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Refereed Papers

Edited by Ian R. Dobson, Raj Sharma and Maree Conway

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Refereed Papers

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EDITORS' INTRODUCTION

Ian R Dobson, Raj Sharma & Maree Conway

Readers will find this editors' introduction to be reminiscent of those from previous years, but we'll do our best to be original! A formal e-book of refereed stream papers of the Tertiary Education Management (TEM) conference was prepared for first time in 2010. This, therefore, is the third edition of this collection, in the TEM Conference's 35th year.

In order to explain the present, it is necessary to describe the past. To repeat a section of last year's *editors' introduction*, this is how we got to where we are now: The history of the TEM conference is also a history of evolving institutions and their obligatory acronyms. TEM conferences grew out of those held in earlier years by the Association for Tertiary Education and Management (ATEM) and its predecessor AITEA – the Australasian Institute for Tertiary Education Administration. The first AITEA conference was held in 1977 and the AITEA / ATEM conference grew in size and esteem until 1992. This was the year a marriage of sorts took place: from 1993, the then Australasian Association of Higher Education Facilities Directors (AAAPA) became ATEM's partner in running the conference. The process of evolution and fine-tuning is also part-and-parcel of those involved in facilities management, and they renamed themselves to the Tertiary Education Facilities Management Association (TEFMA) in 2003. We leave the future to those with crystal balls.

It cannot be disputed that this is an excellent conference. It now attracts upwards of 600 delegates each year, and excellent turnout. The 2012 Conference in Adelaide attracted an audience with a strong interest in aspects of post-secondary education, who watched presentations by a wide range of speakers holding forth on a wide range of topics. The Conference is the flagship activity each year for ATEM and TEFMA alike, and provides an opportunity for their respective members to be brought together for a significant period of professional development, for ATEM/TEFMA to co-host and listen to significant figures in tertiary management and administration as plenary speakers, and to network with like organisations and clients through formal links and sponsorship arrangements.

When the conference was re-badged in 2003, the aim was to build it into the pre-eminent professional development activity for managers in tertiary education. In this regard, it has been highly successful. The conference is organised by an organising committee with members from both associations. In the interests of professionalism, the conference has used the services of a professional conference organiser, appointed by the TEMC and TEFMA councils. For the past several years, Renee Brown and the team from Leishman Associates have filled this role superbly.

The TEM conference is the only one in the tertiary sector that covers the full range of functions in institutions, and is designed to allow participants to build strong networks across Australia and New Zealand. TEMC has a strong practitioner focus to support the sharing of knowledge and 'know how'.

Perhaps the last thing to be facilitated for Conference participants was for a refereed stream to be offered, this being a reflection of the fact that even people that work in 'admin' can write up their research and practice in a scholarly manner. Looking no further than the co-editors of this volume, we find all three to have had their work published in scholarly refereed journals. Furthermore, two of the three have PhDs, and the third is currently enrolled in one.

It should be remembered that ATEM is not without considerable experience in scholarly publishing. It has sponsored its own journal, the Journal of Higher Education Policy and Management, for 34 years, and currently does so (since 2009) with the L H Martin Institute for Higher Education Leadership and Management as co-proprietor.

Having a refereed stream brings with it certain responsibilities, and these responsibilities are not always understood by everyone, at first. Papers published in peer reviewed count as 'publications' in the Higher Education Research Data Collection (HERDC), under Category E1. As such, the Commonwealth government provides reward funding for the institutions at which the authors are affiliated. According to the current instructions for the HERDC, for a paper to be counted, it must:

- meet the HERDC definition of 'research'
- meet the eligibility criteria (e.g. must not be a plenary presentation)
- be published in full
- be peer reviewed on the full paper.

Therefore, the TEM Conference must meet externally defined standards in order for the 'refereed stream' to be accepted as such by the Commonwealth.

Quoting from the 2012 HERDC Guidelines:

> For the purposes of the HERDC, an acceptable peer review process is one that involves an assessment or review of the research publication in its entirety by independent, qualified experts before publication. Independent in this context means independent of the author.
>
> Peer review is relevant for journal articles and conference publications …. being counted in the Research Publications Return

Material on the collection and the process can be retrieved from http://www.innovation.gov.au/Research/Pages/default.aspx

For the TEM Conference 2012, of the 21 papers submitted for assessment under provisions for the refereed stream, 16 were accepted. Of those not accepted, three were deemed not to be 'research' and two were not accepted for other reasons.

In order to simplify the task of ensuring eligibility and style, detailed guidelines were made available on the Conference website. When required, reviewers' comments were reported to authors, and of those papers deemed 'acceptable' several had to be resubmitted with style and other corrections. 'Style' is all important in publishing, and amending papers so they meet style requirements is a considerable burden on editors. These days, we make the authors do it! In her book on having papers published, Ann Körner (2008) lists 'failure to read the instructions' as the first of the 'ten most common mistakes'. Without doubt, this is the major source of annoyance to editors.

The editors hope that readers find this set of papers to be of interest. They also hope that ATEM members that attend the TEM conference regularly might start to consider submitting their work for consideration for the refereed stream. There's a little more involved than just having a paper accepted to present at the conference, but provided the few style, content and

referencing protocols are followed, IT ISN'T THAT DIFFICULT! As Dobson's vocabulary-mangling footy coach from the early 1970s used to say: 'It's not rocket surgery'. He also used to say 'pair off in threes'. These days, he probably has a chair in semiotics somewhere.

In last year's compilation the editors hoped that more authors from the TEFMA side of the conference would submit their papers for scrutiny for the refereed stream. That happened this year, but the fine line between 'research' and 'not research' has to be remembered. A couple of papers had to be rejected as they could never have been described as 'research'.

Readers' comments on this volume and the processes behind it will be gratefully received.

Ian R Dobson, Raj Sharma & Maree Conway

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Körner, A. (2008). *Guide to publishing a scientific paper*. Oxford, Routledge, 2008.

BIOGRAPHICAL NOTES

Ian R Dobson's career in higher education started 41 years ago in the Planning Branch at RMIT. Since then he enjoyed (for much of the time) long spells at the University of Melbourne and Monash University, and currently is a research director at the University of Helsinki, Finland, an honorary senior research fellow in the School of Education and Arts at the University of Ballarat, and an adjunct professional staff member at Monash University. He is editor of the Journal of Higher Education Policy and Management and Australian Universities' Review. He completed a PhD at Monash University on higher education equity policy in 2004.

Raj Sharma worked in higher education for nearly four decades at institutions in three Australian states, both in higher education management and as an academic. He completed the Master of Educational Administration and PhD from the University of New England during the 1980s. Raj is a consultant in higher education in areas such as planning, institutional research, resource allocation and related fields.

Maree Conway spent almost 30 years working as a tertiary education manager before starting Thinking Futures, a strategic foresight practice, in 2008. She now works with people in educational, non-profit and government organisations to strengthen strategy development and implementation through the use of environmental scanning, strategic thinking and enhanced strategic planning. Maree sits on the editorial boards of the Journal of Higher Education Policy and Management and On The Horizon, and recently guest edited a special issue of On The Horizon on New Media and Learning.

THE LIGHT AT THE END OF THE TUNNEL OF CHANGE: A BLEND OF OPPORTUNITIES FOR A VIABLE FUTURE

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ABSTRACT

The Australian tertiary education sector is undergoing major change on a number of fronts and is becoming increasingly competitive, demand driven and customer focussed. In addition the environment in which the tertiary sector finds itself has evolved with access through open source content and online learning becoming increasingly prevalent, a growing number of private providers, quality and compliance being brought into question and ever decreasing funding to name a few. This paper seeks to explore how one Faculty in Swinburne University sought to strategically position itself to meet the challenges faced in the tertiary sector to ensure viability and relevance into the future. Issues, strategies and framework theories are applied and discussed for leading the way into the tunnel of change.

KEY WORDS

business strategy; casualisation; change management; human resource management; online delivery; partnerships; privatisation; workforce change

INTRODUCTION

The Australian tertiary education environment is currently undergoing substantial change on a number of fronts. There are changes in legislation; declining funding; declining on-campus and international student numbers due to global economic issues; new private providers in an increasingly competitive market; tech savvy students who want to study in a time, place and space which suits their needs; increased competition for research funding and the need to increase research outputs; the new uncapped demand on government funded student places; increasing targets for students from low socio-economic backgrounds; universal education targets… and these are just a few of the challenges!

The environment in which the tertiary sector sits also finds itself becoming increasingly demand driven with a much stronger emphasis on becoming 'customer focussed'. In addition, universities must meet challenges brought about by 'open source' content, exponential growth in online delivery, ever evolving and new technologies and changing work roles including the blurring of academic and professional staff boundaries.

Like all other universities in Australia, Swinburne University, as a dual sector university, has had to engage with forward planning in preparing for and responding to national and international changes to the tertiary education landscape. Online and blended learning is now a priority with the development of Swinburne Online in partnership with the SEEK corporation, in addition to current arrangements through Open Universities Australia and other partnerships as they arise. Relationships with the Technical and Further Education

(TAFE) sector have also become more important as pipeline opportunities into higher education through articulation pathways, guaranteed entry and embedded degrees at both undergraduate and postgraduate levels, providing a view to ensuring retention of students through the tertiary system and throughout the student life cycle.

Some of the recent issues faced by Swinburne's Faculty of Higher Education include staff turnover in key leadership roles, a review of all the Faculty's programs leading to a myriad of perceptions regarding change and the need to re-think academic and administrative quality assurance mechanisms associated with managing for a split in program design and delivery. Despite an environment of uncertainty and change, staff have risen to meet and surpass the challenges faced. The Faculty has also seen new and emerging roles fall out of the challenges, a blurring of role boundaries and the inevitable review of business functions and structures.

BACKGROUND

Swinburne's Faculty of Higher Education, Lilydale had its beginnings as a regional campus in 1991, located in Melbourne's outer eastern suburb of Mooroolbark. Governed largely by the main campus, the campus re-invented itself in 1997, moving to new buildings at a new campus in 1997, and became one of two Higher Education Divisions of the University with its own Deputy Vice Chancellor. In 2006, the Lilydale Division became a Faculty of the university's Higher Education Division – thus being rebadged as the Faculty of Higher Education, Lilydale.

Multi-disciplinary in focus, the Faculty has experienced varied and at times rapid and exponential growth and has retained a relatively large staffing base throughout this entire period. In particular the Faculty has experienced rapid growth over the past five years as it has expanded its program offerings and partnerships. This growth has been generated by increases in areas such as:

- online student enrolments through Open Universities Australia (OUA) and more recently through Swinburne Online
- new partnership agreements and offshore arrangements through face to face and blended learning models
- international student numbers
- new discipline areas
- new postgraduate programs
- new undergraduate programs, majors, units of study and program structures both on-campus and online

It should be noted that the most rapid growth has been in the offerings through OUA and the Faculty's role as the major provider of online learning at the University.

To meet the challenges of teaching and learning online, significant expertise has been built over the years with this expertise being shared with other areas of the University on a regular basis. In addition, two years ago the Faculty introduced 'blended learning' through its offerings in Singapore and has continued to build expertise in online and blended learning.

It is the mix of face to face, online and blended delivery modes and offerings which provide the right blend for a viable future. However this mix is not without its challenges.

CHALLENGES

Leadership Challenges

In endeavouring to position the University to respond to market challenges, key staff were repositioned, leading in 2011 to the Faculty's two most senior positions, the Dean and Deputy Dean, being redeployed within three months of each other. The Dean was replaced by an Acting Dean for a period 18 months, with the role more recently becoming Dean until the middle of 2013.

The Deputy Dean position has seen four incumbents over the past 18 months, including two acting roles and now the most recent appointment (in May 2012) being a longer term appointment of three years.

Online expertise and rapid growth

The rapid growth of online learning and subsequent offerings has seen growth in both staffing requirements and the number and range of activities and functions including:

- training of university wide academic staff regarding teaching and the practicalities of working in the online environment;
- managing associated quality assurance processes such as accreditation required by Swinburne, OUA and relevant professional bodies;
- development of materials and processes that align with online pedagogy;
- co-ordination of OUA requirements and supporting financial, administration communication processes across all university faculties;
- applying quality assurance process in ensuring consistency of approach to the academic and administrative operations.

Internal Program Review

In mid-2011, a review was announced which appeared to suggest that the Faculty's multi-disciplinary program offerings would be realigned with Australia's new Tertiary Education Quality and Standards Agency (TEQSA) discipline groups across Swinburne's other five faculties and in effect disseminated amongst these faculties. It was unclear as regards what would be left for the Faculty and a lack of clarity in communications as to process, aims or objectives of this review.

Semi-Privatisation

Finally, at the start of 2011 Swinburne established its new public-private partnership with SEEK Ltd resulting in the new entity which is now known as "Swinburne Online".

At the start-up phase in 2011, some of the key staff from the Faculty were offered positions at Swinburne Online on a secondment basis with at least four staff taking up this offer. Remaining academic staff were approached to provide materials and content which had previously been developed for online delivery through OUA by redeveloping this material for Swinburne Online. There continues to be issues around the industrial systems for this shifting in role and around a coherent quality framework. This has lead to issues of workload, pedagogy, managing quality assurance for the associated design/delivery split and so forth.

Responsive Leaders in Innovation
The Faculty of Higher Education, Lilydale provides multi-modal approaches for delivering its programs. From the traditional onshore on-campus delivery model to domestic and international student cohorts, to offshore onsite delivery, through to on-campus/online blended delivery models, to purely online. While much of this online delivery has been through Open Universities Australia, growth in the online learning market led in 2012 to Swinburne outsourcing some of its online delivery to Swinburne Online.

Largely through the Faculty of Higher Education Lilydale leveraging off its previous work in the online environment, the University designs, accredits and develops the programs, while Swinburne Online employs the 'E-Learning Advisors' who deliver and assess against the programs. This 'design/delivery' split has meant Swinburne's academics are grappling with new complexities involved in managing for retained accountabilities while also managing quality stemming from devolved delivery responsibilities. Requisite shifts in responsibilities have in turn attracted rather a lot of attention from various quarters including through the National Tertiary Education Union's (NTEU) which launched an active campaign against change in academic workload associated with Swinburne Online.

There are of course many valid reasons why the Faculty of Higher Education, Lilydale has been the faculty chosen to lead the way in the University's online provision. Within Swinburne, expertise in online teaching and pedagogy lies largely within the Faculty – both academically and administratively. Since 2000 the Faculty has successfully worked through issues of pedagogy, systems and process related to online education resulting in income growing at between 20-30 per cent per year for at least the past eight years.

Partnered pathways
The Faculty has been recognised as quick to act on new opportunities that others proffered the same opportunities would not respond to. These include collaborative articulation programs in China and a partnership with Kaplan Singapore for programs provided in a blended learning mode, as well as interesting postgraduate program collaborations with TAFE and cross faculty/cross campus teaching in undergraduate programs.

A dual sector institution such as Swinburne is perfectly positioned to generate embedded degrees that add value for learners and for the University's business models. Under the updated Australian Qualification's Framework, hybrid applied/academic undergraduate degrees can be accredited which demonstrate the AQF Level 7 outcomes required of a Bachelor Degree and which can incorporate at the early stages, the applied competency based learning valued by industry. By extending on current practice in credit transfer arrangements, credentialing can be more logically achieved by staging a single program of study between the diploma and/or advanced diploma AQF levels 5 and 6 and the bachelor degree level 7 outcomes. Put simply, by building on the knowledge acquired during the first half of the program (i.e. AQF levels 5 and 6) only the latter half of the program would need to provide conditions necessary to build on the coherence and depth of disciplinary knowledge required of an AQF Level 7 graduate.

This model can also be applied by TAFE institutes offering applied degrees.

Viability
The Faculty has continued to do well financially. There has been a steady growth in student enrolments in the six years since the Faculty was formed so that in 2012 FHEL has the largest

number of student equivalent full-time student load (EFTSL) of all six Swinburne faculties – taking into account online, on-campus and off-shore numbers. However, contrary to this growth, FHEL continues to be smaller in terms of staffing resources with a much lower staff:student ratio than the other faculties. The reason for this anomaly is partly due to higher staff:student ratios allowed for online delivery although online delivery does not reduce the administration load. Thus, FHEL's professional staff as well as its teaching staff have become increasingly self-reliant, collaborative and innovative when it comes to developing and building on systems and support structures.

Exemplified through the human relations domain of Quinn, Faerman, Thompson, McGrath and St Clair's (2011) Competing Values Framework, the implementation of innovation and adaptation requires a collaborative approach. Commitment and morale, participation and openness are the key to effectiveness in this respect. This approach has been evident through the organisational culture of collaboration which the Faculty is renowned for and which aids the embracing of change and results in a 'just get it done' attitude.

In order to move forward to effectively meet the future, a more structured, planned approach is required and Quinn et al.'s (2011) Control or Internal Process model complemented by change management techniques need to be introduced if the Faculty is to continue to deliver high quality programs and services into the future. New ways of working and organising are required that allow staff to not only achieve their required outcomes, but to also work in ways that further promote teamwork, collaboration and sharing of knowledge.

Research

The Faculty research profile is low, but definitely on the rise and punching above its weight. Swinburne managed to score in the top 500 of the Shanghai Jao Tong university rankings for the first in 2010, moving to the top 400 by 2012. Such rankings resulted in various benefits to Swinburne, including a continued recruitment of international students; increased credibility with and partnerships between offshore higher education institutions; increased credibility with domestic student cohorts and of course; increased credibility with domestic partner institutions and corporations. In a self-fulfilling prophecy, greater credibility also helps draw in the much needed PhD graduates and associated research outputs that drive university rankings ever higher.

For a nation to be globally competitive requires a tertiary education sector that provides highly qualified graduates and a very strong research base. The move to universal education means more students will transcend the boundaries between the vocational education and higher education sectors. It therefore stands to reason that dual sector institutions are well placed to free up their teaching resources at the higher education end and redirect some of that energy into research. This factor has not been lost on Swinburne. There is also a valid argument that research must remain connected to education. As Maassen and Stensaker state:

...if (basic) research is becoming a more concentrated activity in which relatively few universities are involved and seen as the key actors, education, especially at undergraduate level, runs the risk of becoming a separate activity. (Maassen & Stensaker, 2010:9).

Smaller higher education institutions such as Swinburne University, which traditionally tend to focus more on teaching than research, must engage more aggressively in the research arena if they are to remain viable both domestically and internationally. There are counter

arguments put by the larger research based universities though that this risks watering down the available pool of funds and quality research output nationally. By channelling funds into research scholarship rather than into avenues of activity that contribute to grist for high level academic debate, this potentially limits Australia's capacity for being represented in the international research rankings. A new model for encouraging the conditions for research scholarship must be proffered. By appropriately funding the TAFE sector's contribution to higher education qualifications, and by encouraging integrated program development and delivery, the conditions could be more conducive for research scholarship to be shared between the two sectors.

Extending higher education teaching to the TAFE sector could lead to improved quality outcomes domestically. Whether this is enough in itself to enable Australia's extensive and much broader tertiary education sector to sustain meaningful engagement internationally is possibly a moot point. Back in 2007 Simon Marginson stated that 'there is a clear and present danger that in the longer run, Australian universities will become differentiated from other nations, ... not on the basis of Australia's research ... but a distinctive commercial orientation to high-volume, middle-level degree programs' (Marginson, 2007:28).

Five years, a major review of Australia's higher education sector, TEQSA, and a serious reduction in Victorian public vocational education and training (VET) funding later, the question must be asked, is Australia now better positioned to engage globally by differentiating itself on the basis of its education qualifications rather than or in addition to its research outputs?

It is left to education managers to create the conditions for making this distinction.

Evolving and devolving academic work

A dimension to the 'evolution' of not only the Faculty but the sector as a whole is that the role and work of the academic is changing, from content developer to content curator and learning facilitator. With the explosion of the internet and capacity to google, knowledge, or at least information, is now freely available resulting in academics now being challenged as society's knowledge experts.

For professional staff, new identities and ways of working with academic staff are emerging which sees a softening of internal and external boundaries between academic and administration staff. As Whitchurch (2006:159) states, this results in 'major shifts in the identities of professional administrators and managers as they adopt more project-oriented roles crossing functional and organisational boundaries'.

As mentioned earlier, a number of factors continue to influence workforce change within the Australian tertiary education sector. Such change drivers redefine not only what it means to be competitive in a not-for-profit environment, along the way it is also redefining what it means to be an academic and a member of the higher education sector's professional workforce.

Shifts in academic and professional work mean that traditional ways of working will not be so relevant in the future. Much of the work once done by academic staff can be done by other professional staff , allowing academic staff to focus on facilitating the learning process as well as on their research. The existing Faculty structure, support arrangements and work roles are under pressure as a result of burgeoning growth. Many of the new activities have been

added to existing roles as additional tasks and have increased workloads. Both academic and professional staff have been affected, and the division or merging of work between these two groups needs to be reviewed.

There is of course another variable that can impact on the workload of university staff. That of the regulatory environment.

Regulation and the workforce

In a recent report released by the Australian Productivity Commission on the impact of Council of Australian Government (COAG) reforms to VET, the idea was supported of better managing processes rather than the workforce by, for example, 'strengthening quality control through cost-effective independent validation and auditing of training organisations' assessment practices' asserting that validation would represent a 'substantial reform' in itself (Productivity Commission, 2012, pp.2, 34).

While the latter report was specific to the VET sector, there is no reason to believe that the higher education environment will not be similarly affected through the new dual sector regulatory body TEQSA. Thus, the higher education sector, and especially those universities such as Swinburne that are opting for outsourced delivery models, will be covertly applauded for taking pressure off the state in contributing to the state's higher education initiatives. At the same time though, the sector will be overtly subjected to increasingly exhaustive regulatory regimes for which its ongoing employee base will be held accountable. Supporting this increased load will require a larger investment in professional staff equipped with compliance capability but who can perform as an intermediary with academic staff who need to drive the system's logic by maintaining the foci on learning outcomes that are complemented by system and regulation mandated inputs rather than being hijacked by same.

Workload Remodelling – A two edged sword?

As already noted, academic work is evolving and economies of scale aside, workloads are often higher in the online environment.

In their analyses of factors associated with job satisfaction amongst Australian university academics, Bentley, Coates and Dobson et al. (2012) argue that there is evidence to suggest that the 40-40-20 'teaching-research-administration/student support/service outreach' academic workload model has seen its time. This view is also evident in research reconceptualising Australia's academic workforce undertaken by Coates and Goedegebuure (2010) who advocated that:

Academic work appears to be about managing a portfolio consisting of discrete parcels of activity many of which, it would appear, can be delegated. Sessionalisation suggests there has been an unbundling of the classic 'boutique' conceptualisation of academic work. This is hardly surprising given the breadth and diversification of what academics actually do. What is surprising is that the classic view of academic work is sustained as a normative ideal despite increasing deconstruction via fixed-term and in particular sessional appointments (Coates & Goedegebuure, 2010:21).

Monitoring course delivery quality of in-house sessional staff can be a challenge in itself. Monitoring quality of outsourced delivery has even more serious implications on what it is that academics are required to do. There have been attempts to add such monitoring to the academic workload but these attempts continue to be stymied, with the NTEU disputing that

such changes do not fit under industrial award conditions, while the University argues that there is no dispute. Whatever the legal ramifications, most academics are not comfortable with a design/delivery split, nor with having to monitor 3rd party delivery quality, let alone having their workload tinkered with by factoring in time for same that by extension could impact on the research time allocation. The big question though is, how much licence should be afforded academic staff who drive the global learning environment considering the rapidly evolving nature of the knowledge economy is continuing its own course with little or no easing of the sails?

While there is no doubt that private-for-profit entities are focused on increasing revenue, universities will remain focused on building on bodies of knowledge that are critical to a university and to a fully rounded society and economy. University executives need to remain true to the core values of any university by listening to those academic staff who are trying to restabilise their own working conditions. Academic staff need to appreciate that the world is changing rapidly and so too is the nature of knowledge. To move forward, ground may need to be given on both sides.

... and back to privatisation

While as much an economic driver as Osborne and Gaebler's (1993) proposition of splitting governance from operations, with government 'steering' and private contractors 'rowing', a similar metaphor supporting a higher education design/delivery split brings with it a number of questions and concerns for the local academic fraternity. Osborne and Gaebler's idea was to free up the governing body to explore and design policy improvements aimed at steering the economy rather than driving it, while conveniently distancing those who implement policy from adversely influencing that policy.

Now in a second stage neoliberal era (Nullmeier, 2011) a similar steering/rowing metaphor in higher education could be viewed as akin to freeing up the time of the researcher who no longer needs to be directly involved in teaching (Kyvik, 2009). A key difference though is that far from trying to 'separate powers' between those who design (steer), and those who deliver (row), the converse is required. Those who deliver programs must be provided with adequate opportunity to provide advice on curriculum content. This communication exchange is literally being orchestrated through a suite of strategies developed by Swinburne's new Pro Vice Chancellor (Learning Transformations).

Gilly Salmon's original online pedagogy design model was the 'carpe diem' model (Salmon, 2005) which was basically a process for redeveloping existing content for online provision. Swinburne Online's asynchronous delivery model though requires quality practices that now extend to the following three stage quality delivery model:

- 'Duet': 'in concert' with a Swinburne Online representative , developing or redeveloping unit of study content in readiness for online provision.
- 'Encore': mid cycle review and moderation of unit of study delivery and assessment.
- 'Orchestra': end cycle review and unit delivery pedagogy and method redesign as necessary. A two way exchange between designer and deliverer this orchestra process can also be deployed to trigger any necessary adjustment to curriculum content, as appropriate, to achieve the higher order unit and course learning outcomes.

Competing Values Framework

The rapid growth in online and blended learning within Swinburne and globally can largely be attributed to a changing tertiary and external environment or a 'rational goal' environment

(Quinn et al., 2011) where competition is increasing as universities compete for the same students and funds. There was a particular need to position the University to respond to such factors as the massification of tertiary education, uncapped demand and the changing demands of 'tech savvy' students who want to study in a time, place and space which better suits their own needs.

Responses to challenges such as those noted above have been implemented in an opportunistic and reactive manner which Quinn et al. (2011) refer to as an 'Open Systems' model whereby all agents are expected to adapt to change and managers to facilitate that change. Taking the time to plan and think through the issues, possible consequences and solutions is a rarity, with staff instead preparing and implementing 'on the fly', often sorting through issues and finding solutions as they arise. The bottom line is that Swinburne's Faculty of Higher Education and its businesses have 'grown like Topsy'. Quinn et al's Competing Values Framework provides a means of managing such growth.

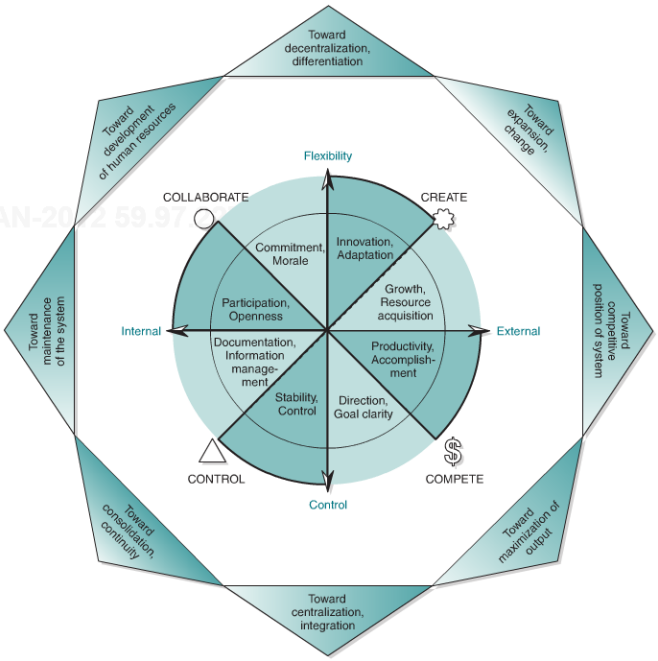

Figure 1: The Competing Values Framework (Quinn, 1988)

Quinn's, Competing Values Framework provides eight general values that complement the values next to each other but which compete with their opposite values. The rational goal model then is in the bottom right 'compete' quadrant and in turn competes with collaborative mandates suggested of the top left quadrant in Figure 1.

Applying the competing values approach to management provides the capability to simultaneously shape, transform and constrain what may or may not be possible in managing a faculty's ability (and hence the student's ability) to negotiate through what is intended to be a flexible and collaborative education and training system (Figure 2).

In the global current environment of rapid and complex change, it is likely that universities both nationally and internationally will continue at the same pace of change and we will see a future tertiary education environment that looks nothing like today. This means that organisations will need to spend dedicated time on understanding the nature of possible changes in the external environment, and how those changes are likely to affect work today. Not to stay informed of change drivers runs the risk of assuming the future will be 'business-as-usual' while continuing with an opportunistic, ad hoc and reactive approach.

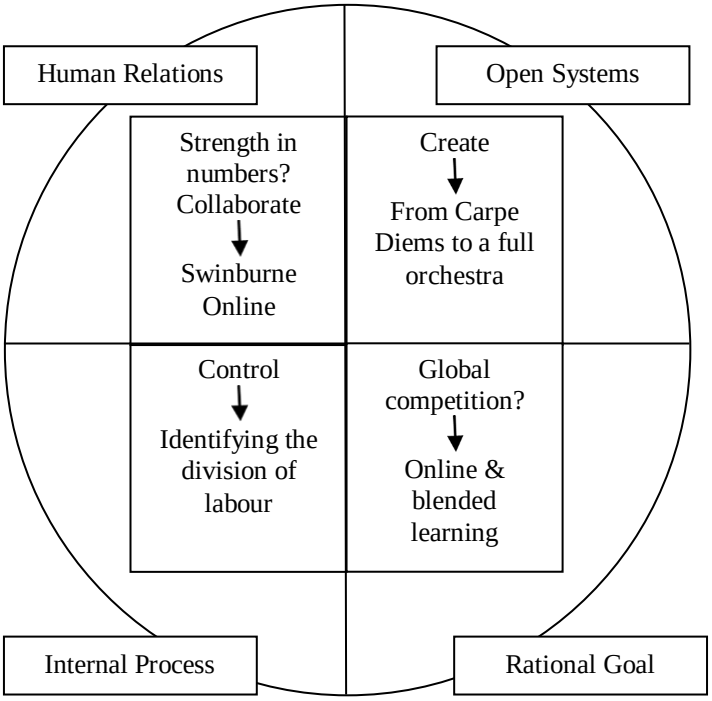

Figure 2: Applying the Competing Values Framework

A metaphor here may be the freeway which has a solid rock bed of clear goals and direction, strong policy foundations, equally strong pillars of systems and procedures, but which stopped short of bridging under and across the ever growing expanse or freeways created by new programs, provision and activity. In such cases it doesn't take long for the entire system to start breaking off in pieces, running the risk of taking its established business down with it.

The way forward

In order to address the review of structure in a planned and co-ordinated way a change management process will be implemented at Swinburne's Faculty of Higher Education which largely follows John Kotter's (1990) eight step process for leading effective change. Direction needs to be established and people aligned, 'motivated and inspired to achieve the outcomes planned' (Stanley, 2006).

Change processes have the best chance of success if they are open and transparent. An essential element is therefore to provide opportunities for staff to contribute to the conversation at all stages of the process with open and honest discussions. This approach allows staff to contribute to shaping the change which means they should be more likely to adopt new ways of working as a result and the Faculty to achieve 'buy-in' by establishing a sense of urgency as required at Step 1 of the Kotter model. There will always be constraints that affect the degree to which staff views can be accommodated in the final outcomes, so managing staff expectations is also an important and continuing aspect of the process. The expectations need to match the deliverables as much as possible.

Two other elements are essential:

(i) a systems perspective (Quinn et al.'s 2011 Internal Process model) so that the work of the Faculty is considered as a whole, and as part of the Swinburne context and;

(ii) a forward looking or strategic foresight perspective which provides a bigger picture view of changes occurring beyond the Faculty and Swinburne, clearly indicating the imperative for change.

These two latter elements provide a framework within which staff can review how they work, based on an understanding that the way they work today is satisfactory, but that it will not be satisfactory into the future, and that as a result, new ways of operating and communicating are essential. It is a participative process from a human relations perspective which welcomes input from all as equals in the process (Quinn et al., 2011).

The Faculty is undergoing enormous change and the structure is one element of this. The review of structure is in its very early stages, with a sense of urgency being established. These early stages include the identification of change agents or the 'right people in place... with the right mix of skills and levels' (Kotter, 1996). The next steps are the establishment of a vision and the communication for buy in. It will be a complex and time consuming process, but one which it is hoped will position the Faculty well to address many of the other issues of the Faculty such as the effective development, implementation and integration of key competencies from the Competing Values Framework. If these are developed and implemented effectively the Faculty should be able to meet the demands of a dynamic tertiary environment in a structured yet responsive way. No more will it 'Grow like Topsy'!

CONCLUSION

The current tertiary education environment is ever changing at a rapid pace and this change is going to continue with institutions seeking to meet the demands of their stakeholders, whether they be government, staff, students or the wider community both nationally and internationally. Remaining viable and relevant is a balancing act with innovation at the forefront and the 'right blend' of offerings in many modes becoming increasingly important in a competitive environment. The Faculty of Higher Education, Lilydale has innovated and implemented a number of initiatives which should ensure viability into the future. These initiatives are not without their challenges, however there is definitely a light at the end of the tunnel!

BIOGRAPHIC NOTE

Joanne Austin has worked in various roles in tertiary education at Swinburne since 1989, working in the role of Faculty General Manager at the University's Faculty of Higher Education for the past ten years. Joanne is a Councillor for the Association for Tertiary Education Management and was the Chair of the Bass Region of ATEM (Victoria/Tasmania) from 2005 - 2011.

Sharon Carlton has worked in tertiary education administration since the late 1990s. Her professional education experience includes working as an education support officer in the Adult Community and Further Education sector and a brief stint in the post-doctoral education environment before settling into the higher education sector with Swinburne University five years ago.

Joanne and Sharon are both nearing completion of the LH Martin Institute's Master of Tertiary Education Management awarded through the University of Melbourne.

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ARE WE THERE YET?
A JOURNEY OF ORGANISATIONAL CHANGE

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ABSTRACT

This paper reflects on the Service Improvement project at the University of South Australia and shares some of the staff's experiences, tangible outcomes and benefits, and key lessons that have been learned by the project team to this point. The project is being completed sequentially in each of University's four academic Divisions. The project team has consulted academic and professional staff to identify opportunities to streamline and simplify workplace processes and practices, reduce administrative load, and ultimately improve service delivery. Project team members have been required to continually adapt their styles, moving between the roles of change initiators, change implementers and change facilitators to ensure that the review work is firstly understood and engaged with and then seamlessly transitioned from a project focus to 'this is the way we do things here'. The long-term vision is for the University to have streamlined and efficient administration that greatly facilitates academic work by having the right staff with the right skills in the right place doing the right jobs.

KEY WORDS

Change management, service improvement, organisational change, continuous improvement.

INTRODUCTION

In 1991 the University of South Australia was inaugurated as a result of the amalgamation of the South Australian Institute of Technology and the Magill, Salisbury and Underdale campuses of the South Australian College of Advanced Education, creating the largest, multi-campus university in South Australia.

Right from its inception, University of South Australia was beset by a variety of challenges: its inherited capital stock was either neglected or superfluous, it had disparate workplaces spread over too many campuses, its staff profile was quite contrary to the requirements of a modern university, the budget outlook was dire, and for many years the South Australian public remained very sceptical about whether it actually was a university (or a 'Super TAFE') or could survive as such. Nevertheless, a confident staff outlook meant that University of South Australia had the base for a bright future if it acted smartly and strategically.

Since 1991 the University of South Australia has matured rapidly to become South Australia's largest provider of higher education, noted for its responsive approach to new initiatives and priorities, and recently was ranked 11th in Australia – and in the top three per cent of more than 10,000 universities worldwide – in the 2011 QS World University Rankings. Above all, it has had to be, right from the outset, an institution that was fleet of

foot in its development and responsive to changes from myriad internal and external pressures.

During the previous two decades, the higher education environment in Australia concurrently experienced an unprecedented level and volume of change due to the increasing scrutiny of regulatory bodies and funding models.

Building on the seismic shift that opened up higher education opportunities to a wider population in the 1980s, the economic requirement for universities to increasingly supplement their funding through the provision of fee-paying courses (both internationally and locally) has resulted in a succession of regulatory and legislative requirements that need to be managed and reported (such as ESOS, TEQSA, de-regulation) to ensure that students are receiving the high level of service that they expect and are paying for. Chickering (2003, p.40) writes,

We must engage in a constant struggle to do better, re-examining once again our core ideals and practices in the light of changing global, domestic, regional, and local requirements.

Successive federal government policy decisions relating to the desired focus of higher education has resulted in the need to maintain a higher proportion of administrative staff to academic staff, with the percentage over the past ten years consistently in the range of 54 to 57.8 per cent (Department of Industry, Innovation, Science, Research and Tertiary Education, 2012) but with organisation structures that are under constant scrutiny to ensure that funding is being used efficiently and effectively. The divergence of opinions in the sector, especially from some academic staff about this change towards contemporary business models is well documented. Harman (2003, p.107) writes that, '… universities are now involved in academic capitalism, leading to major tensions and contradictions for academics … (with the) … replacement of collegial decision-making bodies by new managerial structures'.
In contemporary universities, workplaces must function through the coexistence of academic and professional staff, both of whom are equally important in the effective long-term functioning of a higher education institution. This academic and professional staff cultural mix is particularly challenging, yet ultimately rewarding, for those who seek to introduce and implement change in the sector.

As Marginson (2000 p.34) suggests:

Clearly the old idea of collegial governance, whereby academic staff govern the university, administer it and provide some of its auxiliary services, is obsolete. ...Competitive pressures, efficiency imperatives, and requirements as to transparency and accountability ensure that administration, management and professional service functions must be carried out by professionals. These professional general staff are as important as are academic staff to the long term health of their institutions. ...Resource decisions (the domain of managers) and educational decisions (the domain of academics) are always closely implicated in each other. Without a stable collaborative relationship there will be tendencies for one group to try to secure control over the other's functions...

There has also been a recent surge in published literature against the contemporary bureaucratic top-down management structures in universities. Meyers (2012, p.7) in Australian Universities: A Portrait of Decline, bemoaned,

The constant-change mantra is pandemic within the Education bureaucracies of government and universities. Whether or not the bureaucrats believe that constant change advances education is beside the point. The fact is that constant and largely pointless change is all the bureaucracy is geared to produce. It is a solution without a problem. Does anyone wonder why so much review is required when the fundamentals of education and research have been established for centuries?

This culture of change and continuous review is not one that is expected to come to a sudden, all-encompassing conclusion. Bradley (2011) wrote,

There is now and there will be much change in higher education over the next decade but this is not unusual. This is a sector which has been in a state of constant structural and policy change for fifty years. But what is terrific at present is that there are likely to be so many opportunities for people who are adaptable and people with a whole range of different interests and skills.

While the University of South Australia has experienced many positive outcomes and achievements since its inception, this culture of change, coupled with rapid growth and the imperatives to adapt with an evolving higher education sector has necessitated quick, though sometimes inconsistent, development of its systems, processes and services, with a level of frustration from staff when some parts of daily work are unnecessarily difficult, and double or even triple-handled.

ABOUT THE SERVICE IMPROVEMENT PROJECT

The Service Improvement project was tasked to examine the University of South Australia's professional staff's systems, processes and service arrangements and to develop recommendations for how the most efficient and effective service is provided to its students and staff. This project heralded the biggest organisational change since 1997/98 when the University of South Australia was forced to act to avert a potential budgetary crisis. Conversely, the Service Improvement project was not borne from a crisis; it was the culmination of a conscientious decision to make the University of South Australia the best it can be, and is in line with the University's published ambitions in *Horizon 2020*, the document that defines the University's aspirations for this decade. In that document, the Vice Chancellor sets a clear, unambiguous organisational direction, an integral part of which includes strengthening our services to students, developing a strong sense of collective purpose, and developing streamlined and efficient administration to facilitate our academic work. *Horizon 2020* (p14) states:

[The University of South Australia] will continue to be recognised for a high level of innovation and for effective governance, efficient organisation and good management.

These aspirations were at the core of the work of the Service Improvement project which intended to prepare the University for future growth through the review of work practices to ensure that, where it made sense, they aligned across workplaces. The project has been just one of the University of South Australia's initiatives to prepare it to confidently meet the future challenges of the higher education sector.

Change, however, is not something that is easily implemented in an organisation, especially one that is commonly as consultative as a university. Chickering (2003, p.44) observes,

> Prevailing structures and organizational assumptions make institution wide change extremely difficult in higher education. Conceptually, our institutions are systems made up of interlocking and interdependent units, bound by shared policies and practices, and glued together by a host of noble (yet usually unexamined) assumptions. But at the operational level, they are collections of schools, colleges, institutes, centers, and departments populated by individual scholars and diverse professionals who value and strongly defend their autonomy. They all compete for limited financial resources, while reward systems reinforce barriers to change already in place because of dispersion.

The challenge of change, and the possibilities for sustaining (or not) the identified improvement opportunities has meant a focus on organisation-wide engagement and communication. This has meant including as many staff as possible to act as change agents and to shape the project's directions for achieving the best results not only in their own workplaces, but across the whole University.

Project governance

The Vice Chancellor has asked for all service areas to remain cognizant of the questions:

- How can the range of administrative processes that occur at school, (research areas), division and central unit levels be more effectively and efficiently delivered?
- How can we facilitate and support academic staff contributions in research, and teaching and learning activities/ priorities?

To incorporate this request and to achieve alignment across the different areas of the University, the Service Improvement project is informed by a set of guiding principles for the delivery and management of administrative activities and professional services. These principles, which have been endorsed by the Senior Management Group (SMG), lead to the development and ratification of high-level responsibilities for schools, research concentrations, divisions and central units in relation to specific functions.

The Project Steering Group, which includes SMG members and senior professional staff, receives regular progress reports from the Project Director about the respective reviews, implementation and embedding of process changes across the University. This group has been essential for ensuring that Service Improvement continues to have high level support and access to University resources.

Figure 1 below depicts the involvement of staff at the process and function level in each Division and how this informs decisions by the Project Steering Group and Senior Management Group about the function, processes, roles and responsibilities.

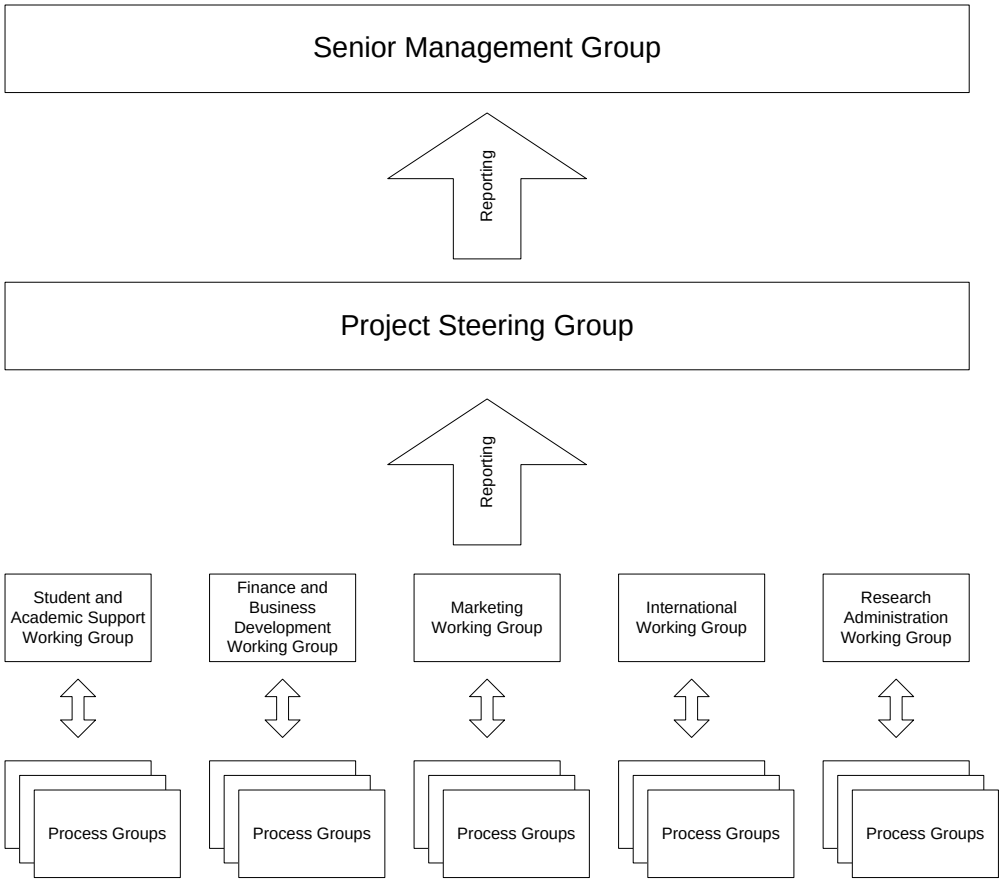

Figure 1. Service Improvement governance structure

Background

In December 2009, SMG endorsed a University-wide service improvement review of professional services in Divisions, Schools and stand-alone research concentrations.

Service Improvement activities were completed on a Division-by-Division basis in each of the University four academic Divisions across the following timeframe:

1. May 2009 - October 2010: Service Improvement project activities in the Division of IT, Engineering and the Environment (ITEE)
2. July 2010 - June 2011: Service Improvement project activities in the Division of Education, Arts and Social Sciences (EASS)
3. July 2011- August 2012: Service Improvement project activities in the Division of Health Sciences (HSC)
4. 2012: Service Improvement project activities in the Division of Business (BUE).

Since 2009 the Service Improvement team has consulted the academic and professional staff members in each Division to identify opportunities to streamline and simplify workplace processes and practices, reduce administrative load, and improve how services are delivered.

This was achieved by working with staff from across the University to:

- review existing work practices to make sure that they are still effective, relevant and meet customers' needs
- share the best work practices

- remove any duplication between workplaces that has built up over time
- identify what work should be done and by whom
- document processes so that they can be used by all areas.

To achieve its aims, the project followed six stages:

1. Each Division identifies the scope of the review and the desired service outcomes.
2. Processes were reviewed with input from staff and students across the organisation.
3. Review and analysis activities informed a comprehensive report/ proposal including recommendations relating to consistent processes, roles and responsibilities and a proposed organisation structure. These proposals were then presented to Division Executive and relevant Senior Managers for review and endorsement.
4. Once endorsed the proposals informed a formal change (restructuring) proposal which was developed by the Division Human Resources team. Following approval by the Pro Vice Chancellor, Division Executive, Director: Human Resources and Vice Chancellor, the restructuring proposal (managing change discussion paper) was then distributed to staff for consultation. At the end of the consultation period, all feedback was responded to and used to inform the final managing change plan.
5. Release of the final managing change plan, and implementation planning.
6. These new processes and service arrangements were then monitored, measured and regularly reviewed to ensure that the desired service outcomes are being achieved.

The outcomes of all aspects of the Project have been reviewed, updated and confirmed in successive Divisions. The information was then documented in a series of tailored recommendations about organisational arrangements and functional roles for each administrative function. This process is encapsulated in Figure 2 below.

