unit coordinators and the educational designer were shared with the next group, and improvements were made to professional learning approaches, the use of technology and the online learning environment itself. Success stories were shared at a showcase event, highlighting to participants and the wider university community new ways to think about and deliver quality distance learning experiences.

The integrated professional development delivered as part of this project utilized a range of techniques. Vital to the success of the project was that professional development was a fully funded, integrated and programmed part of the project that responded to individual and collective needs in both reactive and proactive ways. An online learning environment and unit of study was designed, whereby participants experienced being students. As a constructivist learning environment, initial activities were based on participant needs identified during the Reconnaissance phase, and moved quickly to cater to the evolving needs of its students. Small group face-to-face tutorials took a 'hands-on' approach to online learning tools and software in terms of both how to use it and how to use it *with students*. Ad hoc elbow-to-elbow and phone or email support of participants was also used to support participants at points of need. The educational designer worked with each participant to improve his or her unit, guiding and mentoring participants as they learned more about online pedagogy and technology. This multifaceted approach to professional learning enabled participants to access the support they needed throughout the project, allowing for deep learning and facilitating real change in the participants' approaches to online teaching and learning.

Another important factor contributing to the success of the Sakai project was the initiative, leadership and collaboration shown across levels in the university to drive and maintain project impetus. An academic in the Information Communication Technologies (ICT) teaching team who saw the need to make better use of the technology available for distance education conceived the project, which was wholeheartedly endorsed by the Head of School. The project gained momentum as the ICT team worked with colleagues in the TLC to secure funding and in-kind support from the Faculty, TLC and upper-level management in the university. Displaying latent leadership qualities, a junior academic

was appointed as project manager, taking this as a unique professional learning opportunity in itself. Securing endorsement and support at the school, faculty and university levels gave the project credibility as well as the resources to support participants. This, coupled with the project manager and educational designer being located within the School of Education, served as a real driving force for change to occur. However, it was apparent that when leadership was not strong, enthusiasm waned. This was particularly noticed when teaching team leaders hesitated to push reluctant participants under their direction to participate in the project in earnest. Regardless, as many participants became excited and led the way on behalf of their colleagues, the project itself appeared to take on its own impetus, pulling even those most resistant to change along for the ride.

Case 2: Postgraduate Business Programs Academic Renewal

CONTEXT

The changing context of higher education, especially for the distance education provider, brings many challenges, particularly in terms of the student demographic. For the School of Business, Economics and Public Policy (BEPP), the challenge was to maintain the quality and integrity of its programs while managing a restructure of the School and a perceived shift in demand from distance to online education.

To counter this challenge, the School received funding to embark on an academic renewal process utilising a phased professional development program for academic staff to both enhance its delivery modes and review program offerings. This was an initiative of the Head of School. The academic renewal process, while focused on postgraduate courses and units, was designed to enable approaches to be easily adapted to undergraduate courses and units as well, and to review the curriculum generally, working collaboratively to achieve a coherent, distinctive portfolio.

The initial development workshops took place in early 2008 where cross-disciplinary staff were brought together to assess current programs and propose structures for new programs. This was followed later in the year by professional development activities (by discipline) which focused on identifying strategies to address critical factors (for example, scalability and internationalisation) within units which were impacting on demand for and delivery of the School's individual programs.

PROGRAM RENEWAL

The initial workshop (facilitated by an external academic) was titled *Integrating and Distinguishing Our Postgraduate Awards,* and was designed to provide the opportunity for academic staff to analyse existing

postgraduate programs and, through that process, identify areas for development and change. Through a process of group work and discussion between inter-disciplinary teams, the key outcomes from the workshop were:

- identification of critical factors which impact on change within the School;
- recommendations for four new programs utilising existing units;
- action plans to implement those programs; and
- identification of numerous units that would no longer be required if the recommended programs were developed.

Underlying these outcomes was a clear sense that without an infrastructure that would provide consistent delivery of technology-based services and enable the efficent design and delivery of programs for the increasing diversity in the student cohort, the academic renewal process would be compromised.

In addition, while the need for change was recognised, the traditions of delivery and structure made adopting significant program modifications difficult. Ultimately the process came down to a key decision: *would individual academic staff be willing to take ownership of the process and implement innovative approaches?*

UNIT RENEWAL
The second phase of the renewal project took place six months later and was conducted in two stages. The first involved working with disciplinary groups to address the issues of modularity, scalability, flexibility, internationalisation and online delivery - and to identify strategies that would allow the unit coordinators to modify those units accordingly. For example, to address a geographically distributed international student cohort, the assessment items might be restructured to be more scalable by allowing learners to define the context of their assessment (Sims & Stork, 2007).