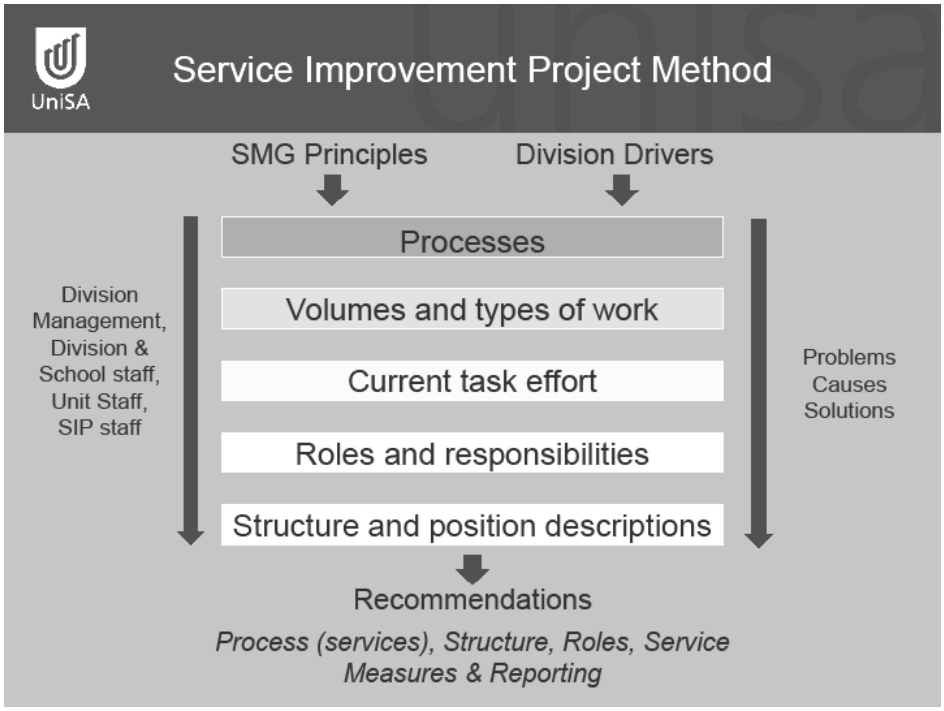

Figure 2. Key activities undertaken by the Working and Process groups during the review process and how these inform the recommendations to the Division

Whereas the previous paper that was presented at the 2011 TEM conference discussed the project's inception, methodology, achievements and shortcomings, this paper, one year later,

documents some of the key experiences and what we have learnt so far about successful change management.

DISCUSSION

By the end of 2012, all four Divisions will have been reviewed. A common service model, standard position descriptions, and clearly documented workplace processes will be implemented in three of the four academic Divisions. The Division of Business, the final Division participating in the project, will have its recommendations implemented in early 2013. Once this final goal is reached, University of South Australia will have a common service foundation which will act as a springboard for the development and implementation of on-going and University-wide continuous improvement opportunities.

This foundation has also created greater equity for staff through common organisation structures and position descriptions across the University. As an example, initial data gathering to inform the Service Improvement project found that a large and varied number of position titles existed from entry level to sub-management positions. Most noticeably, in the student and academic support area, there were up to 24 different titles at a single level, with each staff member doing similar tasks, but also without uniform position descriptions.

Responsibilities and accountabilities are now transparent and clearly defined, something that staff had cited as a preference even in early feedback about the project's activities: many staff felt that, because of a lack of clarity about the roles and responsibilities, sometimes there were too many people involved in single processes, other times staff simply weren't clear about the parameters of their roles and responsibilities; with the new organisation structures there is a greater sense of clarity about who is responsible for what and how workplace processes and procedures actually link together and cascade to a final service output.

Profiles

What became most evident through the life of the project was that each Division is unique and their core business gives each one a distinct profile and preferred methods of working that is often reflected in different professional staff roles, numbers of staff and organisational structure. The approach of the Service Improvement project has been informed by each Division's profile, and its drivers and challenges, with the review activities tailored accordingly.

The project's methodology was based on Kotter's (1996; 2005) framework which stresses the importance of communication, widespread engagement, strong leadership and vision, detailed planning, and the value of trial and error. This framework has proven to be sound, but as the project progressed it became evident that a rigid approach would not effectively translate across Divisions. Instead, the project had to adapt to the profiles and preferred working styles of the Divisions with the incorporation of other business improvement methodologies, including Lean Management, and provide communications, interactions, and opportunities for discussion in ways that were best suited to the everyday activities of the Division. Even these tailored approaches, however, also had to be 'wide net', and in some cases 'wide nets' to attract as many staff as possible to actively participate in the change movement.

The profile of each Division can be broadly aligned to discipline areas, noting that these generalisations do not take into account individual staff preferences. The Division of IT,

Engineering and the Environment (ITEE) has a profile that is driven by scientific, analytical and process-driven working styles. Since this was the first Division that the team worked in, the review of process and process engineering style of working was familiar across the Division, with this language and documentation being understood and accepted by staff. The ITEE staff helped to develop many process maps that showed exactly how the project would progress and milestones would be reached.

The Division of Education, Arts and Social Sciences (EASS) has a profile that is driven by discursive interactions with both a theoretical interest and practical concern. Following approximately eighteen months of work with ITEE staff who preferred an analytical approach, the project team had a sudden and initially unexpected insight into the need to change communication styles. This was partially because the team had worked with selected stakeholders from across all Divisions in the first review, and believed that the approach was understood University wide.

Elving (2005 p.131) paraphrases the work of Goodman & Dean (1982) and Tannenbaum (1971) in his discussion about the imperative for clear communications during organisational change:

One purpose of communication during organisational change can be to prevent resistance to change, or at least try to reduce this. When resistance to change levels are low within an organisation, one could argue that the effectiveness of the change-effort will be higher. Since an organisation's functioning depends on the actions of its members, the organisation can change only when members' behavior changes.

However it was here that we first encountered specific instances of the 'not invented here' syndrome (Freeman & Engel, 2007, p 100) and in some cases active resistance to best practice examples that had previously been developed. Adaptions to communication styles (including changes to visual representations of the methodology from squares in a linear format to cloud shapes in a process flow format) and review processes (confirming key activities prior to producing previously developed process maps for review) were required to effectively engage staff with the review process. Staff in the Division of EASS were enthusiastic about engaging in robust discussion about the theoretical components of the project with the emphasis on lean management principles (Hines et. al, 2008) allowing the process review discussions to incorporate the identification of value-added activities and the concepts of the elimination of overburden, unevenness and waste and assist staff to understand why this work is valuable and necessary to create processes that practically assist them to manage their daily workload.

Staff in the Division of Health Sciences (HSC) often refer to themselves as the 'dot point Division' and as a result have a profile that is driven by results and outcomes with a working style preference of receiving distilled information and recommendations rather than the processes to arrive at that point. Having learned from the work completed in the two previous Divisions, the team were more prepared to adapt their communication approach, but in this case encountered resistance to the methodology used, in many cases being discouraged from taking staff on the fully explained change process journey. Due to a number of factors, initially the review in this Division was requested to be conducted in conjunction with the implementation of an organisational change. The team adapted its methodology to incorporate this request; however this reverted to the previously used approach following a completed gap analysis which unearthed a number of processes that had not been previously

reviewed. To adapt to this situation and ensure that all staff involved the working and process groups were engaged with the review, the project team abbreviated the methodology information in staff forums, but incorporated a larger number of individual consultations.

The Division of Business (BUE) has a profile that is driven by the careful assessment of data and risks before making commitments. While the project team has been mindful to consistently provide evidence for all recommendations and is using the results of service reporting to ensure that implemented processes are providing the documented and desired service outcomes, this is increasingly important information to ensure acceptance of the outcomes of the review in the Division. As a result the communication strategies for the division are again adapted to incorporate earlier provision of information about analysis data for review and confirmation by the wider staff cohort. In addition the review in this Division will be one that is completed in the shortest amount of time, so the challenge is to assist staff understand the change journey and ensure that there is a consistent understanding across all staff that this has not been a 'blue print' change, but has completed the analysis to understand and incorporate the Division's individual requirements. This has been a consistent challenge for the team across all the Divisions, and one of the most important elements of the project has been for the team to be completely transparent in our work in order to encourage dialogue, to encourage questions and to find ways for staff to actively engage in discussions.

In each of the Division profiles above, there is also a variety of individual personalities whose influence and engagement with the Service Improvement activities are vital to optimising the improvement agenda. The team's engagement and the ways that we approach and interact with the wide range of staff members has had to remain fluid and adaptable not only to the stereotypical profiles of the separate Divisions, but also to the staff within those Divisions across a range of age, gender, qualifications, ethnicity and professional expectations.

Project team member adaptation

Each project team member has needed to continually adapt their styles, moving between the roles of change initiators, change implementers and change facilitators (Cawsey & Deszca, 2007) to ensure that the review work is firstly understood and engaged with and then seamlessly transitioned from a project focus to 'this is the way we do things here'.

As represented in Figure 4 below, there are seven steps that need to be worked through to ensure that any proposed changes are embedded into daily ways of working. While the Service Improvement team have understood this principle and worked to bring staff along the change journey, there has been a need for each team member to continually adapt between identifying the need for and championing a change (change initiator) at the contact and awareness stages; making sure the change happens by mapping the process and assisting the understanding of what is needed (change implementers) and assisting the Division staff to drive and embed the change with their colleagues (change facilitator) as the situation requires. In addition to the previously detailed adaptations required at the process and working group level, what has been an initially unexpected requirement in this process is the need for the project team to incorporate a level of contingency planning into the plans and timelines for additional individual consultation. This level of individual consultation had increased over the life of the project as subsequent Division projects have commenced and individual staff are at different stages of the change continuum. The Service Improvement team have been required to both focus on developing an improved level of engagement for staff in subsequent Divisions and revisit the level of commitment to the change in all

Divisions to ensure that what was originally a positive outcome has not slipped (as represented in Figure 4 by the downward arrows).

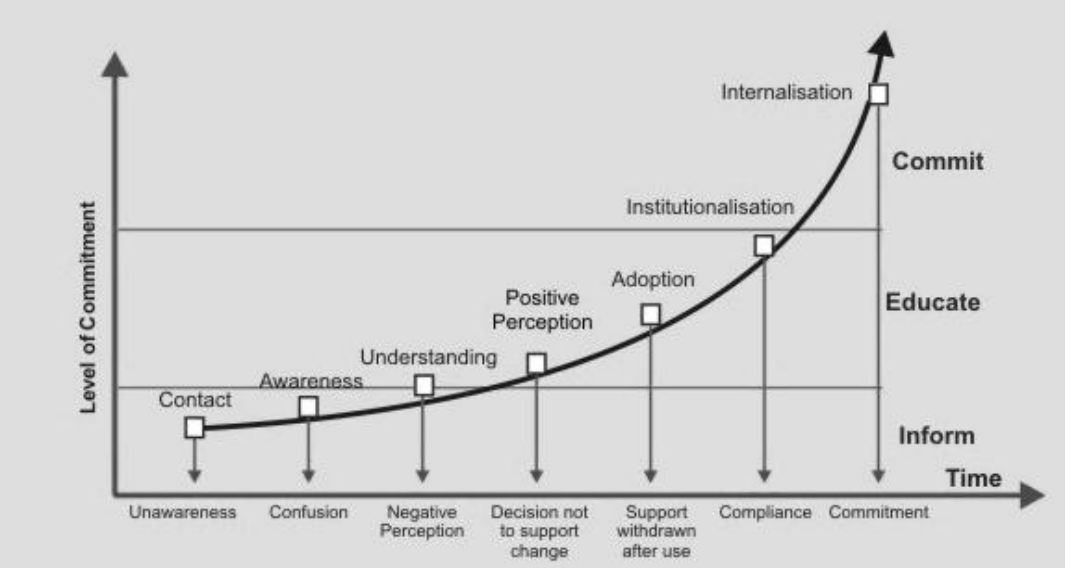

Figure 3. A graphical representation of the change continuum
Image sourced from softwarebee.com on 28 June 2012 (http://www.softwarebee.com/download/change-management-continuum-software.html)

Managing impact
Across all Divisions, it has been an imperative of the review process to demonstrate that a focus on improvement is not a focus on staff behaviours and outputs, or making judgements on whether people are doing a 'good' or 'bad' job. Consultations with staff have commenced with the view that good people can be let down by poor processes, systems and organisational arrangements and this is what the project has sought to address across all function areas and organisation teams. Likewise, service standards are measured at a process level, not at an individual staff level, with the remit to review processes should there be any slippage in the results.

Additionally the Service Improvement team members were reminded after completing the first two reviews of the need to clearly communicate in each consultation forum what was working well (the benefits), which allowed both the team and Division staff to 'follow the bright spots' (Heath & Heath, 2010). This approach also provided staff with clear examples of what could be achieved by the Service Improvement project across the organisation. Elving (2005, p.130) writes:

If organisational change is about how to change the individual tasks of individual employees, communication about the change, and information to these employees is vital. Communication with these employees should be an important, and integrative part of the change efforts and strategies.

Communication of tangible outcomes / benefits
What has become increasingly important as Service Improvement has commenced in subsequent Divisions is the communication of the tangible outcomes and benefits that have been realised as a result of the review work that has been completed. As detailed by Kotter (1996) the communication of short term wins during each review does provide impetus for progress, and importantly 'undermine the efforts of cynics and major league resistors'

(Kotter, 1996, p. 123). Building on the earlier Division profile discussion, the communication of the short term wins and long term tangible benefits has needed to be adapted to reflect the preferred styles to be effective tools in the building of momentum for the change process. The team are also acutely aware that this communication must be completed by University management and the team, but will often be most effective coming from the staff themselves, so the team have utilised several methods to assist in this process.

The following table is an example of a document written for staff to succinctly detail the benefits of the Service Improvement project, allowing staff to gain a quick overview of the project's activities and examples of how changes affect different areas of the University. This document is used as a summary in staff meetings and is promoted to all staff via the Service Improvement website.

In order to showcase the staff voices in the process, after Service Improvement activities were completed in Divisions, the change and communication team interviewed staff across a range of positions whose work had been affected. The reasons for this are two-fold. Firstly, the interviews provide an historical account of the project and the staff perceptions. Secondly, and more importantly, research has shown (see Cawsey & Deszca 2007) that rumours between staff are prone to negative exaggeration of the impact of change. These interviews, presented as both written text on the website and also as brief video-recorded films, aimed to reduce any negativity that rumours may have developed and to provide staff with first-hand accounts of what really happened and personalised strategies for making positive outcomes from workplace change.

The interviews capture real responses and reactions to the project and the managing change processes and the honest, first person narratives are intended to assist in offering techniques and strategies for coping with the angst that staff often experience during periods of change and to provide positive impetus to the change effort. Some quotes from these interviews include:

Senior academic in a research centre
Essentially, the professional staff organisation structure that we have in place was a direct result of the Service Improvement project. If we didn't have that structure now, we would not be able to sustain the growth that we currently have. So as an overall workplace, not just as a research institute, we are a lot better off now than we ever have been.

Senior Academic Services Officer (Teaching)
Use the Service Improvement process to your advantage, as an opportunity to do what you want to do.

Events and Student Recruitment Officer
When I first heard about the Service Improvement project I wasn't particularly concerned because I just figured that it is something that all organisations do to make sure that they remain competitive. Lots of rumours were circulating prior to any official information being provided, particularly that there was going to be change just for the sake of change. That never made much sense to me! I mean, why would an organisation spend all this time and money on such a big project - just for fun?!

Figure 4. A document written for staff in the Division of Business in June 2012 to succinctly detail the benefits of the Service Improvement project to date

Project Officer

After Service Improvement my position was disestablished, and I reacted by requesting a voluntary redundancy, but then I was asked to be part of a project team that really needed someone with the institutional knowledge and contacts I have established over the last decade. And so here I am - it's very positive, and very busy! For me, I now realise the amount of unnecessary stress I was placed under in my previous role simply because I wasn't sure of the parameters of the work I was supposed to be doing, so the change in job ended up taking a real weight off my shoulders.

Manager
I think we will need to go through a full annual cycle before we can understand the full benefits of SIP and what impact it has had, partly due to bedding down staff training and role clarification, so it may be at least another six months before we can get the full picture! And then we'll be trying to embrace other changes that come out of EASS I guess, and then the other Divisions as they participate in the process. It's a constant learning curve for everyone, but it's also really satisfying to be in a workplace that actively tries to make things better.

In addition to the promotion of these text and video interviews on the Service Improvement website, the team have been inviting staff to attend communication forums and process groups to provide an opportunity for staff involved in subsequent reviews to ask questions and hear first-hand about the positive and negative experiences and how these were managed in previous Divisions.

Making change stick
Workplace change is inevitable and real value can be gained from it at both a personal level and an organisational level. However while change can be a very positive experience that often leads to people embracing the challenge and opportunities that it brings, for others change can be a difficult or confusing experience. To assist staff to make sense of and recognise the reasons for change, both at an individual and an organisational level, the team engaged a registered psychologist in clinical practice to deliver a number of workshops for staff to reflect on and share their personal responses to change.

The nurturing and development of strong leaders across all levels of the organisation is a critical step for the success of any change process. Such leaders help staff through the 'neutral zone' leaving behind old ways and moving into new ways of thinking (Bridges, 2003) amongst all the other Division activities and priorities. The project team members have been well supported by these 'change champions' which has assisted the team is implementing change and ensuring communication across the various, often fragmented areas within the organisation (Watkins, 2005). These change champions have been critical to ensure that processes are embedded and followed in workplaces across the Divisions. Once the recommendations have been accepted by a Division, its staff members must then assume responsibility for making sure that the changes stick and are a part of standard work practices.

The Service Improvement team also undertakes regular and consistent reviews of activities and outcomes to monitor progress and reinforce the continuous improvement culture. This work has shown that both initial ownership of processes and on-going compliance require varying levels of involvement by the project team. It has been critical that the project team incorporated this time and support in implementation planning and ensured that regular feedback is sought from key stakeholders so that the implemented processes are meeting the required service needs.

This information is then fed back to the Division and wider University through the Project Steering Group to assist a review of the outcomes of the project to date and future decision making relating to recommendations in subsequent Divisions.

Two further challenges have been identified as a result of regular review processes. Firstly, staff perceptions that once the new organisation structures are in place and new or amended processes are implemented, that the project is complete. This is partially due to the use of the term 'project', which necessarily delineates a start and end period, instead of an embedded

change. In an effort to address this, the project team facilitated implementation planning for all new organisation structures and processes including how progress can be monitored. Part of this involved Division leadership teams regularly reviewing the outcomes of processes against documented service standards, and addressing areas of concern.

The second challenge is the reliance that the Service Improvement team has on the quality of leadership in functional areas and teams, and the need for this to be effectively transitioned as key staff move roles or locations. In one instance a team that was a demonstrated service success suffered a drop in their high service standards due to a time lag between the completion of the previous team leader, and the commencement of the new one. This was quickly noted due to the reporting mechanisms in place, and corrective measures were implemented once the new leader commenced in the position. However, there was some damage to the credibility of the change and this has resulted in additional work for both the Service Improvement team and the central Unit responsible to re-establish some (highly influential) individual staff confidence in the service provided.

CONCLUSION

As the title of this paper suggests, the changes that the University of South Australia is implementing do not signal arrival at a final destination or the attainment of the pinnacle of service excellence for each Division. The University of South Australia 's long-term vision is to have streamlined and efficient administration that:

- supports and facilitates key academic work
- is aligned across all organisation levels
- has a service environment characterised by customers at the centre of its thinking
- aims for continuous improvement and constructive engagement about the way things are done.

In May 2012, the Service Improvement team hosted a Service Improvement conference which was attended by ~90 attendees from around Australia and New Zealand. What became most evident during the course of the conference was that the issues of change management, the methodologies being used, progress made, lessons learned and outcomes achieved are just as applicable to higher education as they are to all organisations.

Although University of South Australia's project is well progressed, successful and regarded as a model for similar change projects in the sector, our journey has only just begun, and will, if it is done well, never have an end. So while it may feel like we need to answer the 'Are we there yet?' question to satisfy our staff and ourselves, the answer needs to be 'no' as the work of the project is building a foundation by having the right staff with the right skills in the right place doing the right jobs. This first stage of the journey has been necessary, but ultimately the aim remains more ambitious: as set out in University of South Australia's *Horizon 2020* it is that 'UniSA will continue to be recognised for a high level of innovation and for effective governance, efficient organisation and good management.'

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BIOGRAPHICAL NOTE

Kathryn Lowry has worked at the University of South Australia since 2006 and has undertaken a variety of roles prior to commencing with the Service Improvement team in August 2009 and is currently the Manager: Change and Communication with the team. Prior to joining the University of South Australia Kathryn worked for 20 years in the finance industry in a range of customer service positions, so has had extensive experience in both customer service and organisational change. She has completed Lean Leadership training, utilising this in the process review work completed by the team, has a BA (Communication Studies) and is currently in her final year of an MBA.

Simon Behenna is the Senior Analyst: Change and Communication for the University of South Australia Service Improvement project, which aims to improve the University's administrative processes and practices. He has worked at the University of South Australia since 2000 in a variety of roles including as a tutor, as a writer and website developer, as Executive Officer to Pro Vice Chancellors, and as the Consultant: Student Equity. During that time he has participated in many large-scale projects and been privy to extensive institutional change. He has a BA (Hons) in Professional Writing and recently completed a Doctorate in Communication, examining the use of new technologies in organisational communication.

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INSTITUTIONAL PERFORMANCE INDICATORS IN A TWO-SPEED ECONOMY

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ABSTRACT

An increased emphasis on monitoring, evaluating and quantifying institutional performance across a range of measures has been a feature of the Australian higher education landscape in recent years. However, despite this rapidly changing reporting environment, many parts of the Australian higher education sector have a limited understanding of the key issues beyond institutional performance that drive or have a significant impact upon higher education performance indicators. This paper examines the impact of external drivers or influences on a number of performance indicators that are either in use or planned for use for monitoring and evaluating institutional performance. It particularly demonstrates the impact of economic factors on these indicators and how the emergence of a two-speed economy in Australia in recent years creates significant issues in comparing or benchmarking institutional performance at a national level.

KEY WORDS

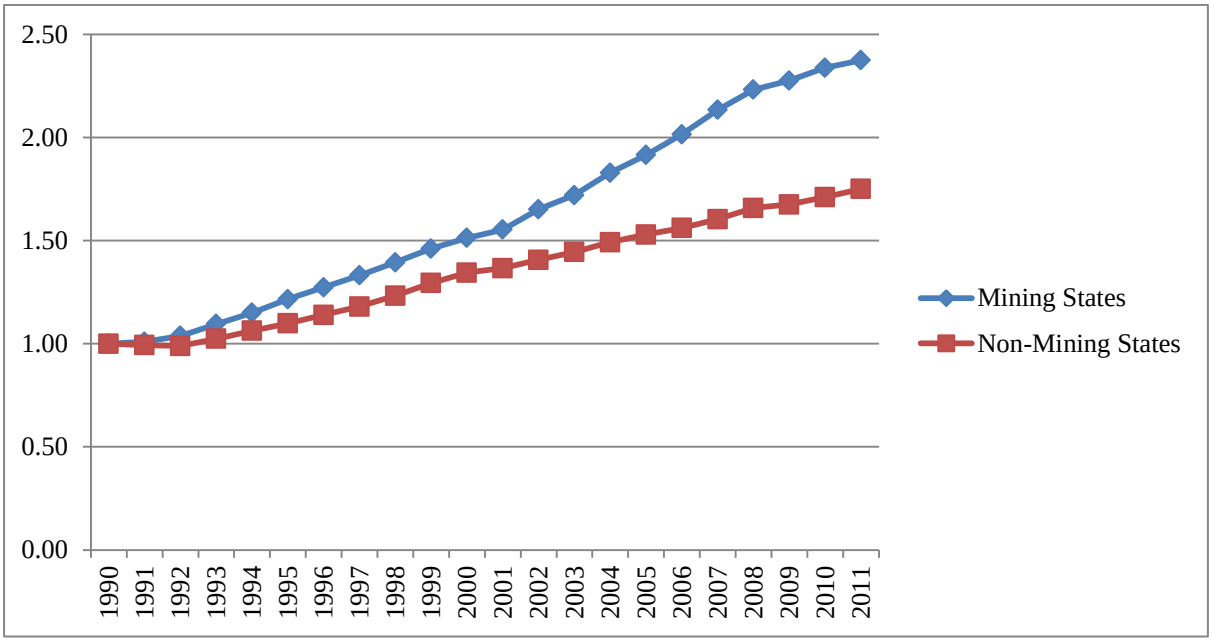
institutional performance, regional economic development, educational economics

THE TWO-SPEED ECONOMY

The two-speed or dual-speed economy is a term that has gained increasing popularity with the mainstream media since the onset of the Global Financial Crisis. It refers to the perceived change from a single 'national' economy in Australia to an economic landscape showing very different outcomes depending on the industry or region under consideration. While most popular commentary on this apparent change in the economic circumstances has focused on Australia since the commencement of the Global Financial Crisis, it should be noted that several economic commentators have charted the beginnings of two-speed economy back to the early 1990s (Garton, 2008). The Figure 1 demonstrates the different rates of growth in Gross State Product between Australia's mining-intensive states (Western Australia, Queensland and the Northern Territory) and Non-Mining States since June 1990.

The Figure clearly shows differing rates of growth between Australia's mining and non-mining states that have been sustained over a considerable period of time. Over the course of twenty years, this difference has resulted in growth in Gross State Product in the Mining States of Queensland, Western Australia and the Northern Territory being approximately twice that of the remainder of Australia. However, what has increased popular awareness of this phenomenon is that several of Australia's traditionally strong business sectors have found themselves increasingly struggling in the post-GFC economic environment. The Australian retail sector has seen the collapse of retailers such as Borders, and many other retailers

reporting that they are struggling from a combination of the high Australian dollar, high interest rates and reduced consumer spending, and increasing competition from online traders. The tourism sector has also struggled, with the high Australian dollar and reduced consumer spending combining to create significant pressures for both the domestic and international tourism sectors in Australia.



(Source: Australian Bureau of Statistics (2011), National Accounts, State Accounts, 2010-11)

Figure 1. Growth in Gross State Product 1990-2011

By comparison, the mining industry has seen a massive increase in output and investment since the early 21st century. Economic commentary constantly refers to the 'mining boom' or 'resources boom', and the Australian economic has benefitted not only from massive increases in export revenue associated with increased exports of resources, but also from significant investment in mineral extraction and processing, and in mining related infrastructure. At a more personal level, higher regional salaries have also contributed to higher consumer spending on everyday goods such as fuel, food, telecommunications and housing in mining regions (Commonwealth Bank, 2010), which in turn has driven further investment in these areas.

These industry factors have resulted in very different economic conditions at a state or even regional level within Australia. While at a state level, Queensland, Western Australia and the Northern Territory are often referred to as the 'mining states', indicating the growing importance of the mining industry to these areas, it is also possible to see very significant differences in outcomes at a regional level. Within Queensland, mining intensive regions such as the Bowen Basin coal fields and the mining regions of northwest Queensland have both been economic winners' over the past ten years, with these regions seeing significant growth in regional incomes, employment, real estate prices and other key economic indicators. By comparison, regions such as the Sunshine and Gold Coasts have suffered from the downturn of Queensland's tourism industry. Very real differences in regional incomes, employment outcomes and other key economic indicators are becoming apparent between different regional areas within the state.

The following table is indicative of the regional differences within Queensland of the economic impact of the two-speed economy. It shows an experiential approach taken in 2006 by the Queensland Treasury's Office of Economics and Statistical Research to estimating the value of output per capita at a regional level within the state.

Table 1. Gross Regional Product per Capita in Queensland, 2005-06

Region	Gross Regional Product per Capita
Brisbane	$47,313
Gold Coast	$36,014
Sunshine Coast	$32,241
Regional Queensland	
- Wide Bay-Burnett	$27,863
- Darling Downs	$35,359
- South West Qld	$69,870
- Central West Qld	$61,970
- Northern Qld	$39,862
- Far North Qld	$36,298
Mining Regions	
- Fitzroy	$71,256
- Mackay	$87,268
- North West Qld	$132,457

(Source: OESR (2008) *Experimental Estimates of Gross Regional Product*)

Significant differences in the value of production per capita are apparent between the rapidly developing mining-intensive regions of Central Queensland (Mackay and Fitzroy) and Northwest Queensland and what have historically been tourism intensive regions such as the Gold Coast and Sunshine Coast and their respective hinterlands. In terms of converting these differences in Gross Regional Product to salary and income measures, research undertaken by the Commonwealth Bank in 2010 indicated that average salaries in major centres in Central Queensland (such as Gladstone, Mackay and Rockhampton) were nineteen to twenty-six percent higher than the national average, while salaries in the remainder of the state lagged below the national average.

THE ECONOMY AND APPARENT INSTITUTIONAL PERFORMANCE

From an education outcomes perspective, these regional disparities in economic performance become significant when comparing student outcomes from different universities in different regions. Historically agencies such as the Graduate Careers Council of Australia and DEEWR have gathered national datasets of student outcomes and institutional performance. In some cases, those datasets have then been adjusted and compared against national averages to give an indication of institutional performance in key areas. Those indicators have then often been promoted as a de-facto quality indicator by many institutions. One of the most well-known examples of this has been the *Good Universities Guides* developed by Graduate Careers Australia, and the star ratings allocated to various institutions for their performance against specific indicators.

The potential and real impact of economic and socio-economic factors on many measures of institutional performance is recognised both in the literature and in process relating to higher education performance indicators. The Commonwealth Department of Education, Education and Workplace Relations (DEEWR) (2010) note as part of a study on participation in higher education that socioeconomic status – particularly as it relates to education and occupation –

is a key determinant of higher education participation. Carroll (2010) notes the importance of regional unemployment rates in determining graduate salaries within a region, and research undertaken by Access Economics (2005) on the validity of outcomes from the Course Experience Questionnaire as indicators of institutional performance note the possibility of variance in graduate salaries based on economic or regional factors. The Department of Education, Employment and Workplace Relations (2009) have at times included such economic drivers as part of the adjustment process for performance modelling and funding – for example, in analysing institutional performance as part of the Teaching and Learning Performance Fund, the Department adjusted institutional graduate employment rates for based on regional labour market conditions.

If it is accepted that measures of institutional performance can be significantly influenced or driven by economic or socio-economic factors, the development of a two-speed economy with significant regional differences in key economic indicators such as salaries and employment outcomes begs the question of the extent to which regional economic issues are impacting upon and driving key measure of institutional performance. Many regional universities tend to recruit a relatively large number of students from specific regional areas and place their graduates those same regions. Employment opportunities and salaries in those regions are likely to have a significant impact on the institution's graduate employment outcomes and salaries. If significant disparities exist or are in the process of developing between regions, the question must also be asked if indicators such as graduate employment outcomes and graduate starting salaries indicate differences in student outcomes that are attributable to institutional factors, or differences that may be attributable to disparities in economic conditions in the regions most closely associated with the universities under consideration. The question also needs to be asked of what other performance indicators may be influenced by regional rather than institutional drivers.

METHODOLOGY

This study examines a number of issues traditionally linked to higher education institutional performance such as admissions and enrolments, retention and attrition, graduate salaries and graduate employment at a regional level within Queensland. It aims to identify the extent to which these indicators may be influenced by regional economic drivers as opposed to institutional performance. It does not attempt to address questions around other institutional data sets relating to issues such as staffing or research performance, which may also be impacted by the two-speed economy but are beyond the scope of this study.

To do this, the study uses data gathered by a range of agencies such as the Queensland Tertiary Admissions Centre (QTAC), Graduate Careers Australia, and by the Department of Education, Employment and Workplace Relations (DEEWR). An overview of the datasets used and how they have been analysed is provided in of the areas discussed below.

ADMISSIONS AND ENROLMENTS

Admissions and enrolments represent two of the key performance indicators for any higher education institution. With the removal of institutional funding caps for bachelor degree enrolments in 2012, institutions now have a very direct link between actual enrolments and the funding relating to those enrolments. Enrolments from specific socio-demographic groups

or regions also govern institutional access to specific programs such as the Higher Education Participation and Partnerships Program (HEPP) (DEEWR, 2012). Admissions data is important not only because of the link between applications and enrolments in a program of study, but also as high entry requirements for a program are often used as a de-facto indicator of both demand for a program and the quality of a program on offer (Holdenhead & Novak, 2012). Both enrolments and admissions data are monitored as part of the Tertiary Education Quality and Standards Agency *Risk Regulatory Framework*, with significant falls in institutional enrolments or admissions being regarded as an risk indicator within the Framework (TEQSA, 2012).

The development of a two-speed economy has had a significant impact on both domestic in specific regions and on international student enrolments across Australia. At a regional level, research undertaken by Gylfason (2001) and Auty (1993) indicates that mining-driven economic activity is likely to have a negative impact on education and skills-development within a region. Gyfalson undertook research on the demand for higher education in mineral-rich economies, and argues natural resource-based economies create a very well-paid work force requiring relatively low skill levels. As a result, they offer little incentive for individuals to invest in their education or other forms of human capital development. Auty (1993) argues that mining activity effectively "crowds out" other activities by monopolising resources, including the human resources, needed to develop and sustain other activities in the region.

Within Queensland, the reality of student enrolments appears to support these theoretical models. Queensland Tertiary Admissions Centre (QTAC) data (Table 1) indicates that new enrolments of students from Central Queensland at all Queensland universities fell significantly between 2004 and 2009.

Table 2. QTAC Enrolments 2004 – 2009 by Geographic Region of Applicant

	2004	2005	2006	2007	2008	2009	Change
Fitzroy	1231	1181	1097	1036	1096	933	-24.21%
Central West Queensland	55	59	48	60	58	45	-18.18%
Mackay	868	720	727	732	769	662	-23.73%
Queensland Total	29599	30668	30330	30215	29625	30064	1.57%

(Source: Compiled from the Queensland Tertiary Admissions Centre's *Statistical Reports 2003-04 to Semester 1, 2009*)

Looking behind this raw data, it becomes apparent that regional economic and employment issues are significant factors in driving this change. Since its inception in 2005 and the peak of the minerals boom in 2008, Education Queensland's *Next Step Survey* noted an increase in work-related deferrals among Central Queensland school leavers considering higher education. The 2011 Survey also noted that school leavers from mining intensive regions such as Mackay and Fitzroy Central West were significantly more likely to undertake apprenticeships or traineeships post Year-12 than other parts of regional Queensland, and were far more likely to move directly from secondary school into the full-time workforce.

Both QTAC data and information contained in The Next Step Survey point to significant regional differences in enrolment patterns and post-school destinations based on regional economic drivers and opportunities. School-leavers from mining-intensive regions such as Mackay and Fitzroy-Central West are significantly less likely to enrol in university programs than students in other parts of Queensland, and are more likely to undertake apprenticeships

or traineeships, or to directly enter the workforce as full-time employees. The two-speed economy is therefore having a significant impact on school-leaver destinations and study choices, which consequentially flows through to higher education statistics and performance indicators. The extent to which such indicators are a reflection of institutional factors or regional economic factors can be judged by the data above.

Table 3. 2011 Queensland School-Leaver Destinations by Region

	University	Apprenticeship	Traineeship	Full-time Work	Unemployed
Mackay	24.3%	18.2%	8.8%	17.1%	7.0%
Fitzroy Central West	23.4%	15.5%	7.3%	16.6%	9.0%
Gold Coast	36.8%	6.8%	3.1%	8.3%	9.4%
Sunshine Coast	32.8%	5.0%	3.7%	10.4%	9.9%
Queensland Average	35.9%	8.0%	3.9%	10.9%	9.1%

(Source: Education Queensland (2011), 2011 Next Step Survey)

In terms of international enrolments, the minerals boom has been arguably the single most significant factor in driving the rising value of the Australian dollar. The rising value of the dollar and the resultant increase in the cost of Australian higher education has in turn has been one of a number of factors that has contributed to a major downturn in the number of international students studying in Australia. While it is difficult to determine how much of the downturn in international students enrolment enrolments can be attributed to specific factors, the combined impact of increased costs, changes to visa requirements and regulations, poor publicity around student safety and the international perception of Australian higher education are all contributing to a downturn that may cost the Australian higher education sector up to 75,000 students (30 per cent of its 2010 enrolment total) by 2015 (Phillimore & Koshy, 2010). While this impact will be spread across the higher education sector rather than being a region-specific impact, it is an example of how the two-speed economy is impacting on a service industry – in this case, higher education

PARTICIPATION AND ACCESS

Historically the relative success of an institution's strategies in encouraging participation and facilitating access to education have been measured by a range of indicators linked to the socio-economic and demographic profile of an institution's enrolled student cohort. One of the most commonly used measures of socio-economic status in Australia is the Socio-Economic Indexes for Areas (SEIFA). SEIFA has been used by the Department of Education, Employment and Workplace Relations as the basis for allocating specific institutional funding such as the Higher Education Participation and Partnerships Program (DEEWR, 2012) and the Learning and Teaching Performance Fund (DEEWR, 2009), and research by the Department of Education, Employment and Workplace Relations (DEEWR, 2010) suggests that socio-economic disadvantage – particularly measured in terms of SEIFA's

Index of Education and Occupation – is one of the main determinants of higher education participation rates.

In terms of relating this to the two-speed economy, despite the high salaries associated with the mining industry, the profile and skill levels of many jobs associated with the industry means that mining regions are typically regarded as disadvantaged when assessed using SEIFA's Index of Education and Occupation. This creates something of a contradiction in that while many mining regions have very high levels of personal income, they are also typically relatively poorly serviced in terms of health, education and other social infrastructure – often because of the lack of suitably qualified professionals residing in the region (Department of Health and Ageing, 2008, Hidden Voices, 2011 & Miles, 2011). The contradiction is highlighted when considering four mining areas identified by the Australian Taxation Office (2012) as being amongst the ten highest earning postcodes in Queensland, and comparing average personal income in these areas against their SEIFA Index of Education and Occupation (Australian Bureau of Statistics, 2008).

Table 4. Taxable Income and Index of Education & Occupation Comparison of High-Income Mining-Intensive Postcodes

	2009-10 Mean Taxable Income	SEIFA Index of Education & Occupation (Aust Average = 1000)
4709 – Tieri	$98,619	937 (bottom 30% of Australia)
4743 – Glenden	$89,888	928 (bottom 25% of Australia)
4744 – Moranbah	$86,186	941 (bottom 32% of Australia)
4745 – Dysart	$86,149	907 (bottom 13% of Australia)

(Source: Compiled from Australian Taxation Office (2011) *Taxation Statistics* and Australian Bureau of Statistics (2008) *SEFIA: Socio-Economic Index For Areas*)

While the lack of services and relatively low rates of higher education participation in these and similar mining communities creates an argument for specific funding to facilitate access to and encourage participation in higher education, equity arguments make it difficult to justify additional funding or participation programs to provide improved access to high-income regions.

To account for these and other issues, DEEWR have introduced a changed methodology for assessing socio-economic disadvantage that incorporates both students from low Index of Education & Occupation backgrounds and students from postcodes with receiving specified types of income support (DEEWR, 2012). The impact of this change on mining-intensive regions is indicated by the methodology for the Higher Education Participation and Partnerships program. Institutions from mining-intensive regions such as Central Queensland University and Charles Darwin University were amongst the most disadvantaged by the move from assessing student disadvantage purely on the basis of SEIFA Index of Education and Occupation to a combination of Index of Education and Occupation and students received Income Support. In 2012, Central Queensland University saw its share of national Low Socio-Economic Status students fall from 3.27 per cent under the Index of Education and Occupation model to 2.65 per cent under the blended model (an institutional fall of almost 19 per cent), while Charles Darwin saw its share fall from 1.04 per cent to 0.89 per cent (an institutional fall of more than 14 per cent) (DEEWR, 2012). The result of the change of Low Socio-Economic Status has been to effectively re-direct funding available for access and participation programs from mining and other high-income, low Index of Education and Occupation areas to a more diverse range of student cohorts.

ATTRITION AND RETENTION

Attrition and retention are commonly examined as being a function of the quality an institution's teaching and academic support services (TEQSA, 2012), and historically institutional ratings and rankings around student attrition and progression have featured as part of performance frameworks such as the Teaching and Learning Performance Fund (DEEWR, 2009). Student attrition and progression are both identified as risk indicators in the Tertiary Education Quality and Standards Agency's Risk Regulatory Framework (2012), which notes that high or rapidly changing levels of student attrition and progression can be indicators of "admissions processes, teaching and learning processes, and overall student experience" (TEQSA, 2012).

However, theoretical models around educational economics consider student attrition in a different framework. Educational economics assumes that students undertake a program of education if the perceived benefit of undertaking such a program (in terms of career opportunities, prestige of having completed a qualification, social networks and opportunities etc) outweigh the perceived cost of undertaking such a program (the cost being not only the financial cost, but the time and effort invested in the program and the opportunities that the student foregoes by enrolling in such a program) (Borland, Dawkins, Johnson & Williams, 2000). In relating this to student attrition, students undertake a program of study over an extended period of time, and have the option to re-assess their original decision at any time during their period of study if it becomes apparent that the perceived benefit of the program is less than what was originally expected, if the perceived costs change, or if other opportunities that the student wishes to pursue become apparent (TEQSA, 2012).

In the context of the two-speed economy, such economic drivers can have a significant influence on students. As previously noted, many roles in the mining industry are both very well paid and require comparatively limited formal training or education. The very different pattern of school-leaver destinations in mining-intensive regions, as noted in Table 3, indicates that students are aware of different opportunities in their regions and make decisions on their future study and work options based on an assessment of those options. The different study, training and work patterns of students by region indicate that region-specific factors – including regional economics – play an important role in that decision process.

The considerable number of well-paid full-time jobs, traineeship opportunities and apprenticeships available in mining-intensive regions not only provide real alternatives to higher education, but reduce the relative benefit from undertaking a higher education program. School-leavers and potential mature-age students can find very well-paid, secure employment without investing the time, energy and effort required to complete a university degree. This reduces the apparent benefits associated with university study, and makes it less likely for a student to enrol. It also means that if during the course of their studies students re-assess the relative benefit of their study based on their experience to date or the experience of individuals they know outside the university environment, then attrition is more likely to occur.

It is difficult to split the impact of such economic drivers from institution specific factors or socio-economic drivers of attrition. However, there is some evidence to support the assertion that the two-speed economy is influencing student attrition and retention. Central Queensland University's student attrition rates rose from 25.7 per cent in 2005-06 to 30.6 per cent at the

peak of the minerals boom in 2007-08. Data released by the Department of Education, Employment and Workplace Relations via the Learning and Teaching Performance Fund (DEEWR, 2009) indicates that this is not an institution-specific phenomenon, and that other regional Queensland universities experienced similar pressures, as did Western Australian and Northern Territory institutions also experiencing pressures from increasing mining activity in their regions. Most of the bottom five rankings in student retention in all of the discipline areas considered by the Learning and Teaching Performance Fund were occupied by institutions in regions closely linked to the mining boom (DEEWR, 2009). While this does not conclusively demonstrate that retention and attrition outcomes are significantly impacted by the two-speed economy, it does provide evidence that the impact of regional economic conditions upon retention and attrition outcomes needs to be more fully considered than it has been in analysis conducted to date (DEEWR, 2009).

GRADUATE OUTCOME - GRADUATE SALARIES AND GRADUATE EMPLOYMENT RATES

As previously discussed, the two-speed economy is having a significant impact on personal salaries and income in different regions of Australia (OESR, 2008, Commonwealth Bank, 2010, & Hays Recruitment, 2011). As regional economic drivers are having a significant influence on salaries, it logically follows that graduate salaries will be influenced by the same economic drivers. This assumption is supported by research conducted by Carroll (2010), which identified regional economic conditions as one of the key drivers of both graduate salaries and graduate employment rates.

Information on graduate salaries and employment rates for different degree programs and institutions is gathered by Graduate Careers Australia as part of the Graduate Destination Survey. While this information is generally considered by institution or by discipline area, the table below provides data on the average gross taxable annual income of Australian bachelor degree graduates by region of employment irrespective of the institution that they completed their studies with, and graduate full-time employment and unemployment by the home postcode of graduates.

The table clearly shows a significant difference between the mining-intensive regions of Mackay, Fitzroy and Northwest Queensland and the historically tourism and service-based economies of regions such as the Gold and Sunshine Coasts, and again highlights the significant differences between outcomes in the ‘winning’ and ‘losing’ regions within the two-speed economy. Students living or working in mining-intensive regions achieved significantly higher salaries, were more likely to find work and less likely to be unemployed than students from the remainder of Queensland, and particularly students from tourism and service-industry focused regions such as the Gold Coast and Sunshine Coast.

This in turn has a significant influence on indicators of institutional performance relating to post-graduation student outcomes. Institutions such as Central Queensland University that attract relatively large numbers of students from mining-intensive regions such as Fitzroy and Mackay are obviously significantly advantaged in comparisons of graduate employment rates or graduate starting salaries compared to institutions such as University of the Sunshine Coast or Griffith University that attract students from the Sunshine Coast and Gold Coast and graduate students into those regions (QTAC, 2009). The extent to which regional economic

differences rather than apparent institutional performance contributes to these student outcomes is obviously a factor that requires serious consideration.

Table 5. Regional Graduate Salaries and Unemployment Rates

Region	Average Regional Graduate Salary	Full-time Graduate Employment Rate	Graduate Unemployment Rate
Mining Regions:			
- **Mackay**	$48,383.96	71.9%	10.3%
- **Fitzroy**	$69,867.07	69.4%	11.8%
- **Northwest Queensland**	$65,993.20	82.9%	5.7%
Wide Bay	$44,568.01	57.7%	13.6%
North Queensland	$43,627.98	65.2%	11.7%
Gold Coast	$34,243.86	42.3%	18.4%
Sunshine Coast	$33,721.65	47.0%	16.2%
Brisbane	$39,450.58	56.7%	14.8%
Queensland	$40,527.42	55.7%	15.0%

(Source: Graduate Destination Survey, 2010)

CONCLUSION

While some commentators continue to discuss the possibility of 'fixing' the two-speed economy (Australian Financial Review, 2010) the reality is that Australia's minerals boom is continuing to fundamentally reshape the national economy. Australia's minerals exports as a proportion of Gross Domestic Product are now the second-highest of any nation in the Organisation for Economic Co-operation and Development (Statistics Norway, 2006), and massive investment continues to be made in further developing Australia's minerals industry. The Queensland Minerals Council currently estimates that approximately A$185 billion will be invested in new minerals extraction and processing projects in Queensland between now and 2020 (Deloitte Access Economics, 2011)– effectively doubling the coal production of the state and developing entirely new industries around Liquid Natural Gas - while at least in the short-term, a range of economic circumstances mean that Australia's retail, tourism, manufacturing and service sectors will continue to struggle.

This economic divergence is likely to have a growing impact on Australia's higher education sector. The difficulties in trying to manage a national higher education system in a diverging, two-speed economy will place significant challenges both on individual educational institutions facing rapidly changing operational environments increasingly influenced by regional factors, and on policy makers trying to effectively respond to changing regional needs while maintaining an effective national system of quality assurance and performance management. It needs to be recognised that the regional drivers of higher education are real and have a significant impact on institutions, students and other key stakeholders – trying to factor out or adjust performance measures to measure 'real' institutional performance is both necessary to provide meaningful comparisons of institutional performance and deceptive in that it conceals the real impact of such drivers on student outcomes, student enrolment decisions and institutional priorities and strategies. In administering the Learning and Teaching Performance Fund, the Department of Education, Employment and Workplace Relations adjusted raw institutional performance on the basis of up to seventeen different factors to try and take account of different institutional characteristics and student populations (DEEWR, 2009) – the extent to which such adjustments help or hinder considerations of institutional performance or achievement by blurring real differences in student profiles and achievements remains a question mark.

In trying to develop meaningful comparisons of institutional performance, policy makers will need to ensure that performance measures not only meaningfully measure institutional performance against real policy objectives, but that the context of these measures and the factors that influence them must be effectively communicated to the public and other stakeholders. Achieving that goal in a diverse higher education sector that responds quickly and efficiently to changing national priorities would test most performance indicator frameworks – achieving the same goal in an environment where institutions will be required to increasingly respond to dynamic and divergent regional priorities and drivers will represent a major challenge for Australia's higher education industry in the years to come.

BIOGRAPHICAL NOTE

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CREATING A SUCCESSFUL LEADERSHIP DEVELOPMENT PROGRAMME FOR HEADS OF SCHOOL

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ABSTRACT

In late 2007 Curtin University established its Organisational Development Unit with, amongst other matters, a priority to address leadership development needs. The Unit set about creating a leadership capability framework and a linked suite of leadership development programmes. As a matter of some urgency, the University's executive requested that a programme for heads of school be designed and implemented. In 2010 the Organisational Development Unit commissioned an independent external evaluation of the first two complete cycles of the Head of School Development Programme. The evaluation report, delivered in 2011, concluded that the programme is building both individual and university leadership and management capability and strengthening succession planning capacity.

This paper discusses the consultative and collaborative approach utilised by the Organisational Development Unit in positioning, designing and delivering its successful *Leading Curtin: Head of School Development Programme* and the related *Curtin Leadership Framework.*

KEY WORDS
Leadership, capability framework, leadership development, academic leadership.

INTRODUCTION

Curtin University is Western Australia's largest and most culturally diverse university. With 47,000 students across multiple campuses in Australia, Malaysia and Singapore, supported by more than 3,100 (full time equivalent) staff, Curtin prepares graduates to live and work in an increasingly global environment.

Supporting this large complex organisation is the Organisational Development Unit that was established in October 2007. Specifically, the Organisational Development Unit was established as a separate business unit to support the change management process and to build organisational capacity. Results of staff surveys and the 2002 audit by the then Australian Universities Quality Agency indicated that Curtin needed to better prepare and support its management team in order to thrive in the rapidly changing higher education environment.

From the outset, the role of the Organisational Development Unit was to influence the organisational culture as a part of its change agenda. In 2007, the then Deputy Vice-Chancellor (DVC) Academic, Professor Jane den Hollander, championed the Unit to take on developing the leadership capacity of Heads of School, to review the leadership needs at other management levels, and to propose ways for leadership to flourish at Curtin.

This focus on leadership development is consistent with organisational development theory that suggests that leadership development is a powerful tool that can help organisational development practitioners 'transform the way managers think about themselves and the ways they relate to people and solve problems, and once [they've] done that, [they] can send them back home to transform their own organizations' (Porras & Bradford, as cited by Minahan 2010, p. 17). The Organisational Development Unit was given a brief to help transform Curtin's culture through leadership development and other initiatives to create a high performance, quality improvement oriented institution.

Leadership development achievements

During the five years since its establishment, the Organisational Development Unit has developed a leadership framework and a multi-layered leadership programme to help meet the wide range of leadership needs for both academic and professional/general staff. Programmes include:

- Learning to Lead (new supervisors)
- Frontline Management (existing managers)
- Diploma of Management (aimed for mid-level managers)
- Senior Professional Staff Development Programme, and the
- Leading Curtin: Head of School Development Programme.

In addition the Organisational Development Unit values external expertise and encourages Curtin staff to attend eminent leadership programmes such as those offered at the L.H. Martin Institute as and when appropriate.

This paper focuses on the development of the *Curtin Leadership Framework* and the *Leading Curtin: Head of School Development Programme.*

How was this achieved?

Following the establishment of the Unit in late 2007 an initial two-year operational plan was developed by the new team. The plan was submitted to Curtin's executive management and approved in early 2008. The plan committed to the creation of what became known as the *Curtin Leadership Framework* and a linked suite of leadership development programmes. The executive directed that a leadership programme for heads of school be implemented as a priority.

Conventional wisdom would suggest that the leadership development framework project should guide the design of subsequent leadership development programmes including the programme for heads of school. However, given the urgency of the proposed heads of school development programme, these two projects were conducted in parallel. The projects informed each other and benefitted significantly from the research and consultation work undertaken.

Change theory tells us that building a 'coalition of sponsorship' is vital if a change programme is to succeed (Hiatt, 2006). So a critical success factor for these projects was the early establishment of a reference group comprised of 14 senior academic and professional staff leaders from across the University. The reference group member's role, as defined by the group's Terms of Reference, was to:

- represent the broader Curtin community and individual constituencies by:

    - identifying and confirming the high priority leadership and management development needs and activities for implementation, and
    - confirming priority leadership and management target groups;
- provide guidance to the Organisational Development Unit project team by:
    - Contributing to the conceptual design and applicability of the *Curtin Leadership Framework,* and
    - Ensuring that programme designs and content reflects organisational objectives and the learning needs and styles of targeted groups;
- assist in promoting and advocating leadership and management development activities across the Curtin community;
- contribute to the monitoring, evaluation and improvement of the *Curtin Leadership Framework* and its associated activities.

The following sections provide the reader with an overview of the work that generated the *Curtin Leadership Framework* and the *Leading Curtin: Head of School Development Programme.*

CURTIN LEADERSHIP FRAMEWORK

Brown (2010) has previously provided a detailed account of the leadership framework research and design activity. Subsequent paragraphs summarise the situation.

The Organisational Development Unit project team conducted an extensive literature review that examined contemporary leadership and management theory, including the emerging Australian higher education (academic) leadership research sponsored by the Carrick Institute/Australian Learning and Teaching Council (ALTC), and examples of leadership and/or management competency and capability frameworks from both the literature and other institutions.

'Utilising an action learning approach', 20 capabilities 'that represented an amalgam of the capabilities across the [reviewed] frameworks' (Brown, 2010, p. 25) were identified and then endorsed as appropriate for Curtin's needs by the reference group and subsequently nearly 80 of Curtin University's senior leaders. As illustrated at Figure 1, the project team developed a model to represent the 20 capabilities of Curtin's new framework drawing on the Competing Values Framework (Quinn, Faerman, Thompson & McGrath, 2003) and the Integrated Competing Values Framework (Vilkinas & Cartan 2001, 2006 as cited in Vilkinas, 2009). As noted by Brown (2010, p. 25) 'within the list of 20 capabilities the team identified five clusters and each of these clusters nominally matched the four quadrants and central 'integrator' role of the integrated competing values framework but without using the CVF/ICVF role nomenclature'.

The attraction of basing the Curtin model on the CVF and ICVF was that it graphically illustrates the role-based tensions of managers – the need to focus on the team AND the external environment whilst also attending to creating and maintaining effective relationship AND completing all necessary tasks. In addition, some academic leaders were becoming familiar with the ICVF as it had been introduced within Curtin's Academic Leadership for Course Coordinators programme. The model highlights the need for effective self-management skills to enable leaders to integrate the competing priorities. The reference

group endorsed the proposed model indicating that it would be suitable for academic and professional staff.

Figure 1: Curtin Leadership Framework

The next stage of the project was to develop a series of draft behavioural statements for each capability and to test them with the reference group. After several months of University-wide consultation the project team refined the behavioural statements. In addition, feedback indicated that three hierarchical/management levels were appropriate for the framework compared to the four levels originally proposed.

During the framework design period (2008-2010) the nomenclature of the framework changed from the initial *Leadership and Management Development Framework* to the *Curtin Leadership Framework*. This change reflected the growing acceptance of the primacy of leadership for organisational success. (In a similar vein, the annual senior managers' conference hosted by the Vice-Chancellor was renamed the senior leaders' conference in 2011.) The scope of the framework also was broadened, from its initial focus of purely supporting leadership and management development initiatives to supporting leadership development programmes, career management, succession planning, recruitment and selection, and performance management at Curtin.

The revised version of the Curtin framework was tabled at the 30 November 2010 meeting of Curtin's Planning and Management Committee and was subsequently approved by the Vice-Chancellor. (see http://odu.curtin.edu.au/leadership/documents/CurtinLeadership_Framework_May2012_Version.pdf). It is too early to ascertain with certainty the effectiveness of the *Curtin Leadership Framework*. However, feedback received to date suggests widespread acceptance of the Framework by both academic and professional staff. The Organisational

Development Unit has scheduled to conduct a formal review of the utility of the Framework in 2013.

LEADING CURTIN: HEAD OF SCHOOL DEVELOPMENT PROGRAMME

As previously discussed, in early 2008 Curtin's executive managers directed that a leadership development programme for heads of school needed to be implemented by late 2008. Thus the design of what has become known as the *Leading Curtin: Head of School Development Programme* occurred in parallel with the *Curtin Leadership Framework* project. There were several phases to the development of the heads of school Programme, phases aligned to the ADDIE (analysis, design, development, implementation, and evaluation) model of human resource development design. Gilley and Maycunich (2000) suggest that ADDIE is one of the most commonly used design models.

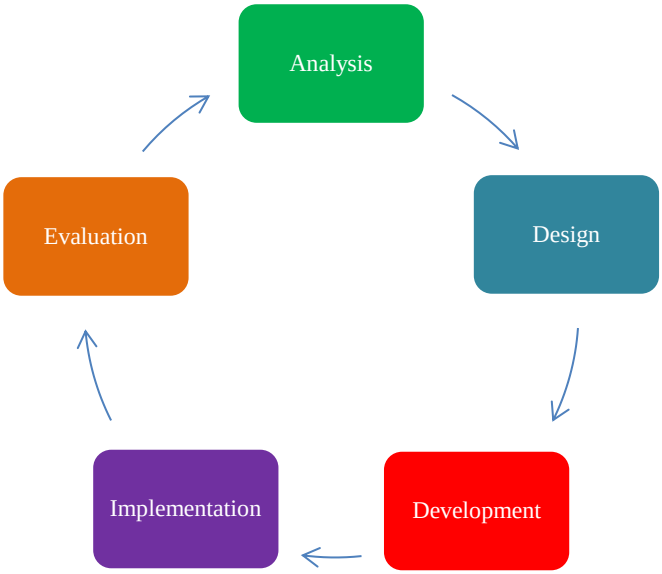

Figure 2: The ADDIE Model

Analysis: needs analysis and research

The Organisational Development Unit team's first task was to prepare a project plan to ensure there was an agreed 'road map' to guide the design and deployment of the Heads of School Programme. The second task was to complete an extensive review of internal Curtin documents and contemporary academic leadership research and summarised its findings. The internal documents, along with interviews of academic leaders (see below), assisted the Organisational Development Unit team to identify the organisational outcomes (needs), and the gaps in existing arrangements, with respect to supporting heads of school in their difficult role. The team's analysis suggested that the critical period for heads was the first twelve months in the role and that newly appointed heads of school or department, and others likely to be considered for such roles, should be the primary target of the development programme.

Particular note was made of the findings of the ALTC commissioned 'Learning Leaders' research project and its recommendations for leadership development (Scott, Coates & Anderson, 2008). In addition, the Organisational Development Unit conducted a review of academic leadership programmes at other universities in Australasia and the United

Kingdom. In effect, this research allowed the Organisational Development Unit project team to benchmark its emerging programme with established programmes in other institutions. Wherever possible, email correspondence and/or telephone or face-to-face interviews with key personnel in selected universities were conducted to ascertain lessons the team should consider when developing the Curtin programme. This research resulted in a draft list of topics that could be included within a structured leadership development programme for heads of school and/or large department.

At the local level, by mid-2008, the project team identified and interviewed nearly 20 experienced current or former heads of school, each faculty's Pro Vice-Chancellor/Executive Dean (PVC) and several newer heads of school plus the DVC Academic. The purpose of the interviews was to acquaint interviewees with the twin projects Organisational Development Unit was undertaking (the *Curtin Leadership Framework* and the Heads of School Programme), and to garner feedback on the importance of the identified topics and suggestions as to how the programme might be constructed. Given that the Organisational Development Unit was established late in 2007, this round of consultation meetings assisted the project team to develop positive relationships with those interviewed and created engagement with our academic colleagues. They appreciated that the team was willing to listen and adjust its thinking to develop a suitable leadership development programme for academic leaders. This became apparent when several interviewees subsequently enrolled to complete the programme.

The analysis activities undertaken in this phase of the project are illustrated at Figure 3.

Figure 3: Leading Curtin: Head of School Development Programme analysis map

Design

Utilising a consultative and iterative process, and working with the reference group, the Organisational Development Unit team identified that the programme needed content that could be formed into four core strands (managing personal effectiveness, managing the team, managing operations, and managing external relationships) with three overarching themes (leading change and innovation, living Curtin's values, and managing competing demands). These themes and strands were then successfully mapped to the Competing Values Framework (Quinn, Faerman, Thompson & McGrath, 2003) and subsequently to the emerging *Curtin Leadership Framework* (Figure 1).

In addition, the following programme objectives were developed:

i. further develop the leadership and management capabilities of heads of school;
ii. extend participants' self-knowledge, personal capacity and confidence as leaders;
iii. develop a range of practical skills for leading others and a significant portion of the University's business;
iv. enhance participants' skills to align the team and school's objectives with the University;
v. build and strengthen working relationships and collegial networks across the University; and
vi. deepen Curtin's leadership and succession planning capacity.

The project team proposed to deliver the new programme over a 12-month period commencing with a VIP breakfast launch for participants with Curtin's executive managers followed by a series of four two-day modules delivered face-to-face – one module per strand. The initial module was intended to use a residential format. The team felt that a residential format would assist the participants to more quickly get to know one another and this would, in turn, maximise the opportunity to develop cross faculty relationships and foster opportunities for collaboration.

A key feature of the programme design was that participants, in partnership with the Organisational Development Unit, would help to shape the programme by identifying priorities, recommending exemplars, experts and executives to facilitate sessions, and by providing key input to the design of the programme's sessions. Empowering participants in a programme may appear risky for developers but our experience has been that the approach assisted the participants to become collaborators with the Organisational Development Unit thus leading to participants feeling ownership of the programme and more fully engaging in the learning process.

Apart from the four face-to-face modules, the programme design included a 360-degree feedback process (pre-programme and post-programme), completion of the Myers-Briggs Type Indicator instrument, coaching and action learning projects completed in small cross-faculty teams. Action learning projects were included as a means to encourage reflective practice and to assist in embedding the programme's content in a real life setting.

The design phase also included the identification of the need for the establishment of an online resource for participants, a communication plan and a mechanism to solicit participants. The project team's objective in devising an approach to obtain programme participants was to create a greater awareness amongst Curtin's executive leaders of the need to actively identify and develop academic staff capable of moving into the heads of school role and to support recently appointed heads of school and heads of department.

Development
The development phase for the heads of school Programme demonstrated considerable agility. Instructional design plans and materials were prepared on a just in time basis to enable the programme's rapid roll out. Whilst the broad strategy was in place the team was often fine-tuning the detailed module topics and individual session learning outcomes just a few weeks out from the next module's scheduled delivery. Similarly, identifying and inviting appropriate presenters occurred anywhere between several months to just a few weeks in advance of each module. The Organisational Development Unit provided session objectives to presenters along with the request that sessions be as interactive as possible. Wherever possible the programme coordinator met with each presenter to provide a briefing on the overall programme design and how their session fitted within this context. Given Organisational Development Unit was inviting experienced senior academics and executives to present sessions, the team felt it was inappropriate to be overly prescriptive as to how they should structure their sessions.

The project team created a Heads of School Development Programme unit in Blackboard, Curtin's student learning management system. The Blackboard unit was developed to (1) contain the majority of the programme's resources and (2) provide an online environment for participants to interact, particularly as they formed the action learning project team. While the team was creating the Blackboard resources they realised that an online repository was needed for key journal articles used for pre-reading or for post-module reading. The anisational Development Unit worked with the University's library staff to create an e-Reserve list for the Heads of School Programme – it became the first non-teaching unit to utilise the e-Reserve system. Hard copy documents stored in a file along with a pen and notebook were also prepared for each participant.

Other tasks in the development phase included logistics such as booking external venues, the creation of the communication plan and the development of the recruitment and call for nominations process. Apart from raising an awareness of the forthcoming Heads of School Programme from our consultation with Curtin's PVCs and many heads of school, one method employed to communicate to Curtin's leadership community that a new development programme was soon to be launched was a 10 minute presentation for approximately 100 leaders at a Vice-Chancellor's Senior Managers' Forum in August 2008.

Implementation
In September 2008 the Vice-Chancellor launched the new *Leading Curtin: Head of School Development Programme* by inviting each of the four PVCs to nominate between five and seven staff for the inaugural programme. One place was also reserved for a nominee from the Centre for Aboriginal Studies. The Vice-Chancellor advised that priority should be given to:

- Less experienced heads of school (1st or 2nd year in role);
- Deputy heads of school/those who regularly deputise for their heads of school; and
- Heads of large departments (e.g. Science and Engineering).

Due to the changed economic circumstances in late 2008, the residential format for the first module of the Heads of School Programme was changed to a non-residential format. The inaugural intake had 22 participants as did the second intake a year later. The 2010/11 intake (Intake 3) was a smaller group (15 participants) whilst the latest intake (2011/12) had 25 participants. All faculties have supported the programme with the current intake being over-subscribed.

Along the way the Organisational Development Unit team made a few changes to the initial design of the programme. For example, a stronger focus on strategy and managing internal and external relationships was adopted for the third module the fourth (final) module was redesigned as a capstone activity in which participants take part in management simulations and present the results of their action learning projects.

Evaluation

The Organisational Development Unit team used Kirkpatrick's approach when designing the Heads of School Programme evaluation. Kirkpatrick and Kirkpatrick (2006) propose that training programmes should be evaluated at four levels:

Level 1: Reaction
Level 2: Learning
Level 3: Behaviour
Level 4: Results

Level 1: At the conclusion of each Heads of School Programme module, participants are asked to complete a brief questionnaire covering their reaction to each session and the overall module. As appropriate, the data is used to make adjustments to the subsequent module in the current iteration of the programme as well as the equivalent module for the next version of the programme. Participant feedback is reported to the cohort at the next module, modelling how they can use student feedback within their School's teaching units.

Level 2: Day 1 of the final two-day capstone module is designed to evaluate participants learning by providing a series of challenging scenarios that draw upon content considered in the first three modules. Day 2 includes action learning project presentations by each team, including their reflections on their personal and collective learning from their project participation.

Levels 3 and 4: Organisational Development Unit engaged Professor Rick Cummings (Murdoch University) as an external evaluator to independently examine the extent to which the Heads of School Programme influenced changes in participants' behaviour and the results of participation in the workplace. In March 2011 Professor Cummings concluded his evaluation and reported that:

- a large majority of participants and stakeholders indicated they were satisfied the programme was conducted to a high standard and achieved its objectives;
- 88 per cent of participants indicated they would recommend the programme to their colleagues;
- the large majority of stakeholders and participants indicated they believed the programme had achieved its stated aims, to at least some extent;
- a number of line managers of the participants commented that they had observed positive changes in the behaviour of staff who had completed the programme; and
- there was convincing evidence that the programme is building both individual and university leadership and management capability and strengthening succession planning capacity.

Professor Cummings made several recommendations which were considered by Organisational Development Unit. The Organisational Development Unit responses were endorsed by the reference group in May 2011. The evaluation report and Organisational

Development Unit response was endorsed by the university's Executive Managers at a meeting in July 2011 (see Appendix 1).

The evaluation of the Heads of School Programme has led to a greater level of Executive support for the programme. The endorsed recommendations have either been implemented by way of changes to the programme or are in the process of being implemented.

Key learnings from this continuous improvement cycle include (a) the value of a consultative and iterative approach to developing leadership programmes, (b) the importance of utilising an external 'expert' to review key programmes, (c) the critical need to maintain the University's Executive Managers continued support for leadership development initiatives by ensuring they are provided with empirical research/evaluation reports; and (d) the need for programme developers to be open to constructive criticism and to be ready to adapt programmes/programme design to better suit contemporary organisational needs.

Further reflections

Overall the team at Organisational Development Unit have been satisfied with the programme – arguably its design has worked well, there has been widespread acceptance of the programme and it has achieved solid outcomes. The sponsorship and support from the (then) DVC Academic was a key factor for the programme's early success. Curtin's executive managers, including the Vice-Chancellor have continued to support the programme as presenters and sponsors of action learning projects.

Feedback from the formal external evaluation as well as from the internal review processes have led to a number of programme adjustments. Two notable changes have been (1) improving the third module (it had been the weakest of the four) resulting in solid participant feedback from the current cohort, and (2) the cessation of using Blackboard as a repository as participants had rarely accessed the repository.

In July 2012 two members of the Organisational Development Unit team interviewed the current DVC Academic and Curtin's four PVCs to ascertain what further adjustments might be needed to the programme. These meetings also enabled Organisational Development Unit to maintain and build its relationship with this group of key stakeholders. One outcome from this round of meetings was the need for additional skill and activity-based workshops for heads of school and heads of department. Performance management was seen as the number one skill needing to be honed by academic heads. A second outcome of the meetings was support for extending nominations for the next programme (Intake 5) to deans and heads of research institute and centre. The Organisational Development Unit team is currently considering renaming the programme to reflect the broader range of participant roles.

CURRENT CHALLENGES

The primary leadership development challenge for Curtin is to remain agile and responsive to changing circumstances and stakeholder expectations. It goes without saying that development programmes need to be shaped and reshaped to meet changing and emerging needs. Gaining consensus on what these changes should be is, at times, difficult given competing values and expectations.

As noted, initial success in terms of programme development and implementation was achieved with active sponsorship of vision from a few executive leaders. Some of those sponsors have moved roles/institutions. The effectiveness of the leadership programmes has also been questioned by some members of the University's Executive. In part, this is a consequence of leadership development having a higher profile. With this elevated profile, there has come a heightened set of expectations about what leadership programmes will deliver. The Executive has recognised the vital roles heads of school and heads of department play in delivering core business. However, performance gaps are frequently attributed to lack of training. At times there is an expectation that 'training', on its own, should be effective in creating highly skilled and outstanding leaders that will solve the University's problems. The balancing view recognises that a development programme is but one strategy amongst many that needs to be applied to achieve such an outcome.

The University is currently developing its next Strategic Plan. The Organisational Development Unit is reviewing the *Leading Curtin: Head of School Development Programme* to ensure it meets the needs of the University going forward. The programme has been well recognised for providing a good foundation for new heads of school. As mentioned, the challenge for Organisational Development Unit is to identify, design and delivery adjustments to its current programmes but also additional development programmes (short courses) to address, in a timely fashion, the acute needs facing the University.

This cycle of review has brought with it an unprecedented interest from the University's Executive. This interest challenges Organisational Development Unit and augers well for the programmes and the University. This executive level engagement will help ensure the best possible alignment between the development programmes and the University's strategic needs.

BIOGRAPHICAL NOTE

Tony Brown is the senior organisational development consultant at Curtin University and leads Curtin's leadership and management development initiatives. He also consults on team performance issues and designs and facilitates bespoke programs. Tony led the development of the Curtin Leadership Framework and the Head of School Development Program.

Juris Varpins has been the Director, Organisational Development Unit since the unit was established in 2007. He joined Curtin as the School of Nursing and Midwifery's School Manager in 2001. Juris has contributed to a number of University wide projects and committees.

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APPENDIX 1: THE ORGANISATIONAL DEVELEOPMENT UNIT RESPONSE TO EXTERNAL EVALUATION OF THE LEADING CURTIN: HEAD of SCHOOL DEVELOPMENT PROGRAMME

Overview

The Leading Curtin: Head of School Development Programme is an invitational 12 month programme for newer Heads of School; Deputy and prospective Heads of School, as well as heads of large departments at Curtin University. Pro Vice-Chancellors and the Deputy Vice-Chancellor Academic nominate participants for the programme around August each year. The first annual intake of the programme commenced in December 2008.

In 2010 Organisational Development commissioned Professor Rick Cummings (Manager Educational Development, Murdoch University) to conduct an external evaluation of the Leading Curtin: Head of School Development Programme. Professor Cummings report was received in April 2011 (attached).

In evaluating the programme Professor Cummings (a) completed an analysis of programme documents, (b) surveyed the participants from the first two intakes, and (c) interviewed 12 key stakeholders including line managers (the then DVCA and PVCs) of some participants. His summary of the programme is:

'Overall the Leading Curtin programme is well designed and implemented. Both stakeholders and participants strongly support it as a valued and high quality programme addressing an area of critical leadership need within the university. Although there are some areas which might be improved, there is good evidence the programme is achieving its outcomes and strong support for the continuation of the programme.'

The evaluation report was considered by the Leadership and Management Development Reference Group at a meeting on 2 May. At that meeting Professor Cummings elaborated on elements of the report and, in particular, discussed the report's recommendations. The Reference Group endorsed Professor Cummings' comment that there is not a strong case for having separate programmes for existing and potential Heads of School. The Organisational Development plans to take the actions outlined in the table below.

Recommendations

Organisational Development recommends that the University's Executive Managers:

1. note and endorse the findings of the Leading Curtin: Head of School Development Programme Evaluation Study Report;
2. endorse the planned Organisational Development Unit actions in response to the report's recommendations; and
3. endorse Organisational Development Unit's recommendations for Executive Managers.

Evaluation Study

Error! Reference source not found. presents Professor Cummings recommendations and the response from the Leadership and Management Reference Group and Organisational Development Unit. Executive managers are particularly requested to consider the second recommendation: that the Deads of School Development Programme should be compulsory for new heads of school and heads of department.

Table 1: Evaluation report recommendations and reference group/Organisational Development Unit response

Evaluation Study Recommendation	Reference Group/Organisational Development Unit Proposal
Continue the involvement of the Vice-Chancellor and Deputy Vice-Chancellor (Academic) or equivalent and other Curtin staff as presenters for topics which are best tailored for Curtin both for expertise and relevance but also to ensure participants develop links with key senior staff.	The Reference Group supports Professor Cummings' recommendation. Thus ▪ Organisational Development Unit will continue to invite the Vice-Chancellor, Deputy Vice-Chancellors, Pro Vice-Chancellors, Vice-Presidents and other senior staff as programme presenters ▪ Executive Managers demonstrate their support for the Leading Curtin: Head of School Development Programme by presenting sessions
If the university believes all Heads of School need to meet a certain standard of leadership and if the means to achieve this is participation in the programme, then it is reasonable to make the programme compulsory for Heads of School and/or Heads of (large) Departments.	The Reference Group supports Professor Cummings' recommendation for heads of school and for heads of departments with line management responsibility for finance, HR and initiating and/or implementing change. It is recommended that ▪ Executive Managers endorse the proposed approach and mandate that new Heads of School and Heads of (large) Departments must attend the programme either before or on commencement of their heads of school/heads of department appointment
The Organisational Development Unit should give serious consideration to assessing the learning of participants as it will raise the perceived standard of the programme as well as provide more direct feedback on what areas of the programme are working well and which aren't.	Supported by the Reference Group as an option for those seeking formal recognition ▪ Organisational Development Unit will investigate and develop appropriate assessment activities for participants seeking formal recognition
The University should provide staff who successfully complete the programme with formal recognition of this achievement, including credit toward a higher degree in leadership and management.	Supported by the Reference Group as an option ▪ Organisational Development Unit to continue discussions with CGSB
The Organisational Development Unit should develop a programme of ongoing support and development of staff who complete the programme	Supported by the Reference Group as proposed ▪ Organisational Development Unit will (a) continue to support the Head of School Community of Practice and (b) develop an 'alumni' programme (NB: a master class with Larry Marlow for Intake 1 and 2 participants has been scheduled for October)
Additional verbal recommendations from Professor Cummings: ▪ **Organisational Development Unit examines how to revitalise the utility of e-learning (Blackboard)** ▪ **Organisational Development Unit should establish a driving theme (which may change over time) for the programme to position the programme within Curtin's strategy and to focus both the programme and participants**	Supported as proposed. The AICD course approach was suggested as a model ▪ Organisational Development Unit will research examples of good practice to revitalise the effectiveness of Blackboard for programme participants Supported as proposed ▪ Organisational Development Unit will develop an appropriate theme for each intake based on the University's current strategies and priorities

THE RIGHT BLEND OF ADMINISTRATIVE MANAGEMENT

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ABSTRACT

The practice of individuals collecting data on their own computers according to their own job descriptions has considerable limitations, and fosters errors. This paper suggests taking a renewed approach to data management. By developing and maintaining one or more relational databases that are updated and shared by all members of the administrative team, data and reports can be made more accurate, more flexible and therefore available for more strategic uses. Managers choosing familiar software use their teams, not IT specialists, to develop the database. While individuals still take responsibility for entering or linking data, the team is able to find synergies in using the data. Even if people are away from the office, communication using technology is enhanced. The outcome is that managers and their teams contribute to their university's strategic plans by using resources better, and improving the efficiency of their administrative services. A natural outcome is the up-skilling of staff and fostering a team approach

KEY WORDS

information system; database; team approach; administration; administrators.

INTRODUCTION

Most of the Australian Group of Eight universities and New Zealand universities have themes within their strategic plans relating to the improvement of administration, the up-skilling of staff and/or the more efficient use of resources. University staff members have a tendency to assume that because these proposed changes of working are written at a high strategic level, sometimes citing organisation-wide changes, the responsibility to lead the way to those goals lies with senior level management. However, there is scope for any level manager to adapt these principles by fostering changes in the way each individual in their team approaches their particular job, and by looking for synergies that could integrate the team's administrative tasks more strategically.

Currently the way many administrative offices store, retrieve and use data is cumbersome and limiting, and therefore inefficient. A different approach to using staff and technological resources more effectively and improve the administration is to create one or more relational databases that are used by the administrative team as a whole. A relational database enables data to be related to other data by means of common fields, such as ID numbers, and thus provides greater flexibility for each piece of data (Gilfillan, 2002). By streamlining the team's operations, the strategic value of the data is significantly improved leading towards an effective information system, and resulting in a more professional delivery of administrative services including more informed decision making.

There are major limitations in the typical way current information is stored. The number of documents and spreadsheets of information or reports which each administrator typically deals with is large, and most managers would be able to identify with the difficulties their staff have in maintaining reliable data. Even with the best intentions, data which was accurate at the time of saving becomes outdated the next time it is retrieved, and knowing all the places to retrieve the data when it needs to be updated is a challenge. A problem of how data is stored and maintained lies with how work teams are set up in their job descriptions. According to Gan and Kleiner (2005) a job description defines accountability in an organisation, which helps to prevent overlap of duties and assign task responsibility. Individuals see their work as separate to the work of their colleagues who have different duties and therefore a different set of tasks. Each person works as if in an individual silo – taking ownership for the work on their computer without reference to how it might fit into the work of the team. The data are stored within various folders and drives on individual workstations, administrators often not having a systematic approach to using shared drives, and therefore is not reliably accessible in the administrator's absence. The relational database addresses these issues by taking a team approach to data, benefiting individuals to fulfil their job description tasks at a higher standard.

Additionally a job description which gives the relative importance of each duty and the time an employee could expect to spend on the tasks limits the approach taken by individuals in performing their tasks. Instead of viewing their work holistically they are more likely to see each task as an entirely separate entity to their other tasks, missing overlaps in their own work, for example, updating the data in one spreadsheet but neglecting to update it in several others. Sometimes the inaccuracy of the data is not readily visible. Information a staff member uses in one context might not match that used in another because the information was updated at different times, and potentially by different people. This very common approach of relying on accessing information from various places has the potential to foster errors, and is time consuming for administrators, as well as the people who suffer the consequences of administrative errors. Again, a relational database enables the individuals to see the connections between their tasks enabling them to strategically enhance the information they use for their jobs.

The following example, which will be used periodically in the paper, highlights how the overall goals of the organisation can be impacted in both small ways and substantial ways by errors and delays in acquiring accurate information of even basic data, even though all parts of the information are held by the same team.

A manager is asked to set up an emergency meeting of a large group which gets together regularly. Administrator X produces an attendance sheet which the Manager confirms after correcting misspelled names; X uses the office email list which has names hidden to send out the agenda. The Manager assumes all is okay until she is aware that a member of the group did not get the email. Administrator Y who updates the generic email list is on leave and so the list cannot be checked for other errors as Y's computer is password protected. When the Manager asks X for an updated member's phone list to confirm with other key people, X's list is incomplete – she didn't think of updating that when she did the attendance sheet. However, Administrator Z was likely to have some of the numbers as they were given to her for a completely different task.

In many circumstances having the information stored in different places might be merely a matter of frustration and inconvenience. However, if this was, for instance, a senior meeting

taking place in a few hours, and a key person had required figures necessary to complete another report which was to be presented to the group, the whole item and hence the whole strategic project might need to be delayed.

Setting up one or more relational database with as much data that benefits the entire team will therefore contribute to improved administration. However, when developing a database a number of important factors should be considered. This paper starts by addressing the synergies that blend tasks more strategically, the choice of software and security, the size of databases at start up, and the size of teams that can benefit from this way of working.

The paper goes on to describe how to set up and develop a relational database, as well as considerations for training the team to use databases. To show the practical aspect of work already done in a variety of different administrative environments and the strategic value gained even from humble starts, the paper describes several administrative databases suiting University roles:

- Secretariat
- Doctoral Degrees Board Office
- School of Architecture
- School of Chemical Sciences General administration
- School of Chemical Sciences confidential salaries.
- Childcare facility

Each of these databases was developed in order to fill needs that were unable to be met at the time by the central systems, and to improve efficiency in managing information. Although what was provided centrally changed over time, new reporting needs or newly required integrated functions continued to provide scope for on-going development enabling each database to still serve a purpose.

FINDING SYNERGIES TO BLEND THE TEAM'S ADMINISTRATIVE TASKS MORE STRATEGICALLY

Larson and James (2010) describe synergy as an objective gain in performance that is attributable to group interaction. In the introductory example of setting up the meeting, although team members are interacting in a cooperative way to give the Manager the required information, the process is disruptive and time consuming. Asking one person to compile all the information is unrealistic. The most effective and efficient way for the team to access data is by using technology rather than in person, with each person populating the information that they ordinarily capture for their own jobs into a shared database, over which the Manager retains the strategic management. This starts a process of transforming ordinary data into an information system – a step towards successful business intelligence which requires a combination of data integration and governance, with an aim of ensuring consistency and also that all those involved are working 'with a single version of the truth' (McEndrick, 2009).

A distinction can be made between weak and strong synergy in terms of the magnitude of performance gained from the interaction of the data (Larson & James, 2010). The decision on what to include in the setting up of a database requires judging how frequently the information is used, the number of administrators in the team that might need access to the data at any future time, and the flexibility of the database to filter into a variety of reports.

Weaker synergistic data may well prove useful for a particular project and can be added as needed. The natural tendency for team members is to revert to Excel spreadsheets rather than to make the effort to 'fuss with a new system that seems complicated' (McEndrick, 2009). In driving the change for encouraging database expansion the Manager's focus should be on the future use and flexibility of the information. Often data which appears to be needed once-off is needed again. Integrating data need not be cumbersome and the effort expended in the beginning pays dividends in the long term in terms of ease of use.

In the introductory meeting example, all three administrators would do well to have easier access to more information than they currently hold, without having to rely on who is present at the time in the office. To use the most basic examples, this includes the correct spelling of names of the staff, the email addresses and various phone numbers, and the identification of people belonging to a particular meeting group. Additional information, such as when people's term of office starts or when their employment contract ends, would strengthen the synergies of both the team and the information, as that would ensure both the email list and the attendance sheet were accurate.

Continuing with the example but going beyond the needs for circulating the agenda, other synergistic information includes the members' role on the committee, where their office is located, and their attendance record at previous meetings. The synergies mentioned relate to the member in the context of a particular meeting. The database however could be built up to manage diverse contexts such as security access card issue, short-term budget planning, course coordination, and lab management.

The data itself does not dictate the strength of the synergy. For instance, in a chemistry department strong synergistic information would be to know who is a lab manager, who has a valid first-aid certificate, and who is currently a casual staff member paid via time-sheets. Weak synergistic information would be whether a person is a Senate member. Conversely significant information relating to Senate members would be a strong synergistic need for managing a Senate office. Knowing which Senate members have a first aid certificate would be a weak synergy, albeit interesting, as that information is unlikely to be called for by more than one person and certainly not on a regular basis.

Synergistic information needs one common field to become relational in the database. The more reliable the common field the stronger the data for flexible use. An ID number for instance enables a strong link to other data which uses the same ID number.

CHOICE OF SOFTWARE AND SECURITY

Managers typically would assume an IT specialist would be required to create and develop databases. However, as Stewart and Kleiner (1996) point out, information technology has advanced to a level which helps facilitate a shift to the 'horizontal organisation', enabling teams who choose the right tools to take their own initiative and responsibility. Once Managers accept responsibility for the development of their team's database, the choice of software ideally should be one that integrates most efficiently with the other programmes being used by the team. Given all products in a suite usually have common interfaces, creating a database from a suite already being used can diminish the amount of staff training required to learn new programs (Glen, 1992).

For the many offices that already use the Microsoft Office suite the choice is easy – MS Access integrates well with its other products: Word, Outlook and Excel. In general, as noted by Glen (1992), it is financially attractive for the organisation to buy the whole set of the office suite, and so even if the MS Access database was originally not loaded onto individual computers the organisation in all likelihood would already have the license to make it accessible to the team.

Placing the database in a secure networked drive accessible only to team members ensures easy accessibility by the team, and confidentiality of information amongst the team. Databases have security features which can be enabled as necessary to limit members of the team to parts of the database. However, Managers are cautioned that making the database more complex than it need be can hinder the team's enthusiasm to 'unlock the riches' of the newly acquired database (De Bruin, 2012). Eckerson (2004) further adds that controlling access can lead to the team's disenfranchisement. Where the team member's feel they need more data to perform their jobs properly, they will circumvent the new system, and using their own resources get information in another way. Ultimately more time will be spent in individuals accessing and manipulating data, with the risk of creating multiple versions of the truth.

Discussed further in the paper is the option of creating a second database where information needs to be highly secure. Potentially this is a better option than having to put significant controls for security to the level of every user of the database which is difficult to manage and diminishes some of the value of the database.

SIZE OF TEAM AND SIZE OF DATABASE

Individuals, small and large teams can benefit by creating suitable databases. A Manager has two key considerations when assessing the usefulness of a database. The first is whether an individual or a team has data which is used and changed or updated regularly. The second is whether the data is used by one or more people in a combination of flat files, unstructured formats and paper-based data. One individual whose computer is populated with data from a variety of sources and data-types could manage a significant amount of data better through a relational database (Sullivan, 2001); much more can be gained by incorporating shared data across teams.

The size of the team is not the dictator of the size of the database. Given that just one cumbersome report or two sets of interrelated data can be used to start a useful relational database, there will be no shortage of data to include in a database for either individuals or teams. The more data the more ways it can be manipulated to serve many purposes. Therefore the extent to which a database will be used and expanded relies on the team's culture and each person's willingness to work in a different way. A positive influence on promoting creativity and innovation is one where the culture supports open and transparent communication, based on trust (Barret, 1997; Robbins, 1996). The trust in this regard goes beyond confidentiality; it is relying on each person to take responsibility in updating information received by them which can be used to share via the database, to be willing to work with others to come up with ways of blending information as needed, and to be aware of how the information is used so that changes are not made without a fuller understanding of the implications to others using the database.

The relational databases described in the section on functioning databases below were created for individuals and teams of between two to ten members – manageable numbers to trust with on-going reliability and expansion of the database. Managers who have larger teams would need to assess the viability of how many staff could be entrusted with the writing and inputting of data versus only accessing information already stored. While risk taking and creating a tolerant atmosphere in which mistakes are accepted as part of enabling the team's initiative (Martins & Terblanche, 2003), the Manager's role is to keep an overview of the meaningfulness to expansions of the database.

GETTING STARTED AND INCLUSION OF NEW DATA

While the author's experience is in the Microsoft Office suite where there is significant support in the help sections and via the internet, other database programmes may offer similar features to those available in MS Access. The simplicity of starting an MS Access database is well set out by Lambert, Dow Lambert III, and Preppe. The use of pre-packaged templates enables a team to 'create a dozen database applications in less time than it used to take to sketch the design of one on paper'. While the templates may not provide exactly what is needed by the team they provide a quick structure which can be easily tweaked and replicated in various ways to fit requirements. A considerable benefit in design is that standard MS Access objects (eg tables, queries, forms, reports) can be imported easily from one MS Access database to another, allowing the designer to take features from already set up systems.

Adding data can be done with little effort given that team's current spreadsheets in Excel, delimited text files and fixed-field text files in XML or HTML can be used to import information directly into MS Access. Because tables (where the data is stored) form the basis of the database, benefits can be gained immediately by the team sharing even before users get experience in creating queries (grouping information needed to suit particular tasks), forms (enabling easier input of new data), and reports. MS Access has wizards and property builders to quickly enable users to use data flexibly, enable tailoring to individual users (2012 Microsoft Corporation).

Strategic decisions include inputting data generated by the administration team, and interfacing data generated by reports from organisational central databases. As the team goes about daily tasks of their job description they would add the new data or make changes directly into the relational database, ensuring it is the one place the information is accurate. The entered data becomes live data to be used by the rest of the team as the need arises. The accuracy gains and completeness of information are significant.

However, when the team gets updated information (eg student course enrolment) to use via a report from an organisational central database, the responsibility for the updating of the data is external to the team. In these cases linking the report to the team's own database is the best course of action, as it not only retains the integrity of the data which is not able to be changed, but also makes it just as flexible and useful in real time for the team as a whole as if it were integrated. In addition, queries can be made combining the linked data and team's own data in a way that is not provided for centrally. Given the choices of incorporating into the database, all reports can be made available to the whole team, improving synergies as new updates are received. Whether the data is added or linked the team still has the option to

use the same data via Excel if needed, as the MS Access and Excel interface exceptionally well (2012 Microsoft Corporation).

There are times when for good reason more than one database is appropriate for different members of the team either because the interrelationship of the data does not sufficiently blend with the rest of the team's and incorporating it adds little value, or the information is of such high sensitivity such as permanent staff salaries, and disciplinary outcomes.

TEAM TRAINING IN DATABASE FUNCTIONALITY

The success of the database requires the entire team to take responsibility for the use and development of it. The first step in training is before touching the computer, highlighting the merits of using a database and ensuring administrators appreciate no matter how small their responsibility may seem (for example, keeping a list accurate), if done well it will aid the organisation's strategic goals and if done badly it could hamper them.

De Bruin (2012) found that staff who did not have adequate training deferred to an employee who was seen as particularly knowledgeable or competent, and other staff members turned over database work to this resident wizard who became the de facto 'database person'. In the meantime, the remaining staff had even less opportunity to boost their skills, which reinforced their view that databases were difficult. The research findings of Shayo and Olfman (2000) support the preference for team members to have good mental models of similar packages to enhance their learning performance and motivation toward learning the related package. Providing training with a demonstration of more than one package reinforces the learners' transfer expectations. Additionally, the more relevant the task context, the higher the learning outcomes; and the greater the increase in the learners' perceptions of ease of transfer and self-efficacy expectation. De Bruin (2012) promotes several in-person training sessions.

A good orientation would therefore be to provide personalised team sessions which reveal the similarities between the suite of programmes each individual uses creating an innate comfort in the familiar. For instance, Microsoft Office Excel users will feel at home using the MS Access features which include datasheet view, sorting and filtering, pivot tables, and the Help system (Top 10 reasons to use Access with Excel), while Outlook users will enjoy the ease of smart-tags enabling quick emailing, calendar use and spell checks.

Using data chosen by the team, a quick overview of how tables, queries, forms and reports are used flexibly can demystify the formidableness of a database. Immediately the relevancy of the database and results to the team as individuals will become evident. The best practice in the use of the database is for each team member to continue to work with data in which they are personally interested. Furthermore, teams who are encouraged to explore and play will increasingly see the usefulness of databases and get enjoyment at a personal level (De Bruin, 2012).

A relational database naturally provides an environment for the team to prosper – 'to create collaboratively, to share knowledge and information, to garner new perspectives, and to quickly take advantage of shared experiences and learning' (Seybold quoted in Duffy, 1996). The Managers' role is to provide the impetus for initial and on-going learning; however given each person has the same goal for data storage and retrieval, the approach to on-going up-

skilling and training new people in the group becomes collegial. If a member of the team would have ordinarily taught a new staff member a section of the job, they will include the database as part of the training as it is becomes the accepted way of doing the task being learned.

FUNCTIONING ADMINISTRATIVE DATABASES AND THEIR STRATEGIC USES

This section has some details of various databases that have already been designed and used by the author. They were developed on Microsoft Access as in all cases the office environments were using other parts of the Microsoft Office package. Examples of what the databases held on launch, some their stages of development and some strategic uses have been highlighted.

The majority of the initial development for these databases was done by the author with no formal training on MS Access but a relatively good understanding of Ms Word, and MS Excel. Over time various members of the administrative teams up-skilled to make their contribution. An exception to the development being completely within the department was for the Doctoral Degrees Board database where the author and a member of the University of Cape Town's Information Technology teamed up, with gains made by combining Microsoft Access design experience with other database experience. For the second phase of the Chemical Sciences database the University of Auckland Science Faculty IT team assisted with an aspect of security and taught the author a process called splitting to better achieve on-going development while staff continued using the database.

Training staff to use the databases for adding and retrieving data has been mostly successful. With the approach of getting staff first to identify with the familiar, an analogy of banking emphasised the different parts of a database: tables, forms, queries and reports.

When a customer uses an autobank (form) the changes made to their account become live data to other bank employees with an immediate adjustment to the information in the ledger (table). Parameters are set to show only the last month's transactions (query), and these are delivered back to the customer in the form of a monthly statement (report). While these activities are being done other bankers are doing other activities using other aspects of the individual customer and collective customers' accounts (multi-users with a one-stop place for updates).

There was more engagement with the database for staff who were willing to have personalised on the job training using their own information. Staff who insisted on attending MS Access courses first seldom came on board as easily because even after finally attending a course many could not make the transition to how taught theory fitted into their own jobs.

All the databases below held basic people information such as contact details, locations, and information used for statistics.

Secretariat

This database came about in a way similar to the introductory example where there was not a definitive list of the around 100 Senate members. Emails and post were sent to past members yet new members were often missed off. Details such as who was a Senate member, their membership, when their terms of offices ended, and personal details were included for the

launch of the database. Over time details of other committee membership, attendance and approved study and research leave were added. This enabled the easy capturing of apologies, and an up to date attendance list for signing at meetings. Calculating Senate's complex quorum (which then accounted for staff on leave) was simplified, ensuring at voting there was a clear indication of the decision's validity. The same list was used to transfer the names accurately into the minutes, being able to easily group the present and apologies. Consistency of spelling, use of abbreviations for titles, and use of initials improved. Given that the attendance information was kept with unprecedented ease and accuracy when the Executive wanted to comprehensively review the functioning of committees and the overload of some staff there was no need to go back to individual files or paper copies...it was easy enough to pull out of the database. Planning changes to committee membership with start and ends of term of office enabled smoother transitions, and therefore better functioning, of the then well over 50 University committees.

Compared to later databases this one was relatively simple in structure, and yet streamlined the flow of information, enabling both the offices of the Council and the Senate to function considerably better.

Doctoral Degree Board Office

The University's numbers of PhD candidates had substantially increased and the manual system was proving too cumbersome to provide an efficient service, impacting badly on the University's reputation. The initial focus of this database was to include content relating to the students, their thesis details, their supervisors, and the examiners. The details of current Heads came from the Senate database so data capture was not duplicated. Having live information for candidates, required in so many formats, eliminated the need for constant typing or copying and pasting of the same information and enabled recent changes (eg updated thesis titles) to be incorporated accurately, frequently using a mail-merge process through Word, into all communication and reports, reducing errors and confusion considerably.

Process steps were added in to flag when to follow up with an action, such as receiving the examiners from the department, or contacting an examiner for a report yet to be received. Enabling tracking processes through the candidacy from application to graduation of the PhD students, created pro-activeness in dealing with issues arising at any stage, and of significant importance closed the time gap between thesis submissions to the final result confirmations.