One of the key outcomes emerging from the sessions was that while academic staff were willing to embrace change, their limited knowledge of available tools and the perceived constraints to change within the institutional environment raised barriers to unit renewal opportunities. Consequently an additional development session was arranged, where three sample units were modified to illustrate options to address the challenges of modularity, scalability, flexibility, internationalisation and online delivery.

From an educational perspective, one of the significant areas to address was the coherence between learning outcomes, assessment, teaching strategies and learning activities, in terms of the following:

- *Learning Outcomes:* statements of what the student will be able to do/apply on completion of the unit and expressed from a student rather than a teacher perspective.
- *Assessment:* how the outcomes will be assessed and measured, with the potential for a number of outcomes to be assessed by one assessment item.
- *Teaching Strategies:* what the teacher will do to introduce and engage students with the content, and ensuring that each strategy is linked to one or more outcomes.
- *Learning Activities:* What tasks the student must complete to achieve all or part of an outcome, and how that task links to the assessment (or even forms part of the assessment).

One example of this was a unit where a major assignment asked students to discuss "topic A" but "topic A" was not mentioned once in the outcomes or the topic guides. Designing for diverse cohorts means it is essential to communicate exactly what is expected and to provide resource materials that make the links between outcomes, assessment, strategies and activities transparent and explicit. A second example involved assessment items which were more information regurgitation than knowledge application as well as numerous items which, based on the language used, were neither balanced nor weighted evenly in terms of assigned marks.

For one unit, the review and recommendations focused on relatively straightforward amendments:

- *Scalability and Flexibility:* focus on application of theories rather than knowledge of theories.
- *International:* integrate what's happening *now* and allow application of knowledge from different nations/economies.
- *Online:* interaction among all unit participants and the use of simple learning tools.

Project Management Considerations

To provide a framework by which such renewal might be managed and maintained, the Three-Phase Design (3PD) model, proposed by Sims & Jones (2003), which aimed specifically at the online environment, was introduced in the different professional development sessions. The model (as illustrated in Figure 1) provides a strategy whereby the renewal initiatives could be developed and implemented at a functional level to assess their effectiveness before investing significant resources in the development of more complex educational resources.
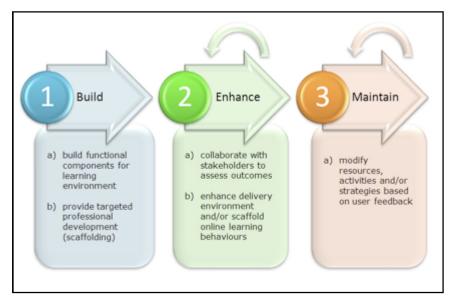
Fig. 1. the Three-Phase Design (3PD) model.

By using a phased development approach that is consistent with the broad higher-educational environment, and promoting consultation and collaboration between the key project stakeholders (academic staff, students, educational designers, technicians) the 3PD model was identified as a means to incrementally implement the renewal components.

Lessons

Like many organisations, how do you maintain the tradition of excellence but meet the demands of a changing demographic, a changing delivery environment and an emerging pedagogy? For the School of BEPP the tradition was manifested in quality printed materials that were provided to students enrolled in a Distance Education program. At the same time, the School wanted to take advantage of the affordances of online learning. However, an impasse emerged when it was determined that the Distance Education model was not consistent with that of an online pedagogy (interactive and collaborative).

The professional development opened the eyes of academic staff to the alternatives for computer-mediated education and the opportunities to review their units to meet those changing needs. Whilst the extent to which actual unit improvements have been achieved has varied across the School's three discipline areas, there has been significant progress in some

areas evidenced by collaboration between academic staff on unit modifications either still in a planning stage or that have already been prepared and implemented. It is apparent that such renewal and momentum is an ongoing need, critical for improving and maintaining quality within the teaching and learning area. Staff on the whole were very appreciative of the opportunity to reflect on their unit/s and engage with the external academic facilitator, drawing upon his expertise and experience.