A later phase of development included referencing the hard copy theses, enabling the easy location of the high number handled by the office through the stages of receipt, being sent to examiners, and finally being housed in the library.

The database transformed the manual processes into a comprehensive computerised system, with such success that the Senior Executive team gained significant confidence of the capability of the administration of the section. The functionality of this database had some advanced features because there was some actual programming involved to create some of the calculations for the processes. However, even without that aspect the database was a marked improvement on the previous way of working.

School of Architecture

The first launch of this database was to have accurate, flexible information for School members, including fixed term and casual staff. However, fairly soon it became apparent that

the spreadsheets for tracking how much money had been committed to short-term staffing were inadequate. At that time contract recommendations were hand written or typed up onto HR forms. By capturing the information for those contracts directly into the database significant gains were made. The data was mail merged into the recommendation form for the employee to sign, providing a more professional look. Adding fields of some simple process steps enabled checking whether contracts had been received back, and payments made, so issues could be dealt with more quickly. Strategically the financial situation of the School was better managed with instant reports showing what had been spent in the current year and what was being committed for the following year. The year-end accrual process was smoother as there were no surprise contracts which should have formed part of the accruals. Ultimately the School had a more accurate tracking of planned expenditure of short-term staff against budget allocations to sections of the School.

Other content that was developed over time included information around administering of prizes and awards and their sponsors. The data was easily transferrable into lists, letters to sponsors, and certificates. Having live information of changes to sponsors and their contacts improved external relationships, particularly when staff changes took place. Keeping better details relating to conferences improved the way funds were allocated, and how they were spent. Improved indexing of details relating to policies and guidelines that been approved by the School enabled quicker access to previous decisions, preventing the same ground being covered in meetings, and better induction for new staff.

This database was the first that used calculations for tracking spending. To learn how to do the calculations the author went into the design mode of one of Microsoft Access templates dealing with sales. Even though learning to translate the different context into the University context took time the benefits have been considerable years on with immediate access to information with minimal reference to paper copies.

School of Chemical Sciences

Some of the database for the School of Architecture was able to be replicated for the School of Chemical Sciences (SCS) to launch it quickly. However being a larger, more complex Department their systems differed with more staff generally being involved in processes and volumes were greater. For instance, while the budgeting needs were the same, processing the significantly more contracts into the database had to be done after they had been sent to HR. Also what had been strong synergy in Architecture e.g. conference attendance information was weaker in SCS. Higher synergistic needs included keeping security card information. With so many more administrators, the benefits of having one person enter content such as ID numbers and email addresses immediately benefited others. This database was set up several years ago and although used and updated regularly, stayed relatively static in design for a few years.

When the author began investigating a new database for a completely different purpose (child care as below) she became aware that Microsoft upgrades made database development significantly easier and that there was enhanced functionality which would make the current database easier to use and to expand. Now the SCS database includes a feature of including both own-inputted data and linked data from central reports. For instance linking updated postgraduate student information through reports from the University central database enables all administrators who need details of individual students or various groups to access the information flexibly. By adding smart-tag actions for instance on email addresses in the database, one click immediately enables the Outlook programme to open with the email

address populated thus eliminating cutting and pasting from other sources (2012 Microsoft Corporation). More recently the database has been extended to help with the management of extensive building projects. Using current and planned staffing details amalgamated with current and planned building details is enabling managing different scenarios for medium and long term building projects with frequently changing plans.

The above is used by all the administrators. However the manager receives monthly central reports of all salary information which cannot be released to all administrators. These reports with minimal effort are imported into a database which access is limited to the Manager. The benefits include having all the information in one place rather than having to open and close files to refer back to previous months. Also the information which is given monthly becomes continuous, and any periods, account codes or individuals can be quickly grouped for particular needs providing comprehensive information. Because the payments to casual staff are included in this report and the information for cross referencing to the general administration database is valuable (enabling picking up transposed information, incorrect codes), a section of the report is very easily linked from the confidential one to the general administrative database as appropriate.

Childcare facility

The child care facility will function better with a database, automating the many cumbersome manual tasks. This has been recently designed based primarily on the templates in Microsoft Access. The improved functionality enables data to be viewed considerably more easily with less programming skills needed. Details on launch relate to children, their health and special needs, school information, and behavioural information. Guardian information is stored separately to the children, but linked to them, so that updates made in one place are accurate for siblings. Staff details are those relevant to their jobs and personal details. The attendance and availability of children and staff for particular days is also captured. Immediately examples of strategic gains: capturing who has phoned in sick on a day immediately filters into all reports – transport arrangements, catering needs, and staff allocation; drivers will have better information for transporting children to the aftercare centre from local schools at different pick-up points; when staff change for shifts or turnover takes place information will be easily accessible and transparent.

An ongoing development to fill a financial strategic need is to use the database to more accurately calculate the staff children ratio, given some children in this facility need one-on-one care and others can be in varying sizes of larger groups. A significant time waster has been transferring data from multiple sources into different formats such as emails and daily reports. The work will be streamlined, with improved accuracy and professionalism.

SUMMARY AND RECOMMENDATION

When each person in the team focuses only on the responsibility set out in their job description, the flexibility of access to, and therefore the usefulness of the data that each of them stores is limited; and so the wider goals of the team are also limited.

A successful team will be one whose members have information at their fingertips, readily available to solve problems for the organisation and its customers (Stewart & Kleiner, 1996). To do this a team that is innovative in dealing with the process-driven parts of their job, will appreciate that the fuller use of a readily available, easy to learn information technology

system will be a support-mechanism, beneficial to driving the team's strategic tasks (Shattow, 1996 & Groenfeldt, 1993). Going back to the introductory example, with a team database properly updated in all likelihood the original problem would not have arisen. However, as mistakes do happen the Manager as well as each of the administrators would have little effort in getting immediate access to the other needed information (email details and telephone numbers) in one place.

When facilitating the capturing of knowledge, recognition should be given that much may be unstructured, and that the people who use it are unlikely to apply the same logic in sifting through it, analysing it, or even perusing it. Creating a one-stop shop for the team's data will empower each individual to use the data in a flexible way. Additionally a 'living, breathing dynamic work product' which a properly updated relational database becomes, is much more effective than a flat or two-dimensional report or memo. Finally subscribing to the old adage that two heads are better than one 'the groupthink reigns supreme' (Duffy, 1996).

The recommendations for Managers are as follows:

- with strong leadership and governance, lead the change to the approach of ownership of administrative data from the individual to the team, in recognition that each member of the team will be fulfilling the strategic goal of improvement to a more efficient and professional administrative service;
- introduce one or more relational databases for the team knowing that building the database will use technology better and enhance communication between the staff;
- launch the database with any meaningful data that will assist one or more members of the team regularly, and in the spirit of continuous improvement build from there adding each time a stand-alone spreadsheet is used, either by finding ways of integrating that data or at the very least linking the spreadsheet for wider accessibility;
- provide adequate on-the-job training with information highly relevant to team members to ensure the best success of getting all on board and thereby, and up-skilling staff and fostering team-work;
- recognise that the database is simply a tool. It is the team's common-sense approach to assessing the information and the team's creativity in using the information that makes the difference between the failure and success of integrated data storage; helping the team to see their role in this way builds internal capacity and capability.

Managers who are not daunted about making the start and have faith that developing database design skills comes with hands-on experience, will have begun on the journey of blended administrative management. Enabling the myriad of links between tasks, data, and technology, with the simultaneous enhancement of the connections and skills of people, the expended effort will contribute towards achieving the University's strategic plan.

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BIOGRAPHICAL NOTE

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UNIVERSITY STAFFING: DO WE HAVE THE RIGHT BLEND?

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ABSTRACT

The number of equivalent full time students at Australian universities doubled between 1990 and 2010. However, the number of teachers increased by only 44 per cent, and nearly 60 per cent of that growth comprised staff employed on short-term casual contracts. Casual teachers now represent a quarter of all academic teachers. In this paper, it is argued that the nature of change in the higher education system has created a situation in which the staffing blend is less than optimal. Too few resources go into funding permanent teaching posts, and too many resources must be used to administer an increasingly bureaucratic and layered system. This situation has arisen for a number of reasons, including fundamental changes to the structure of 'work' within universities. However, more than 20 years of under-funding, poor government policies in general and acquiescence by universities to those policies have exacerbated the situation.

KEY WORDS

university staffing, university statistics, academic staff, professional staff, general staff, non-academic staff

INTRODUCTION: THE SITUATION IN 2010

In 2010, Australian universities had 750,000 equivalent full time students and 110,000 equivalent full time staff. About 17,000 of those staff were employed as casual staff, that is they were hired on extremely short contracts. For the purposes of this paper, university staff members have been considered according whether they play an academic role to play, or if they play some other equally important role. Members of the academic staff have been further divided according to their 'function'. That is, whether they have a teaching role, a research role, or a role that is neither of teaching nor research. Staff members not employed in a job with an academic classification are described in this paper as professional staff. More information on data sources and definitions can be found in Appendix 1.

Among the staff with academic classifications, about 38,000 were involved in teaching, 11,000 were research academics, and about 1,500 were not directly involved in either teaching or research. In addition, there were about 60,000 professional staff. Among other things, Figure 1 shows clearly that there were more professional staff than there were academic staff. The contemporary university, therefore, has a staffing situation in which 34 per cent are direct participants in teaching, 10 per cent are directly involved in undertaking research and 56 per cent are involved in other functions.

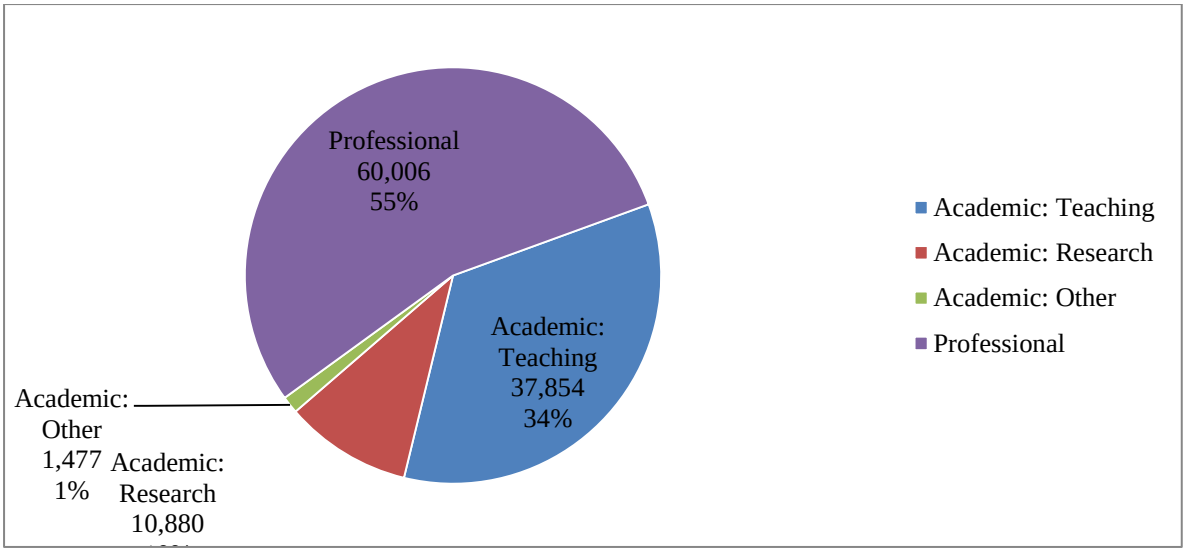

Figure 1: University Staff, 2010: By category and function (Numbers expressed as equivalent full time)

AN EXAMINATION OF UNIVERSITY STAFFING 1990 - 2010

Figure 1 presented the contemporary situation, but is also appropriate to examine changes over time, which is done in Figure 2 and Table 1. Figure 2 provides a visual summary of student and staff growth over the past 20 years, and Table 1 provides even more detail on the staffing situation.

In Figure 2, students are represented by the line, against the right axis, and staff members (divided into teaching academics, research and other academics, and professional staff) are shown as columns against the left axis. The size of the Australian university sector has increased considerably since 1990, the first year after the start of the so-called Dawkins Reforms. Since then, equivalent full-time students increased by over 100 per cent, but teaching staff numbers by slightly less than 44 per cent.

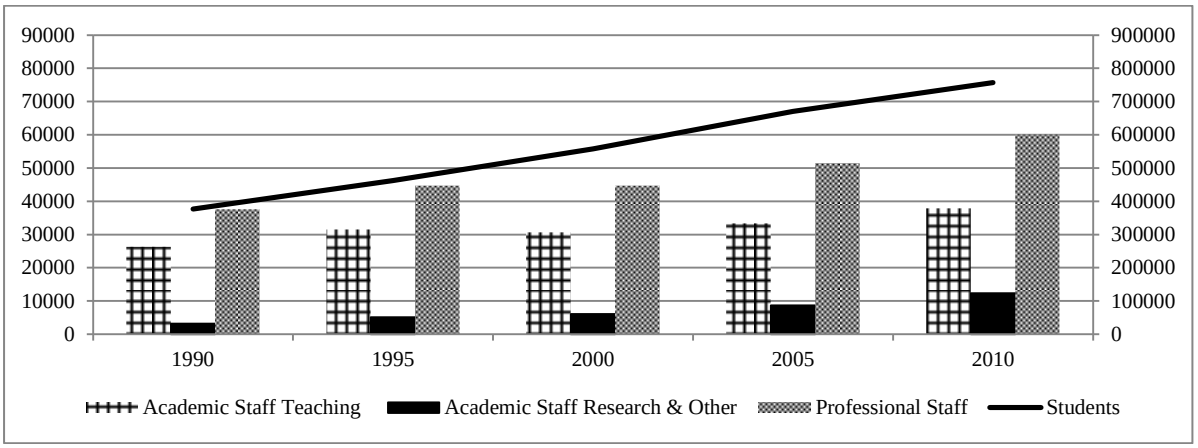

Figure 2: Students and staff 1990 – 2010 (Numbers expressed as equivalent full time: EFT)

Does this look like the right staffing blend for institutions with teaching and research as their major responsibilities? Perhaps this fact presents the first element that makes the staffing blend look questionable. The number of students doubled between 1990 and 2010, but the number of staff increased by only 44 per cent. If the number of teaching academics to look after students in 1990 was appropriate, how could it still be in 2010?

The growth in student numbers came about from a process that has been described by Trow as 'massification', whereby universities changed from being 'elitist' institutions (Trow, 2000). It can be seen clearly that the number of students has increased faster than the number of teaching staff, and the relatively strong growth in the number of professional staff can also be seen, although the number of professional staff did not expand between 1995 and 2000. At the roughest level, the graph shows that the approximate ratio of students to teaching academics (both expressed as equivalent full time) was just over one equivalent full time academic teacher per 14 equivalent full time students in 1990, and it had risen to 1:20 by 2010.

Table 1 provides more detailed information about staffing changes between 1990 and 2010 by dividing staff into those employed on full time and fractional full time contracts and those on casual contracts. Even if teaching numbers increased by nearly 44 per cent, the table shows that of the growth of about 11,500 since 1990, over 6,700 has been in casual staff numbers. This represents growth of teachers on full time and fractional full time contracts by a modest 20.2 per cent, compared with a 242.0 per cent increase in the number of casual teachers. Australian universities, it would seem, are meeting their responsibilities to students by appointing short term, probably junior staff. The proportion of casual teachers to all teachers increased from 10.6 per cent to 25.2 per cent of total teaching staff between 1990 and 2010. The 20 per cent threshold was crossed in 1999 (Coates, Dobson, Goedegebuure, & Meek, 2009). Full time and fractional full time teaching academics therefore comprised about a quarter of all university staff members in 2010. Adding in casual teaching academics brings the proportion up to just over one-third.

In proportionate terms, the biggest change in the system has been in academic researchers. The number of these increased by over 8,200 or 315.8 per cent between 1990 and 2010. Over this period, academic researchers increased their proportion from 8.9 per cent to 21.7 per cent of all academic staff. In a relative sense, casual appointments are few among research academics, and in 2010, casuals represented only 3.6 per cent of this group of academics.

The final group of academics of interest here comprises those staff holding academic appointments directly involved in neither teaching nor research. This overall small, but nonetheless increasing number of academics includes vice-chancellors, and the myriad deputy and pro-vice-chancellors that we now have in our sector. Can a university have too many pro-vice-chancellors? Some apparently think not.

In the same period, numbers of professional staff increased by nearly 60 per cent, to about 60,000 in 2010, but the proportion of professional staff to the total has in fact declined a little, from around 56 per cent in 1990 to a little over 54 per cent in 2010. One thing that should be taken into account, however, is that outsourcing of activities such as cleaning and security over the past 20 years means that about 1,500 full time and fractional full time jobs have been moved from the payroll, and probably a considerable number of casual jobs (Dobson, 2010). In fact, given the student expansion within universities, and also in the number of campuses, it is likely that there would have been an increase at least in proportion to the rest of the

general staff increase. Without the move towards outsourcing, there might now be around 3200 cleaning and security staff in universities, had they increased at the same rate as professional staff overall. It has to be said that this would be a modest estimate. There has been an increase in the number of campuses and other locations from which universities provide teaching; therefore it is likely that even more cleaning and security staff would have been required.

Table 1: Students (full time equivalents) and Staff (academic & professional) by function
1990 – 2010

	1990	**1995**	**2000**	**2005**	**2010**		**Increase**
Students (EFT)	377000	462000	558000	670000	757000	380000	100.8%
Academic Staff						**No.**	**%**
Teaching FT FFT	23551	26066	23921	25893	28317	4766	20.2%
Teaching Casual	2789	5386	6737	7397	9537	6748	242.0%
Sub total	26340	31452	30658	33290	37854	11514	43.7%
% Casual	*10.6%*	*17.1%*	*22.0%*	*22.2%*	*25.2%*		
Research FT FFT	2474	4114	5036	7337	10487	8013	323.9%
Research Casual	142	177	277	304	392	250	175.6%
Sub total	2617	4290	5313	7642	10880	8263	315.8%
% Casual	*5.4%*	*4.1%*	*5.2%*	*4.0%*	*3.6%*		
Other FT FFT	505	617	662	782	1122	617	122.3%
Other Casual	41	214	85	275	355	314	766.9%
Sub total	546	831	748	1058	1477	931	170.6%
% Casual	*7.5%*	*25.8%*	*11.4%*	*26.0%*	*24.0%*		
Professional Staff							
FT FFT	35805	40709	39354	45948	52889	17083	47.7%
Casual	1787	4014	5299	5520	7117	5330	298.3%
Sub total	37592	44723	44653	51468	60006	22414	59.6%
% Casual	*4.8%*	*9.0%*	*11.9%*	*10.7%*	*11.9%*		
Total Staff	**67094**	**81296**	**81372**	**93457**	**110216**	**43122**	**64.3%**

FT FFT = full time and fractional full time. Rounding errors apply.
Source: Students – Aggregated data sets ULAGyyyy for years 1990 – 2010 DEEWR (several years)
Staff – Aggregated data set STAGyyyy for years 1990 – 2010 DEEWR (several years)
*Casual 2010: Distribution by row is based on the distribution in 2005; this breakdown was not available for 2010

Another matter that should be examined is where staff members actually work within their university. Staff employed on contracts as academics do not work only in academic departments, and academic departments also employ large numbers of professional staff.

Table 2 distributes university staff in 1990 and 2010 according to their function and where they worked. Overall, there was little difference between the proportion of staff working in academic departments in 1990 and 2010. Calculated from Table 2, among full time and fractional full academics, just less than 42 per cent worked in academic departments. Including professional staff increased the proportion to 65 per cent in both years. Among casual staff, 56.5 per cent of academics worked in academic departments in 2010, down slightly from the 59.3 per cent that had worked there in 1990. The proportion of casual professional staff working in academic departments increased over the period, however, perhaps a reflection of the expansion in university research over the 20-year period.

The institutional response to this increase in students has been the consistent casualisation of the university teaching academic workforce (Coates et al., 2009). In fact, the authors of the RED report note that 'sessional teachers are the hidden part of the massification that has taken place in higher education in Australia over the last 30 years' (Percy et al., 2008, p. 3). Although casual employment suits some academic teachers (such as retired academics keeping their hand in, or subject experts with other employment), in universities, it has been reported that only 28 per cent of casual academics said that the casual status was their preferred one (Junor, 2004). In addition, using myriad casual employees to provide teaching has a down-stream effect on the tenured academics charged with recruiting and managing these teachers (Lazarsfeld Jensen & Morgan, 2009).

Table 2: Staff (academic and professional) by function and Type of Department 1990 & 2010

	1990			2010			Increase		
	FTFFT	Casual	Total	FTFFT	Casual*	Total	FTFFT	Casual	Total
Academic Staff									
Academic Departments									
Teaching	23361	2659	26020	27733	9242	36975	4372	6583	10955
Research	2435	132	2567	10111	383	10494	7676	251	7927
Other	204	29	233	728	209	937	524	180	704
Sub total	*26000*	*2820*	*28820*	*38572*	*9835*	*48407*	*12572*	*7015*	*19587*
Libraries	22	0	22	4	6	10	-18	6	-12
Academic Support	247	120	367	792	287	1079	545	167	712
Student Services	50	9	59	111	46	157	61	37	98
Admin & O/head Services	212	22	234	448	111	559	236	89	325
Sub-total Academic Staff	26530	2972	29502	39927	10284	50211	13397	7312	20709
Professional Staff									
Academic Departments	14730	764	15494	21726	3768	25494	6996	3004	10000
Libraries	3919	195	4114	4051	386	4437	132	191	323
Academic Support	3717	233	3950	6482	742	7224	2765	509	3274
Student Services	1238	125	1363	3206	600	3806	1968	475	2443
Admin & O/head Services	7973	372	8345	14454	1429	15883	6481	1057	7538
Buildings & Grounds	2561	65	2626	2686	112	2798	125	47	172
Cleaning & Security	1667	32	1699	284	80	364	-1383	48	-1335
Sub-total Professional	35805	1787	37592	52889	7117	60006	17084	5330	22414
Total	62335	4759	67094	92815	17401	110216	30480	12642	43122

FT FFT = Full time and fractional full time; rounding errors apply
*Casual 2010: Distribution by row is based on the distribution in 2005; this breakdown was not available for 2010.

Similarly, the proportion of academic staff working in academic departments stayed about the same between the two years, with 96-98 per cent of academic appointments working in academic departments. A picture that is sometimes painted is of bloated and expanding 'central admin.', but the figures in Table 2 provide no support for such a case. About one-third of professional staff worked in administration and overhead services, buildings and grounds and cleaning and security in both years. Reversing the influence of outsourcing (as alluded to earlier) would increase the proportion to about 36 per cent (that is, by assuming that the decline of 1,335 cleaning and security jobs had not occurred). In fact, the number of professional staff in academic departments (+10,000 or 65 per cent) increased more than the number of professional staff overall (+22,414 or about 60 per cent).

Returning to teaching academics, Table 2 shows that their number increased by 42.1 per cent, but full time and fractional full time academic teachers increased by only 18.7 per cent. In

fact, of the 10,955 additional teaching academics in 2010 compared with 1990, 6,583 were casual appointments. The proportion of casuals among academic teachers in academic departments increased from 10.2 per cent to 25.0 per cent over the period, and increased by over 6,500. It is necessary to remember that this is an equivalent full time number, and that the actually number of individual teachers is much higher.

Among professional staff, there was also an increase in the proportion of casual staff, particularly those working in academic departments. Here, the proportion increased from 4.9 per cent, to 14.8 per cent. As mentioned earlier, this is likely to be because of the considerable increase in research undertaken in university departments following the so-called Dawkins reforms. However, the impact of casualisation has been greater among teaching academics than among other ranks. Whereas about two-thirds of the increase among teaching academics in academic departments was made up by casual staff, less than five per cent of the increase of other types of academic and 30 per cent of growth in professional staff in academic departments was made up by casuals.

DISCUSSION

The data laid out above indicate at least two staffing phenomena: a high and increasing proportion of casual teaching staff, and a growing number of university staff not doing academic work.

The influence of the casualisation of the teaching academic profession is a cause of strain for the precariously employed casuals themselves, but also the tenured staff that must supervise and mentor them and manage their activities. It is likely that casualisation, along with increased demands on academic teachers' time due to the large increases in the number of students to be dealt with are part of the reason for Australian academics being 'less positive about their profession than before' (Coates et al., 2009, p. 50). As noted by Coates at al, (2009, pp. 50-51) 'with the exception of academics from the United Kingdom, Australian academics are the least job-satisfied of all'. This observation is based on the international Changing Academic Profession survey, conducted in 2006/2007 in 25 countries on five continents around the world.

The nature of university work has changed in several ways, some representing an evolution of the academic workplace, but other changes relate to what has been described as 'the bureaucratisation of universities' (Gornitzka et al., 1998). They note that primary tasks of universities, that is, teaching, research and the dissemination of knowledge have to be administered. This administration has led to an increasing number of administrators, as well as causing academic staff to spend an increasing part of their time on administrative matters. They cite several studies to support the claim that 'an increasing share of university resources is used for administration, and the number of administrative staff increases relatively more than the number of teaching and research staff' (p. 21). The figures in Tables 1 and 2 (above) support this contention with respect to Australian universities to a point. In particular, full time and fractional full time teacher numbers increased by 4,766 in the two decades considered in this paper, whereas the number of full time and fractional full time research academics increased by over 8,000 and of full time and fraction full time professional staff by over 17,000. Even if some of those professional staff work in direct support of academic research, it would seem clear that it could not be all of them.

Other matters relating to the changing university work place, and the nature of university 'work' should also be mentioned. Some authors have noted the dynamics of the establishment of new roles in higher education, and these continue to have an important impact on university staff, whether they have academic or professional appointments. Macfarlane, for example, has discussed the concept of '"unbundling", a term that refers to the way that academic work is being subdivided into specialist functions' (p. 59). He further notes 'the emergence of the para-academic [that] is a trend that mirrors patterns that can be observed in other public sector and professional service-oriented occupations where specialist roles have been created based on a more limited set of skills and responsibilities' (pp. 59-60). The idea is that these new 'unbundled' roles might be handled by staff that have entered universities from either academic or professional backgrounds.

Related to this issue of morphing and unbundling of academic work is the so-called 'third space', a reflection of the fact that the nature of the work of professional administrators and managers has changed (Whitchurch, 2008, 2009), and that some professional staff now engage in what has been described as para-academic work. As noted by Whitchurch (2006), universities now have increasingly complex missions, involving mass higher education and regional and international markets. These changes have had an impact on 'the roles and identities of professional administrators and managers' (p. 159). In some instances, Macfarlane and Whitchurch are writing about the same staff and the same space. However, Macfarlane's approach is more focussed on the 'decline' of the scope of academic work, whereas Whitchurch is examining new career paths of staff coming from the 'professional' side of the university staffing fence.

The tables above demonstrated the strong growth in professional staff numbers, but the question should be asked about why growth in professional staff has been so far in excess of academic staff numbers. It has been suggested before that the reason for much of this growth can be linked directly to several waves of government policy, much of it muddle-headed (see Dobson, 2010). Linked to this is the fact that universities have not exactly excelled in opposing such policy developments, and in fact have often been complicit in 'gaming the system' in order to maximise the 'benefit' for their own university or university bloc.

Among the government policy and practice that have expanded the bureaucracy of Australian universities are those that have forced universities to compete with each other for funds via research and other schemes. The other side of this competition is that governments then require universities to account for their use of perceived government largesse. In fact, universities have need to upsize their administrative staff contingent to assist academics in applying for, and subsequently accounting for any funds won. In fact, this whole style of control of universities requires them to report more often to government agencies even though the proportion of funding coming from the government sources has declined. Marginson has described this as 'steering from a distance' (Marginson, 1997). One aspect of the changes in research policy led to all universities to aspire to be research universities. A knock-on effect has been the need for academic staff to increase the amount of time they spend on administrative matters. Universities have consequently found it necessary to provide professional staff to support these activities in 'research services' departments.

As part of the way universities purport to compete with each other has been through marketing and public relations efforts. Universities became 'brand' conscious, and most now have teams of 'expert' support staff involved in these activities. One of the outcomes has been the creation of fatuous slogans, even from major research universities such as the

University of Melbourne ('Dream Large') and Monash ('Go Boldly'). Even if public relations staff were initially appointed centrally, as has occurred with other functions, ultimately these central appointments are replicated in faculty and department offices.

The expansion of professional staff numbers in academic departments (including faculty offices) could be seen in Table 2. Over the 1990 to 2010 period, universities increased the number of these staff by 10,000. Meanwhile, an additional 6,000 professional staff worked in academic support and student services areas, and a net of about 7,000 were added to 'central administration' (administrative overhead services).

The imposition of tuition fees from the start of the Dawkins period led to universities re-establishing fees offices that had been dismantled during the 1970s, and other policies have required universities to appoint more professional staff. For example, the 'student learning entitlement', instigated as part of the Backing Australia's Future policy during the reign of education minister Brendan Nelson, was an excessively detailed and unnecessary reporting system that was estimated to have cost universities an accumulated $110 to $115 million (Phillips KPA, 2006).

State and federal jurisdictions sometimes have accountability requirements that they have failed to coordinate. Because most universities were established under state acts of parliament, they have a responsibility to report to the states. However, there are instances where universities find themselves reporting similar but different information to state and federal levels of government, but at different times.

Another of the mechanical reasons for the expansion in professional staff numbers has been the rapid and vast expansion in the period in question has been in international students. By 2010, theses students made up about one-quarter of all enrolled students. Fees from these students made up about 1.5 per cent of overall university funding in 1989, but 15 per cent by 2007 (DEET, 1990: Table 36; DEEWR, 2008). Universities have by necessity increased professional staff numbers, for purposes of marketing, to ensure a continuous flow of international fee-paying students, and the subsequent support these students might require. Whereas most domestic students have the proximate support of family, this cannot be presumed of students from abroad. Naturally, universities have a responsibility to provide support for many aspects of support, nurturing and pastoral care.

LAST WORDS

Universities have grown as providers of both teaching and research. Staff numbers have also increased, but particularly in direct teaching, the growth has failed to keep up. Further, the main expansion in teacher numbers has occurred via a rapid expansion in casual staffing. This factor alone suggests an urgent need to apply a stringent quality check, to make sure that universities are meeting their responsibilities to students, whether domestic or international. At the same time, the way that higher education policy is pursued means that increased levels of bureaucracy are inevitable. That these situations have arisen is a result of the fact that in neither case has anyone examined the big picture of higher education. Universities' staffing blend will not improve until someone is willing the undertake an appropriate examination of what has occurred in recent years, and be willing to address the shortcomings of the contemporary higher education situation.

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BIOGRAPHICAL NOTE

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APPENDIX 1: A NOTE ON THE DATA USED IN THIS PAPER

This paper presents an analysis of data provided by universities (and other higher education providers) one or more times per year to the Commonwealth Government's higher education ministry, currently the Department of Industry, Innovation, Science, Research and Tertiary Education. This statistical information is then made available in various forms, such as tables and data files that provide limited access to the information that has been collected.

To ensure comparability in this paper, all figures have been expressed as *equivalent full time*, referred to as 'student load' in the case of students. A student undertaking the equivalent of a normal full time year's work counts as one. Therefore, two students undertaking only half of a normal annual load would also equate to one.

Staff are similarly treated in terms of full time equivalence. For example, staff members 'sharing' a job by working for three days and two days respectively represent 0.6 + 0.4 = 1.0 equivalent full time staff member.

The government reports on enrolments and student load for students from the small private providers (most of the so-called Non-table A/B providers), but not their staff. Therefore student load figures have been reduced by about 4,400 in 2005 and 44,000 in 2010 to reflect this mismatch between students and staff. Another point that should be noted is that the methodology for counting student load was changed in 2001. From 2002, the statistics count all students enrolled at some time during the year. In 2001 and earlier years, a standard census approach was used, whereby students were counted only if they were enrolled on a specific census date. This had the effect of inflating student enrolments by about 19 per cent.

Staff figures used in this paper do not include staff that work in technical and further education (TAFE) in dual sector universities, staff in cooperative research centres or staff involved in enterprises described in the statistics as 'independent operations'. Not all universities have staff in these categories, but in any case, there are relatively few of them (about 2,800 staff in 2010).

As far as terminology is concerned, staff are divided into two broad categories. First, they are either 'academic' or 'professional' staff, depending on whether their appointment falls within one of the five academic ranks (assistant lecturer, lecturer, senior lecturer, reader/associate professor and professor, respectively), or one of the 12 levels proscribed for staff who do not have academic duties. These 'higher education worker' ranks span from 'Below HEW 1' to 'Above HEW 10'.

Staff are also divided according to the nature of their work duties ('function'), defined as 'teaching-only', 'teaching-and-research', 'research-only' and 'other'; and second, according to whether those staff hold an academic or professional position. According to this taxonomy, academic staff can perform duties in any of the four functions, but professional staff are limited to performing 'research-only' duties or 'other' duties. However, many universities show all professional staff as having a function of 'other', although some show professional staff as having a research only function. To ensure comparability across universities, all professional staff have been described here as having an 'other' function, whether their university classified their function as 'research only' or 'other'. In 2010, about 2,800 university professional staff were classified as 'research only'.

INNOVATIVE APPROACHES, SYSTEMS AND RESOURCES FOR UNIVERSITY POLICY REVIEW

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ABSTRACT

In recent years Australian universities have developed comprehensive suites of policy to underpin university legislative instruments and respond to accountability and quality imperatives. This agenda has resulted in a proliferation of centralised academic and administrative policy documentation. This documentation is maturing and progressively requiring review to reflect government and sector developments, and institutional strategic agendas. This paper examines how universities are shaping their university meta-policy and policy review processes to evaluate policy implementation and content to reflect emerging trends and individual institutional aspirations. The paper concludes by discussing some innovative and good practice approaches, systems and resources for policy review aimed at tertiary managers currently grappling with this important challenge.

KEY WORDS

university policy, meta-policy, policy frameworks, review, evaluation, practice

INTRODUCTION

In recent years Australian universities have developed comprehensive suites of university-wide policy spanning learning and teaching, research, administration and community engagement functions. These policies underpin university legislative instruments including foundation acts, by-laws, statutes and regulations and complement broader university strategy and planning. The drive to develop university policy represents one response to increasing government accountability requirements and the introduction of quality imperatives, represented in no small part by the establishment of the Australian University Quality Agency (AUQA) and subsequently Tertiary Education Quality and Standards Agency (TEQSA). The release of the TEQSA *Higher Education Standards Framework (Threshold Standards) 2011* confirms the important role of university policy in the assurance of quality. The *Provider Registration Standards* explicitly require that higher education provider's 'corporate and academic governance arrangements demonstrate: the effective development, implementation and review of policies for all aspects of the higher education provider's academic activities … and, effective quality assurance arrangements for all the higher education provider's operations, encompassing systematic monitoring, review and improvement' (2011, p. 4).

The accountability and quality agendas coupled with the continued drive for excellence have resulted in a proliferation of centralised academic and administrative policy documentation. This documentation is maturing and progressively requiring review to reflect government and

sector developments, and institutional strategic agendas. In addition to ensuring alignment with external and internal requirements, policy review can provide an important opportunity to reflect on the outcomes of this intensive period of policy development effort. This paper examines how universities are shaping their university meta-policy and policy review processes to embed principles regarding policy implementation monitoring, evaluation and review.

METHODS

The research involved an examination of policy research literature and publicly accessible Australian university policies on policy (that is, meta-policy) over the period April to June 2012. The sample included all Australian universities (40) from all states and territories including 37 public universities and three private universities; Bond University, Notre Dame University and the MCD University of Divinity. The sample excluded the two overseas universities operating branches in Australia (that is, Carnegie Mellon University Australia as the University College London) as they operate under different jurisdictions and publicly accessible meta-policy was not available.

The research addresses three questions:

- how does university meta-policy define policy review?
- how does university meta-policy prescribe policy content and policy implementation review?
- what approaches, systems and resources have been established for policy review?

The findings are limited to the currency and accuracy of material published online via university websites. The findings are also limited to the extent that meta-policy, attendant procedures and supporting policy review materials are publically accessible online. In a small number of instances individual policy statements are restricted to authenticated users (for example, delegations of authority documentation and some commercial in-confidence documents). Overall, the research located sufficient data to provide a solid basis for comparative analysis and identification of good practice meta-policy and resources.

LITERATURE

Bridgman and Davis (1998, p. 3) state that ‘Policy is the instrument of governance’. University policy is a mechanism of governance which may be articulated in university legislation, strategy and planning documentation or formal statements of intent. Guba (1984) defines policy broadly as statements of intent or goals, standing decisions of a governing body, strategy and sanctioned behaviour. The University of Melbourne *Melbourne Policy Framework* defines policy narrowly as ‘a formal statement of principle that explains statutory, regulatory or organisational requirements. It specifies the broad level of action required for a particular subject’ (2011, p. 4). For the purposes of this paper university policy is narrowly defined as formal statements of principle generally houses in university policy repositories.

Australian universities have developed policies on policy, or meta-policy, to articulate principles regarding university policy. Dror (1971) defines meta-policy as ‘policy on

policymaking, that is, policy dealing with the characteristics of the policymaking system' (p. 3). University meta-policy establishes the overarching framework for the institution's respective policy process. A comprehensive university meta-policy defines university policy, establishes the range of university policy instruments, specifies approval authorities, articulates policy cycle stages and defines the application of policy instruments. University meta-policy may be examined to develop knowledge *of* the policy process (Hogwood and Gunn, 1984). Bridgman and Davis remind us that 'good process is a foundation for good policy' (1998, p. 3).

Lasswell (1951) is recognised as a forerunner of the staged policy cycle, depicting a sequence involving intelligence, promotion, prescription, invocation, application, appraisal and termination. Brewer (1974) and Jenkins (1974) extended the staged theoretical approach; proposing a modified decision sequence. More recently, Bridgman and Davis (1998) (then Althaus, Bridgman and Davis, 2007) developed the Australian Policy Cycle as a heuristic to articulate the policy process and guide public policy practitioners. The Australian Policy Cycle is presented in Figure 1.

Figure 1. Australian Policy Cycle, Bridgman and Davis, 1998

Other research suggests that the process is less structured; for example Lindblom's 'muddling through' metaphor or theory of Incrementalism. Preliminary investigations (Freeman, 2010) suggest that much Australian university meta-policy articulates discernible cycle stages not dissimilar to those depicted in the Australian Policy Cycle. Freeman (2010, p. 11) depicts three models from published university meta-policy as follows:

Table 1: University Policy Development Cycle Stages: Models 1, 2 and 3

Model 1	Majority	Most of: Drafting, consultation, approval, promulgation and review
Model 2	Some	Most stages from Model 1, and one or more of: Identification of policy requirements, nomination of responsible officers, endorsement, implementation, records management
Model 3	Few	Most stages from Models 1 and 2, and one or more of: benchmarking, revision, quality control, monitoring, evaluation

Evaluation represents a discrete stage within the Australian Policy Cycle, and is identifiable as a discernible cycle stage within a small number of university meta-policy statements.

Weiss (1998) incorporates the concepts of value-judgment and evaluation utilisation in defining evaluation as the 'systematic assessment of the operation and/or outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program or policy' (p. 4). Van Der Meer and Edelenbos (2006) state that:

> *'evaluation can be ascribed two main functions in the policy process:*
> - *it supports and facilitates accountability and transparency by assessing policy output and outcomes (and comparing these with policy goals) by assessing the extent to which actual results can be ascribed to the policy; (and)*
> - *evaluation may contribute to learning processes leading to improved policy-making and/or implementation'* (p. 201).

There are a variety of evaluation methodologies, theoretical approaches and models which may be utilised to shape evaluation. The approach adopted will be dependent on the policy being evaluated and guided by evaluation utilisation considerations. Policy evaluation may focus on an: output, outcome, program or policy outcome, program or policy efficiency, or program or policy effectiveness (Stewart, 1999 based on Osborne and Gaebler, 1992). Weiss reminds us that the objective of evaluation, fundamentally, is utility (Weiss, 1998); to enhance the quality and influence of policy interventions (Owen, 2006). The field of evaluation provides rich literature for policy implementation evaluation practice.

RESULTS

University meta-policy and policy review

Most Australian universities (65 per cent) have formal meta-policy presented as a policy on policy, policy framework policy or other type of policy framework statement. A small number of universities have no overarching meta-policy or policy framework statement but have policy procedures (four) or other types of instruments (four, including a rule, standard, protocol and manual). Some universities (seven) have no publicly available meta-policy or other policy framework documentation. However, given that all universities have at least some formal policy statements in university policy repositories (or publishes lists of policies) this number appears overstated.

In almost all instances, those universities with established meta-policy explicitly refer to *policy review* either in their meta-policy or associated procedures or supporting documentation. References range from information regarding review timeframes (in most), discrete review stages or requirements in the policy cycle (some) and explicit reference in the policy title (six). Those universities including 'review' explicitly within the title of their meta-policy (for example, *Policy Development and Review Policy*) include Monash University, Victoria University, University of Sydney, Flinders University, University of Tasmania and Central Queensland University. In addition to explicit reference in the title, these universities generally identify a discrete policy review stage or intersperse review requirements in their policy cycle. A small number of universities have developed resources to facilitate policy review.

Defining policy review

Few meta-policies provide definitions or meaningful information to explore policy review. The University of the Sunshine Coast *Policies and Related Procedures – Governing Policy*

defines review as ‘an investigation into the extent of implementation, effectiveness, and currency of a policy and, where appropriate, its associated procedures’ (2010, p. 1). Further, the policy states that review is undertaken to ascertain:

‘(a) the extent to which there is knowledge of the policy and its purposes within the University community;
(b) the extent to which the policy is informing University-wide or organisational unit practices and, where applicable, being implemented;
(c) the effectiveness of the policy and any associated procedures;
(d) whether the policy is consistent with other policy; and
(e) the currency and suitability of the policy given any changes to the internal or external environments’ (2010, p. 3).

The University of Sydney Policies Development and Review Rule states that a policy review must determine:

‘(a) whether the objectives of the policy are being achieved by the policy;
(b) whether the policy should continue to apply; and
(c) whether any amendments should be made to the policy’ (2011, p. 8).

These definitions suggest that policy review includes considerations of both policy text (that is, content) and policy implementation effectiveness.

Policy suite reviews

Some universities have implemented ambitious policy suite reviews. For example, the Australian National University *Policy Improvements* webpage advises that ANU is undertaking a review to ‘have all of the University’s policy documents in a consistent format and drafted in a consistent manner. This will make it easier for everyone to read and use them’ (Australian National University, 2012). Information available online suggests that the policy suite review focuses on presentation matters, such that policy text is presented consistent with the requirements of the *ANU Policy Framework*. The University of Melbourne is currently finalising the Policy Simplification Project initiated to simplify, reformat and reclassify all academic and administrative policy in accordance with the *Melbourne Policy Framework*. The project had a specific brief to ‘simplify and improve the way in which (policies) are presented’ (University of Melbourne), and explicitly excluded policy content review. Deakin University is currently undertaking a Policy Review Project to ensure that their full suite of academic and administrative policy is ‘simple, clear and comprehensive’ (Deakin University). In addition to presentation considerations, the Deakin University Policy Review Project will seek to ensure compliance with the Deakin University *Policy Framework Policy*, government legislation and regulation and university strategy.

The University of Newcastle completed a Policy Review Project in 2008 involving a fundamental review of university policy focused on the ‘relevance, accuracy and readability of policies’ and ‘the identification of current trends and innovation in policy provisions and strategies for improvement’ (University of Newcastle). They have subsequently completed a Streamlining Academic Policies Project to consolidate their suite of academic policy by undertaking benchmarking, incorporating best practice policy provisions and ensuring alignment between policy content and delegations of authority. These examples of policy suite reviews suggest a continuum from review focusing on presentation-related matters to review focusing on practice-related matters. This continuum may well correlate with the

progression of meta-policy provisions from those governing presentation-related matters (that is, definitions, templates, separation of content into policy, procedure and guideline) to provisions governing practice-related matters (that is, benchmarking to identify good practice, implementation, implementation monitoring and evaluation, implementation and policy document review). The emergence of policy suite reviews focusing on implementation evaluation and practice review suggests both maturity and advancement in the sector.

Review policy cycle stage

The majority of universities (60 per cent) have meta-policy or related documentation from which there is a discernible policy cycle. The remaining universities include those without meta-policy, or with materials that exclude detailed provisions regarding policy development. The research examined the treatment of policy review within these policy cycles for those universities with discernible policy cycle documentation. The results are presented below.

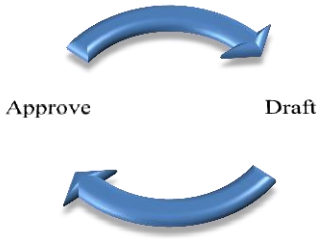

Figure 2. Model 1 – Policy cycle with no review phase

The University of Melbourne *Melbourne Policy Framework* illustrates what may be referred to as Model 1, noting there are a number of discrete stages not identified for the purposes of this analysis which sit between 'draft' and 'approve'. This model focuses on the development of new policy, and as such the policy cycle terminates at approval (and subsequent publication). This cycle may be continuously repeated. Given the impending completion of the Policy Simplification Project, amendments are currently being prepared to incorporate policy review provisions within the *Melbourne Policy Framework.*

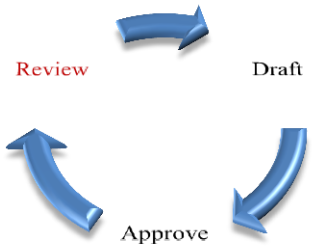

Figure 3. Model 2 – Policy cycle with review phase following approval

Model 2 illustrates those policy cycles that focus on policy development but acknowledge the requirement for review at some time subsequent to approval. The Queensland University of Technology *Policy Protocol* outlines a policy cycle including identification of need, drafting (including consultation), approval, implementation and review. The *QUT policy cycle* webpage states that 'the policy cycle is a five-phase process that is designed to be continually

repeated. It ensures that policies are given due consideration during development and are maintained throughout their lifetime' (2012). The Flinders University *Policy Development Approval and Review Policy*, whilst not explicitly establishing a policy cycle, requires review following approval. The Flinders University *Policy Development and Review Principles* statement suggests that policy review may involve a 'quick health check … or major review (including) research and consultation similar to that required in developing a new policy' (2011).

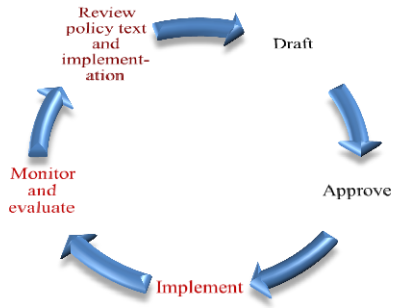

Figure 4. Model 3 – Policy cycle with implementation, monitoring, evaluation and review phases

Model 3 depicts those policy cycles that incorporate both policy development and review, recognise policy implementation as a discrete policy cycle stage and embed monitoring, evaluation and formal review requirements. The University of Tasmania *Policy Development and Review Policy* explicitly incorporates policy cycle stages of implementation, implementation and compliance monitoring, implementation and compliance evaluation, and review. The University of Adelaide *University Policy Framework* identifies cycle stages of implementation, monitoring effectiveness and review. In both instances the cycle is then repeated. The Monash University *Policy and Procedures Development and Review Processes* and University of New England *Policy on Non-Academic Policies and Related Procedures* represent exceptions to these models as their meta-policy intersperses issues associated with policy review throughout the policy cycle (rather than simply as discrete monitoring, evaluation and review stages).

Of those universities with discernible policy cycles (25), 10 could be classified as broadly representative of Model 2, and a further 11 could be classified as broadly representative of Model 3. This classification is presented with a cautionary note given the multitude of ways in which information leading to such extrapolations is presented in meta-policy and supporting documentation, and the numerous internal inconsistencies noted.

Policy review timetables

The research examined information regarding university policy review timetables. Where university meta-policy or other policy-related information identified review frequency (32 universities), the majority (18) required a formal review within three years from approval, and a further seven within five years. Two universities stipulated review timeframes of two years (University of Newcastle and University of Western Sydney). The University of Western Australia stipulated ten years. In several instances supporting documentation recommended that review commence immediately following approval and be conducted

progressively throughout the first year to identify impediments to successful policy implementation. These findings are presented with some caution as a number of internal inconsistencies were identified between policy framework provisions and supporting statements with respect to review timetables.

Whilst 'end dates' were effectively established for formal review processes, in almost all instances policy frameworks and supporting documentation indicate that interim reviews can be conducted as required to accommodate necessary amendments or policy rescission. The Swinburne University of Technology *Policy Framework* explicitly states both that there are some circumstances which will warrant review before the scheduled review date, and that minor amendments may be made 'outside the policy review cycle' (2009, p. 6).

In terms of practice, the research suggests that many universities are struggling to support policy review processes within formally established review timetables. Many individual policy statements publicly available in policy repositories are overdue for review. Policy review schedules highlight large numbers of documents overdue for review. Very few universities establish provisions for breaches with respect to review timeframes. One exception is the Swinburne University of Technology *Policy Framework,* which states that 'policies and procedures that have not been reviewed within three years of the last review date will be removed from the Policy & Procedure Directory' (2009, p.6). This suggests that it is not necessarily the timeframes that are problematic but the commitment of organisational resources to support the review function however further research is required to test this. What is clear is that the formal review date is indicative at most.

Policy review approval authorities

University meta-policy presents a somewhat confused picture with respect to initial and review approval authorities. Many universities allocate different approval authorities for different categories of policy; for example governance policy frequently requires Council approval to satisfy university legislative requirements; academic policy frequently requires Academic Board approval; and administrative policy frequently requires Council or senior executive approval. Approval authorities for policy may differ from approval authorities for attendant procedures and other lower order policy instruments, although in many instances this distinction is not immediately obvious in university meta-policy. Initial and review approval authorities may differ depending on the nature of the proposed amendment. For example, the policy review may recommend: no amendment to an existing policy; minor amendment of an essentially editorial nature; substantive amendment; or rescission. In many instances lower order review approval authorities apply for approval of no or minor amendment, whereas the initial approval authority may be required to approve a substantive amendment, or policy rescission. Few universities clearly differentiate between initial approval (that is, approval of policy) and review approval (that is, approval of *amendments to* policy). Few universities establish provision for approval of consequential amendment to, or repeals of, university legislation, policy and procedures, and approval of amendment to delegations of authority arising from policy review. This is a serious oversight given the potential for inconsistent governance documentation and lack of clarity for users.

Procedures and guidelines to support policy review

The research located a small number of procedures and guidelines dedicated to policy review. These documents and embedded review provisions provide some assistance to policy reviewers and represent the beginnings of a suite of resources required to support this activity. Victoria University's *Policy Review Guidelines* differentiate between preliminary

and comprehensive review, noting that the outcomes of the first may negate the requirement for the second. Their guidelines advise that preliminary review may focus on a smorgasbord of issues spanning presentation, performance, compliance, alignment with university strategy, structure, legislation and policy, and incorporation of 'ecologically sound business and management practices' (2012, p. 1). Where a comprehensive review is required a reference group is established and formal reports developed to document findings and recommendations. In addition to identifying some issues requiring consideration during policy review, the issues identified may well trigger policy review prior to the scheduled review date.

The Macquarie University *Policy Review Procedure* advises that 'Policy review … determines whether the implemented policy: is operating as designed; requires amendment based on current practice; (and) requires corrective action to align practice with the requirements of the policy' (Macquarie University, 2011). The procedure suggests a range of review methodologies including desk-top review, consultation, spot-check, sampling and audit to evaluate whether the policy 'is efficient and effective, … is working / not working'. The procedure recommends reviewers ascertain whether the policy is current, complied with and aligned with university strategy, legislation and policy. Proposed policy amendments are submitted to the Policy Unit for attention. The University of Ballarat *Policy Renewal Process* focuses on the process of amending policy text, consulting with policy stakeholders and finalising policy amendments (or rescission).

The University of Tasmania *Policy Development and Review Procedure* states that policy review must involve: consultation; consideration of the congruence of policy with Commonwealth, state and university legislation, plans, delegations of authority, codes and industrial instruments; consideration of the policy content; and evaluation of policy implementation. The University of Wollongong *Managing the Policy Directory Procedure* provides detailed instructions for policy review managed via their policy repository. This represents one of the few examples of IT based solutions using university content management systems to facilitate document access and record-keeping for policy review. The University of Western Sydney *Guide to Developing Policies* suggests the review explore issues associated with implementation, compliance, currency, alignment with regulatory requirements and training. These procedures and guidelines provide some guidance as to the requirements for policy review.

Resources to support policy review

The University of New South Wales *Helpful Hints – Research and Policy Analysis* suggests various policy related research activities such as evaluating processes, benchmarking, literature review, reviewing best practice and gathering advice from experts. Suggested policy analysis activities include 'evaluating different policy options to determine which is the most suitable … (and) assessing existing policy to evaluate it suitability or fitness for purpose'. Recommended tools include cost-benefit analysis, cost-effectiveness analysis, surveys, modeling and outcomes matrixes.

Review systems (undertake review)

A number of universities have online feedback forms or logs to facilitate continuous feedback regarding policy implementation. The includes the University of Adelaide *Feedback/Issues Log*, University of Wollongong *Policy Issues Log*, Swinburne University of Technology *Policy and Procedures Issues Log*, University of Ballarat *Comments Sheet* and University of Technology Sydney *Policy Tool – Issues Log*.

The University of Ballarat has an online database that identifies review dates, approval authorities, policy category, editors and timeframes. The database is colour coded for increased accessibility and represents an excellent example of information technology based solutions to support policy review. RMIT University has published a *Review Schedule* which identifies review dates for all policies and procedures. The University of Wollongong *Policy Review Schedule* details policy approval and review dates to facilitate policy review. The document states that 'the Schedule has been designed in accordance with the University's adopted quality cycle of 'plan, act, review and improve'', and notes that 'it must be stressed that where a policy requires significant changes the review process may take 6-9 months' (University of Wollongong). Similarly, Southern Cross University and University of Southern Queensland both have policy registers that detail policy review dates.

A number of universities make draft revised policy documents online to facilitate consultation, including the University of Ballarat, University of Tasmania, University of New England and Curtin University. The University of Western Australian flags policies under review online. The University of Western Sydney has a Policy Discussion Board and Policy Bulletin Board. These examples illustrate some emerging practices around policy review.

DISCUSSION

Having now developed and published comprehensive suites of formal university policy, Australian universities are struggling with issues surrounding policy maintenance and review. Policy review triggers may be conceptualised as a continuum in terms of imperative and impact. Minor amendments may be required on a regular basis to nomenclature or position titles. Review may be required to accommodate changes to information technology systems, particularly whole-of-university student, human resources, finance and research management systems. Policy implementation may reveal significant issues or discrepancies. Benchmarking may suggest the adoption of alternative policies or inclusion of additional good practice principles.

Significant institutional risks may be identified which require an urgent policy response. Professional association accreditation requirements may warrant scrutiny of academic policy. Shifts in university strategy, amendment to subordinate university legislation or other university policy may require consequential policy amendments. Structural reform arising from amalgamation or the establishment of university entities or overseas footprints may trigger policy review. Commonwealth and state or territory legislation, regulation and higher education policy reform may force changes to university policy. University meta-policy, organisational policy management resources and university governance arrangements need to be sufficiently nimble to respond to these triggers.

The research suggests some changes are required to better position universities for both scheduled and out-of-cycle policy review triggered by such factors. University meta-policy should be appropriately robust and detailed to clearly articulate principles regarding policy review. This includes issues associated with both policy presentation and policy implementation review. Examples provided of university meta-policy embedding cycle stages of progressive implementation monitoring, formal implementation evaluation, and formal policy review represent good practice. Policy review should include consideration of internal factors (nomenclature, information technology-based systems, organisational structure,

university strategy and planning, university legislation) and external factors (professional accreditation requirements, government reform, regulatory authority developments such as those occurring through TEQSA, overseas jurisdiction requirements). Policy review should also, and most importantly, evaluate policy implementation by examining current practice.

University meta-policy should be sufficiently clear with respect to policy review requirements. Approval authorities for all policy instruments for initial and subsequent review should be clearly enunciated with respect to all anticipated review outcomes (that is, no amendment; minor or substantive amendment; rescission; consequential amendments; delegations amendments). Review timeframes should be clear, and consistently stated and reported. Draft revised policy documentation should be made available publicly via university policy websites to promote whole-of-university consultation and facilitate feedback from those policy stakeholders actually implementing university policy.

The research identified a small number of resources to support policy review, including review guidelines, issues logs, review schedules and discussion boards. There is an urgent need for resources and evaluation capacity building to equip universities to meaningfully maintain and improve their academic and administrative policy base.

CONCLUSION

Policy review is emerging at the 'pointy end' of the university policy agenda. Universities have demonstrated expertise in formal policy development, witnessed by the comprehensive suites of academic and administrative policy and wealth of policy development resources. The esteem with which Australian university education and research is held suggests that informal policy review is deeply entrenched and continuously practiced. The university policy agenda has matured. Attention is now required to embed policy implementation monitoring, evaluation and review within university meta-policy. This will require a fundamental shift in focus from policy presentation to policy practice. It will require capacity building and engagement with the quality and standards agenda. This paper has identified some innovative and good practice approaches, systems and resources for policy review to assist us as we grapple with this important challenge.

BIOGRAPHICAL NOTE

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DESIGNING THE VISION: THE ROLE OF THE DESIGN COMPETITION IN THE DELIVERY OF UNIVERSITY BUILDINGS

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ABSTRACT

Large university building projects are complex beasts that need to accommodate the needs of a wide variety of criteria and interest groups. Within this process the selection of the right consultant design team is paramount. While universities traditionally use a range of consultant procurement methods, the use of an architectural competition is relatively rare. This paper explores the experience of a design competition as the means for selecting the architectural team for a new university building; in particular how the choice of method can have critical impact on the design process in allowing for experimentation and innovation. This exploration is undertaken as a case study exploring two recent competitions held for the design of new facilities at the University of Melbourne. Architectural competitions have both benefits and potential pitfalls. This paper will interrogate the competition processes employed to tease out the pros and cons of undertaking such an endeavour within a tertiary institution.

KEY WORDS

design, architectural competition, building procurement, university capital works

INTRODUCTION

Architectural competitions are not a modern phenomenon, having been used for projects since the time of the Ancient Greeks. While not unusual for larger scale buildings of public interest, architectural competitions can offer significant benefits for smaller projects that demonstrate specific attributes. To determine if a project is appropriate for an architectural competition, the advantages and disadvantages need to be appraised carefully.

This paper studies two recent University of Melbourne projects which employed competitions as the means of selecting the best-fit architect. Whilst the competitions had significant differences they were similar in general approach. The mode of these competitions benefited from the historical evolution of architectural competition processes in Australia. It is valuable to look at the historical context for architectural competitions as a means of selection and the lessons that have been learnt from past successes and failures in the development of effective procedures.

This will provide some insight into the relative strengths and weakness of competitions and how they are suitable for some projects and not others. From this contextual background and the comparison between the University of Melbourne projects a picture will emerge as to the elements that need to be considered when embarking on a competition process.

THE ARCHITECTURAL DESIGN COMPETITION

An architectural competition can be generally defined as a means of selecting either the consultant or design through an invitation for submissions from architects (Strong, 1996; de Haan & Haagsma, 1988; Danielsen, 2010). These submissions are then assessed by a jury to determine a winner. The successful submission may then lead to a design or commission, although this is not always the outcome through either intention or circumstances.

The value of an architectural competition is that it leads to a range of proposals, ideas and designers being able to be considered that may not have had the opportunity through a more traditional selection process. The Royal Institute of British Architects promotes expertly run architectural design competitions as a means of delivering variety, inspiration and value to the building process. The key characteristic of design competitions is that the process is transparently fair and equitable to all stakeholders. Stakeholders in the competition process can include the client(s), competitors, jury, technical advisors and the broader community.

Within Australia, the endorsement of architectural competitions by the Australian Institute of Architecture (AIA) requires that they comply with the recommendations of the AIA Competition Guidelines. Both competitions explored in the case study were granted official recognition in line with these guidelines.

HISTORY OF ARCHITECTURAL COMPETITIONS

Architectural competitions have long been used as a means for seeking out the best designs (Chupin, 2011), with many of the world's built landmarks the result of competitive selection. Two early examples from western architectural history include the fifth century BC war memorial for the Acropolis and the fifteenth century AD dome for the Cathedral Santa Maria del Fiore by Brunelleschi. Becoming more common after the 18th century, notable competitions included the Bank of England (1788), British Houses of Parliament (1835), Paris Opera (1860) and the Amsterdam Stock Exchange (1884). This trend carried over into the United States of America with competitions for the White House and the Washington Capitol (both 1792) and the Philadelphia Town Hall (1871).

An important characteristic of these pre-twentieth century competitions is that they were all high profile public buildings with the design subject to a great deal of public scrutiny. In the twentieth century and recent times the use of competitions internationally has grown to a point where it has become common for a range of public projects of varying sizes (Collyer, 2004; Lewis, 2009). In these cases, one can see the attraction of a competition to select the design as a way of an expert jury comparing the submitted options to choose an appropriate solution often in a manner where the options are open for public display (the public display usually occurs after the event). This process also has pitfalls such as encouraging community interest which may not concur with the winning selection but this would be weighed up against the relative transparency of the process that assesses a design as against the traditional obtuse commissioning of an architect. There have been criticisms of the architectural competition in that it may lead to winners that are concerned with formal solutions and not client centred design methodologies (Nasar, 1999).

In Australia competitions have been used for major public projects over the last 100 years. These notable instances in an Australian context have exposed both strengths and weaknesses and have led to the development of better competition processes.

City of Canberra

As is well known Walter Burley Griffin and Marion Mahoney Griffin won the competition for the plan of the new Australia capital of Canberra in 1912 (Reps, 1997). This was an open, one-stage competition with particular conditions that at the time caused consternation. One major concern was that aspects of a variety of entries could be amalgamated for a plan of the city that would be prepared and administered by the Planning Department. This condition indicated that the thrust for the competition was to attract a range of designs to attract the best ideas and not to award a singular scheme or designer. Others concerns related to the anonymity of the judging panel and a limited role for peer adjudication. As a result, the British Institute of Architects called for a boycott of the competition, closely followed by the Australian Institute. The resultant controversy and political wrangling over the choice and delivery of a plan for Canberra (Reps, 1997) has been well documented and resonated well into the second half of the century. The lessons learnt from this competition were that there must be a clear instruction as to the ambitions for the entrant schemes and the subsequent role and status of the winning designer. In addition, the process must be transparent, the jury members identified and the assessment criteria clearly stated before the competition commenced to attract the support of bodies that represent potential entrants.

Sydney Opera House

The next notable Australian example was the 1956 competition for the design of the Sydney Opera House. This was open to an international field with entrants anonymously submitting a single design for judging by a panel which included a local and international Architect. The winning design by the then relatively unknown Danish practitioner Jørn Utzon was nebulous in design intention, buildability and cost implications. The resultant difficulties in engineering extended the construction program and saw costs blow-out, all of which led to the controversial sacking / resignation of Utzon midway through the design development process. The project difficulties can be traced back to the lack of project briefing detail, lax requirements for demonstrable buildability and a resultant lack of detailed costing. The one stage competition also did not allow for testing the experience and capacity of the winning architect in relation to the size and complexity of the project. Having said this, the outcome is one of the most impressive and recognised works of architecture in the world. But despite the architectural success the political fall-out of this experience had a profound impact on subsequent competitions with the one-stage competition process found wanting.

New Parliament House, Canberra

The lessons from the Sydney Opera House completion impacted directly on the next major architectural competition held in 1979 for the New Parliament House in Canberra. The competition process was developed to ensure that the winning scheme would be designed by an experienced architect who had demonstrated their credentials through the rigours of the requirements for the submission. It was a two-stage competition with entrants for the first stage having to provide ten A0 sized boards showing resolved plans, form, physical model and rendered perspectives. The submission was to be in response to a detailed briefing document which was only delivered to the entrants after they had paid a $50 fee. Despite the extraordinary submission requirements over 300 Australian and International architects entered. The total cost of the work required for the submissions, effectively donated to the competition process, would be in excess of $4 million in today's value. Ten prizes were

awarded with the top five entrants invited to the second stage, which required further detailed resolution of the design (for which architects were paid a fee to help cover production). This format for the competition meant that the resources and capacities of the architect were thoroughly tested through addressing the submission requirements before a winner was chosen. In addition, a professor of engineering was included on the judging panel, whose prime task was to ascertain the buildability of the project. Ultimately, the panel selected the Philadelphia firm of Mitchell Guirgola Thorp. While this process demonstrated the benefits of a two-stage competition it also placed high hurdles in the place of the entrants which, despite the numerous submissions, may have dissuaded others with the appropriate potential from entering.

Lessons from high profile examples

These three high profile competitions provide valuable lessons regarding the structure and process for competitions. Canberra was attempting to attract ideas from a range of entries and wanted the control, adjudication and implementation of the designs kept 'in-house' behind an obscure bureaucratic veil. The assessment process and criteria were not known and the immediate outcome became a hybrid scheme. The competition for the Sydney Opera House had a more transparent process in searching for a winning design but created difficulties in having insufficient preparation and assessment criteria to ensure a winning scheme could be constructed in a timely and cost effective manner. Nor were there mechanisms in place to test the capacity of the winning entrant to undertake the project. This experience informed the competition for New Parliament House which created an exhaustive undertaking for entrants in the first stage followed by a similarly taxing requirement for the second stage submissions. In this case rigour and resolution of the outcome was determined through an extensive brief and two-stage vetting of schemes. The desire for a comprehensive resolved design may have provided the means to assess whether the entrant had experience and resources to undertake the project but this could have been tested in the second stage.

Since the New Parliament House competition, most major Australian architectural competitions have been almost entirely two-stage affairs. The Institute of Architects Guidelines advise that, other than for modest or ideas competitions, a two-stage process be used. The advantages stated in these guidelines is that a two-stage process would reduce the workload of the first submission, allows the selection of promising concepts to go forward to the second stage and enables client and jury feedback to be incorporated into the second stage.

The Guidelines imply that the first stage of the competition remains in the form of design propositions which are to be assessed to create a short-list of entrants to go forward into the second stage. This is the form of competition that was used for competitions for both the new Melbourne Museum (1993) and Federation Square (1997). Another form of submission for the first stage not described in the guidelines is that of an expanded expression of interest (EOI). The EOI is the method commonly used by clients in asking for submissions so that a list of architects can be either considered or interviewed. In this respect the EOI belongs to a more convention consultant selection process and not to a competition process in the ways generally understood for larger scaled public buildings. As shall be discussed the two University of Melbourne projects were structured to incorporate the strengths of the evolving competition process in conjunction with variations on the EOI process.

THE UNIVERSITY OF MELBOURNE

In recent years the University has undertaken a range of large scale building projects. The selection of consultants is overseen by the Property and Campus Services Department. Under their direction, the University maintains a Register of Consultants which is approved by the University Council's Building Estates Committee. This register currently has 54 architects listed, selected on a range of criteria including size, expertise and capacity.

Traditionally, architectural selection has been undertaken through direct selection from the Register which may involve a call for EOIs and an interview. In two recent projects the selection process has involved a two-stage architectural competition. The project for the Florey Neurosciences Institute, commenced in 2006, was the first use by the University of an Architectural Competition. The second instance was for the new building for the Faculty of Architecture, Building and Planning begun in 2009 was the first incorporation of an international competition process.

The use of a competition, and in particular an open and international completion, is a departure from the University's conventional approaches. Both of the building projects under discussion utilised a two-stage selection competition process to varying degrees. The character, advantages and disadvantages are discussed below.

Case Study One: Florey Neurosciences Institute
A highly complex and technical project, the $213m Florey Neurosciences Institute bought together researchers from a number of different institutions into two state-of-the-art research facilities in Parkville and Heidelberg, creating the largest neuroscience facility of its kind in the southern hemisphere. The Parkville centre houses laboratories, research offices, teaching facilities, teaching facilities, bookshop, a café and gallery.

As a prelude to this project, Property & Campus Services commissioned a local architectural firm to develop the design brief, which was then used to attract project funding. The design brief was detailed and technical in nature focusing on the building's functionality as a research facility.

Due to the technical nature of the project the client group undertook a hybrid, two-stage process that incorporated an architectural competition commencing in late 2006. The first stage was a call for expressions of interest from 20 pre-selected local firms on the Consultants Register, from which six firms were selected for interviews with the jury. Four firms were then chosen to proceed to the second stage competition which involved a more detailed articulation of a design concept based on the previously prepared design brief.

In 2007, the jury selected Lyons Architects as the successful architectural firm. Construction commenced in 2009 and was completed at the end of 2011 and the facility is now fully functional. It is interesting to note that the firm chosen to develop the design brief also progressed through the EoI and were one of the four shortlisted finalists, albeit unsuccessful.

Case Study Two: The Faculty of Architecture, Building and Planning
In 2009 the University of Melbourne held an international architectural competition to select the design team for a new $125m building for the Faculty of Architecture Building and Planning in the centre of its Parkville campus. The six-floor building will house a range of facilities including teaching spaces, staff offices, gallery, café and a 500-seat lecture theatre.

The University's use of a competition in this instance was distinctive from the previous example as it formed the backbone of the process for the evolution of the final design to achieve the ambitions of the Faculty. During the first two-stages (the competition), entrants were asked to submit a form of an EOI that included information regarding the experience and capacity of the team. They were also asked to address four key themes arising from the Faculty's aspirational brief – built pedagogy, the academic environment, the design studio and the living building. In the initial round of the competition, 133 submissions were received from around the world. Assessed by an international panel, five teams were then selected to the next stage to present a designed response to the building brief, which included a one-hour presentation to the jury.

Critically, the design presented by the winning architectural team was not the ultimate project scheme. Instead through assessment of the five designs presented, the University was able to select an architectural partner with which to work to deliver the Faculty's vision for a living, pedagogical building that is an exemplar of sustainable design and transformative teaching.

After jury deliberations, the partnership of John Wardle Architects and Office dA was announced as the winner. This selection of a Melbourne based firm who had joined with a Boston based firm followed the international theme for the project. Over the past three years they have worked with the Faculty to realise the building design, which was publicly launched in February 2012. Construction for the new building will commence in late 2012.

COMPARATIVE ANALYSIS

In this section, we will compare and contrast different elements of the two competition processes to elicit lessons to guide the use of competitions in future building projects.

Structure

The competition structure for both projects was similar – a two-stage competition with the first stage inviting a form of EOI with shortlisted firms then providing a more detailed submission for the second stage. The differences lie in the ambitions behind the competitions, which were reflected in the structure required for the submissions of both stages

Stage One

A note of difference between the two competitions relates to the character of the first stage and criteria to be addressed in the EOI.

For the Florey Neurosciences Institute, firms were asked to provide an EOI of 12 A4 pages outlining expertise and experience in the type of research facility proposed, demonstrated capacity to undertake the scale of project and the communication methodology proposed to deal with the client needs and briefing requirements. They could also provide up to 10 more A4 pages outlining exemplar works that addressed similar types of projects.

The emphasis was different for the Faculty of Architecture, Building and Planning, with EOI submissions comprising of six A3 panels which addressed the four key themes as well as capability, process and merit. The criteria indicated that the substance of the submission was required to respond to the project's design themes with only the last two panels concerned with capacity, experience and eminence.

For the Florey Neuroscience Institute project, selection to the shortlist was made on demonstrated capability; whilst the Faculty of Architecture, Building and Planning asked entrants to start illustrating how they would respond to the themes for the building project. The latter approach allowed for the selection to be made not only on experience and precedence (as for the Florey Neuroscience Institute) but on the potential to respond to key project ambitions. Another note of difference is that the Florey Neuroscience Institute EOI asked for methodologies for dealing with clients and users in the design process; an important aspect given the broad network of stakeholders.

Stage Two

Assessment to the second stage was based on the EOIs and a subsequent interview with the jury of six shortlisted firms from which four were invited to the second stage. With the Faculty of Architecture, Building and Planning process the assessment of the EOIs was undertaken by the competition jury based only on the submission form which a shortlist of six went to the second stage. The involvement of the competition jury points to the degree of hybridity in the processes with the Florey Neurosciences Institute project culling the submissions before the jury considered a shortlist. It could be claimed that it was at the interview stage for the shortlisted firms that the actual 'competition' commenced.

At the second stage for the Florey Neurosciences Institute, firms had to demonstrate that they had the experience and capacity to undertake the project coupled with issues of methodology and communication in regard to client and user-group needs. This demonstration relied heavily on design proposals as a means of addressing the stage criteria – outlined as design snapshots, precinct information, formal massing, planning methodology, ecologically sustainable design and life cycle issues, and laboratory design approach.

The assessment criteria for the Florey Neurosciences Institute jury reflected these themes with additional consideration of the entrants' capacity, and consultant fees. The stated criteria were as follows:

- Methodology: How the team would work with the sponsor / client / user groups.
- Precinct Design: How the project should respond to the context, broader community and existing precinct Master Plans i.e. the urban design component of the project.
- Building Form and Layout: Image and planning to suit client ambitions and user brief.
- Design and Delivery Capacity: A demonstration of resources to undertake the project.
- Value**:** Demonstrate how value for money for the project would be achieved. This is in conjunction with fee proposals submitted by the entrants.

The Faculty of Architecture, Building and Planning competition required entrants to submit what was described as 'developed schematic designs' in response to the four themes for the EOI submission and the Project Brief. This brief included a preliminary functional brief with associated areas but also described in some detail the aspirational aspects of the project. The aspirational elements can be summarised as follows:

- Process: The design and construction of the building will demonstrate the best possible processes of design, collaboration and construction procurement. The project will also work closely with users and university. It will also be a focus for research on issues associated with the project.

- Quality: The building will demonstrate a high quality in relation to the disciplines within the Faculty. It will be a building of international architectural merit.
- Research, Training and Learning: The building will provide outstanding accommodation for all users, researchers and teaching and learning environments.
- Environmental performance: The building will demonstrate an outstanding level of environmental performance.

In line with Australian Institute of Architects Competition Guidelines, both competitions allowed for second stage entrants to invoice the University for a fee to cover some of the cost of submission. For the Florey Neurosciences Institute the fee was $60,000 and for the Faculty of Architecture, Building and Planning project is was $50,000. The payment of fees was an integral part of both competitions and reflects the financial commitment on the part of the University to support the competition selection process in these cases.

Local versus International

One key difference between the two competitions was the size of the design pool from which selection could be made. For the Florey Neurosciences Institute competition, 20 local architectural firms on the Property and Campus Services register for consultants were invited to participate. The Faculty of Architecture, Building and Planning competition sat at the other end of the spectrum with the net cast widely with an open and international call for EoIs. The decision to only approach local Melbourne based-firms for the Florey Neurosciences Institute project was a reflection of both the project's complexity, tight timelines and the wide-range of stakeholders. It was felt that a local practice would be readily available during the briefing and design phases. Interestingly, firms could choose to partner with a national or international firm to bring greater expertise to the design process – although none of the shortlisted firms chose to take up this option.

This difference in options not only demonstrates the flexibility of the competition process but the importance of a clear picture of project outcomes and needs. Each option brings different benefits – a local firm could be seen as more hands on whilst a global selection could potentially allow for selection of a non-traditional option resulting in greater innovation and experimentation.

It must be noted that an international competition is also more likely to attract attention from the public and the international architectural profession, thus enhancing both marketing and fundraising opportunities.

Design versus Design Team

Both competitions were similar in that the expressed aim was to select an architect, not a design. However, the outcomes demonstrate a shift in emphasis between the two competitions.

The Florey Neurosciences Institute submission requirements were heavily weighted toward assessment through design proposals in regard to urban design, planning and building image. As a result, the design described by the winning architects in their submission is similar in image and planning layouts to the final building. That the process benefitted from an expressed design response to the project was indicated by the briefing detail previously prepared by consultants given to the entrants. It could also be seen that the design

contribution to the project by the competition process in conjunction with the pre-competition briefing work should not be wasted and that the competition be constructed to enable the work to contribute substantially to the commissioned design stages while not committing the client to being tied to the design solution of the preferred submission.

In contrast, the submitted design proposals for the Faculty of Architecture, Building and Planning project differed greatly from the final design. This difference is not just a function of the competition conditions as other factors concerning budget and detailed functional briefing were influential factors in the development of the Faculty scheme. But the development of the design far from the initial scheme was seen as an expectation rather than aberration for this project. This expectation emerged from the qualitative criteria that related to broader aspirations of the Faculty and the University. These can be seen as presenting the project as an eminent design outcome of international standard. While the Florey Neurosciences Institute saw the project as also reflecting international eminence it was a status more centred around the institution with the building an enabler. The University and the Faculty saw status being embodied in the project (G. Davis, personal communication, August 8, 2012 & T. Kvan, June 22, 2012). As such the building must present as high design reflecting these functional and qualitative aspirations. While this may suggest that the competition should directly encourage a design that can be assessed for these qualities the core of the process was to select a design firm that could ensure the final project achieved these ambitions.

This may seem counterintuitive for if an eminent building was germane to the project then a competition should choose the design that best meets this criterion. But it should be recognised that the project brief and other aspects were yet to be fully developed and as such a design submission would be incomplete. The process was therefore constructed so that the submission would be used to select a design team who would be able to deliver the quality architectural product. The function of the submissions was therefore to inform the jury as to the capacity of the designers in response to these methodological and architectural ambitions.

Composition and Use of Jury

The juries for the two competitions were composed quite differently. For the Florey Neurosciences Institute, the jury represented the broad range of stakeholders with eight members. Chaired by the Vice-Chancellor, the jury comprised of three client representatives, one government representative from the department contributing project funding, and three ‘external experts’ (two eminent Melbourne architects and one eminent scientist). The make-up of the jury is telling in that it attempts to represent users and stakeholders with a blend of architectural experts to help lead the architectural interpretations.

Notably, the Florey Neurosciences Institute jury was not involved in the first selection process and only viewed the submissions of six potential architectural consultants. The first ‘culling’ process was overseen by the Building Project Control Group with advice from the Steering Committee. Both these groups consisted of client representatives and those responsible for University infrastructure. There were no external architectural experts on these bodies.

For the Faculty of Architecture, Building and Planning competition, the same jury was used for all stages of the competition and comprised of only four members – the Vice-Chancellor (Chair), the Faculty Dean and two eminent architects (one local and one international). The jury viewed all 133 submissions and was actively involved in all stages of selection.

Both competitions followed the Australian Institute of Architects guidelines and ensured a number of key steps were undertaken to ensure due process and equity for all involved. For both competitions, the process was managed and the jury was supported by Competition Advisors. For each competition a senior academic from the Faculty of Architecture, Building and Planning took up this role, utilising their knowledge as architects and their involvement in previous competitions or association with development of design briefs. In addition, the jury for the Faculty of Architecture, Building and Planning competition was supported by the Victorian Government Architect. In both instances the organisation of the competition processes was transparent and well managed. The overall process for the projects was managed by Property & Campus Services.

Consultation

It is critically important for any competition process to incorporate feedback loops and consultation. Both competitions provided briefing sessions, access to the competition coordinators, opportunities to submit questions and to speak with clients in controlled sessions (the latter being an unusual inclusion in the process).

In addition, both competitions found ways in which the broader community could be consulted. For Florey Neurosciences Institute, some of the key stakeholders were allowed to view the four shortlisted designs and provide comment to the Jury. With the Faculty of Architecture, Building and Planning project, all five shortlisted firms were invited to make public presentations open to all interested parties over a series of evenings. These were attended by University staff and students, professionals and other members of the public. Notably, these presentations were not about their designs but about their broader body of work and the ethos which they would bring to the design process.

These processes enabled close engagement and elevated interest with the University and Faculty client groups who saw the ideas and design concepts develop and the criteria to which they were responding.

Benefits of the Competitions Process

The use of the competition process has been of benefit for both building projects, and for the most part different reasons. The Faculty of Architecture, Building and Planning competition was successful in achieving a number of aims:

- enabling a consideration of a range of local and international architectural teams that may not have been considered through an internal evaluation process.
- ensuring a transparent and fair process which was reasonably well received by the international architectural profession.
- establishing a profile for the project through presentations, exhibitions and general interest by virtue of the competition processes. This profile for the project supported it development within the University community and beyond.

The thrust of the Florey Neurosciences Institute process was to select a local highly credentialed firm with the expertise and capacity to undertake the complex project. The use of a controlled competition in this case had a number of explicit benefits for the client group. These included:

- presenting a thorough and transparent process to all stakeholders.

- enabling the engagement of the complex range of clients in the process.
- offering the opportunity for potential users to provide feedback.
- ensuring a clear process to the architectural profession.

The upshot of these aspects was that the process facilitated the management of the selection of an architect through a process that was at arms length from the intricacies of the various client groups. It encouraged a selection of a design consultant that did not need the agreement of all parties but rather the client groups needed only to accept the efficacy and transparency of the process.

CONSIDERATIONS

In determining the appropriateness of a competition process in the procurement of an institutional project the following should be considered:

- the status of the project in regard to the institution and the broader community. How would this status be enhanced through a public competition process and would the outcome be worth the effort? The entwined issues of scale, profile and impact should be considered.
- the relative difficulty of the project in regard to contextual urban planning, complex user brief and technical requirements. Potential solutions to challenging sets of problems can be exposed through ideas and options that emerge from the competition.
- the political challenges raised by the project. A competition process may provide the vehicle for transparency, feedback and commentary on merits and deficiencies ventilated by the process. The process also enables the selection of a design direction and/or design team to be determined by an expert and, hopefully, independent jury. This may reduce an impression of bias in the selection from client bodies, stakeholders and other interest groups. Similarly such an open process may also reduce disquiet from those in architectural profession who feel that they were excluded from bidding for the project. Key to the process is that the criteria of evaluation for all stages should be clearly expressed and adhered to in the assessment. Also the jury must be representative of client and architectural expertise, be seen as independent and have appropriate recognised expertise.
- the timelines and resources available for the competition process. An effective process will take time and required monetary commitment. Prior to the competition the client must be well prepared in respect of ambitions, key issues and briefing information.
- the processes of design briefing and client interaction are an important concern for institutional buildings. In large scale projects the competition process can be used to test how the architects will achieve an exemplary outcome.
- the competition process must not be seen as a mechanism for securing a range of cheap architectural services but rather it is a process in selecting the right architect for the project.

CONCLUSION

In making the decision to proceed with an international and open competition for its latest building project, the University had to consider a complex mix of priorities – budget, profile, client needs and campus design. Its use of the competition process was guided by both historical precedent and the evolving experience of the University's procurement strategies. The key to the structure of the competition was a clear understanding of the ambitions of the University. One of these was the need to achieve a design that would present a highly designed solution to reflect the design character of the Faculty and the important location of the building within the campus. To promote this approach the competition to select a designer from an open, international and transparent process was critical to the selection of the design team and to the acceptance of the outcome by the communities of the university and design professions. As seen in the comparisons with the Florey Neurosciences Institute the competition processes, while similar, are specifically tailored to suit differing needs. The designed outcomes for the two building projects examined within this paper demonstrate that there is not a 'one size fits all' model for the use of competitions.

The use of a competition is not always the preferred form of consultant selection within the tertiary sector, with many architectural teams selected from standing panels. This process of selection suits a range of University Capital Works ambitions but may be too narrow for specific projects that have iconic status or complex requirements. To be satisfied that appropriate consultants with the requisite skills are selected, the casting of a broader net through the means of a competition may be a preferable selection process.

The design and documentation of the Faculty of Architecture, Building and Planning project is proceeding with construction due to commence in late 2012 the project as it stands will provide an exemplary outcome for the Faculty and the University. While it would not be impossible we believe that the quality of design and project support would not have been achieved without the selection process facilitated by the competition.

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BIOGRAPHICAL NOTES

Andrew Hutson is a Senior Lecturer in the Faculty of Architecture, Building and Planning at The University of Melbourne. An architect and academic, he has extensive expertise in the fields of architectural design, communications, and architectural history. Andrew has published on a diverse range of topics including explorations of Roman architecture, the role of computer modelling in the delivery of design teaching and research into the design competition for a New Australian Parliament House.

In his current role as the Faculty's Associate Dean (Resources) he is overseeing the design and construction of the Faculty's new state of the art building. He is also the Chairperson of the Architects Registration Board of Victoria and an executive board member of the Architects Accreditation Council of Australia.

Mary-Louise Huppatz is the Executive Officer in the Faculty of Architecture, Building and Planning. With a background in human resources and organisational planning she has recently completed a Masters in Organisation Dynamics. She has assisted the Faculty in a number of elements of the new building process and is currently working on change management processes associated with the pending decant.

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INNOVATION AND TRANSFORMATION IN ASSET PERFORMANCE ASSESSMENT ENSURING THE RIGHT BLEND OF ASSET MANAGEMENT STRATEGIES

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ABSTRACT

An innovative approach to asset performance assessment aligned with international practice and guidelines is presented. Performance metrics include condition, functionality, utilisation, compliance and risk, providing a holistic view of asset performance that enables informed and responsible decision-making. Focus is shifting away from the quantification of condition-based maintenance backlog to analysis of the gap between assessed performance levels and desired performance standards. This approach is more palatable to decision-makers than the rather confronting maintenance backlog approach. It empowers decision-makers to set achievable performance standards subject to financial and other business constraints. Unique and innovative service life curves are used to predict changes in condition over time, improvement in condition for a nominated dollar amount, the remaining service life and develop proactive and appropriate maintenance interventions and renewal / replacement strategies to ensure continuity in and cost effectiveness of service delivery aligned with business objectives.

INTRODUCTION

Condition assessments, fabric surveys, facility audits and quantifying the extent of maintenance backlog are common practice throughout the world. Most audits however are mere snapshots in time and mostly one dimensional, while decision-makers often feel confronted by the extent of the maintenance backlog. Experience has shown that it is not only what data is collected, but also how this data can be transformed into information that enables informed and responsible decision-making. This paper looks at facility performance assessment, application of service life curves in strategic asset management and two case studies where the performance assessment methodology and service life curves have been applied.

ASSET PERFORMANCE

Asset performance is defined as ‘the behaviour in service of a facility for a specific use’ (ISO15686-10). How well university facilities behave or succeed in supporting the desired teaching, learning and research environment is critical to the University’s ability to attract students and research opportunities and therefore the success of the University. The modern day student is spoiled for choice and universities with high performance facilities will be more attractive in an already very competitive market.

Performance Assessment Process

Measuring the performance of facilities is therefore critical to the success of the university. The process to assess the performance of a facility consists of the following steps:

- defining the desired or required performance, which is called demand, and setting appropriate and realistic performance standards in the form of performance thresholds and targets. A threshold is a number indicating the level of performance, which, if not provided, would significantly or completely impair the ability of users to carry out their intended activities or operations (ISO15686-10). Target is a number indicating the preferred or ideal level of performance and is higher than the threshold;
- assessing the actual performance of the facility or component, which is the supply or level of performance provided;
- undertaking a gap analysis to identify gaps between the desired and provided performance levels;
- determining appropriate levels of actions and considering options and strategies to fill the gaps and mitigate associated risks within the limitations of available funding and other business objectives.

Performance metrics

Performance metrics include condition, functionality, utilisation, compliance and risk. These five metrics are often interconnected and should be considered together to provide a holistic or multi-dimensional view of asset performance and enable informed and responsible decision-making about the allocation of resources within and by the university.

Environmental performance, which includes energy consumption and carbon footprint, is another very important performance metric, but is excluded from this paper due to its unique characteristics and measurement processes.

The Tertiary Education Facilities Management Association (TEFMA) guideline, 'How to Undertake a Facilities Audit' provides for all these metrics, but combine utilisation and compliance under functionality. Utilisation and compliance, as performance metrics, are however important enough to be assessed individually.

Functionality is defined as suitability or usefulness for a specific purpose or activity (ISO15686-10). This metric is one of the most difficult to assess and experience has shown that the most common mistake made is having too many functionality assessment topics and functions. It leads to an overload of information causing topics and functions to lose their significance in the overall performance of the facility. The National Health Service in the UK identifies three functionality topics: use, access and space, each with a limited set of functions, making it easier to assess and more relevant.

Functional performance is assessed as the functional serviceability and functional adaptability. Functional serviceability is the ability of the existing facility's layout and fit-out to support its intended service delivery objectives. It deals with how well the building serves these primary functions and the extent to which it facilitates or inhibits the activities of the people who carry out the functions inside and around the building. Functional adaptability is the flexibility of the existing facility's fit-out and layout to be reconfigured or refurbished within the existing building footprint to achieve excellent serviceability. Functional suitability is the gap between functionality (demand) and functional serviceability (supply).

Utilisation is a measure of whether and how space is being used. The utilisation rate is a function of a frequency rate and an occupancy rate. The frequency rate measures the proportion of time that space is used compared to its availability, and the occupancy rate measures how full the space is compared to its capacity. Utilisation rates can be assessed in terms of both actual use and predicted use. (UK Higher Education Space Management Group, 2006).

This metric is important to the allocation of resources within and by the university. If space is not being used, is it needed and does it need to be funded? Could the resources consumed by under-used space be better directed elsewhere? It can also have an impact on the deterioration or degradation rate of building fabric and services. Under-utilisation can be just as bad as over-utilisation.

Compliance topics include Access for People with Disability, Building Regulatory Compliance (BRC), Essential Safety Measures (ESM) and Occupational Health & Safety (OH&S). Experience has shown that Compliance as a performance metric in its own right is justified as this is the performance area often scoring the lowest in most facility audits, which is a concern.

Most audits provide only for the assessment of condition-based risk, but there is also risk associated with functional performance, utilisation and compliance of a facility, that could have a major impact on the performance of the facility and should form an integral part of facility audits.

The biggest challenge is to resist the temptation to increase the number of assessment topics to include as much data as possible. 'Less is more' is often a good philosophy and increases the effectiveness of the assessment.

Assessment Ratings

Assessment ratings vary considerably around the world. One of the more common rating systems is the five-point system also used in the TEFMA guideline. The one common characteristic of assessment rating systems is the use of single ratings, for example the condition of a building component such as floor finishes is assessed as 3, which is 'Fair'. However, the condition of the floor finishes could vary across a room and even more so across a whole building, with areas in a 'Good' condition, areas where it is 'Fair' and some

Table 1. Condition assessment criteria

Rating	*Range*	*Condition Description*	*Action Required*	*Maintenance Type*
5	4.51 – 5.00	Excellent	Preventative Maintenance	Normal Maintenance
4	3.51 – 4.50	Good	Condition-based Maintenance	
3	2.51 – 3.50	Fair	Repairs	Backlog Maintenance
2	1.51 – 2.50	Poor	Rehabilitation	
1	1.00 – 1.50	Very Poor	Replacement	

areas where it is 'Poor'. With a single rating system, small portions in condition 2 - 'Worn' or condition 1 – 'Poor', with higher levels of risk, could go unnoticed and consequently the

associated risk will also go unmitigated. The solution is to use a percentage scale. The percentage of the component in each of the condition categories is assessed and the total must always be 100 per cent. This way, small percentages in condition 1 or 2 with high associated risk do not go unnoticed or untreated.

Adding colour to the five-point rating system is used to assess the percentage of the asset in each condition category as illustrated in Table 1 above. Assessing the percentage of the asset in each condition category enables the quantification of the extent of maintenance backlog and development of condition profiles as illustrated in Figure 1 below.

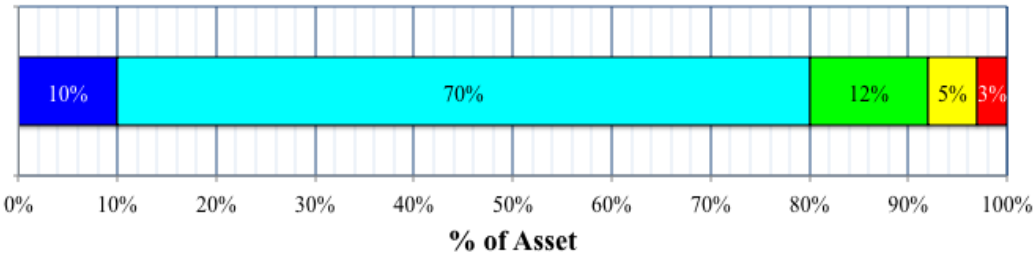

Figure 1. A typical condition profile, showing the percentage of the building in each condition category.

The average assessed condition of the profile in Figure 1 is 3.79, refer Table 1. If a single rating was applied the building's condition would be assessed as 4 and the small percentages in Condition 1 ('Poor': 3 per cent) and 2 ('Worn': 5 per cent), with higher levels of associated risk, would not be visible to decision-makers and consequently overlooked.

Another advantage of this system is that the extent of condition-based maintenance backlog can be easily quantified and visually presented in a way that is less confronting to non-technical readers of assessment reports.

Although this approach has only been applied to condition assessments, there is a strong case to assess all the performance metrics in the same way using a five-point percentage rating system. At first it may appear to be extra work, but using this approach for the past ten years has proved to be easier for the assessment staff to apply, resulting in more accurate assessments for the same cost and effort.

SERVICE LIFE CURVES

Service life is defined as the period of time after installation during which a facility or component meets or exceeds the performance requirements (ISO15686-1).

An innovative and unique service life prediction model (McDuling et al., 2008), which considers the seven degradation and durability factors of the 'Factor Method' (ISO15686-1) for service life prediction as well as the age and current condition of the building or component is used to calculate changes in condition over time and produce Service Life curves for a variety of building and component types in various physical and operational environments.

By plotting the assessed current condition of the building or component on these curves, the remaining service life can be predicted and the effectiveness or appropriateness of the current

maintenance regime or level can be assessed to prevent premature failure or reduced service life.