Case Study 3 'Developing Our Staff'

'Developing Our Staff' is an innovative project which aims to develop a shared Graduate Certificate in Tertiary Education (GCTE) across participating universities. The GCTE requires the completion of four units. Each university offers a 'Core Unit' as a foundation for the Graduate Certificate. An elective unit is also offered from each university; staff will choose their home elective plus two others to complete their GCTE. The intention of this program is to enable smaller universities to offer high quality, fully benchmarked teaching development programs by minimising the workload in developing and delivering GCTEs by individual institutions, in times when universities are expected to raise standards of teaching, but are also coming under severe financial pressures.

The methodology of the project was to promote shared conceptual frameworks about teaching and learning and to support strategic change in how GCTEs contribute to the professional development of academic staff within a fast changing higher education context. Investigation and negotiation of the core content and approach for Australian higher education award programs across the collaborating universities was conducted by all concerned. An agreed upon public document was developed cooperatively by the project collaborators and disseminated after the curriculum mapping process. This document makes explicit an agreed upon curriculum approach, levels of achievement and types of assessment practices in GCTE programs at each institution, as a starting point for developing and monitoring academic standards in this discipline now and in the future. As the project is still ongoing, the intention is to develop and implement a collaborative model of cross-institutional delivery of a program for tertiary teaching in all of the universities, in order to obtain efficiencies of delivery, a core curriculum and to capitalise on the strengths of individual universities in the formal professional development of academics.

The history of collaboration among universities is marked by success and failure. Moran & Mugridge (1993a:1) claim the motivations for institutional collaboration include increasing efficiency and economy, and

improving educational opportunities for students. Collaboration appears to be a solution to issues of efficiency, especially in smaller regional universities via pooling resources amongst a number of universities [Goddard, Cranston, & Billot (2006), Moran & Mugridge (1993b)]. McGowan (2005) observes that there is an expectation that universities will work collaboratively under the dual pressures of increasingly specialised knowledge and fiscal restraints. However, a review of the literature in the area of collaborative partnerships reveals dichotomous views. Along with much support for working collaboratively [Brindley & Paul (1993), Calvert, Evans, & King (1993), da Costa (2006), Dhanarajan & Guiton (1993), Goddard et al. (2006), Kristoff (2005), Small (2002), Tynan & Garbett (2007)], other researchers urge caution [Bottomley (1993), Cowans (2005), McNeil (1993), Polhemus (1993)].

The lessons learned to date incorporate many more issues than simply providing a GCTE program across a number of diverse universities. 'Developing Our Staff' is an ambitious project, which is being examined closely by many people in the tertiary education sector. It is a huge responsibility for the project leader and all involved. Though it is frequently difficult, it is important to be flexible and inclusive, whilst maintaining consistency across all of the universities involved in the program. It is also important to constantly ask ourselves the question 'are our expectations unrealistic?' The strength of this program has to be that it is developed for the institutions involved and not for the individuals leading it.

Discussion: Practice and Impact

The practice of project management is represented by examples of activity within the three cases. Impact of project management approaches is defined as displaying transformation amongst those engaged with the projects in that transformation occurs after, through and within practice. No single approach to project management appears to have been more effective than another.

As Oliver & Harvey's (2002) work details, the complexities associated with interventions such as the introduction of technology highlight impact on three levels: i) individual academics' practice, ii) institutional level, and iii) national level. Oliver & Harvey highlight that the introduction of new technologies "aim(s) to have some kind of impact on students" (p. 2). However, is not easy to claim impact on student learning without taking a theoretical position on what learning is. Whenever a new innovation is implemented this changes how and what is learned. Impact is often investigated via before and after comparisons which in themselves can become problematic. Providing accurate evidence of impact often results in superficial evaluation. In assessing impact of these

three cases it is not easy to identify a population that is representative. For example:

> the characteristics used to describe the population necessarily form an ideology, and as such are open to critique. Whilst simple characteristics such as age and sex are often incorporated, the participant's social class and economic status, academic history, beliefs and attitudes are typically not. Indeed, it would simply be impractical to account for all of the potentially important characteristics; the influences that shape the ways people act are incredibly complex and draw from their complete personal histories, often in ways that remain tacit and unarticulated. (Oliver & Harvey, 2002, p. 5)

At an institutional level impact should be framed at two levels (Oliver & Harvey, 2002). That is literally "in terms of the changes in relationships between individuals and the organisation, and metaphorically, in terms of the image of the institution that is portrayed" (p. 6). This means that data (when located) about institutional impact is relatively under theorised. It is additionally important that the words used in documents, interviews and course materials "all form part of a wider attempt to create and maintain a particular image" (p. 6).