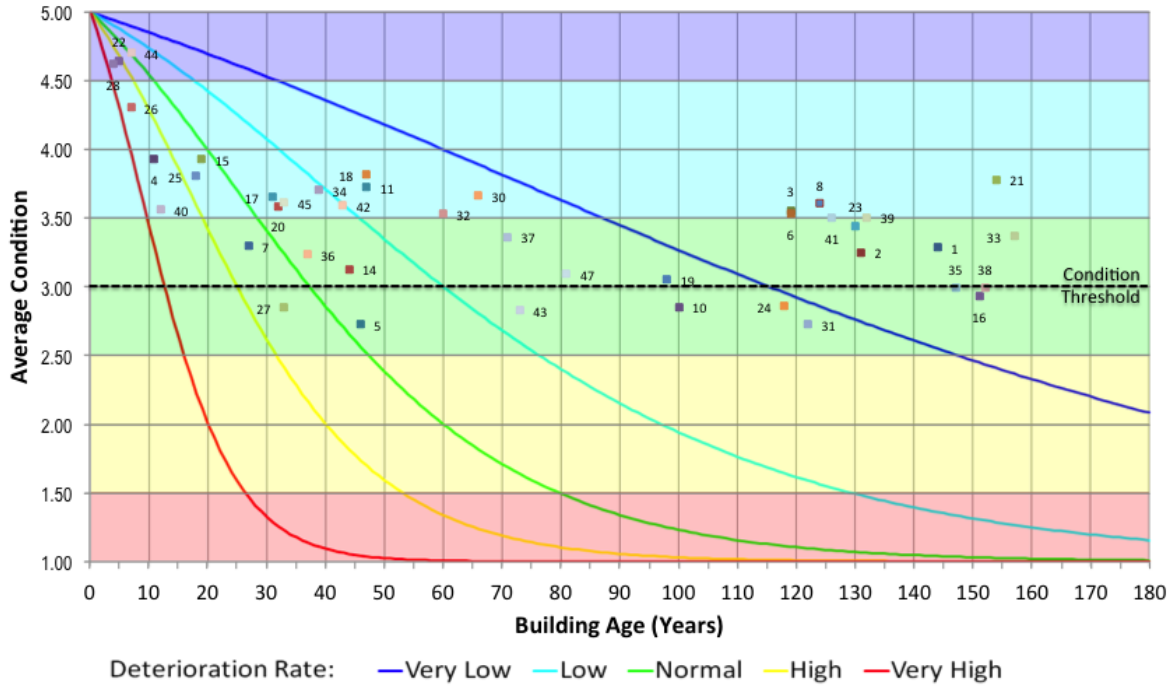

Figure 2. Generic service life curves showing the predicted change in average condition over the design life of the asset for various rates of deterioration

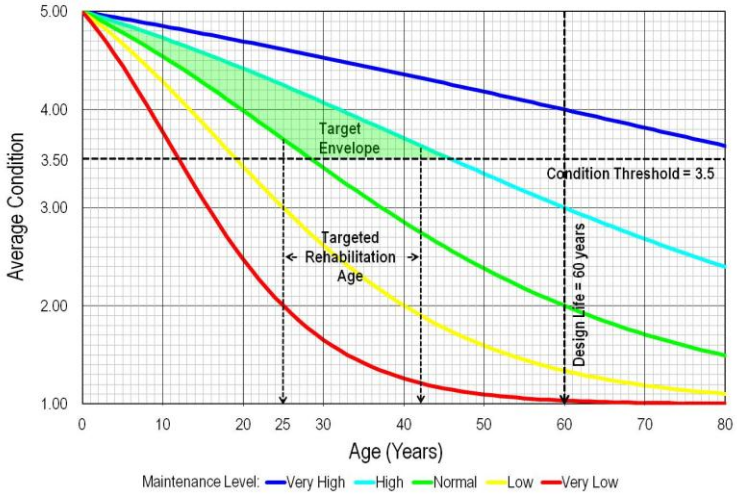

Figure 3. Service life curves illustrating condition threshold, target envelope and targeted rehabilitation age assuming a design life of 60 years

The generic service life curves in Figure 2 are used to develop asset management strategies by selecting the appropriate condition threshold and rehabilitation or renewal strategy as illustrated in Figure 3 above.

The condition threshold is the minimum acceptable condition, while the target envelope is defined by the area between two curves and the selected condition threshold, as illustrated by the shaded area in Figure 3 above.

The appropriate maintenance strategy is determined by the decision to rehabilitate or renew the building during its design life or not (investment strategy) and the selected condition threshold. The objective of a strategy not to rehabilitate or renew the building during design life is to achieve a service life that exceeds the design life. The type of asset, design life, degradation and durability factors (ISO15686-2) and obsolescence need also to be considered.

Depending on the condition threshold selected, a strategy not to rehabilitate or renew the building during its design life will require a higher maintenance level at a higher maintenance cost compared to a rehabilitation strategy. A higher condition threshold requires a higher level of maintenance at a higher cost during the asset's service life.

In the event of a rehabilitation strategy, a higher condition threshold means a shorter service life and requires an earlier or possibility more than one refurbishment during the asset's design life, but at a lower cost per refurbishment. This could be a good strategy for investment portfolios where retaining high profile tenants prepared to pay for premium accommodation is an objective, or where technical, functional or financial obsolescence could be a consideration.

A lower condition threshold means a longer service life and will require later or no refurbishment, but at a higher refurbishment cost. If the building condition is allowed to deteriorate below the threshold, the risk of losing existing or failure to attract new tenants increases.

To prevent that the average condition of the building deteriorate beyond the condition threshold, planning for the rehabilitation should ideally start two to three years before the condition reaches the threshold level. By doing regular and consistent condition assessments and plotting the assessed condition on the service life curves, maintenance planners can get early warning and start their planning in time before the condition has a negative impact on the performance of the building.

CASE STUDIES

Case study 1: University campus

The average condition and age of two sets of university buildings are shown in Figure 4 below. The first set of buildings, numbered from 1 to 26, is academic buildings with a condition threshold of 3.5 and a target condition envelope between Normal and High Maintenance Levels. The second set of buildings, numbered from 27 to 51, is student accommodation with a condition threshold of 4.0 and a target condition envelope between High and Very High Maintenance Levels.

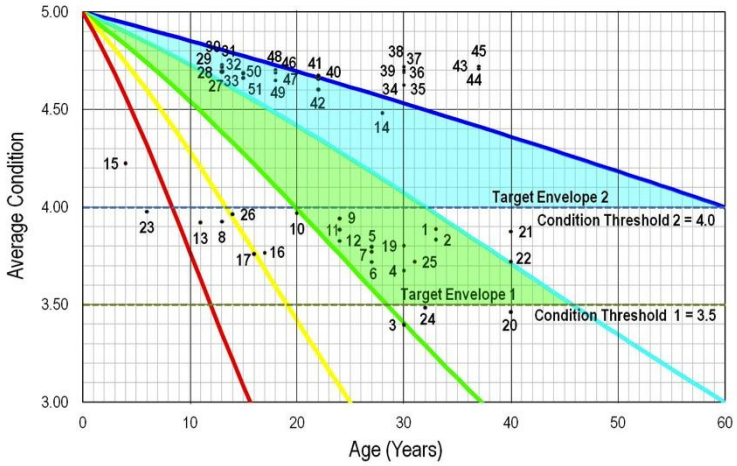

Figure 4. Average condition and age of buildings on a university campus

Building Set Number 1 – Academic buildings

Although building numbers 1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 19, and 22 and 25 all comply with the condition and maintenance targets, their remaining service life varies between three and eight years, and a strategic review of these buildings should be undertaken as soon as possible. The average condition of building numbers 3, 20 and 24 are below the condition threshold of 3.5 and should have been already rehabilitated or replaced. Building 21, which falls above the target envelope, was refurbished some time ago and has an estimated remaining service life of ten years. Building 14 has just been refurbished and based on the assumption that the current maintenance regime will be continued, has an estimated remaining service life of 30 years.

Building numbers 8, 10, 13, 15, 16, 17, 23 and 26 are all below the target envelope, which can be attributed to a number of factors, such as a too low level or quality of maintenance, quality of work execution, materials and design, and operational environment. These buildings are storage and workshop buildings and it is to be expected that the level of maintenance would be lower compared to the academic buildings. Of concern is however building numbers 15 and 23 that both showed a relatively fast rate of deterioration and although their condition is still well above the applicable condition threshold of 3.5, a detailed 'crawl-through' assessment by experts should be undertaken as soon as possible to establish the cause for the accelerated degradation. Building 15, which is four years old, has an estimated remaining service life of six years or a total service life of only ten years.

Building Set Number 2 – Student accommodation

An important source of income for Universities is international students and in order to attract these students Universities need to provide good accommodation. Buildings providing accommodation for students are therefore refurbished on an annual basis and a higher condition threshold and target envelope apply to these buildings. The condition assessment was done just after these buildings have been refurbished at the beginning of the academic year before the students took occupation, which explains why the condition of building numbers 34 to 39 and 43 to 45 are above the target envelope.

Case study 2: Active learning environment building

This case study looks at a 26-year-old active learning environment building with an aggressive operational environment where students are trained in building trades such as

bricklaying, plastering, tiling and stone masonry. The building has a large industrial/factory area as well as offices, lecturing rooms and ablution facilities. It has a gross floor area of 8,375 m2 and an estimated replacement cost of Au$ 11,900,000. The assessed average condition of the building is 3.64 with an estimated remaining service life of 2 years.

The required maintenance budget, as shown in Table 2 below, is based on the assessed condition of the building and a maintenance cost model, which is aligned with De Sitter's Law of Fives (Vanier, 2000) and based on the estimated replacement cost of the building or component. This methodology is similar to the parametric approach of NASA to estimate deferred maintenance (NASA, 2003).

Table 2. Condition-based maintenance budget (A$) required

	Normal Maintenance			
	Preventative Maintenance (Condition 5)	Condition-based Maintenance (Condition 4)	Allowance for Unplanned Maintenance	**Total for Normal Maintenance**
Assessed Condition*	1.45%	74.04%		75.49%
Budget Required	$ 148,773	$ 176,240	$ 89,264	$ 414,277
% of Budget Required	9.51%	11.26%	5.70%	26.47%
				Backlog/Deferred Maintenance
	Repairs (Condition 3)	Rehabilitation (Condition 2)	Replacement (Condition 1)	**Total for Backlog Maintenance**
Assessed Condition*	14.34%	7.31%	2.86%	24.51%
Budget Required	$ 341,306	$ 435,102	$ 374,145	$ 1,150,553
% of Budget Required	21.81%	27.81%	23.91%	73.53%
			Estimated Total Maintenance Budget Required	**$ 1,564,830**

* % of building in each condition category weighted based on estimated replacement cost

Table 2 illustrates the consequences of backlog maintenance and De Sitter's Law of Fives: 24.51 per cent of the total building requires backlog maintenance, which amounts to 73.53 per cent of the total budget required.

Maintenance Options

Option 1 provides for the allocation of available funds to the maintenance categories based on the ratio of budget required per category to total budget required as shown in Table 2 above, i.e. 9.51 per cent of the available budget is allocated to preventative maintenance. This method, the 'Balanced Approach', ensures that funds are also allocated to Preventative Maintenance and not just Backlog Maintenance. If an amount of $650,000 is allocated based on the 'balanced approach' the average condition will improve to 4.20, which is on the top end of the target envelope in Figure 5 below, i.e. it will take $650,000 allocated based on the 'balanced approach' to change the condition from the bottom to the top of the target envelope. This will increase the current estimated remaining service life from two years to 12 years.

Option 2 provides for the eradication of all Condition 1 ('Very Poor') and Condition 2 ('Poor') and requires $809,247. This will improve the average condition to 3.97 and the estimated remaining service life of nine years.

Option 3 provides for the eradication of all maintenance backlog and will require $1,150,553 to improve the condition to 4.26, and will add 12 additional years to the estimated remaining service life.

Option 4 provides for total refurbishment, which will require $1,277,245 to improve the average condition to 4.79 and extend the estimated remaining service life to 24 years.

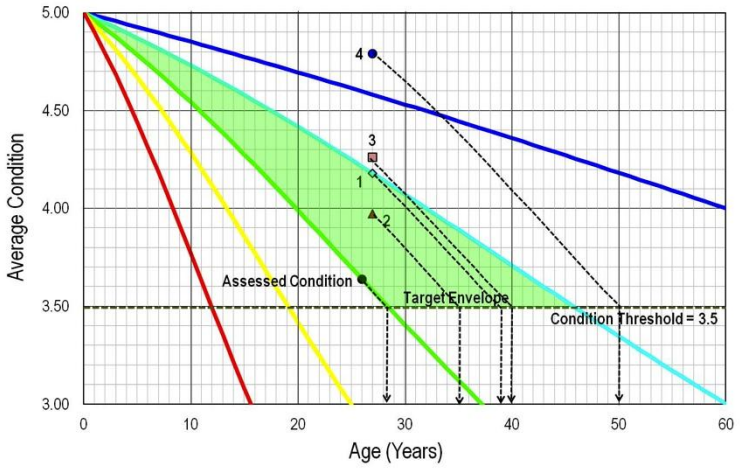

Figure 5. Average assessed condition of an Active Learning Environment Building with predicted changes in condition for four maintenance options assuming continuation of the current maintenance regime

Table 3. Option Comparison

Option and Strategy	Budget required (Au$)	Additional Service Life (years)	Cost per additional Service Life year	Condition	% Improvement in condition	Cost per 1% improvement in condition
1. Balanced budget allocation	$ 650,000	10	$ 65,000	4.20	15.38%	$ 42,250
2. Eradication of 'Poor' & 'Very Poor''	$ 809,247	7	$ 115,607	3.97	9.07%	$ 89,262
3. Backlog eradication	$ 1,150,553	12	$ 95,879	4.26	17.03%	$ 67,549
4. Total refurbishment	$ 1,277,245	22	$ 58,057	4.79	31.59%	$ 40,428

DISCUSSION AND CONCLUSIONS

Performance assessments that provide for an analysis of the gap between the desired and assessed levels of performance provide a holistic view of asset performance that enables informed and responsible decision-making. Setting achievable and realistic performance thresholds provides more palatable funding requirements than the rather confronting backlog approach.

The real value of the service life curves comes with plotting the average facility condition of successive assessments, say every two to five years, on the curves to provide a visual presentation of the changes in condition associated with known expenditure or the lack thereof. This makes maintenance performance visible and can also be used to underpin funding applications for maintenance, rehabilitation or replacement.

BIBLIOGRAPHICAL NOTE

Dr Johann McDuling is a Structural Engineer and Asset Management Strategist with more than 30 years' experience. Simon Young has more than 35 years' experience in Asset Management. They are the founding directors of McDuling Young, a Melbourne-based company specialising in Strategic Asset Management.

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LEARNING TO LEAD: MIND GAMES FOR MIDDLE MANAGERS

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ABSTRACT

Middle management in tertiary education is a role made challenging by the current popularity of distributed leadership, allied with the mutually incompatible demands of the job, described in the Integrated Competing Values Framework. Middle managers need knowledge and experience to manage those challenges but these are not skills which are acquired quickly. Scenario based learning, role playing and games have been identified as effective ways of developing that knowledge and experience and demonstrating desired behaviours by problem solving familiar or recurring issues, in an environment people recognise. A paper-based board game was developed, with brief scenarios of common management problems the organisation had experienced, which players had to solve as they moved through the process of managing a project in the board game. Staff feedback reflected research on the effectiveness of game playing which shows improved recall, understanding and problem solving skills, increased participation and collaboration, and the development of a culture where colleagues learn from each other.

KEY WORDS

Learning Role Playing Games, Game Playing, Scenario Training, Leadership Development

INTRODUCTION

Academic leadership is of critical interest to the organisation, especially in the current climate of rapid change. It is a complex arena, requiring both the cognitive skills needed to perform in a role which has multiple competing objectives, and the leadership behaviours which recognise and reflect that complexity, all in a rapidly changing environment. The middle tiers of the organisational structure, such as heads of school/department and their direct reports, team managers/leaders, are under particular pressure to balance contradictory demands while remaining flexible and innovative (Vilkinas & West, 2011). This requires knowledge and experience, not just a management skill set, and managers need to demonstrate by their behaviours that they do have the required experience and knowledge.

Games have been shown to be effective in professional training, translating information from the classroom to the workplace and allowing opportunities for the trainer to identify behaviours which require intervention. There are a variety of learning games; learning role playing games, simulations, scenario planning and scenario based training are some of the options, either as computer simulations or paper based exercises. Because learning games can reflect the complexity of a role filled with inherent contradictions, and can be tailored to specific group needs, they can be a powerful tool for organisational development and learning. And they are fun, as demonstrated in a case study in a tertiary education organisation of management development using games.

ACADEMIC LEADERSHIP INTEGRATED COMPETING VALUES FRAMEWORK

The role of an academic leader has inherent complexities. The Integrated Competing Values Framework (ICVF) looks at these in a middle management role in academic leadership. It is particularly useful as some of the research has been completed in Australia, and published in the Journal of Higher Education Policy and Management (Vilkinas & West, 2011). The model describes the nature of middle management roles as being characterised by behavioural and cognitive complexity, contradictory objectives, and shared leadership in a dynamic and complex environment of rapid change. It requires leadership with effective behaviours which allow the manager to operate from multiple, often competing, perspectives.

ICVF has two key dimensions to effective management; a people - task focus dimension and internal focus – external focus dimension. Within these there are five operational roles (Developer, Innovator, Broker, Monitor, and Deliverer) and there is inherent tension between them. The last role, Integrator, is in two parts, critical observer and reflexive learner, and this enables decisions to be made about which operational role is required. Managers need to be able to integrate these mutually incompatible behaviours so they can function effectively in the role.

Leadership provided by heads of school is a balancing act. Reassuringly, in her study of Australian heads of school Vilkinas found 'in the main, heads of school did possess the capability to move with ease between the roles and their ability to deliver any depending on which is most appropriate….The heads of school displayed the behavioural complexity which has also been linked to leadership effectiveness.' (Vilkinas & West, 2011, p.357).

ACADEMIC LEADERSHIP – DISTRIBUTED LEADERSHIP MODEL

The distributed leadership concept has been adopted widely in the tertiary education sector. There are two basic principles; leadership is a shared influence process to which several individuals contribute; and leadership arises from the interaction of diverse individuals who together form a group in which the essential expertise is shared. Distributed leadership views this not as a vertical structure in which an individual leader is seen as the main source of influence but a process in which a group of people contribute to the leadership function. This model suits the complexities of leadership in cross functional, self-managing work teams which are common in tertiary education.

Middle managers in tertiary education will have had experience with teams facing highly complex and interdependent tasks in which no single individual is capable of possessing all the relevant expertise for reaching a common goal. This is particularly common with project teams, which are often cross-functional, requiring individuals from a range of backgrounds and expertise to work together collegially, not just in the project team but in interacting with people and groups in the wider organisation. Van Ameijde's description of project team distributed leadership applies equally well to middle management. 'Leadership was not solely confined to validating the internal processes of the project team, but had to deal with challenges which reached beyond the direct boundaries of the projects. Involvement of and negotiation with external stakeholders, gathering and disseminating important information regarding the project, and facilitating an alignment between the project, and in the wider

organisation context were regarded as vitally important in determining the success of projects' (van Ameijde et al., 2009, p.771).

LEARNING GAMES

Given the inherent complexity and contradictions of the role, how does an organisation provide training in the skills and, more importantly, the behaviours required of its middle management. The skills and knowledge required should not be seen in isolation from the wider institutional context in which the role exists, which is partly why in house coaching and mentoring are known to be effective in improving understanding and skills and leadership performance. Learning transfers better from the classroom to the field when people are actively engaged in planned and guided training which reflects their workplace. Engagement is considerably improved by the actual doing. It is also the main characteristic of games, which explains their use for training and learning purposes. Online games have boosted interest in the use of games for learning; as have the qualities and learning needs of Generation Y members entering the workforce, as people look for more realistic learning.

A learning game is defined as a 'technological and human device that uses game principles to create a group learning experience geared towards the acquisition or formalisation of professional knowledge or skills' (Whitcomb, 2005, p.42). It engages trainees with the subject matter more effectively and has been particularly popular with police and military, for example, the Federal Bureau of Investigation (FBI).

The use of games can promote active involvement in learning, increase student satisfaction with the learning process, and enhance performance. These techniques are applicable in a wide variety of contexts (Brown, 1996). Games most commonly used are scenarios, simulations, and role playing.

Simulations and case studies have been used to bridge the gap between knowledge and action. The goal of a simulation is to develop skills, applying concepts effectively through making decisions and taking appropriate courses of action. Its effectiveness depends primarily on the quality of the simulation in representing the real world being studied, and the appropriateness of the decision making behaviours. In the past twenty years, simulations have been used as research, as teaching tools, in decision making and information handling, and in the study of group organisation and leadership. Computer simulations in running a business, for example Mike's Bikes, allow users to run a company, deciding on product development, marketing and workforce planning. The software enables users to experiment and take risks, see the consequences, fix errors, and see the impact of management style and decisions. It is a realistic but safe environment, and a study of 49 teams of respondents performing a management simulation exercise noted the realism seems to be important to the quality of learning, as does the exchange of ideas. Conflict between players in the team over tasks was not necessarily negative and also appears to improve learning (Adobor, 2006).

Scenario planning and scenario-based training are two alternative methods for organisational leaders to understand better their environments (Moats, 2008) to simulate a desired future. to challenge to test proposed solutions, or to run through problems that may arise (Fowler, 1996). For example, the FBI redeveloped its training programme, with staff creating a realistic scenario which trained people in a simulation of the actual job of an F.B.I. agent. Considerable time and effort was spent in developing stories for the scenario, rewriting the

curriculum to match the scenario, creating characters to act out the scenario, using the usual equipment and resources available in an FBI investigation. The FBI's training academy recognised that the realism of the scenarios was important in helping trainees to apply the skills they learned in class. It had the added advantage of also coaching trainees in problem-solving decision-making that had been introduced in classroom lectures (Whitcomb, 1999, 42). New agents were much more confident in their first assignments as a result, and were effective in their jobs more quickly.

Learning role playing games, such as these, that simulate work, replicate real tasks and require players to exercise skills that are relevant to the job, are 'a powerful method for not only imparting knowledge of how the various … tools work, but also for opening people's eyes to the kind of gains that could be attained from implementing them. In some circumstances they can also help to bond the team that will be involved in doing it for real' (Chin, 2009, p.553). They are an effective way of demonstrating the leadership skills and behaviours required for academic leadership, as the research below demonstrates.

.In the New Jersey State Police training centre, improvements in student performance were reflected in staff observations that trainees were more engaged as learners and the instructors were better able to reflect 'in and on' the desired behaviours they observed during the use of scenarios in the learning environment. 'The movement toward scenario based learning enabled academy staff to observe and identify behaviours or tactics that were problematic and not in keeping with best policing practices' (Kovacs & Toms, 2010, p.34). Instructors were able to assess decision making rather than simply assess memorisation as evidenced in traditional exams. Trainees reported that use of scenarios 'created elevated stress levels that affected performance, thus replicating a more realistic context than a classroom environment' (Kovacs & Toms, 2010, p.35).

LEARNING ROLE PLAYING GAMES

Role-playing games are widely acknowledged for their value in training. The characteristics of role-playing games also meet many of the organisational needs for quick learning, with scenarios that generally have few rules; great adaptability, the use of easily modifiable external resources; and lastly, the setup of group activities that could enable collaboration and knowledge sharing. Based on an analysis of existing activities, two types of role-playing game are used frequently in professional training, short communication games and longer project games.

The short communication games (ten to twenty minutes long) focussed on communication situations between two or three people, the aim being to exercise interpersonal skills (e.g., conflict management) and/or professional skills (e.g., advising customers) using game principles that boost motivation, loyalty and engagement. Longer project-based games (from a few days to a few weeks long) set a team of participants a task in which the group had to produce a joint result, the aim being to practice multiple skills (e.g., working in a team) and develop shared professional knowledge (Marais et al., 2010).

The collaborative nature of an activity appears to be just as much a source of interpersonal motivation as competition. This social side of an activity improves the involvement of participants, sharing ideas and information with other users, such as in social media. Collaboration (or cooperation) is a crucial game principle in professional training, where an

emphasis is often placed on team development and where competition is not always suited to the objectives or context. Competition was provided by collecting items, friends or equipment, and winning points (awarded by the 'game points' system or by other users) (Marais et al., 2010).

CASE STUDY - DEVELOPING MANAGEMENT GAMES

Wintec is a tertiary education provider teaching undergraduate certificate to master's level, with approximately 300 full time equivalent (FTE) academic staff and a similar number of professional/corporate staff. It reorganised the middle tier of management in the Schools (the level reporting to Heads of School) in July 2011. The new positions were called 'Team Manager' and appointments were made as specifically management roles, rather than academic roles with management functions included. Each Team Manager has approximately ten FTE teaching staff reporting to them. Their role is to manage the day to day academic life of the School, manage teaching quality and delivery, and lead a team of academic staff. Twenty-six people were appointed between July and November 2011, nineteen from within the organisation who had a teaching/academic leadership background, two from within the organisation with a professional background, and five from outside the organisation. A training programme was put in place, with a strong focus on leadership and management skills. Business process skills were added as some were not familiar with standard academic routines. Each Team Manager was also allocated a Head of School as a mentor.

There was a very steep learning curve for people in these roles but it was crucial they become effective as leaders as quickly as possible. Asking them for feedback after six months about their leadership role, managing staff was both the source of greatest satisfaction, and a source of anxiety. They reported that role satisfaction came from seeing their staff achieving success, and coaching individuals in their teams to recognise and use their skills and take opportunities. Challenges they faced included managing a wide range of different personalities, resistance to change, and the feeling there was not enough time to do the job. Asked what would have helped them in the role at the beginning, they wanted a better sense of strategic direction, and a better knowledge of organisational processes, both from new and existing staff.

What the new managers seemed to need was the experience and good judgment required to manage the competing values, and leadership challenges of the role, but they did not have the years it took managers to acquire the knowledge on the job. Some learning role playing games were developed to help these managers develop that experience in a safe environment. Pen and paper games were developed on the academic cycle, staff management and project management, based on traditional-style board games. The project management game, for example, takes players on a journey through the project management process, either as individuals or playing as a team.

On the journey players meet project management beasts (short scenarios on a project management problem) that they have to battle, using the weapons (project management skills) they have been allocated. The beasts are common project management problems in the organisation, usually staff related. This gives the scenarios the authenticity the players appreciate. The skills are a mixture of ones relating to managing the organisational environment, people management skills and project skills. Players earn rewards and skills as they progress through the project management process of the game. Playing the game as an

individual or as a team gives quite different results, as individuals have to negotiate with colleagues (fellow players) for support. They quickly realise co-operating makes them more successful.

Satisfaction with the training's relevance was 4.7 on a scale 1 - 5 with 5 as Very Satisfied. Feedback included comments that the scenarios were just like the problems they have had or are having in their department and they appreciated hearing how colleagues in similar roles resolved issues they faced themselves. People also noted it gave fellow players an insight into the way colleagues thought. It is a powerful tool for encouraging collaboration and peer support with players at different levels of experience, and teams made up of staff from different work units.

Using the board game also reinforced the learning from the department's other management training sessions. This was helpful because a common issue in training is, although people attend sessions, actually applying the learning can be problematic. In the game, the trainer was able to see the management behaviours demonstrated as players problem solved. Skill and knowledge gaps were quickly revealed and people identified their own areas of inexperience they had become aware of. Further work is required, using action research, to review longer term effectiveness of game playing. There appears to be higher recall of learning at follow up training sessions, compared with other management training for the same cohort, but this has yet to be tested.

CONCLUSION

The organisational environment is a highly complex one for a new middle manager to negotiate successfully. Distributed leadership practices are driving leadership roles further down the organisation. Expectations of performance have been raised for what have always been challenging roles, with conflicting objectives, in middle management. These roles typically require a sustained period of time to develop the knowledge and experience to perform well. New managers may take a long time to be completely confident so identifying ways of training staff which are effective in developing experience and learning behaviours is important. Learning role playing games, scenarios or simulations, are effective ways of learning and practising the skills needed in middle management in a safe and reasonably realistic environment. They are particularly effective if they reflect the organisation's own environment and issues, and the training is undertaken with colleagues.

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BIOGRAPHICAL NOTES

Sheryl Morgan is currently acting as the Head of School, Business, at Wintec (Waikato Institute of Technology), Hamilton, New Zealand, and is the Project Development Manager in the Chief Executive's Office when not moonlighting in the Faculty.

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ESTABLISHING AND FOSTERING COMMUNITIES OF PRACTICE

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ABSTRACT

This paper reviews the foundation literature on communities of practice. It describes two communities of practice established at the University of Melbourne Library and the lessons learned in the development of these communities. It outlines plans for the future and strategies being used to make communities of practice self-supporting.

KEY WORDS

organisational learning, social learning, communities of practice, knowledge management,

INTRODUCTION

In 2009 a year long project to reform the University Library's file share was completed and the project team disbanded. The file share, also known as a shared drives or network drives, are used by the Library to store electronic information, including Word documents, Excel spreadsheets, PowerPoint slides, digital photos, PDF documents and database reports and to share these documents between staff.
This shared space was where the University Library staff stored and shared access to the documents needed to do their work. The challenge was to ensure that the new structure of the file share was maintained. No additional resources were available to ensure this. A community of practice was suggested as a way of maintaining the new structure and ensuring good practice in information management continued. A community of practice is defined as a relatively informal group which meets to share knowledge and information about an area of practice. . The exact definition has changed and developed over the years since it was first used in 1991 and this change and development is discussed in the paper.

The first community was established to reform a shared file space. There was a concern that the efforts of the project team would be in vain without some means of ensuring good practice continued. A colleague suggested the establishment of a community of practice. Over a period of three years communities of practice have been established in other domains. This has led the author to read the key works on communities of practice and begin to reflect on how the communities established at Melbourne fit into the models presented in the literature and what role management should play in encouraging communities of practice.

The paper considers communities of practice at the University of Melbourne. The key works on communities of practice are summarised and two case studies from the University Library are described. The paper concludes with a review and evaluation of the two communities described in the case studies.

BACKGROUND

Organisationally, the University of Melbourne Library operates under the Provost. The Library is organised into three programmes; Scholarly Information, Collections and Information Management and the eScholarship Research Centre employing more than 250 staff. There are libraries on the Parkville campus as well as libraries at the Southbank, Burnley, Werribee, Creswick and Dookie campuses. Overall, there are 12 library locations. The University Library also manages Special Collections, the University of Melbourne Archives as well as coordinating and managing the Cultural Collections of the University and the Percy Grainger Museum. Librarians provide support for students and academics in teaching and learning and increasingly for academics in research. In addition the Library manages the university's learning management system, manages copyright, provides a digitisation service and in partnership with the University Research Office and Information Technology Services is developing the Research Data Management Strategy for the University. The eScholarship Research Centre is also part of the Library.

After a wide-ranging consultation process in 2008 the University adopted Melbourne's *Scholarly Information Future: A ten-year strategy.* The Library's Strategic plan is derived from this document and annual plans are used to measure progress against the objectives outlined in the plans. These plans assist the Library in operating in a rapidly changing environment. The move towards open access publishing and the rise of e-books are just two factors which impact on the Library. Establishing and fostering communities of practice is seen as one way to share the knowledge and skills staff need to adapt to change. They have the potential to build the resilience of both individuals and the organisation. At the same time they offer the opportunity to work across barriers of organisational hierarchy and structure.

In the University there have been different types of community of practice established with varying degrees of success. A listserv was established in the 1990s to enable the sharing of information between Local Technology Experts (LITEs) and the central information technology unit. For a number of years a one day annual conference, LITECon was held which enabled members to meet face to face and share experiences. While the conference is no longer held the listserv continues and is used to share knowledge and solve problems collaboratively.

Another listserv which serves as a community of practice is web forum, established in the early 2000s and again used by web professionals to share information and solve problem. The web community also participate in fortnightly informal chats and quarterly technical talks which are both occasions to share information and learn new skills. The fortnightly occasions are extremely informal, and staff members interested in web matters meet at a local cafe. Over coffee anything from news and views on web topics to technical tips are exchanged. The quarterly technical talks are more formal with a programme of guest speakers held in a tutorial setting.

More recently the University community has begun to explore the use of social media. Yammer, an enterprise social networking tool was introduced in 2010. The recent establishment of a number of a groups using Yammer as a means of connecting with others who share their interest or practice area is an interesting development. Large global organisations are using similar technology to connect communities of practice.

In 2008, the University established an objective to implement a business operating model known as Responsible Division Management (RDM). This model, acknowledges the complex, devolved nature of the University of Melbourne. It is based on the principle of subsidiarity, which aims to align accountability and actions as closely as possible to where services are provided and people are affected. It is supported by an institution-wide policy framework which guides local decision-making. RDM gives greater responsibility to deans and heads of administrative budget divisions to make decisions which impact on academic and business needs.
As part of the implementation of RDM, practice leaders were appointed for Advancement, Facilities Management and Sustainability, Finance, Human Resources, Information Technology Services, Melbourne Engagement & Partnerships Office, Marketing and Communications, Occupational Health and Safety, Records Management, Research, Student Recruitment and Student Services. One of the responsibilities of the Practice Leader is to ''Develop networks with the purpose of supporting staff in the professional practice area' (University of Melbourne, 2012).

The practice leader for Records has established a network of Local Records Co-ordinators which meet quarterly to share information and learn of compliance requirements in the Records Management domain.

These are the communities of practice known to the writer. The history and development of communities of practice at the University is a potential area for future research.

SUMMARY OF THE LITERATURE

The term 'community of practice' was first used by Lave and Wenger (1991). The background of the authors was in anthropology and they argued that knowledge could be acquired by participation and the sharing of information between experienced and novice practitioners.

Colleagues at the Institute for Research and Learning Brown and Duguid took this notion a step further in an article where they examined a famous case study of Xerox photocopier technicians conducted by Julian Orr. Brown and Duguid (1991) proposed that working, learning and innovating, rather than being separate unrelated activities in a workplace were connected and that such connection was enabled by informal communities-of-practice.

Wenger (1998) elaborated on the subject of communities of practice and provided 14 indicators of community of practice as follows:

1. Sustained mutual relationships – harmonious or conflicting
2. Shared ways of engaging in doing things together
3. The rapid flow of information and propagation of innovation
4. Absence of introductory preambles, as if conversations and interactions were merely the continuation of an on-going process
5. Very quick setup of a problem to be discussed
6. Substantial overlap in participants' descriptions
7. Knowing what others know, what they can do, and how they can contribute to an enterprise
8. Mutually defining identities

9. The ability to assess the appropriateness of actions and products
10. Specific tools, representations and other artefacts
11. Local lore, shared stories, inside jokes, knowing laughter
12. Jargon and shortcuts to communication as well as easer of producing new ones
13. Certain styles recognized as displaying membership
14. A shared discourse reflecting a certain perspective on the world. (Wenger, 1998, p.125).

Wenger et al. (2002) focus on communities of practice as a valuable management tool as well as their potential for capturing and managing knowledge within an organisation. They define a community of practice as a 'unique combination of three fundamental elements: a *domain* of knowledge, which defines a set of issues; a *community* of people who care about this domain; and the shared *practice* that they are developing to be effective in their domain' (Wenger et al., 2002, p.27)

They also outline the typical stages of development of a community of practice. 'They typically start out as loose networks that hold the potential of becoming more connected and thus a more important part of the organization. As members build connections, they coalesce into a community. Once formed, the community often grows in both membership and the depth of knowledge members share. When mature, communities go through cycles of high and low activity . . . . During this stage communities often take active stewardship of the knowledge and practices they share and consciously develop them.' (Wenger et al., 2002, p. 68)

These four works are regarded as seminal and commentators such as Cox (2005, p.538) have noted the shift in emphasis over a period of just over ten years from an emphasis on communities of practice as opportunity for learning to a form of knowledge management. 'The dominant usage of the term 'community' of practice, at least in the organizational literature, is now to refer to a relatively informal intra-organizational group specifically facilitated by management to increase learning or creativity.'

Later writers have focussed on the potential of technology to enable virtual communities of practice in large global corporations. Communities of practice have been more enthusiastically embraced by some professions. Health professionals seem particularly interested in the value of communities of practice in improving their practice and the literature reflects this.

CASE STUDIES

Case study: Local Information Management Experts

In 2009 a year long project to reform the University Library's file share was completed and the project team disbanded. The file share was established in 1997 so that library staff could share electronic documents. With no rules or guidelines in place the file share became disorganised. At the beginning of the project the file share or shared drive as it was known had 253 folders containing thousands of documents. At the end of the project the drive contained sixteen folders, fourteen using the University's Enterprise Classification Scheme and two legacy folders. The challenge was to ensure that the new structure of the file share was maintained. There were no additional resources available to ensure this. A community of

practice was suggested as a way of maintaining the new structure and ensuring good practice in information management continued.
Fourteen individuals from three programmes of the Library were nominated as members of the Local Information Management Experts (LIMEs) group. Four meetings were arranged and held in 2010. A variety of meeting styles and settings were trialled and evaluated. In 2011 the number of meetings was increased to six at the suggestion of the LIMEs themselves. In 2012 ten meetings a year will be held. The role of the LIMEs has been recognised in the Library operational plan and the group is developing a programme of activities and professional development across the Library
The first meeting in 2012 was a planning meeting. At this meeting the group developed a programme of work for the year and has begun to investigate the production of an improved staff contact directory. During Information Awareness month members of the group held a forum for Library staff. At this forum the Enterprise Classification Scheme was promoted, the role of the LIME explained and document naming protocols were promoted. A working group has formed to develop document templates for commonly used documents such as agenda and minutes of meetings.

The LIMEs meetings are facilitated by a member of the original project team . There is a role description and terms of reference for the group. An agenda is circulated before meetings and decisions made are recorded. All this information is freely available in the shared drive for all library staff.

Gradually there appears to be a shift towards self-organising and a move away from reliance on the facilitator.

Case study: Web workshop
The Library established a web presence as early as 1997. Over time and a number of organisational restructures information about the library on the web was widely dispersed and inconsistently resourced. In 2010 a decision was made to move the library web pages from Dreamweaver pages hosted on a web server to pages in the University's enterprise content management system.

The main library web pages are now in the content management system but many legacy pages remain. Over time it is intended that these pages will be reviewed and rewritten before being migrated into the content management system. In preparation for this migration and as part of a broader strategy to improve the skills of Library staff, three *Writing for the Web* workshops were conducted in 2010 and 2011. Forty five staff attended a one day workshop and half day master class to apply the learning acquired in the workshop. This was a considerable investment in staff development and there were concerns that without practice the newly acquired skills would be forgotten. Follow up sessions were arranged and participants were encouraged to bring any writing they were working on. A number of sessions were held but attendance was low. For a number of reasons the migration into the content management system was delayed and there was a lack of 'real' pages to rewrite. At the sessions general questions about the library web presence and the use of the content management system were raised and so the idea of web workshop was proposed.

These are monthly sessions held in the learning management system training room where participants have access to a large screen. The library web manager now attends these sessions and they are advertised in Library News, the internal library newsletter. Library staff have also attended Web Editor training provided by the University Web team. Once trained,

library staff are responsible for editing the content of their pages. Web workshop gives them the opportunity to ask questions of their peers about problems they may experience.

LESSONS LEARNED

Communities of practice take time to be established.

Staff are used to working in teams and attending team meetings, usually with an agenda and minutes and varying degrees of formality. They are not used to working across the library's organisational units. If working across silos in order to achieve the aims of large organisations is becoming more common, members of these communities of practice are well placed to adapt to this trend.

When the LIMEs first met there was uncertainty on behalf of the members. Though they had been nominated because of an interest in information management they were uncertain about their expertise. Early on one member challenged the use of the word 'expert'. Although they cared about improving information management practices in the library they were uncomfortable with the label 'expert'. They saw themselves as being learners, part of the group in order to learn and apply their learning back in the work place. At first members of the group looked to the co-ordinator for leadership in the topics discussed and the knowledge shared. This was exacerbated by the selected meeting venue, which was set up in lecture style. Later meetings of the group have been held around a large table with access to a computer linked to a projector so that members can demonstrate an issue they are concerned about.

At the beginning of 2012, the group spent some time planning an outline of activities they would like to undertake during the year. At a recent meeting the co-ordinator was unable to attend, the group were able to agree on a number of initiatives previously discussed. Members of the group are now working on two projects – a staff contact directory and a suite of document templates as a direct result of the planning session. The LIMEs have begun with potential, have spent almost two years exploring connectedness, defining joint enterprise and negotiating community to arrive at the active stage where they are engaging in joint activities. Turning points in this process have included participation in information awareness month activities and presenting information sessions in their work groups.

The web workshop, which came together in its current format only in 2011, is still at the potential – coalescing stage. Attendees are still reliant on the facilitator to provide a focus for each meeting. Members of the group are still exploring issues, deciding what it is they want to learn and share. Interestingly there is some overlap between members of this group and the LIMEs and it is these members, with experience of a community of practice already who are more active in this group.

REVIEW AND EVALUATION

What are the criteria for evaluating the success of these communities of practice?
The answer to this question differs according to which community is under consideration.

The LIMEs were established to ensure that a change in information management practice was sustained and implemented widely across the Library. There was a considerable investment of resources in the shared drive project and a community of practice was regarded as a way of ensuring improved information management practices continued. This group received no formal training before coming together. They were nominated by managers who recognised them as staff who cared about improving information management in their workplace. No formal evaluation of the success of the LIMEs has as yet been undertaken. Recent initiatives by a member of the group to propose and conduct improvement projects provides an opportunity to measure and report.

The library web workshop group is still evolving as is the Library's web strategy and indeed a University-wide web strategy is currently being formulated. Members of web workshop were initially defined as those staff who had undertaken a day and half of formal training in writing for the web. The initial concern was that without practice the skills acquired by formal training would be lost. The focus of the group has shifted. The questions and issues being raised at the initial meeting were of wider nature than just writing for the web, so web workshop is developing as a means of communication about web issues as well as an opportunity to acquire and practice web specific skills.

While both these communities of practice have counterparts at the University level there are different reasons for the groups to be separate. Just as some members of the LIMEs attend meetings of the LRC, Library staff with a sufficient level of confidence attend the web cuppa and tech talks and take information gained back to their groups. Such boundary crossing is typical in communities practice and is described in full in Wenger (1998).

The groups should also be involved in a discussion about establishing criteria to measure the success of the groups. 'Stories are the best way to traverse the knowledge system in a way that explains the linkages between community activities, knowledge resources and performance outcomes.' (Wenger et al., 2002, p.168) Each group should begin to collect stories of the difference they are making to the way things are done in their domain.

The conscious development of communities of practice in the Library began at the suggestion of a manager as a way of ensuring that a change in practice could be sustained. The staff member who took on the role of co-ordinator was not well versed in the theory of communities of practice but was committed to the notion of sharing and organisational learning. The nurturing of these two groups has to some extent been an organic process as the tension between a formal agenda and the desire to see the groups become self sustaining has played out. At some point the groups will need to be allowed to continue as a self sustaining community of practice which according to the theory will either continue and grow or stop according to the needs of the participants themselves.

Certainly at some point Library management will need to decide whether they continue to provide a facilitator or allow the group to set their own agenda.

ACKNOWLEDGEMENTS

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BIOGRAPHICAL NOTE

Sally Newton is a Senior Information Analyst in the Strategy and Planning Unit at the University of Melbourne. She believes that work is about learning new things, making a difference and having fun. Communities of practice can provide the opportunity to achieve all of these.

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LEARNING OPPORTUNITIES:
A PARTNERSHIP, CONNECTING LEARNING WITH PROJECTS

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ABSTRACT

Major construction projects undertaken on university campuses are an ideal opportunity to connect learners in related disciplines to the real thing. How often do universities take that opportunity, make the connection and value add to projects being carried out? Discussion with students and academic staff will consistently generate enthusiasm for creating learning activities and resources related to projects. Some typical disciplines are project management, all fields of engineering, architecture, interior design and information technology. Some other areas that may not at first seem obvious are business, marketing, communication and public relations. The authors provide a case study based on the new Queensland University of Technology (QUT) Science and Engineering Centre project of how the partnership between QUT and Leighton Contractors, the managing contractor, has delivered excellent learning opportunities through the design and construction phases of the Science and Engineering Centre project.

KEY WORDS

learning, experiential, partnership, construction, project.

INTRODUCTION

The importance of linking learning to real world context and experience is well recognised. According to Webb, Dawes and Prasanna (2011, p.1), 'It is essential to create authentic design experiences for engineering and spatial science students that simulate the demands of real professional practice.' This can be extended to all applied areas where theory and practice are joined in professional endeavour. Site visits for engineering and construction technology students are identified as essential, however, they are difficult if not impossible to organise (Wilkins, 2000). Learning experiences that provide real world context such as that reported by Sattineni and Williams (2008) of 'electronic field trips' are an example of efforts to address this challenge. Discussion with students and academic staff consistently generate enthusiasm for creating learning activities and resources related to projects. Some typical disciplines are project management, all fields of engineering, architecture, interior design and information technology. Some other areas that may not at first seem obvious are business, marketing, communication and public relations.

While connecting construction projects with university students and staff benefits learning and research it is also beneficial for partner companies in meeting their needs.
The Learning with Leighton Contactors programme has delivered some significant benefits to both the Science and Engineering Centre project team as well as Leighton Contractors

business as a whole. Importantly, through this programme the partnership between QUT and Leighton Contractors has strengthened and developed during the project.

'Enduring business relationships' are core to Leighton Contractors' business and this programme is a true example that demonstrates these values on a project (Leighton Contractors, 2009). The programme has been showcased through business updates, company publications and also in bids to win future work.

Aiming to actively engage with the university community has highlighted the importance of community engagement on building projects. Project team members have gained a better understanding of the value in good client relationships and the positive outcomes from effective community engagement. The team has also been able to impart their knowledge and skills to QUT students, our future construction industry professionals and leaders.

The programme highlights the commitment of Leighton Contractors to give back to the communities in which they operate so filling corporate social responsibilities. A strong industry and tertiary partnership provides long term opportunities after the construction project is complete.

Construction of the new $230m Science and Engineering Centre on QUT's inner city campus has provided an excellent opportunity to connect learners (students and staff) with real experiences and industry context operation. While major construction projects undertaken on university campuses present ideal opportunities for learning how often is the connection made and this value from projects realised?

This paper provides a case study based on the new QUT Science and Engineering Centre project of how the partnership between QUT and Leighton Contractors, the managing contractor, has delivered excellent learning opportunities through the design and construction phases of the project.

Initiatives of this type do not flow naturally as a part of normal business operation for any of the major partners involved. The focus for the university facilities management section is managing a large complex project from design to commissioning while the contractor must deliver the built form. Delivering learning opportunities is not business as usual for either and in fact, while teaching units (the faculties) have learning as their core business they have not traditionally been able to realise the significant benefit of having a major construction project in their backyard.

To address this challenge and make it 'business as usual' both QUT and Leighton Contractors assigned appropriate resources and key personnel to guarantee success. QUT Facilities Management appointed a person to the project to undertake this as a apart of a stakeholder and communications role. Furthermore, Leighton Contractors ensured their stakeholder and community relations manager was fully engaged to make the connections and integrate the activity.

Communications and marketing publications produced by QUT describe the project in the following way:

The new $230m Science and Engineering Centre on Gardens Point campus is at the heart of QUT's vision to help solve global problems. The centre will thrust the university to the

forefront of teaching and research in the critical areas of science, technology, engineering and mathematics.
This landmark project will be:

- a hub for innovative teaching and learning
- a catalyst for relevant collaborative research
- an exciting meeting place
- a model for sustainable building practices.

(Queensland University of Technology, 2011, p. 1)

The finished project will embody all of the stated aspects of the vision and additionally, during the design and construction phase, has been explicitly used for designed learning opportunities in a partnership model.

When tendering for a managing contractor, QUT included a requirement for value-add in relation to providing structured opportunities for joint learning outcomes from the project.
The Learning with Leighton Contractors programme was set up within the project to achieve the identified value-add. It was visioned, scoped and delivered successfully by a team from QUT and Leighton Contractors and long term partnership opportunities are being explored. With long term partnerships being developed, it is envisaged that the strong connection made between tertiary and industry during this project will continue well into the future.

The programme

Programme overview

The Learning with Leighton Contractors programme is a unique engagement strategy developed in joint venture with QUT and Leighton Contractors on the Science and Engineering Centre project. Since late 2010, the Learning with Leighton Contractors programme has been delivered through a targeted stakeholder engagement strategy.

It was recognised that the engagement outcomes generated by the design and construction phase would be a key factor in determining the success of the project as perceived by some stakeholders. Therefore, both partners acknowledged the necessity to consult with key stakeholders from different faculties to ensure they had an opportunity to influence the engagement outcomes. Equally important was to ensure both partners did not over-commit to initiatives that were unachievable or destined to fail.

Aim of the programme

The programme aimed to actively engage with the university community during the design and construction phases of the Science and Engineering Centre project; provide ‘real world’ experiences; and develop learning outcomes for QUT staff and students.

Criteria for success

Criteria were developed to ensure the programme met the aim including acceptance, commitment and ownership by QUT and Leighton Contractors, appropriate resource allocation and expedient decision making to enable planning and implementation of recommendations.

Methodology
In June 2010 an external facilitator was engaged to coordinate a workshop with stakeholders. The workshop provided a mechanism to consult with a range of representatives and brainstorm potential engagement and learning opportunities. Prior to the workshop the representatives prepared a pre-thinking worksheet to assist in gathering ideas from their colleagues.

A select group of representatives reviewed the workshop outputs and agreed on a range of recommendations that were proposed to key decision-makers. The recommendations were classified into three categories:

- QUT opportunities – initiatives within the decision-making capability of QUT management only;
- project specific opportunities – initiatives jointly achievable by QUT and Leighton Contractors during the life of the construction phase of the project;
- legacy opportunities – initiatives jointly achievable by QUT and Leighton Contractors that have the potential to extend beyond the construction phase of the project.

The Learning with Leighton Contractors programme targeted a range of internal and external stakeholders in order to successfully deliver programme goals and objectives. These are detailed in Table 1.

Major elements
A wide range of activities and opportunities over the past two years have included:

- guest lectures delivered by Leighton Contractors personnel and consultants;
- undergraduate internships for two QUT students for 12 months;
- professional development through courses provided to QUT staff and students;
- educational resources development;
- site tours;
- Leighton Contractors support campus events and the QUT Learning Potential Fund.

Guest lectures
Leighton Contractors personnel and consultants delivered 22 guest lectures. Successfully achieving a positive outcome for this activity required that both QUT academics and Leighton Contractors staff realised the associated benefits and aims of the programme and collaborated to ensure best fit.

QUT academic staff were offered opportunity to participate through a request for expression of interest. The request detailed the programme and aimed to target a wide range of disciplines and course units. Participating academic staff were encouraged to share their experiences with colleagues that generated additional interest in the programme.

The guest lectures covered a range of topics from construction methodology and design through to managing safety and environment on site. The course units involved a cohort of students from first year undergraduates to postgraduate masters students. Initially Leighton Contractors committed to 12 lectures over the course of the project, however, due to the success of their delivery, ten more lectures were delivered.

In addition to guest lectures, the authors delivered a Client Brief on the Science and Engineering Centre project to final year public relations students. The students developed and

presented their pitch to QUT and Leighton Contractors public relations staff as part of a major assessment within their curriculum.

Table 1: Stakeholder engagement

Target Stakeholders	Relevance
Internal Target Stakeholders	
Primary	
Learning with Leighton Contractors Working Group – consisting of four key personnel including QUT Stakeholder and Communications Manager, QUT Teaching and Learning Advisor, Leighton Contractors Stakeholder and Community Relations Manager, Leighton Contractors Northern Region Training Coordinator.	This group 'drove' the programme from infancy through to future opportunities
Learning with Leighton Contractors Approval Group	Key decision makers
Leighton Contractors Science and Engineering Centre project team	Actively involved in delivering the various elements of the programme
QUT staff and students	Benefit from programme
QUT Learning Potential Fund	Benefit from programme
Secondary	
Leighton Contractors corporate office	Involved in delivering particular elements of the programme
Science and Engineering Centre project consultants	Involved in delivering certain aspects of the programme
External Target Stakeholders (engaged for certain aspects of the programme only)	
Media	Used to promote the programme to both the QUT community and broader public
Other tertiary institutions through the Tertiary Education Management Conference programme paper and presentation	Opportunity to share programme with other tertiary institutions who may consider similar programmes
High school students involved in QUT events supported by the programme	Promoting the engineering and construction industry to high school students
National Association of Women in Construction	Programme is supportive of women in construction
Indigenous community through QUT Equity Services and widening participation	Links to QUT and Leighton Contractors' commitment to increasing Indigenous participation in their operations.

Undergraduate internships

Two QUT undergraduate students were employed by Leighton Contractors on a 12 month internship. The positions were advertised and a detailed selection process took place to find suitable candidates. The internships provided the students with valuable practical experience to complement and enhance the theory learnt in the classroom. It also delivered benefit to the project team in allowing Leighton Contractors graduate and site engineers a chance to develop leadership skills in managing undergraduates on the project.

Additionally, this brought about an influx of graduate enrolments into the Leighton Contractors Northern Construction Graduate Rotation Programme for 2012. The graduate programme was promoted in guest lectures and a high standard of applications from QUT students were received upon their graduation last year. One of the students who worked on the project team as an undergraduate intern was a successful candidate and is completing his first rotation on the Science and Engineering Centre project.

'I have been very fortunate with the opportunity given to me through the Learning with Leighton Contractors initiative. It has really helped me kick-start my career in construction.'
(Ryan Alwi, Graduate Engineer, Leighton Contractors)

Figure 1 Ryan Alwi, Graduate Engineer

Professional development

With collaboration a significant theme of the programme, several places were offered by Leighton Contractors on their Frontline Management and Foundations of Safety Courses. QUT staff and students attending these three day courses benefitted from learning current industry practice to apply in their own workplace or studies.

'This brings me to the best part of the programme – The People. Of the eight people in the course, 4 of them were from an isolated work site which meant they were able to add so much real-world experience to the information we were covering. The stories and examples were incredible. The facilitator was equally impressive. Adrienne's ability to work professionally with such a mixed group is credit to her abilities. All in all, I cannot praise the programme and company enough. It was a tremendous experience.'

(Jon James, Supervising Technician, Faculty of Built Environment and Engineering, Queensland University of Technology)

Educational resources

Educational resources were developed throughout the entire programme. Monthly fact sheets featured up to three different construction activities taking place on site during that time. These documents were posted on the QUT project website and hard copies were accessible within the Leighton Contractors site office.

Imagery has been produced for all construction phases. Regular progress photos, aerial photography and time-lapse (Figure 2) have all been utilised to capture the story of the project from the initial stages through to completion and eventual occupancy. Currently there are over 5,000 images depicting progress and detail of the project.

The amount of time-lapse imagery taken has been extensive with permanent cameras fixed for extended periods of time as well as temporary cameras set up to capture specific construction works. Examples of these include the disassembly of a tower crane; concrete pours; post tensioning and stair installation.

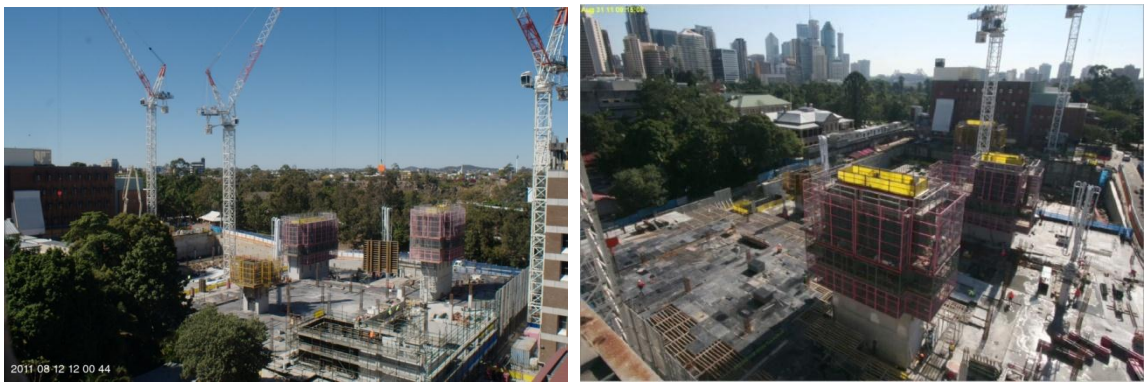

Figure 6 Time-lapse from two fixed locations

Project drawings and programme documentation have been provided for use as an educational resource. These provide students with 'real world' material to use in case studies and assignments. A number of higher degree research students have been provided with resources for their research work relating to the Science and Engineering Centre.

Site tours

Monthly site tours were conducted by the Leighton Contractors Site Construction Manager. These tours were an ideal opportunity for QUT staff and students to connect with the project on site, gaining first-hand information. In Figure 3 QUT Construct students use the opportunity well to quiz the Site Construction Manager on one of the tours.

Figure 7 Site Tour - QUT Construct students

'The Learning with Leighton Contractors site tour provided a great experience and showed me how a construction site functions.'
(Keisha Robinson, Interior Design Student)

'As a student it was really interesting to see a building under construction at a stage where I would see relevant parts to my studies.
(Lucy Corones, Interior Design Student)

Leighton Contractors support campus events and QUT Learning Potential Fund

Events held on campus were an opportunity for Leighton Contractors staff to connect with university life. Participants of these events appreciated the time, expertise and enthusiasm of those staff. Examples of campus events include National Engineering Week; Science and Engineering Challenge; Learning Potential Fund fundraising. In Figure 4, Leighton

Contractors site staff engage with high school students during National Engineering Week. This connection was well documented through internal staff newsletters, Leighton Contractors publications and external media outlets to generate enthusiasm and involvement from the entire project team.

Figure 8 National Engineering Week

Evaluation

Evaluation of the aim of the programme and criteria for successful implementation indicate the positive outcomes achieved.

The fact that such a multifaceted programme has been implemented, as evidenced by the elements delivered and the penetration into many areas of the university, is a key performance indicator. Testimonials, feedback and recognition of the programme are evidence of the quality and acceptance. Some testimonials and feedback are included in this paper with many others given but not included.

The criteria for successful implementation as identified were met. Acceptance, resource allocation and expedient decision making were all achieved with both partners working collaboratively to achieve the aims.

Significant outcomes were achieved through the programme. The original 12 guest lectures were extended to 22 due to demand recognising the value of the lectures with many of the university academic staff providing positive feedback on the delivery and engagement. One of the interns from the programme was accepted for the Leighton Contractors Graduate Rotation Programme upon graduation. All other activities received positive reception and equally encouraging feedback. Leighton Contractors staff also indicated a personal benefit of engaging with students through the programme. The QUT Learning Potential Fund benefited from fundraising directed to it through the programme. The learning resources developed will provide valuable material for future student learning.

Testimonials

'The role of industry partners such as Leighton Contractors is pivotal in ensuring that students have work place experiences that help them develop these professional and generic competencies.

Greg's presentations have been very well received and always receive positive feedback from students. The WIL Teaching Team also appreciates Greg's valuable contribution from an industry perspective and hope that this collaboration will continue.'
(Dr Deborah Peach, Senior Lecturer, Director, Work Integrated Learning, Science and Engineering Faculty, Queensland University of Technology)

'Brent gave an extremely informative and insightful presentation concerning QUT's approach to procuring the project being delivered by Leighton Contractors.
In doing so, Brent was able to bring to life key theory and many of the topics that we had covered in class.'
(Dr Adrian Bridge, Senior Lecturer, Construction Economics, Civil Engineering and Built Environment School, Queensland University of Technology)

'The Learning with Leighton Contractors programme has delivered some positive outcomes for Leighton Contractors. Our staff have enjoyed being part of QUT events like National Engineering Week and the Science and Engineering Challenge. Our staff have also been able to share their knowledge and experience of the construction industry with QUT students through guest lectures and site tours.
The programme has also allowed Leighton Contractors to gain exposure to QUT students as potential future employees. The Science and Engineering Centre project has engaged a number of QUT undergraduates over the course of the project - a win-win for both the student and Leighton Contractors.'
(Greg Muir, Operations Manager Building, Leighton Contractors Northern Construction)

Successes and challenges
The programme has been very successful overall in providing the elements as designed in the initial phase. The wide range of activities and interactions required significant attention to ensure workable connection with academic staff in the specific units (subjects) and with students directly. Some of the testimonials and feedback have been included in this paper and indicate the quality and benefits of the programme.
While elements such as lectures, site tours, internships, training and support of events have been of immediate benefit during the programme. Longer term benefit will be realised from the learning resources such as images, time-lapse, fact sheets and documents.

A challenge throughout the programme and in future use of resources is the uptake by academic staff in using them as curriculum material for their units. More work is required on the university side to ensure the large amount of material is accessible and managed for appropriate use.

The feedback from Jon James who attended the Foundations of Safety course and Sue Savage who has been connected with and supported the programme provide insight into its value and the legacy expected as a result.

'In light of our on-going relationship with Leighton's I believe we should capitalise upon these opportunities as much as possible. They could really change the way we look at challenging issues such as Workplace Health & Safety.'
(Jon James, Supervising Technician, Faculty of Built Environment and Engineering, Queensland University of Technology)

‘QUT has been deeply immersed in (even obsessed with) the excitement of the construction of the new Science and Engineering Centre. As it nears completion this seems like a good time to congratulate you both on the fabulous 'sideshow' which you have orchestrated for our students. Hundreds of our students have benefited in a variety of ways from the your integration of the construction of the building with their studies. In many instances the work that you have assisted academic staff to complete will be used as curriculum materials for some time to come. A few very fortunate students have had the opportunity to work on the site as part of the work integrated learning curriculum. All these interactions have made a positive contribution to the education of our engineering and urban development students in particular and, whilst it might seem like a straightforward and simple idea, we all know that arranging for the interaction between Leighton Contractors and our academic programme has never been as simple as it might sound.

I would like to acknowledge and thank you both for making the boundaries between a building site and a university classroom a great deal more permeable. I'm sure our students will remember their learnings through the LwLC programme for its real world relevance. You should be rightly proud of the important part you have played in the education of our students.’ (Professor Susan Savage FRAIA, Australian Learning and Teaching Council Discipline Scholar Architecture, Assistant Dean Teaching and Learning Faculty of Science and Engineering QUT, Chairperson Board of Architects of Queensland)

CONCLUSION

This paper has presented a case study that describes how a partnership between the university and industry has realised the learning benefits of having a major construction project on campus. The methodology in implementing the programme from concept to delivery has been explained and the components of the programme detailed. Positive feedback and analysis of outcomes has been presented.

It has been identified that a structured and cooperative approach is essential in achieving significant learning opportunities for students and staff of the university and providing tangible benefits for the industry partner. While the desire to connect and recognition of the value of such interactions is widely accepted it is not part of business as usual for either organisation and requires a strong relationship and perseverance on both sides. The result of this programme has provided many positive learning experiences directly linked to the multifaceted project. It has also formed a very solid base for strong relationships that will continue after the formal programme has finished.

In addition, it is proposed that these observations will benefit future interactions for QUT and Leighton Contractors and other educational institutions and industry.

The Universities Australia (2008) position paper, A National Internship Scheme: Enhancing the skills and work-readiness of Australian university graduates indicates: ‘Integrating study and work experience in a systematic way is not new to university experience. The professions have long forged close links between the tertiary education process and the workplace, and other areas have followed suit. There is compelling evidence, however, of an even wider unmet need for generally trained, flexible graduates with relevant experience and enhanced work readiness. Recent progress in this direction has been impressive, but much more can be done.’ While the main intent of the position paper is toward internship programmes it is

evident that linkage programmes that connect universities with industry providing learning opportunities are of significant merit.

ACKNOWLEDGMENTS

The authors would like to acknowledge the contributions of all QUT staff and Leighton Contractors staff and consultants who have contributed to the programme. Specifically, the support of Stephen Jenkins, Leighton Contractors Site Construction Manager and QUT's Professor Sue Savage, Assistant Dean Learning and Teaching, Science and Engineering Faculty are acknowledged.

BIOGRAPHICAL NOTES

Gary Rasmussen is Communication and Stakeholder Manager at QUT for the new Science and Engineering Centre and is part of the QUT Community of Practice for Collaborative Learning Spaces that has informed design and pedagogical approaches in relation to new learning spaces. Gary has a keen interest in developing learning environments particularly in active learning and laboratories and has published papers and presented at Australian and international conferences.

Sonya Dewing is Stakeholder and Community Relations Manager for Leighton Contractors on the Science and Engineering Centre project at QUT. Sonya has worked for Leighton Contractors for six years and has been involved in several building projects, including the new Leighton Contractors headquarters in Fortitude Valley. Sonya is passionate about creating opportunities to engage with the local communities surrounding the projects on which she works.

Both the authors were driving members of the Learning with Leighton Contractors programme.

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CREATING A NEW TEACHING SPACE: TEAM BASED LEARNING LABORATORY

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ABSTRACT

The University of Auckland Business School added two new courses to its curriculum in 2012. These emphasise real world 'business' requiring students to focus on team work. It was clear that the usual lecture theatre setup would not be sufficient to accommodate this approach of team based learning and a new space was required. After a significant consultation and extensive research work, a state of the art purpose built learning space was created to facilitate this new teaching pedagogy. Both audio-visual and furniture setup were designed in such a manner that a facilitator is given the freedom to teach from anywhere within the classroom. This room has been used for two semesters at the time of writing. The design was very well received by all the users of the new space and feedback so far is extremely positive.

KEYWORDS

team-based learning space, audio-visual

INTRODUCTION

In 2010 The University of Auckland Business School reviewed its curriculum mainly to simplify the structure of its core courses and streamline some of the course content being offered. This review helped to create two new subjects - Business 101 and 102.

To accomplish this goal a team based learning approach needed to be created which would increase the interaction between the lecturer and the student and also more importantly between student groups. This system of learning was trialled and evaluated in various forms and configurations within the Business School. However it was clear that the usual lecture theatre setup that was used in other courses would not be sufficient to accommodate this approach of learning. This meant that a new learning space had to be created to accommodate this team based learning pedagogy.

Team based learning was developed by Michaelsen at the University of Oklahoma. This new teaching technique has now been widely used since its development. Team based learning has been suggested to help students who have little interest in the theory of the subject and thus find it difficult to understand the subject in a normal lecture theatre setting. This type of learning can develop important skills and abilities that are important for businesses, organisations, and industries where many projects and tasks are performed by teams. Learning how to learn, work, interact and collaborate in a team is essential for success in today's business world.

The overall aim of this project was to setup a new teaching space that was specifically designed for teaching in a team based learning environment. This document will dwell into the design process of this room. Initially the furniture setup will be discussed, starting with the overall room layout and then moving onto the desk and chair selection. This will then be followed by technology section in which advanced audio-visual equipment was installed to enhance the teaching experience for the lecturer and the students.

FURNITURE SETUP

Lectures that shift from the traditional teaching methods to a more team based learning style require three important changes. These are the teaching pedagogy, role of the teacher and the role of the students. This report will mainly look at how we developed methods to address the latter two changes. The role of the lecturer changes as they are no longer a person who just dispenses information but they have to manage the overall instructional process, that is to say that they will be more involved in the whole teaching environment. Also, the students instead of being passive recipients of information will need to work collaboratively with the other students to learn how to use the content that has been given to them. The setup of the furniture and the audio-visual for this room was designed to cater for these two needs.

Desk Selection

A thorough design process was executed to determine the desk and chair setups that would be used in the team based learning space. The main criteria for the desk selection were that each table was to house six students and give them ample space to conduct their work. The desk setup should also not hinder the movement or interaction between the students. The setup should not put any student in power position in relevance to where they are seated around the desk.

Figure 1: Half-Moon Setup

Figure 2: Rectangular Setup

Initially the four main ideas that were discussed are shown in Figures 1 - 5. The half-moon desk (Figure 1) setup was considered as it allowed for a group display screen to be placed at the centre line of the desk. However the main downfall of this design was that it did not have an even distribution of power/ leadership among the seated students. The straight side of the desk created dominance over semi-circular side which can easily be seen in the above diagram. Hence this design was not carried on any further.

The second option was to construct a desk space with either 4 square tables or 2 rectangular tables (Figure 2). This did not have the power distribution problem seen in the half moon tables however it did restrict the movement of the students around the table and within the group. The type of environment that we are designing required that the students to freely move among the group themselves. Corners restricted the free flow thus further investigation was required.

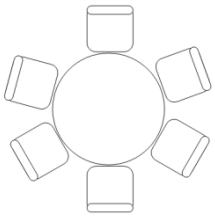


Figure 3: Circular Setup

Figure 4: Trapezium Desk Setup

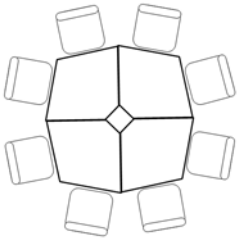


Figure 5: Kite Table Setup

It was agreed that circular seating was preferred over other types as it gave an equal distance between the students and also gave each student equal communication and interaction power and hence a few possible options were evaluated. Although the round table (Figure 3) option was the most favoured option, the management team decided to increase the size of the student groups from six to eight. This change of the original brief added another dimension to the picture.

With this external factors came into the picture, we needed to consider more flexibility that could cater for a wider range of pupil numbers per table. Hence another solution was needed to accommodate future changes. We then tested two further options (Figures 4 & 5).
At this stage we conducted a test run of a class room with different desk setups and found out through feedback forms and video analysis that the students indeed feel constricted when using the desks shown in Figures 1 & 2. Through the video analysis we concluded that the students sitting diagonally opposite to one another were too far apart and hence would not be able to interact effectively in class room environment. All desks shown in Figure 3-5 were equally favoured with this analysis. It was very important to give the student enough room to accomplish the tasks set out for them during the lecture; the desks could not be too large so that the students opposite each other would not be able to interact with one another. Therefore, in addition to the shape, the size of the desks was also considered a very important factor.

Figure 6: Six seat kite tables

Figure 7: Eight seat kites tables

Having considered the flexibility, size and the ability to set up different configurations, it was decided to use kite tables in this room. The final decision to use the kite tables (Figures 6 & 7) was based on a number of observations and feedback from both students and facilitators. This setup not only catered for the flexibility required, but also did not have the ‘power seat’ flaw and restrictive freedom of movement that other types created. Another factor considered was that the room would be used for other activities such as external events during the non-teaching time. This meant that use of kite tables would be more favoured as they could be easily broken up and setup in various formats and configurations. One drawback of this setup is that if a single projector is used at the front of the class some students will not be able to

view this screen due to their seating placement. This problem was however overcome by placing display screens around the perimetre of the teaching space. This is discussed in detail in the technology section of this document.

Chair Selection

The type of chair that would be used was also discussed in length. The main criteria for the chairs were that they needed to provide both comfort and restricted movement in a high dense classroom setting. These options should also not hinder the students learning experience. Comfort was an important criterion due to the fact that the students were in two hour or more lectures and hence would need to be seated comfortably to properly concentrate for that duration. The ability to move forward and back was rated over rotation due to the type of work involved in the class room. Storage of students' materials (such as a backpack) near them was also considered.

Figure 8: Swivel Chair

Figure 9: Stationary Chair

The two main options that were available were the swivel chairs (Figures 8 & 10) and the normal stationary chairs (Figure 9). The positive side of the swivel chair (Figure 8) was that if it was used in a circular setup as discussed above the student would be able to swivel around and face the main screen with ease compared to the stationary chair.

Figure 10: Swivel Chair with storage

Figure 11: Swivel Chair with storage

However the main downfall of this model of chair was that this type of movement would only add to the busy environment already present in the teaching space. Another type of swivel chair that was looked at was one with a small compartment at the base of the chair where bags can be placed (Figure 10). This would mean that the room would be less cluttered as the bags would be under the chair instead of the floor. However these chairs were too expensive considering the number of chairs that we would need. Both these types of swivel chairs were also not stackable and hence would require large storage spaces when they were not in use. The fact that this room would also be used for traditional lectures also meant that the rotating chair would not be appropriate.

On the other hand the stationary chair (Figure 9) also did not meet the requirements that were explained above as it did not provide any movement at all.

Due to these reasons a new type of chair (Figure 11) was purchased as it contained the positive aspects of both the swivel and the stationary chairs. This chair also had padding which would provide comfort for the students who would have to be seated for up to two or more hours. Casters under the floor legs were designed to provide the adequate movement required for the students to interact and view all the screens with ease. This chair also provided a space under the chair that the students could use to place their bags hence the room would be less cluttered. It was also light weight due to its aluminium frame, thus could be moved easily by the students. These chairs were also stackable and hence would not take up too much storage space when they were not being used. This is especially important when other room setups are implemented into the room for external events.

Overall Furniture Plan

There were some important requirements that needed to be met in choosing the right furniture for this learning area. Currently the Business 101 and Business 102 classes are taught in such a way that it involves 6 to 8 students per group. One whole class will contain about 120 students so the space needed to be able to cater for 16-18 groups. When 6 students per group is required the pod will be set up using three kite tables (Figure 6) and when 8 per group is required the pod will be set up using 4 kite tables (Figure 7). Figure 12 shows the overall floor plan that was proposed for the team based learning space.

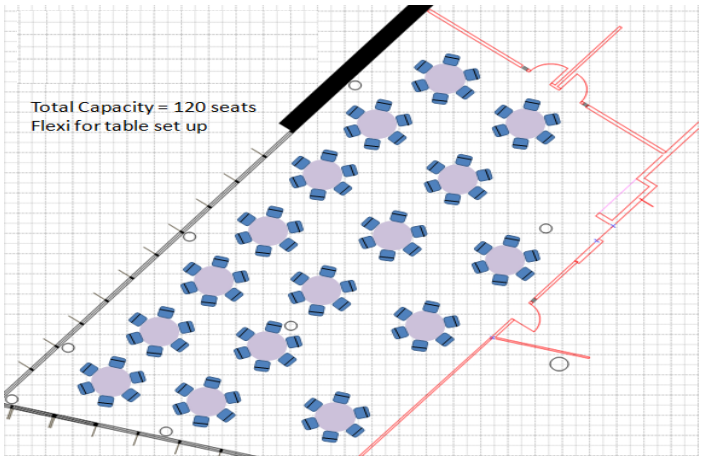


Figure 12: Basic floor plan for the space

During the class student groups and the facilitator have multiple interactions with each other. This type of interaction between the students and the lecturers creates a very busy environment. This meant that the work spaces needed to be spaced in such a way that it maximised the room between each group but still allowed the lecturers and tutors to get access to each group with ease. It was believed that in the given room the furniture setup shown in Figure 12 meets all these requirements. This setup enables the groups to work and interact around the table and also easily lets the students and lecturers move from table to table.

It is believed that this type of furniture setup added with all the audio-visual equipment produced the optimal collaborative teaching environment.

TECHNOLOGY INTEGRATION

The design, selection, installation and integration of the technology was the most challenging task of all. Technology requirements specified were wide and comprehensive while the expectations were very high.

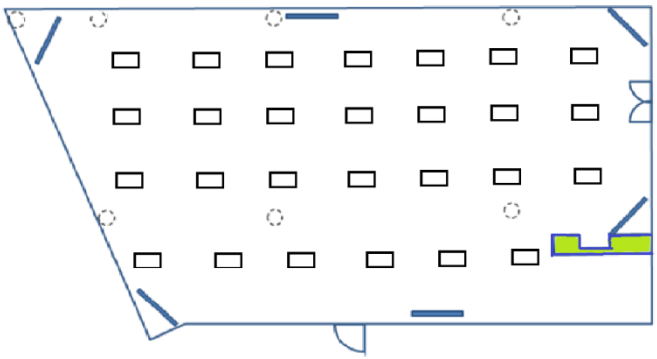
The brief that was followed included:

- students will sit in a circular fashion and all students should be able to view the facilitator's presentation;
- groups work is a big part of the curriculum, hence students should have devices which they can write and draw inside each group. They should also be able to present this work to the whole class;
- students may use devices such as laptops, iPads etc. Hence power and data should be available to each pod;
- students should be able to ask questions, present material from anywhere in the class room. Hence devices need to be implemented to capture their voice and relay it to the rest of the class;
- two projector screens need to be installed for dual use;
- two instructors should be able to facilitate the class and their voice should have priority over the students.
- ability to record the class, both presentations and also classroom interactions. Both audio and video needs to be recordable separately.

A cross section of staff including senior academics, audio-visual specialists and project specialists were consulted to design an appropriate audio-visual solution suitable for this learning environment.

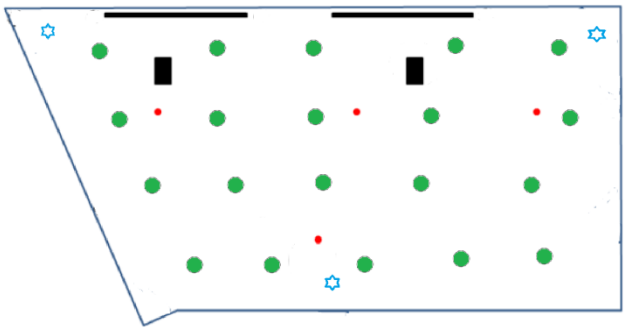
After a significant consultation process followed by extensive research, an innovative audio-visual integration system was designed. Some of the new technologies that were introduced into this learning setup were eight projection surfaces including 780 inch screens and interactive smart boards, ceiling mounted voice activated microphones and many more that will be discussed in detail. All of this audio-visual equipment was installed to enhance the team based learning experience to the students and also to help the lecturers to better present their material.

After many brainstorming sessions the panel decided to implement the following (Figures 13 & 14).



Item	Symbol
Interactive smart boards with projectors x6	
Floor boxes with power & data x27	
E- station (Main AV control station)	

Figure 13: AV set-up floor plan



Item	Symbol
Panasonic projectors x2	
Projection Screen 730” x 1190” x2	
Three way sound capture ceiling mics x4	
Ceiling Speakers x20	
Cameras x3	

Figure 14: AV set-up ceiling plan

Smart Boards

Six interactive smart boards were installed around the perimeter of the classroom. These were spaced out so that all students can view one of them without turning more than 45 degrees. It was expected that students still can have their conversations within the group (facing each other in a circular manner) and refer to these smart boards without having to turn. However students need to walk up to the smart board when they want to interact with them. In addition another two portable smart boards were made available to use as and when required. It is envisaged that the facilitator would use all six smart boards together with two large screens with projectors at the start of the class or during the introduction of group work. One of the six smart boards can be seen below in Figure 15. It was decided that six interactive smart boards, placed around the perimeter of the class, would be sufficient to cater for the needs described above.

Figure 15: A smart board that is installed into the learning space

The smart boards are similar to interactive whiteboards and help improve learning outcomes, especially in a team based environment. It combines the simplicity of a whiteboard with the power of a computer and lets the users write notes, brain storm, design solutions in a group and save all the work all with the simple touch of a finger. This ease of use of the smart boards also means that no additional training is required for the students to use them. Students can use their fingers or a pen to write, draw and interact with content on the surface of the smart interactive whiteboard. Up to four students can simultaneously write, perform mouse functions, erase, and manipulate and move objects on the interactive whiteboard surface – and no special tools are required.

These smart boards are also synchronised and can be controlled using the lectern or the e-station. This means that the facilitator can view all these screens on the teaching computer, and if required, view them individually upon selection and present the selected screen to the whole class. This also further improves the team based classroom environment. It means that the work done by each group can be viewed by the lecturer and then displayed using the main projector for the whole class to see.

Projectors

Large descending screens were installed to compliment the projectors (Figure 16). These screens can be individually controlled from the lectern. The controlled descending screens were important as it does not require the projector screens to be out for the duration of the lecture.

Figure 16: The projectors that have been installed in the learning space

Voice Capture

The voice capture of both the student groups and also the lecturer were important criteria in the design process of this learning space. Due to the size of the learning space, natural voice levels could not be relied on when making announcements to the whole class by either the facilitator or by other students. Also due to the teaching environment, we needed more than the usual classroom microphone at the front of the class. This was because during the lectures the facilitator would normally be moving around the class room and it would be a hindrance if they had to travel to the front of the class every time they made an announcement. The students also had to be incorporated into the design as this was a team based learning space; the work done by individual groups would be presented to the whole class from their desks.

This meant a method of conveying ideas verbally to the whole class had to be established. Two types of voice capture devices are used in this room.

Figure 17: Lapel microphone

Using lapel microphones (Figure 17) meant that the lecturer would be able to make announcements to the whole class from anywhere in the class room. Two options were provided, either clip on or neck tie. The trial of this type of microphone by the lecturers was successful due to the ease of use and also on how effective it was in a classroom environment.

Ceiling microphones were installed at a pre-calculated distance throughout the classroom. This enabled each group to make presentations or interact with the rest of the class. The positions of these microphone meant that they would capture student voices over a pre-determined threshold level. This helps to avoid distributing the ambient noise of the class and only captures necessary voices which could be either questions or presentations. The facilitator also has the ability to mute these microphones as and when necessary.

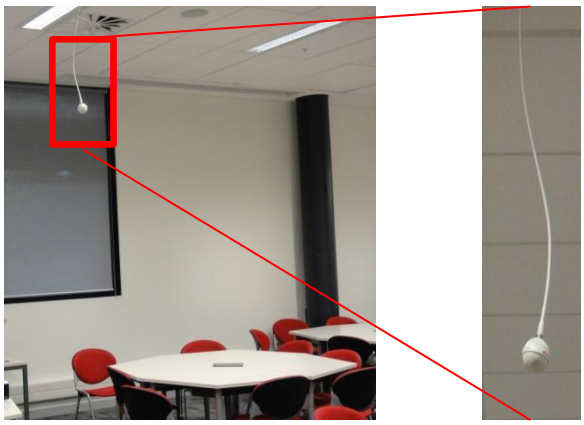


Figure 18: A closer look at the ceiling microphones installed into the learning space
These microphones are very sensitive and capture most areas of the classroom. Each unit (Figure 18) has 3 inbuilt microphones pointing with 120 degrees angle to each other so that all surrounding sound is captured. Figure 19 shows the areas covered by the four microphones that are placed around the classroom. As you can see, ceiling speakers within a single footprint are grouped (in to four) related to the position of the microphone. This scenario was used to mute the speakers close to each microphone so that when they picked up the sound it avoided any potential feedback.

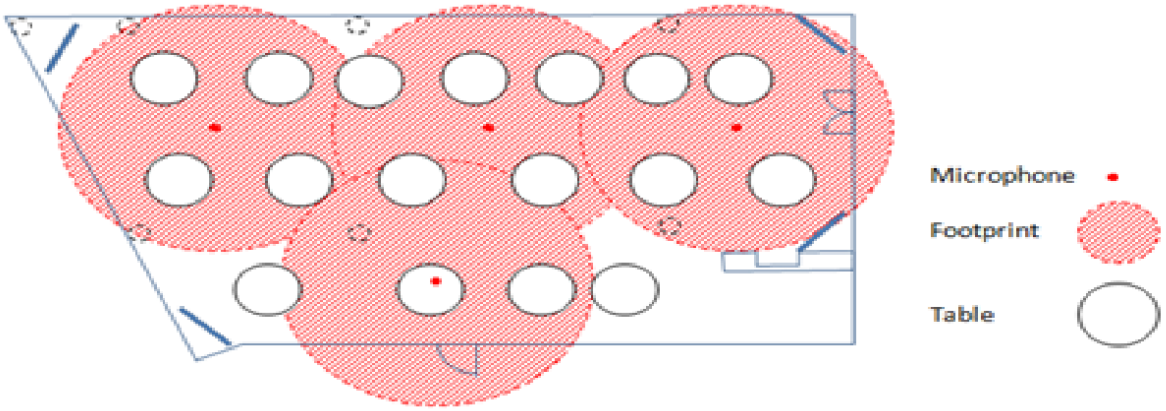


Figure 19: Microphone capture area

Cameras and Lighting

Three cameras were fixed to the ceiling (Figure 20) so that the class actions can be recorded remotely. This feature will not be used on a regular basis as per the current need but is available to capture the class in motion. It is envisaged that post graduate classes and special events will use this feature extensively in the future.

Figure: 20 Camera

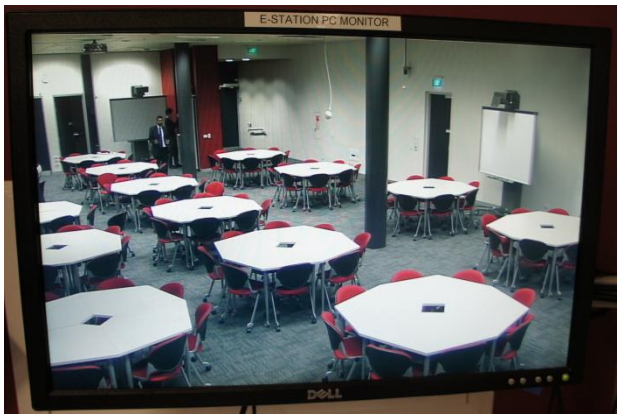


Figure 21: Camera view from E station

The high resolution cameras were strategically placed so that the whole room can be captured (Figure 21). These cameras can also be individually controlled using the lectern and the views can be placed on the main projector. A fully fledged editing feature will be added to this facility in the near future.

In addition to the video capture system described above, the room is also supplied with a voice recording system via usual University lecture recording facility. This is managed by the media services group. This system captures the voice over PowerPoint slides as it does in other centrally managed rooms and is totally separated from the room video capture system.

Lighting: The room is fitted with individually controlled fluorescent light fittings with four simple control options. Intensity of each mode was decided with consultation and experiments. Lights can be controlled by either using a wall panel or the mobile lectern:

- all lights on mode: All lights are on 100 per cent intensity. Facilitator can use the manual on/off switch while walking into the class room;
- projection mode: This is automatically selected when either a projector or smart boards are on. This will cut off lights in front of each projection surface up to 20 per cent and rest of the class up to 70 per cent intensity;
- safety mode: This is also known as quality projection. This will cut off all lights in front of each projection surface up to 20 per cent and rest of the class up to 30 per cent;
- movie mode: This will cut off all lights totally leaving three selected lights up to 20 per cent intensity;

A normal class uses projection mode the majority of the time while special events use the latter two modes.

Lectern Controls

The class room has a fully integrated E-station and a mobile lectern. The mobile lectern can move into any space within the class room. If power and data is required for external equipment such as a laptop, it can easily be plugged into one of the floor boxes. There is a tablet PC control system incorporated so that the audio-visual panel is accessible from anywhere in the room. This was accomplished by using a mobile lectern (Figure 22) and an e-controller pad (Figure 23). The position of the lectern is decided by the facilitator. The majority prefer to locate the lectern at a central position that is visible to all the students but some prefer to use in front of the class.

Figure 22: Mobile lectern

Figure 23: Mobile e-controller pad

Floor Plan

The student group work planned in this teaching programme is currently a paper based system. E.g. flip charts and markers, however it is envisaged that this form of learning will soon migrate to laptop, tablet PC or iPad form of interactions. Due to this reason power and data ports were made available for the students and the lecturers; internet was made available in both wireless and wired forms. This meant that all the wiring would be able to be setup underneath the floor and all the desks would have power with at least four ports to access.

The existing floor was a hard surface (concrete) and it was too difficult to drill holes in number of places. In order to achieve this objective, a raised floor was introduced into the room. Prefabricated hard polystyrene one metre square building blocks were selected. This would raise the floor by 6 cm which was believed to be more than enough for the power, data and audio-visual related cabling to be housed underneath. The section of the material used to create the raised floor can be seen below (Figure 24). This layer was placed on top of the original floor. This structure is very strong as it provided two dimensional 6 cm apart reinforcement across the floor. Carpet tiles were used on top the raised floor so that gave more flexibility on a future date for repairs etc.

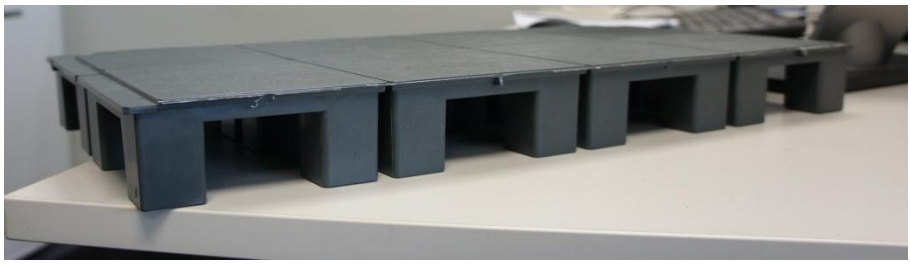


Figure 24: section of the raised floor

The positions of the floor boxes were designed with the room setup taken into consideration. These 22 ports are concealed in the floor so any hazard that arises with them being out in the open is removed. Once the hatch is open the lid slides into the back of the box as seen in Figure 25. This opens four power plug points and also four data (internet) connections. These boxes are placed in the centre of all the tables that are seen in the layout in Figure 12.

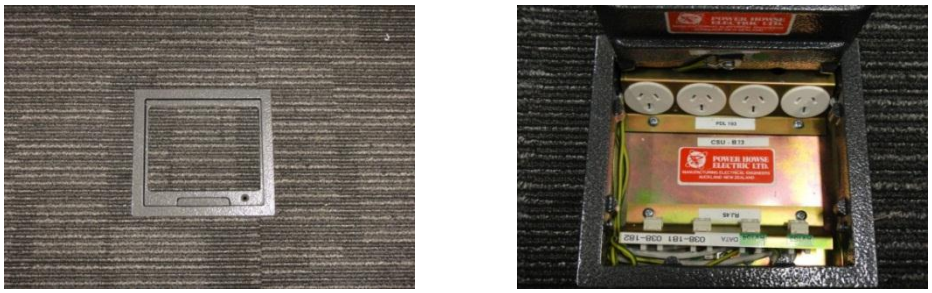


Figure 25: floor boxes, before and after they are open

CONCLUSION

This room has been used for two semesters at the time writing. The design was very well received by all the users of the new space and feedback so far is extremely positive. The scoping and extensive research carried out into the most suitable furniture and technology for the teaching space was essential and resulted in the success of this project.

Overall the setup of this new teaching space has achieved all the requirements from the initial plan; the design incorporates the idea of team based learning thoroughly. The feedback received from both the students and the lecturers has been positive about the both the layout and audio-visual equipment available to them. No doubt with advances in technology and design this concept will be able to be developed into a more advanced team based learning space in the future.

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BIOGRAPHICAL NOTE

Himendra Ratnayake is General Manager – Operations for the University of Auckland Faculty of Business & Economics, a post he has held for the past five years. This role includes managing all operational activities including Facilities, Teaching Technology and Business Services. He holds a Bachelor of Science degree and a Diploma in Operations Management. He is also a holder of an MBA from The University of Auckland.

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FROM PUBLIC TO PRIVATE – THE SHIFTING SANDS OF HIGHER EDUCATION

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ABSTRACT

Higher education in Australia has largely been a public affair for most of its life, unlike the United States where many of the better institutions are private universities. The scene began to change in Australia when Bond University opened and the Australian Catholic University gained university status, and it has been a case of slow growth since then. In the last ten years that growth has increased on the back of increasing international student numbers, and we are now in the situation where private higher education institutions outnumber public ones by some considerable amount. Why has this been so different to the vocational education and training sector or the school sector where private institutions have always played a large role in the landscape? What do private institutions offer that public ones can't? It is likely that growth of institutions (as opposed to students) will only be in the private sector – it is highly unlikely that any government will open a new publicly funded higher education institution, so we should be vitally interested in the state of the private sector in higher education. This paper examines the history - including comparisons with other parts of the education sector, the current state of affairs – including the products and services that private institutions compete with, and the likely futures of private higher education institutions.

KEYWORDS

private higher education, for-profit higher education

INTRODUCTION

For over 100 years, the Higher Education system in Australia has largely been a public affair, funded by a mixture of government and fees (except for a short period in the 1970s where there were no fees) and unlike the United States where many of the truly great institutions are privately funded universities. There are three possible types of higher education systems:

- mass private/restricted public such as in Japan, the Philippines, South Korea, Brazil and Columbia where the state sponsor high-cost academically elite institutions and the rest soak up the considerable unmet demand
- parallel public and private such as in Belgium and Netherlands, Chile and Hong Kong where the state ends up funding private institutions (which begs the question – how are they private)
- comprehensive public/peripheral private such as the United Kingdom and Australia, where the former largely satisfies the society's need for higher education (Geiger, 1988)

In Australia, there has been a long tradition of private education in the school sector, often linked to religious needs, and there has been a slow drift to private education in the tertiary

sector, until recently, mostly in the vocational education and training (VET) sector. This drift has begun to turn into an avalanche as government funding starts becoming available for the private sector (either directly or through student loan type arrangements) and as it becomes clear that there is a profit to be made in this industry.

The private sector is not the only place that profits (or surpluses) are sought. 'Universities have fallen into the habit of using large lectures for introductory [subjects]' (Newman & Courturier, 2001, p15) – this is the profitable end of tertiary education. But it is poor pedagogy (Chew 2009, White 2007), particularly in the case where a large percentage of the students are no longer at the higher end of the academic learning curve. For-profit colleges often teach the same material in smaller classes with more interaction, offering a better learning experience for students. Universities have also used certain disciplines to subsidise the rest of the institution, but these are often the disciplines where they now compete for students with the for-profit institutions.

This paper considers the private higher education business across the globe and suggests that there are gains for governments and students alike in encouraging a robust and well regulated private higher education industry.

PRIVATE / PUBLIC / NON-PROFIT / FOR-PROFIT

Across the globe, there are a number of mixed definitions of 'public' or 'private' education. In the school sector for instance, what Australia calls 'private schools'; the United Kingdom calls 'public schools'. Similarly in higher education, what Australia calls 'private' institutions, the United States calls 'for-profit' institutions. In fact, the clearer terms are for-profit and non-profit. It can be argued there is a fundamental difference between for-profit education and non-profit education (private or public) - according to Morley (2004), 'for-profit institutions provide education to make money, while traditional colleges and universities accept money to provide an education' (p143). In essence, according to Morley, the basic mission differs – one is to make money, the other is to provide education, although I might argue that these aims are not mutually exclusive. It can be assumed that this difference drives decisions about curriculum, staffing, governance, admissions, services and other non-teaching activities. There is often a different emphasis on job training and 'education for life and citizenship' (Morley, 2004, p143). Morley contends that the liberal education provided at a not-for-profit emphasises culture, critical thinking, communication and education for citizenship. But policy makers have moved to holding traditional educators more accountable for the employability of their graduates – not necessarily in accord with the ideals of a critical, broad based education. It can be argued that for-profit educators orient towards monetary and non-monetary *private* benefits, while non-profits also focus on *social* benefits, however this is highly contestable. In fact, I would argue that these two ideals are also not mutually exclusive. It is possible to turn a profit and at the same time provide an education – in fact many state-run universities do this, however the profit is referred to as a 'surplus'. And many for-profits provide an excellent student-focused education with an aim of developing them into life-long learners rather than for fodder for employment.

Can education be a business? Winston (1999a) examines just how far the business analogy for education can be drawn, suggesting that the purchase of higher education is unique in that it is an uncertain investment – people don't really know what they are buying and it is a once in a lifetime decision that can't be corrected (Winston 1997). He also points out that, while a

clear profit motive exists in private education, a similar impetus for a surplus exists in non-profit institutions, but its destination is 'hidden', being used to prop up less profitable parts of the institution. Unlike businesses, universities subsidise their customers with a price below cost. Public education institutions are essentially 'commercial non-profits' and as public institutions, seriously undersell the cost of their product. In Australia, it is a bit more complex, where the subsidy is provided by the government (through both base funding and fee loans schemes called HECS-HELP and FEE-HELP) and there is no choice about cost for undergraduate education (although this is not true in the case of international students or postgraduate students who are usually charged what each institution deems is full tuition cost + profit – or whatever they think the market can bear). Winston (1997) contends that institutions do sell goods and services, but it is not really like a firm because they operate in a 'trust' market (products are bought on trust) and there is not much pressure on management to operate efficiently. 'Buying a college education is more like buying a cancer cure than a car or a house. There's a strong tendency to avoid regret and play it safe and buy what everyone considers "the best"' (Winston, 1997, p34). Whatever the institutional motive for 'profit' (surplus to fund unprofitable activities or shareholder value), a higher education is being sought at public/ private and non-profit/for-profit institutions by an ever-growing number of students.

FOR-PROFIT AND PRIVATE HIGHER EDUCATION IN AUSTRALIA

In 1987 in Australia there were six small private institutions in agriculture and teacher training (Marginson, 1997), although they had all become publicly funded, they were still private in legal title. The scene began to change in Australia when Bond University opened in 1989 and the Australian Catholic University (ACU) gained university status in 1991.