There are numerous examples of how the practice of project management and the consequent professional development, which was key to each case occurs within the tertiary environment. The cases are each stories of isolated contexts although collaborative interventions are also revealed. Teghe & Knight (2004) state that much online development does not take into account the need for good instructional design nor the poor skills base of academic staff. They note that there is neither a requirement for academic staff to have adequate skills sets nor any imperative at the institutional policy level in embedding this need. Whether this is due to the rapid change within the sector, reluctance on the behalf of academics themselves or a focus on the marketisation of learning remains unanswered. They do state that where academics are provided with opportunities to participate in specialist workshops that go beyond an introduction to Learning Management Systems (for example, WebCT & Bb), they are more likely to "retain control of their own teaching and learning environments"(p. 155). For these three cases this intention was realised.

Teghe & Knight also suggest that incentives could "be used to encourage academics to deliver courses that are both flexible and profitable - whilst preserving the unique form of critical and avant-garde scholarship that is at the centre of university education" (p. 154). Foster, Bowskill, Lally & McConnell (1999) also confirm that financial resources and reward for staff as recognition of quality development be considered.

Comeaux & McKenna-Byinton (2003) further highlight that:

> as we were being urged (and provided with monetary incentives) to develop fully online courses, it became necessary to actually reflect on our teaching practices and articulate them for others. Inadvertently, the integration of interactive technology in our courses became a catalyst for reflective dialogues across disciplines about our teaching and learning practices. This result may be the most productive yet. (p. 354)

The cascade approach of the Sakai case saw benefits being transferred to staff within the project and has led to great impact. Similarly, Hallas (2005) details a program in which staff learn about online communication by learning online. Like Alonso et al. (2005), staff are engaging in learning how to learn. Hallas employs Salmon's (2000) computer mediated conferencing model and Kolb's (1984) experience based learning cycle. She uses a mixed constructivist/reflective approach with a strong emphasis on continuous evaluation. Her aim was to investigate "academics values, attitudes and perceptions and response to change in order to encourage transformation in learning and teaching in higher education" (p. 159). Staff reported that being an online student gave them a fresh understanding of what it would be like for their students. In the Sakai case, staff indicated the same.

The active learning model and learning and teaching processes using action research and action learning processes were considered critical to the projects' success. The Sakai project seems to have created a lasting legacy for promoting change and, amongst the cases reported here, there seems to have been ability to encompass the many aspects required of a change process.

It appears that there are few project management models that can be drawn upon when scaling technology within institutions and like others across the sector, such as Segrave, Holt & Farmer (2005), have found, this is perhaps not surprising given the individual complexity of higher education institutions. System approaches appear common. The work of Collom, Dallas, Jong & Obexer (2002) define the breadth and depth of knowledge and skills needed to teach well online. Their analysis of existing practice revealed a reactive, non-flexible, piecemeal and poorly targeted academic development program which was constrained by the client base with competing interests in the delivery of flexible learning. Brack, Samarawickrema & Benson (2005) state that two central issues emerge for academics which are "Identifying the pedagogical approach that addresses the learning and teaching need; and upskilling in the use of ICTSs themselves " (p. 53). In the Postgraduate Business School case the three interrelated dimensions identified by Pospisil & Willcoxson

(1998) allowed responses to internal and external influences for academic renewal. These are:

- *Anarchic Development:* where the individual's interest and capacity with educational technology determines what online development occurs (i.e., the institution sets no strategic priorities)
- *Negotiated Development:* where individual or small group interests significantly influence or determine institutional strategic priorities and the choice of instructional design models, and
- *Controlled Development:* where strategic priorities are determined at a high level in the institution, and central control is exercised over development resources and instructional design models. (p. 2)

The assumption behind their model is that controlled and negotiated development are more effective than anarchic development. This was certainly revealed in the academic renewal agenda lead by their Head of School.

Project management is also demonstrated through specific interventions in Case 3 which has a focus on pedagogical stances. These included a work based learning approach, developing communities of practice and the provision of an authentic learning environment.

Conclusion

In looking at the three cases and project management approaches there is a need for the sector broadly to consider carefully what *practice* and *impact* might mean in relation to how we go about the project management of technology related projects. For example, questions need to be asked about what the *project* aims to achieve, for whom and why. The similarities across the cases point to broad agreement regarding the need for change management processes, high level champions and considerable staff professional development. There is a need for cross-disciplinary areas such as management and education to work together more closely so as to find a common discourse where each can assist the other. It remains that what works in one context will not necessarily transfer well to another. Moreover, there is little evidence of the effectiveness of various project management approaches over another. Evaluation and follow up in each case is variable. Impact on student learning or the wider institutional culture remains uncertain. This is significant for funding, since justification is required for the perceived 'value for money' in regards to dissemination within the institution and perhaps the sector. Considerable effort goes into developing professional development based on policy or institutional push when it comes to

introducing various information technology initiatives. Where a technology initiative is deployed, development of staff is required. Needs analysis is required to inform and form the basis of any information technology and consequent professional development. Interventions in the three cases appeared more worthwhile especially if linked to incentives.

There is a trend towards designing learning experiences for staff which are work based and which promote transformation through reflection. There is some evidence to suggest that staff find these experiences useful. Not surprisingly, collaboration across the sector and between institutions is reported to have considerable benefits. Not least the efficiencies that arise. The large scale Developing our Staff (Case 3) has demonstrated synergy and uptake, and dissemination resulted in larger numbers of staff being involved across the sector.

Several ideas emerge from the three cases for project managers to ensure staff engagement for real change.

Establishing Institutional **Readiness**

First, staff have been forced to change their practices and use technology with limited professional development. Second, the professional development required represents a broad and complex range of skills, knowledge and attitudes. As Bowskill, Lally & McConnell (2000) noted, professional development is not limited to academic staff but may be required for academic developers, senior managers and at operational levels too. Further, the impact of ICT requires considerable thought about how to embed technologies at a number of levels and not least 'institutional readiness' (p. 2). This draws attention to the requirement that institutions need to understand the impact and change processes required in regard to new technologies, their purpose and role in the shape of the institutional context itself.

An Institutional Response to Staff Development

Developing staff capacity is "multifaceted and multiplayer, and all aspects need to be integrated, at the institutional level, the instructor level, the student level, the supporting-staff level, the technology-infrastructure level, the curriculum level, the user-interface level, the procedural level via which the managed change is to occur" (Collis, 1998, p. 3). Staff development in the higher education sector needs to move from the backburner and promote opportunities as *not to be missed* and address under-resourcing, uninterested or disinterested stakeholders. Policy and intent should be declared as professoriate roles change and evolve under centralised managerialism which seems predominant in the current higher education sector. Drawing on the work of Collis (1998)

could be instructive regarding how change can be more adequately managed through specific and clear obtainable goals that are less about motherhood statements. Collis states that:

> There needs to be a mixture of both top-down (leadership, policy, vision, incentives, pressure, coordination, funding, infrastructure provision) and bottom-up (acceptance of the value of the innovation by the individual involved, willingness to move through initial difficulties as well as the unavoidable "implementation dip" that accompanies having to deal on a personal basis with the small and large problems of change and technology, adequate personal skill, access and insight to continue productively) . (p. 3)

Preparing for Changes in the Way Learning might Occur

Technologies alter the way in which learning might occur. This will result in a change in the way students approach their learning and how teachers approach their own roles. This needs to be addressed in relation to institutional imperatives (for example, philosophy of knowledge and learning, IT Teaching and Learning Plans, IT to be supported), to discipline (for example, factors that include professional requirements and disciplinary knowledge, skills and attributes) to individual levels (for example, individual staff ideals, conceptions, perceptions and attitudes to learning and teaching as individuals and as agents for their disciplines) and to students. (For example, who are they and what are their needs?)

Developing Impact Evaluation Indicators

Evaluation is complex and requires a meeting involving policy, theory and practice. Institutions should state explicitly what role web-based technologies will play in their orientation internally and externally. Developing impact indicators of the orientation should be discussed and theorised in relation to the context. This is particularly important in understanding how student learning is framed within the institution and more widely within the global knowledge economy.

Project Management

Projects are contextualised and while they have much in common, project management methodologies need to be flexible. Good governance, dedicated project managers and clear intentions are critical for success.

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Belinda Tynan, UNE. E-Mail: belinda.tynan@une.edu.au

Rachel Adlington, UNE. E-Mail: rachael.adlington@une.edu.au

Cherry Stewart, UNE. E-Mail: cherry.stewart@une.edu.au

Deborah Vale, UNE. E-Mail: dvale3@une.edu.au

Rod Sims, UNE. E-Mail: rsims@iprimus.com.au

Peter Shanahan. E-Mail: pshanaha@pobox.une.edu.au