Bond University describes itself as being 'modelled on the traditions of the world's most elite educational institutions, the vision for Australia's first private, not-for-profit university was to provide an exclusive educational experience of the highest international standards, under the tutelage of the country's leading academics' (Bond website). It is a not-for-profit institution and a joint venture between the Bond Corporation and a Japanese organisation. The University has a wide range of disciplines and a number of research centres with its staff engaging in research in the same way as most public institutions.

ACU gained university status in 1991 along with a large number of other public institutions which were colleges of advanced education and institutes of technology and which were amalgamated into new universities by the government of the day. ACU is now a public institution, operating as a company limited by guarantee, so probably straddles the public/private divide, but is clearly non-profit.

A number of international private universities have also joined the throng. The University of Notre Dame Australia was formed in 1989. It describes itself as 'an Australian university which has embraced both the modern Australian university tradition and the ancient and esteemed traditions of Catholic universities both in Europe and North America' (University of Notre Dame website) and focuses on undergraduate education.

Since 2008, three private universities have opened campuses in Adelaide, although one has already closed (Cranfield University). University College London and Carnegie Mellon both operate very small campuses in Adelaide which mostly offer postgraduate courses in small

specialised disciplines. So this is the extent of the 'private' universities in Australia. King (2011) sees the possibility of this extending further, mostly through established Australian universities partnering with big-name American institutions.

However, the real growth in private higher education has been in the non-university sector. Often titled 'Institutes' or 'Colleges', this is a growing sector, more often than not focused on international students, but increasingly attracting domestic students as well. In 2010, there were 1,192,657 students in higher education (857,384 domestic and 335,273 international) of which 93 per cent were enrolled in public institutions. In that year, public enrolments increased by five per cent and private institution enrolments increased by 6.3 per cent. There were also 87 private providers, up from 77 in 2009, compared to 38 public providers, a quantum which has stayed static for a number of years. Also in 2010, 13,463 students studied postgraduate programmes with private providers, a growth of 4per cent on the previous year and 64,767 studied undergraduate programmes, a growth of 8per cent on the previous year (DIISRTE, 2010)

A number of disciplines are covered by private providers, not only the high demand programmes one might commonly assume. While Business and its various manifestations (Hotel Management, Accounting, Property, etc.) are common, there are many Arts programmes offered by private providers as well as Theology, Design and Digital Media, various modes of alternative therapies, Counselling, and Music, as well as numerous feeder colleges to various public universities. These latter admit students at lower levels than the universities and provide programmes which ensure students are ready to succeed at university, often without losing any time. Private providers range in size from so small one wonders how they stay afloat (25) to half the size of a small university (4,915). One assumes that many of the really small colleges are also offering VET programmes which would improve their viability and profitability.

The privatisation of public universities in Australia

Marginson (1997) suggests that the increasing dependence on private funds in universities is tantamount to privatisation. While private institutions tend to specialise in 'low-cost courses [such] as business, law and the humanities' (Marginson, 1997, p460), there is definitely demand for courses in other disciplines in private institutions. The state has taken a role in shaping the relationship between public and private providers, including the amount of competition and resourcing, and there is evidence of government making 'greater use of private institutions' (Marginson, 1997, p461). For instance in South Australia, when Carnegie Mellon first set up, the first cohort of students was almost entirely made up of state public servants on government scholarships. Added to this shifting of funding, the academic community has also begun to resemble the commercial world, increasingly outsourcing work and offering high executive salaries. A recent article in The Adelaide Advertiser pointed out that the top Vice Chancellors' salaries are now over $1m per annum (Stokes, 2012) The internet has also allowed customers to make direct comparisons between institutions whereas before this was a difficult thing to achieve (Newman & Courturier, 2001).

The growth in student numbers in Australia after 1987 (42per cent in 5 years) was partially funded by the introduction of the Higher Education Charge (HECs) which is essentially a fee loan which is repaid through tax when students earn over a certain level. Add to this the growth in international students, and by 1995, 40per cent of total funding was from private sources (if one includes HECs as a private source) and this percentage has increased further since. While there was growing support for market models in the public arena, there was

never really government support to subsidise private institutions – they were tolerated rather than supported. There was more interest in marketising the public institutions. Dawkins, the architect of the current system, was explicit about letting the private sector fend for itself, an extraordinary contradiction to the approach to private school education where there are hefty subsidies paid to private schools. In the late 1980's there were a number of projects floated for private universities, most of which proved unsuccessful. In fact, at that time, the public universities' business faculties became much more entrepreneurial and competitive – a number even privatised their graduate schools (although much of this has now been reversed) (Marginson,1997).

It could be argued that the Australian public university is only nominally public, having shifted to a public-private hybrid. Australian public universities are increasingly being funded by sources of private income (White, 2007). Despite the rhetoric, teaching in public institutions is still marginalised in terms of promotion and funding (White, 2007). The growing requirements of audit in Australia, which requires greater transparency is at odds with the growing privatisation which requires confidentiality. The university council now operates more like a board of directors – ensuring 'profitability' – but there is a question about who are the shareholders. Councils now usually have a large number of external business people, irrespective of whether they know anything about higher education. Whereas decisions were previously made in open forums such as academic boards, they are now more frequently made by senior management behind closed doors. 'The market and competition policy have allowed the commercial-in-confidence norms of business to corrode the idea of education as a public good' (Thornton, 2012). The traditional way of operating in a university means increased costs – consensus decision-making does not promote efficiency - while in for-profit institutions, there is a much stronger incentive to save money (Blumenstyk, 2008). So while public universities grapple with the ideas of becoming more commercial, for-profit enterprises have always operated in this way.

PRIVATE HIGHER EDUCATION IN COUNTRIES OTHER THAN AUSTRALIA

United States

Since the early 1990s, the for-profit providers in the United States have burgeoned, with a few significant players offering programmes previously offered only by non-profit institutions. Strosnider (1998) saw for-profit education transforming from a 'sleep sector of the economy …..to a $3.5 billion business dominated by regional and national franchises, many of which are publicly listed on the stock exchange' (p36). In 1995, DeVry was one of the largest for-profit post-secondary education providers. At a time when many public institutions were 'trying to operate more like businesses', (Nicklin, 1995), as is currently happening in Australia, DeVry had found a way to make a profit from education with the company's profits tripling in a short period. It could be argued that its key to success was that it offered targeted groups a 'no-frills' education that stressed the quality of teaching rather than research, curriculum based on what employers wanted and where students could earn a degree faster and with a very high graduate-employment rate. However, the institution suffered from a poor reputation that it was more interested in profits than education. But given the institution spent most of its money on its teaching, this is a hard argument to fathom.

In 1999, the big players – University of Phoenix (UoP) with 60,000 students and $33m profit, DeVry University with 48,000 students and $24m profit, and a few other providers – had

become ‘glamour stocks’ (Winston, 1999b, p13) on the US share market. Morey (2004) suggested that the growth had the potential to alter some sections of the higher education market. One of the major players in 2004 continued to be the Apollo Group, offering degrees through UoP on 71 campuses in 37 states and in Canada. It had 200,000 students in 2004 and over 500,000 in 2011, one third of them graduate students. The other large players in the United States and Canada were DeVry University (80,000 students), ITT Technical Institutes (73,000 students), Education Management (132,000 students), Strayer Education (60,000 students) and more recently, Kaplan (60,000 students). All of these institutions have grown by catering to non-traditional students, particularly working students who only want to study part-time. These institutions ‘focus on students as customers and provide services for them that minimise the amount of bureaucracy through which a student must navigate’ (Morley, 2004, p135). As a result of this focus, the institutions cater for students who would not get admitted into a traditional university. In this way, they have catered for large numbers of minority students.

University of Phoenix uses an interesting model for delivery, with very few tenured faculty (according to Winston (1999b) 45 full time staff for 60,000 students), but employing 17,000 adjuncts and 4,000 for their online activity. Staff are fully trained (a novel idea for higher education institutions) and not rehired if they do an ‘inadequate’ job (also a novel idea). The staff are practitioners rather than professional teachers and they are seen as ‘facilitator[s] of student learning’ (Morley, 2004, p138). Sperling, who developed University of Phoenix, saw higher education as a closed system ‘controlled by an army of gatekeepers, it was also a very inefficient way to deliver education’ (Stamps, 1998, p27). University of Phoenix is not trying to keep students out, but rather welcomes students in. The average age of their students is 35 years, and they are offered support in their studies through a large number of learning centres. The learning centres are located in store fronts, malls and office buildings and the library is entirely on line. Classes meet in these centres weekly for four hours and courses are 5-6 weeks in length. Courses have a centrally developed curriculum and stress concrete rather than abstract ideas, and classes are staggered to provide opportunities for all. Students are given a timetable for their entire programme, including all homework and assignments. University of Phoenix’s business plan was to develop a standardised curriculum and sell that curriculum into a broad. One of the things they do that very few other do is to go on-site to employers and provide the Master of Business Administration (MBA) and other programmes under contractual agreements with the employer. As a result of their success, the Apollo group’s shares went from $1.60 to $35 in just five years (Stamps, 1998).

In the United States, in the main, for-profit educators have all aimed at the mature market who are not served at all well by traditional universities. The difference between non-profit and for-profit has blurred, shifting public perception to realise that in many cases, for-profit colleges offer a better quality of education, often in traditional academic areas. Institutions like University of Phoenix have made determined efforts to evaluate learner outcomes and teaching effectiveness, positioning themselves as quality leaders. Kaplan’s rise in this market is an interesting case – starting as an SAT-tutoring business in the 1930s and then growing into a giant profit-making enterprise, including colleges and learning management systems (Blumenstyk, 2009). In fact, most of the money into for-profit colleges in the United States is from the federal government in the form of grants and subsidised student loans (Carey, 2010). A quarter of all federal aid goes to for-profits, but they only enroll 10per cent of students. However, in 2011 there was quite an impact of federal intervention and increased competition. Both University of Phoenix and Kaplan experienced serious declines in commencing students (40per cent and 47per cent respectively). The increasing reluctance to

take on debt, in the face of the economic crisis, had a stalling effect on new starter enrolments. American colleges have gone from a take-all approach (where Australian colleges are now) to a more carefully managed approach, trying to ensure students have a chance of success (Wiseman, 2011). According to this author, this is an industry that is close to saturation.

A number of authors see the private higher education industry in the United States as leading the way for the use of technology in teaching (Wilson, 2010). Traditional institutions find it difficult to adopt new technologies which require changing the way they have operated for hundreds of years. For-profits tend to organise themselves around the students, while traditional institutions organise around their staff. And organising around the student means that on-line learning is often a most useful tool for reaching out to those who are remote or time-poor.

The other model for private delivery in the United States is the corporate university, numbering over 1600 unaccredited institutions (meaning they can't offer degrees unless partnered with a university). In the United States, where the current 65per cent rate engagement with higher education is considered sufficient, higher education is moving into a mature rather than growth phase (meaning increased regulation and control). This also prompts a shift from process (teaching) to outcomes (learning), and the for-profit sector has contributed to the increased casualisation of the academic workforce. For-profit providers have decoupled delivery from course design, thereby separating individual academics from the course content. This approach has become increasingly more common in public universities as well.

Other parts of the world

The for-profit sector has grown in other parts of the world as well as the United States and Australia. The growth in the private sector in Latin America was originally driven by the need for religious based education, but later driven by diminished state funding for students and massification of the system. While the growth was substantial from 1980-1990, it is less than in the previous 30 years. The proliferation of private institutions signaled 'the creation of a non-elite secular subsector based mainly on absorbing demand unmet in the public sector' (Levy, 1993, p15). Levy (1993) also points out that while, initially, there needed to be strong reasons for choosing a mediocre private institution over a mediocre public institution, it became an increasingly common thing to do, which begs the question – why – what is the attraction of the private institutions?

The other market where private providers are slowly emerging is the United Kingdom. The government is set to encourage business, while at the same time is cutting spending in the higher education sector. In 2011, they developed a plan to transfer government funding of 20,000 places to the non-traditional providers including the private sector (Labi, 2011). At the same time, the United Kingdom government has introduced a new regulatory system. It is an expensive market to operate in and does not accept new ideas readily. Mostly private providers are making inroads through developing partnerships with established universities. The United Kingdom, like Australia, strictly regulates the use of the term 'university', so providers are having to run on the coat-tails of those that already have this status. Their focus is mostly international students as this is where the profit seems to be.

In Asia, there has been enormous growth in the private sector, particularly in Hong Kong, China, Singapore and Malaysia. Private education reduces the burden on government

expenditure, although in many countries, private sector education receives substantial funding from the state. Malaysia is a case in point where one can see the impact of private education. In 2005, only 10per cent of Malaysia's 19-25 year olds could pursue higher education through the local public university. As a result, for many years, Malaysians have pursued an education offshore. However, as this has become more and more expensive, it has drifted further out of the reach of middle-income Malaysians. The Malaysian government is trying to plug the shortfall by encouraging the private sector in Malaysia (Wilkinson & Yussof, 2005). The majority of programmes in Malaysia are offered as twinning programmes where private providers franchise the courses from overseas universities – so the degree granting body is an overseas university, but all or part of the course is provided by a local provider. The residual demand means that prices are set at what the market can bear and the profit motive is high. Private providers then concentrate on courses where there is strong demand, with 90per cent of courses being in Information Technology, Engineering and Business.

PROBLEMS IN THE INDUSTRY

There are numerous problems in the for-profit education industry, with accreditors beginning to impede growth and development (Strosnider, 1998) in a number of jurisdictions. In the United States, there has been a long history, and a continued perception of the industry as a diploma mill with high student-loan default rates. In fact a number of the large players over the last few years have been taken to court on various grounds, mostly for enticing students to get into loans they could not afford. A similar problem is only really beginning to emerge in Australia, although the different structuring of government funding has made it less obvious.

In terms of accreditation, the 'state tends to assume the negative role of the enforcer of minimal standards in private institutions' (Geiger, 1988, p702), largely through regulation and this operates in a relatively distrustful state. In mass private sectors, this results in a reduction of diversity in the system. In some cases, private institutions have been left to their own devices and in Japan this almost led to sector bankruptcy. In societies where the belief exists that education should not be rationed on the basis of price, the state subsidises both private and public institutions, providing education at nominal costs and reducing price differences. In high supply markets, pricing in private institutions is a complicated process, balancing service cost against market elasticity on price.

The idea of higher education as a 'market' has been questioned (Winston, 1999, Pusser & Doane, 2001, with the usual operations of supply and demand, entry and exit of providers, the importance of consumer information and access to goods and services and the operations of pricing and competition, all contestable. Unlike true markets, 'a degree programme is difficult to assess in advance, requires significant time for completion, and takes even longer to evaluate. It is hard to redress damage or to design an appropriate remedy when an institution does not deliver the goods' (Pusser & Doane, 2001, p20). Some people question whether using degree-granting for-profits is an appropriate model for increasing efficiency and productivity in public education. While giving customers what they want has been an excellent business strategy in other industries, 'it is not clear that it is the best national higher education policy' (Pusser & Doane, 2001, p21). While for-profits are more focused on the private individual benefit gained from education, one could argue that the societal benefit follows naturally from the private benefit in terms of a more educated workforce, higher taxes (as graduates earn more) and the numerous other health and wealth benefits which flow from a more highly educated population.

With the for-profit higher education industry being worth $20 billion (Blumenstyk, 2011a), it is inevitable that tougher regulations will begin to impede the industry. In the US, stories about student loan default rates or new regulations create panic amongst investors and there are some who think the industry is likely to collapse under the weight of increasing regulation. In 2004, for instance, there was a series of investigations into for-profit colleges which were accused of fraudulently accessing public funds and misrepresenting the value of their programmes. Whistleblowers (who in United States receive 30 per cent of any monies retrieved by the government) have alleged being forced to change grades, falsify attendance records and manipulate job placement numbers. It is a fine line between getting teachers to encourage students to attend for their own learning benefit and getting students to attend to ensure the funding continues to flow. It is the idea that management were pressuring staff to offer extensions, forgive plagiarism and inflate grades that is of greatest concern (Field, 2011; Walsh, 1999).

In a regime where students and colleges access government funding according to performance in terms of pass rates, attendance and job outcomes, it is almost inevitable that some organisations will falsify records and these few taint the whole industry. In Australia, we are beginning to see a similar outcome in Victoria where caps on public funding to VET providers were removed and enrolments in private institutions grew by 308 per cent from 2008 to 2011. Students have been enticed into 'soft' courses and offered incentives like free ipads to enroll (Dunckley & Mather, 2012). The Victorian government has now pulled back on some of this, restructuring the financial package and reducing the subsidy to many fitness, retail and hospitality courses, one assumes with the consequent outcome that some of the colleges that were relying on this funding will get into financial difficulty. As Dunckley (2012) points out, these courses have grown from 19,703 students in 2008 to 99,968 in 2011. Surely this level of growth must be ringing alarm bells.

It should be noted that the for-profit education industry is not the only sector with problems. Apart from a number of 'slip-ups' by a few public universities, the shift of students' discourse away from that of the student to that of the customer has resulted in them feeling that lecturers should be providing a service, particularly given the price students are paying. But 'being a customer rather than a 'learner' is a disengaged position' (White, 2007, p603), a position that requires others to satisfy and deliver rather than the student to actively engage. This is somewhat problematic for public institutions who do not carefully manage the teaching practices of their academic staff.

DEMAND FOR PRIVATE EDUCATION

Higher education institutions are 'gearing up for the twin challenges of large class sizes and more discerning and demanding customers' (Pathak & Pathak, 2010, p66). All institutions in many parts of the world are transforming into competitive enterprises as demand for their services grows at a phenomenal rate. Marginson (1997) quotes Geiger who identifies three kinds of demand for private higher education: 'more' where the public sector leaves a large amount of unmet demand, 'different' where there is a particular religious, social or community need or 'better' where private institutions can offer a more targeted education, or more prestigious, or more linked to employment. With unmet demand expected to be met by the growing university sector, the only avenue open to private providers would appear to be fee-paying international students and business training. However, it would seem that many

students are voting with their feet and preferring private providers over their publicly funded cousins. There are some parts of the sector that see students rejecting universities in favour of private institutions who offer a 'better' experience (Jordan, 2012). The for-profit sector in the US is predicted to go from two per cent to 15-20 per cent by 2018, some of this growth being attributable to better efficiency and greater responsiveness to customers. The increased interest by venture capital in the private higher education market points to this future trend.

Winston (1999b) suggests that higher education doesn't fit a usual market mode, particularly as students in the public system are subsidised (and in the private system are effectively subsidised through loans that can easily go unpaid or defaulted on). At our institution, we see how this works where there is very limited domestic demand for the Certificate IV (for which students have to pay up front fees), but strong demand for diplomas (where students effectively get a loan and can defer payment). In fact it can be a difficult problem to fathom exactly what traditional universities are selling… Winston (1999a) asks is it a degree (requiring a great deal of customer input and they could 'pay' for it and actually receive no outcome)? Is it screening (keeping out a certain layer of potential students)? Is it a series of courses? Is it certification? Is it a learning experience, or social experience? In fact, it would appear that the peer experience is critical to the overall quality of education. Recognising this, institutions care about who engages in the peer experience, so they limit access to the product (Winston, 1997).

It could be argued that using contestable funding which is only available to public institutions, to expand the tertiary education system (as has happened), limits students' choice and only means that less is spent on a per student basis. Field (2012) suggests using performance as a basis for distributing funds rather than ownership. After all, higher education remains the last education sector in Australia where institutions are discriminated against on the basis of ownership. For instance, in Victoria, where access to contestable funding has been opened to private providers in the VET sector, total enrolments have grown by 44 per cent, nearly all to private colleges which have grown by 112 per cent in one year while public Tertiary and Further Education (TAFE) institutions' market share declined by almost 20 per cent (Ross, 2012). Imagine if the same were done in higher education. Even without access to contestable funding, the 6.8 per cent share of the higher education market is expected to increase as 'private providers become a significant driver of increased participation and account for more than 40 per cent of growth in student numbers since 2004' (Field, 2012). Given the choice, students are voting with their feet.

With an estimated 60 per cent of jobs requiring some level of tertiary education, and less than 40 per cent of adults having that level of education, it is clear that most western countries need more tertiary graduates. As a result, the higher education market has become much more competitive and aggressive, both between traditional institutions themselves, and between traditional institutions and the new providers. Not only are there degree and diploma-providing institutions, but Information Technology companies and in the United States, corporate universities (which have not been able to gain purchase in Australia because the title 'university' is a protected one). The effect is that 'a student enrolled in a university who finds a given course to be of poor quality – or even just inconvenient – can find a substitute nearby or online' (Newman and Courturier, 2001, p13). In fact, the American model of higher education has fitted it to meet the demands of a mass education system much better than countries based on the European or UK system. Clark (1976) describes the board of trustees in the typical American institution (of all persuasions) as 'the American mechanism for bridging public accountability and the professional autonomy of academicians' (p32). A

unified system (such as in Europe or Australia) simply doesn't meet everyone's needs. 'Mass systems must be more differentiated that elite ones as they absorb a more heterogeneous clientele' (Clark, 1976, p33). However, the US system provides so much choice that 'sorting the connections between secondary and post- secondary education are unsystematic and highly ambiguous' (Clark, 1976, p35).

FUTURE OF PRIVATE EDUCATION

Khanna and Khemka (2012) claim that attendance at colleges and universities is directly correlated with a country's wealth because education creates human capital which enables economic growth. They suggest that a large increase in for-profit education, which would cost the government very little, could 'jumpstart the global economy and deliver big returns'. These authors also suggest that higher education for developing countries needs to be industry specific rather than generalist. In many ways, private colleges 'are the best way for emerging markets to build a skilled labor force, create more jobs, broaden the consumer base and, ultimately, sustain economic growth' (Khanna & Khemka, 2012). This is already a proven model in a number of markets –Malaysia (where private education is worth one per cent of GDP), China (where support for private educators has resulted in 21 per cent growth over eight years whereas in India where private educators are restricted, there was only seven per cent growth).

One move that seems to be taking a hold in the private for-profit space is organisations developing educational services which they sell on to non-profits and some see this as the future direction for the industry (Blumenstyk, 2011b). We see this happening to some degree in Australia as the development of teaching collateral further decouples from the delivery of the teaching, and this is bound to happen more and more. For instance, Kaplan has created a service called Knext which evaluates students' prior learning and awards credits. This is simply an extension of the marketing and student recruitment service Kaplan has been selling for some time. There are also numerous examples of predominantly on-line institutions creating courses for public universities – it is a little like when IBM shifted from selling computer hardware to selling information technology services. This could be one new growth engine for education companies.

The changes in the regulation of higher education have made it increasingly difficult for institutions to meet regulatory requirements and in the future, we may see a number drop out of the industry as they struggle to comply. The need for revenue growth requires institutions to improve budgetary decisions by streamlining governance processes, improve information tracking to better measure outcomes, to eliminate programme redundancies and inefficient processes and to explore innovative public-private partnerships as well as find opportunities to share services and outsource non-core functions (Deloitte, 2011).

Newman and Courturier (2001) suggest that in the future, traditional universities and colleges will become indistinguishable from for-profit institutions (other than in possibly pedagogical terms) and increasingly the production of course materials will move out of the traditional academic department and be outsourced. It might also be problematic if the shift of power that has occurred in the school system were to be replicated in the higher education system. As Anderson (1992) argues, the public system is slowly becoming the home of those who live remotely or are too poor to access the private system or who are handicapped. In comparison to other countries, Australia has increased its private sector, having more than

double the proportion of students in private schools than in most other western countries. In many other countries, there is no federal funding to religious schools, unlike Australia. Anderson (1992) mused that the unified national system for universities, introduced in 1991 and now forgotten in the annals of time, might result in the growth of private universities, but this has, in fact, been slow to happen.

CONCLUSION

Despite the apparent convergence of the private and public higher education sectors, there is a common belief that an unsubsidised private sector can only flourish in a space where the public sector fails (Marginson, 1997). I would argue it doesn't actually have to fail, it just has to be a bit less than wonderful, and this provides an opening for private providers who are more agile, more focused on student needs, and who have a strong commercial and customer-focused outlook. While originally the view of private institutions was that they had lower educational quality, this view cannot be sustained, particularly as universities struggle to meet the same level of teaching evaluation. 'Entrepreneurial, for-profit institutions will increasingly force non-profit [institutions] to examine their programmes and become more competitive' (Morley, 2004, p147)

Higher education in any form, produces public good, always more collective than individual. Ownership is not the measure of the character of public/private good, but rather purpose. A private institution which has wealth creation for shareholders as its primary aim, can have an equally strong focus on education for its students, or research which saves lives (Marginson, 2007). The globalisation of higher education has had a tendency to marketise systems and shift focus to private good. Marginson (2007) suggests some revisions to our thinking about higher education to recognise that 'regardless of formal ownership or fee systems, a substantial part of the goods produced in Higher Education are [both] private [and public] goods' (p322).

In Australia the government has continually refused to include the private sector in its funding equation, other than through access to FEE-HELP. By excluding private providers from funding reforms, growth will occur at the expense of quality, diversity and the taxpayer. Only by opening the sector to true competition for funding will the sector remain responsive to student and community needs.

BIOGRAPHICAL NOTE

Dr Judy Szekeres has worked in Higher Education institutions since 1991, mostly in faculty and student management. In 2009 she moved to the South Australian Institute of Business & Technology (SAIBT) which is part of the publicly listed Navitas group and is affiliated to the University of South Australia. Judy achieved her Doctorate in Education in 2005 in the area of university management and has had a number of papers published since 2002.

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YEARS IN THE MAKING: THE INTRODUCTION OF A NEW STAFF APPRAISAL SYSTEM

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ABSTRACT

Twenty-five years ago the government's green paper on higher education heralded a movement towards formal systems of staff appraisal in Australian universities. This paper reports the findings of the most recent performance management project undertaken at an Australian research-intensive university. As part of the pilot programme, staff completed pre and post surveys which provided an understanding of staff's reactions to the new system. The aim of the study was to provide information on staff's attitudes towards a staff appraisal system. The findings suggest that although the majority of the pilot participants were in favour of its introduction, it remains problematic at a practical and organisational culture level.

KEY WORDS

performance management, performance appraisal, staff appraisal system.

INTRODUCTION

The appraisal of the performance of academics has been an issue for Australian universities for many years. In addition to commencing what was dubbed 'reconstruction of Australian higher education' (Harman, 1989), the 1987 'Higher education: a policy discussion paper' (Dawkins, 1987) heralded a new era for Australian universities of metrics driven accountability. The Dawkins reforms introduced the concept of institutional performance indicators linked to funding. There was an obvious connection to the principle of greater accountability of individual academics in justifying their activities. Successive governments further developed the theme of universities becoming more closely aligned to the business concept of productivity the market driven economy, resulting in institutions adopting varying degrees of 'corporate managerialism'. This preoccupation with private sector ideals of individual performance peaked with the Howard government. Its Higher Education Workplace Relations Requirements went so far as to dictate that universities must introduce individual employment contracts for academics, in what was seen as an important mechanism to facilitate performance based pay.

LITERATURE REVIEW

Traditionally higher education was viewed as mostly separate from the economic activity of the nation and had been allowed to get on with its work regardless of the world in which it is situated. The higher education sector's stable world has been shattered at the end of the last millennium and universities are now forced to take greater account of a number of outside

influences, such as internationalisation and economic globalisation, social conservatism and economic radicalism in politics, and changing processes of knowledge production and dissemination (Blackmore, 2002, Thomson Reuters, 2008, Haslam, Bryman & Webb, 1993). Australian universities also face considerable challenges relating to the sustainability and development of the workforce (Ramsden, 1998). These challenges include an ageing academic workforce, the Federal Government's new participation and equity agenda, the different approach to careers taken by different generations, and the under-utilisation of women and members from other under-represented groups. With an increasingly global employment market, universities need to ensure competitive attraction and retention strategies.

At this time of challenge for the academic workforce, staff in higher education institutions have also experienced considerable change to their roles and the quality of working lives. Universities have faced increased accountability demands from successive governments, and many years of successive reductions in real terms funding. This has resulted in the introduction of more private sector business model, including such practices as appraisal systems, and quality assurance mechanisms. University cultures are now more performance driven and more heavily regulated than ever before. The process of teaching students has also changed. There has been a shift to mass education, a changing student profile and student expectations, and developments in information technology for teaching and learning (Harkness & Schier, 2011; Haslam, Bryman & Webb, 1992). The transformation of university life can feel alien to staff and may conflict with traditional academic values (Penington, 1998; Poole, Harman & Deden 1998). Increased employee stress, low staff morale, feelings of alienation, feeling ill-prepared to faces changes and challenges, limited resources, work overload, pressures to satisfy difficult, conflicting or ambiguous work demands are reported (Mapesela & Strydom, 2005: Morris, 2005 & 2006; Moses, 1985).

The measurement of performance has been a controversial issue in Australian universities and is a very well researched, praised and critiqued human resource management tool. Landy & Farr (1980), Lonsdale (1993) and Compton (2005), point out the reasons for implementing performance appraisals, ranging from government pressures, need for greater accountability, appraisal of staff performance, identification of staff training and development needs, alignment of individual and organisational objectives, career planning, a tool for cultural change and a strategy for retaining high performing staff.

Grint (1993), Fisher et al. (1998), Lonsdale (1998), Rutherford (1988) and Compton (2005) describe various systems and types of performance appraisals used, such as peer review, self-appraisal, expert appraisal, downward appraisal, upward appraisal and team appraisal. Lonsdale's (1998) explanation of four generations of performance appraisal systems is useful in understanding the range of types. 'First generation' systems involve a formal assessment by supervisors, authoritarian in nature and reflecting a control-oriented approach. The 'second generation' is staff appraisal for developmental purposes, such as the professional development review. The assumptions are that staff appraisals are the best way to identify the needs of employees and that staff development leads to improved performance. Lonsdale's research showed that staff appraisal for developmental purposes was not successful. The third generation approach is not only based on agreed performance and developmental objectives for the employee but also on some key principles:

- *'the need to have a clear relationship between the performance of an individual staff member and the strategic direction of the department, school or faculty, university.*

- *To inform and provide feedback to staff on the level of their performance and skill development. This feedback could include comments from supervisors, colleagues, staff, students and other appropriate persons.*
- *To identify areas of future development of staff and formulate action plans for career development; and*
- *To generate data for making decisions on matters such as probation, increments, tenure, contract renewal, and the management of diminished or unsatisfactory performance.'*

(Morris, Stanton & Young, 2007)

Lonsdale (1998) argues that these three generations of staff performance appraisal systems are not consistent with modern thinking about good leadership and recommends fourth generation leadership practices with the purpose of encouraging and motivating staff and enabling good work. Current performance management approaches can be unpleasant experiences, time-consuming, demoralising, subjective, with a lack of appropriate standards, with no effect on actions, affecting manager-employee relationships (Nathan, Mohrman & Milliman, 1991, Greller, 1998)), are biased, and add little value nor motivate staff (Williams & Levy, 2000; Times Higher Education, 2011; Eggington, 2010; Lefkowitz, 2000; and Milliman et al. 2002). Smith (1995), Thomas (1996), Times Higher Education (2011), Moses (1989) and Newton and Findlay (1996) recognise that performance appraisals are intimately linked to power and control, therefore the reasons for the continuation of their implementation in their current format must be questioned.

THE PERFORMANCE MANAGEMENT SYSTEM AT THE CASE STUDY UNIVERSITY

The University's movement towards more formal performance management followed the trend of the sector. In the early 1990s the University sought to move from a largely transactional approach of personnel management to adopting a 'human resources' philosophy, focussing on employees as assets of the organisation, who, if managed and led properly, could greatly enhance the success of the organisation. Accordingly in late 1993, the University's 'Personnel Services' was renamed 'Human Resources'. The principles of performance management were then applied to both academic and general (now termed 'professional') staff. This was accompanied by the University's first performance management system in 1993. The system differentiated general and academic staff, the two processes being termed the General Staff Development review and the Academic Staff Development Review.

A review of the University's performance management system was conducted in 2002. As would be expected in the age of 'strategic human resource management', the rationale given for the review was aimed at improving the alignment of 'human resource management' and the business aims of the institution and ensuring employees were able to reach their potential:

- to ensure that the University's overall goals and strategies allowed individuals to work in a way that saw their own individual career or work goals aligning with those of their work unit, and of the institution as a whole;
- to ensure that our highly regarded Human Resource policy framework is actually being implemented in all parts of the institution; and
- to respond to staff perceptions about the need for greater career support and development.

While the first two aims were derived from what the University senior managers saw as best practice, the third arose from staff feedback through two mechanisms, the triennial all staff survey, and the exit survey which was offered to all departing staff. It particularly reflected the concerns of early career academics, many of whom expressed their frustration of working in an environment where they received no guidance in developing their academic careers. They felt they were somehow expected to gain the knowledge of what they needed to do to be successful through osmosis, rather than any expectations being directly communicated to them.

The review reflected the philosophy that management and leadership of people is a fundamental role of any employee in a supervisory position. This recognises that 'human resource management', including leadership and performance management, while supported centrally by the University, is primarily the responsibility of line managers. In this context, the professional development review was seen as a tool for managers to facilitate the delivery of their responsibilities, and also with the intent that the annual professional development review process was a formal annual summary of what was essentially the day to day leadership and development of staff.

The review resulted in the 'professional development review' process being fully implemented in 2006 in a form which is largely unchanged to date.

An important principle of the professional development review is that it was focused on an employee's development needs and career goals only, rather than an assessment of their performance. The focus was the direct result of discussions between the management of the university and the staff consultative committee. The staff representatives were resistant to a summative process, while the university saw value in both a developmental and appraisal process. The agreed outcome was that the university would first introduce the developmental professional development review which would at a later time be complemented by an appraisal process. The two processes were also to be kept separate.

The next review of the professional development review process, in 2008, made procedural changes to the professional development review, including electronic lodgement and improved guidance to make the process easier for staff and management, in addition to building in a leave management prompt. Importantly, the review also renewed the management drive for a complimentary performance appraisal system.

After some years in the making, the second component of the performance management system, the 'Performance Appraisal Report' has now been implemented. Developed by the Human Resources Division following guidance from the University Executive, Deans and the Academic Consultative Committee, it completes the performance management cycle, with an evaluation of an employee's performance at key points in his/her career, such as probation milestones, promotion and for the assessment for performance allowances.

Through the performance appraisal report, academics are rated against five categories of performance, while professional staff are rated on four. The ratings are broad, comprising a three point scale, from 'Improvement required' to 'Meets or exceeds the University's high standards' and 'Outstanding'. The category ratings combine to an overall rating on the same scale.

Academic Staff	Professional Staff
Research	Delivery of job requirements
Teaching	Personal Effectiveness
Service	
Collegiality	Collegiality
Leadership (supervisors)	Leadership (supervisors)

Figure 9 Performance Categories

An overall rating of 'Outstanding' is required to justify performance based allowances. This will occur where the reviewee has been rated as at least meeting the University's expectations with respect to collegiality and leadership (if applicable), in addition to being rated as outstanding in research and/or teaching (academic staff) or in the delivery of their job requirements (professional staff). Notably, while the system allows the individual categories to be rated so, the performance appraisal report policy specifies that the overall rating of 'Improvement required' should not arise. This is because the purpose of the performance appraisal report is specifically to formalise feedback on performance that is primarily focussed on the positive, while allowing for a discussion on areas requiring improvement. The University has processes for dealing with under performance, which should be addressed when identified. An employee should not first hear of significant management concerns with their performance at a formal performance management meeting.

METHOD

The pilot of the Performance Appraisal Report commenced in March 2011. The five areas participating in the pilot included three faculties and two administrative centres.

A total of 12 workshops were conducted over the months of March and April. Preceding each workshop the Performance Appraisal Report Pilot Coordinator and the Associate Director, HR Policy and Planning met with the Deans or Heads for each of the pilot areas to outline the pilot process and discuss details of the pilot programme.

Following the workshops, participants were asked to complete the pre-performance appraisal report survey anonymously to gain a deeper understanding of staff's initial reaction to the introduction of a performance appraisal system at UWA. A total of 217 reviewees and 69 reviewers completed the pre-performance appraisal report survey.

A total of 83 staff completed a performance appraisal report online during the pilot period, of which 11 were academics and 72 were professional staff. After completion of the performance appraisal report interview and the online formal written component, a post-performance appraisal report survey was completed anonymously by 66 reviewees and 19 reviewers.

RESULTS

The pre-performance appraisal report surveys indicated that 62 per cent of reviewees and 83 per cent of reviewers agreed with the introduction of the performance appraisal report. The post-performance appraisal report surveys showed that 57 per cent of reviewees and 71 per

cent of reviewers surveyed agreed with the introduction of a performance appraisal report. In both pre and post-performance appraisal report surveys, it was the reviewers who were more in favour of the introduction of the performance appraisal report.

The results of the pre-performance appraisal report survey suggested that 37 per cent of the reviewees and 57 per cent of the reviewers felt that the performance appraisal report would lead to improvements in their job performance. Only 38 per cent of reviewees indicated that the performance appraisal report would have a positive impact on their own career, whereas 66 per cent of the reviewers felt it would have a positive impact on their staff's career.

The positive comments indicate an understanding of the performance appraisal report as 'good practice'. There was an acknowledgement of the need for an assessment tool that will identify and improve inadequate performance, provide a platform for discussion and feedback on overall performance issues, and recognise and reward good performance.

The main advantages for performance appraisal report included an opportunity for reflection, an avenue for feedback, role clarification and goal setting, transparency of performance and a basis for salary negotiations. Respondents felt that low-performing staff would be 'pulled into line' and that people were less likely to stagnate with performance appraisal report in place.

Only 29 per cent of reviewers disagreed with the introduction of the PAR but 43 per cent of reviewees disagreed with its principles. The main issues related to its potential duplication of the professional development review and implications relating to time and workload management. Some felt it was merely a bureaucratic and imposed process and that the assessment categories were too difficult to use.

Thirty-eight per cent of reviewees felt that performance appraisal report would help them to perform better and 46 per cent said it would impact positively on their career. Some felt that is would be a confirmation and recognition of their achievements and that it would form the platform for discussion and feedback with their supervisor. Some also felt it would assist with the clarification of goals. Fifty-seven per cent of reviewers felt that performance appraisal report would lead to an improvement in their staff's performance and that it would positively impact on their staff's career. They thought it was the appropriate vehicle for assessing their employees' performance, it was the appropriate opportunity for feedback and allowed them to identify areas for improvement.

Sixty-two per cent of reviewees said that performance appraisal report would not help them perform better and 54 per cent stated it would not positively impact on career and performance. The personal value of the performance appraisal report was viewed by over half of the respondents as 'no value or little value' for reasons that mostly pertained to the overlap of the performance appraisal report and professional development review. Some felt that feedback channels already existed, that it would have no effect on their performance, that the assessment categories were not clear and there was a lack of rewards.

Forty-three per cent of reviewers said that performance appraisal report would not lead to improvement nor positively impact on their staff performance. Some reviewers felt there was too much overlap with the feedback given in the professional development review, however the majority responded that it would be of positive value to them personally. Reasons given included that it is a mechanism for job-reclassification, to tighten performance management by identifying poor performers and rewarding good performers, and officially assessing

performance that has not been otherwise acknowledged. Some reviewers also thought the performance appraisal report would put too much stress on staff because it was too time-consuming and it was seen as merely a formal record. Workshop participants commented on the lack of clarity and fairness regarding the assessment category 'Meets or Exceeds the University's High Expectations'. Survey respondents (both reviewees and reviewers) again expressed unease with the merged levels in this category and consistently recommended that the assessment category be split to clearly differentiate between the performance assessment of meeting and exceeding the University's expectations.

Overall, reviewees and reviewers found the performance appraisal report process to be satisfactory, with comments suggesting it was easy to follow, easy to understand, and a fairly straightforward and simple process. In instances where staff had completed a performance appraisal report alongside their professional development review, respondents commented that this had worked 'seamlessly'.

The interview process was also a positive experience overall for both parties. Reviewers commented that supervisors were well prepared, friendly and the discussions were free-flowing and well guided. The majority stated that it was indicative of the positive relationship that pre-existed with the supervisor.

Negative responses by reviewees included the duplication with the professional development review, the lack of incentives and/or rewards and supervisor relationship issues interfering with an objective assessment.

The performance appraisal report process was viewed by many as a means for increasing accountability and formally documenting and acknowledging staff's achievement. However, reviewers and reviewees commented that performance appraisal report needs to be linked to rewards or staff progression for those who perform well. Some staff saw performance appraisal report as a burden or as a 'tick the box' exercise rather than a positive and valuable process unless good performance will be formally recognised and linked to tangible outcomes, recognition or rewards.

Eighty-six per cent of reviewees felt that their reviewer had a fair idea of their performance. 92 per cent agreed with their supervisor's assessment and 96 per cent said that their reviewer was fair and just in their assessment. 100 per cent of reviewer respondents felt they had a fair idea of their staff's performance, 94 per cent were confident in their capacity to review their staff and 94 per cent felt they could objectively assess their staff's performance.

The positive comments from both reviewers and reviewees included that a close relationship already existed between them which aided the process. They also stated that it is important to have regular discussions outside of the formal performance appraisal report and professional development review and continuous assessment and development is needed.

Qualitative data suggested that an agreement needs to be reached as to what counts as meeting the required standards in the categories of research, teaching, service, collegiality and leadership. As personalities might influence the process and the assessment, emphasis needs to put on having measurable standards against which to assess staff objectively. Reviewers and reviewees expressed the need for explicit statements of standards of performance across the faculty and/or University.

Sixty-four per cent of the reviewee respondents and 60 per cent of the reviewer respondents thought that the professional development review and performance appraisal report should not be separate processes. The main reason for separating performance appraisal report and professional development review is that they clearly have different goals. However, reasons for combining the professional development review and professional development review included: assessing people after three years is too long a period, professional development review already addresses most aspects of the performance appraisal report, to conserve time, assessment of performance is an integral part to reflecting on achievements and identifying development needs. Other comments included that the two separate formats should not be made mandatory because of their huge time commitments. This was seen as particularly important to academic staff members, as the compiling of an academic portfolio is a time-consuming task.

DISCUSSION

This study findings are an indicator of the state of performance appraisals in practice in one Australian research-intensive university. The findings provide a picture of the nature and uses of a performance management system in that university only.

The findings from the survey suggest that the majority of staff agree with the introduction of a performance management system at the university. It was the reviewers who were more in favour of the introduction of the performance appraisal report than the reviewees. This is consistent with the research by Williams and Levy (2000) that supervisory employees are more satisfied with the appraisal system.

Only one-third of reviewees felt that the performance management system would lead to improvements of their performance and that it would have a positive impact on their career. Nearly half of the reviewees disagreed with the introduction of a formal appraisal system for reasons such as duplication with the already existing system (although it has a developmental purpose only), time needed to complete impacting on already huge workloads, no or little value.

The qualitative data from both surveys indicate that there are significant challenges associated with the introduction of the performance appraisal report, ranging from the practical to issues of organisational culture.

The practical issues relate to aspects of performance management which are commonly understood to be the essential precursors of an appraisal system. These are clear standards and expectations, consistent and fair workload allocation and a complementary system of reward and recognition. The extent to which these facets of performance management exist is as varied as the many schools and business units of the university. The variation covers nearly the entire spectrum from schools which enact all these principles to those which may espouse some but enact none. In this context, the introduction of the performance appraisal report was accompanied by the formation of an academic workload advisory committee and a new university wide reward and recognition policy. While there are existing ‘standards for academic levels’, they are not adequate for the finer distinction of identifying superior performance. The performance appraisal report has provided the impetus for schools to actively identify and articulate their expectations of staff.

In addition to the practical issues, there are a number of indicators of cultural resistance which may inhibit the effective implementation of the performance appraisal report. Universities come from a tradition of governing by collegial processes which survives to some extent as a broad consultative approach taken to management. Many academics do not feel equipped within a hierarchical structure to give feedback to colleagues, especially to those who later may become the supervisor themselves. There is a belief among academics that it is often not their 'line manager' who is best placed to assess their performance. Academics are already involved in peer review processes for research and teaching. Some even feel their head of school, who may not be very familiar with their particular field of interest, is not equipped to appraise their work.

Similarly, few academics plan a career in academic management. The positions of head of school or department are often not prized and may even fall to the 'last person standing'; a senior academic who can no longer resist his or her 'duty' to the university. As somewhat reluctant managers, they are often unprepared for academic leadership. In their feedback about performance management to the University, academics expressed their discomfort with being placed in a position of hierarchical leadership where they are expected to coach and appraise the performance of their peers. This is compounded by the model of academic leadership they have learned throughout their careers, that of critiquing and editing others' work. The cultural shift to coaching and developing employees seems to prove rather difficult.

Performance management systems can be seen as a tool of corporate managerialism, too prescriptive and not useful. Some academics may view them as a direct threat against academic freedom and not a top priority in a competitive climate where only publishing research and winning grants are rewarded.

Interestingly, the feedback from staff after completing the performance appraisal report belies these cultural biases against the process. Reviewees responded very positively to the questions relating to the reviewers' ability to accurately and fairly judge their performance and similarly reviewers were confident in their abilities to do so. Negative comments in the post-performance appraisal report survey were reserved for the structural and procedural elements. This implies that while there may exist significant cultural resistance to performance appraisal, this can be overcome once the process is experienced.

Ultimately, it is the responsibility of the supervisor to exercise leadership by having regular informal constructive and supportive discussions with their staff about strategic priorities, expectations and levels of performance. Poor performance needs to be acknowledged and dealt with immediately, not once a year. Similarly, recognition of achievement, and reward for outstanding performance should be as immediate as possible. 'Superlative' communication (Egginton, 2010) is enhanced by the supervisor providing clear expectations, giving authentic and positive feedback, fostering trust, being fair and supporting staff to excel. Education about performance appraisals and their role as integral to this process but by no means an annual, isolated event where 'performance management' is delivered, needs to be encouraged for supervisors as well as staff.

CONCLUSION

The introduction of a new staff appraisal system has been welcomed by many professional and academic staff at the University. A well supported implementation resulted in significant cultural beliefs regarding performance appraisal being challenged. Nevertheless, the pilot has highlighted the need for clear standards and expectations, consistent and fair workload allocation, and a complimentary system of reward and recognition. Most importantly this study has shown that leadership in higher education institutions must entail motivating and enabling staff to perform at a high standard and achieve results, not necessarily through a formal appraisal programme. This includes providing authentic feedback on the individual's progress towards their own goals and those of the university, on a regular basis, conducted in a non-threatening atmosphere.

BIOGRAPHICAL NOTE

Lucienne Tessens is Assistant Professor Higher Education Development at the University of Western Australia. Her role consists of designing and delivering staff development programmes that meet the needs of UWA staff, leaders and business units, supporting organisational change and evaluating the impact of these services.

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CAMPUS AS SUSTAINABILITY RESEARCH CLASSROOM

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ABSTRACT

For more than a decade, The Australian National University (ANU) has actively used its campuses and surrounding communities as interactive classrooms where students research and learn about sustainability in practice. Sustainability projects have encompassed all disciplines and every level of the university curriculum and have focused on diverse environmental issues. The university has benefited by gaining student insights into genuine sustainability questions, while students have gained skills, knowledge and practical experience in tackling real world challenges. The Campus as Classroom approach is a winning blend involving students and other people in environmentally sustainable facilities management. The results have benefited the ANU brand, bringing international acclaim and promotional benefits including a contribution to the ANU Green Precincts Project. The paper will present case studies of the application of the campus as classroom concept. It will describe the right blend of people, leadership, environment which give provide a quality student experience that enhances facilities management and benefits the university brand.

KEY WORDS

sustainability, teaching, landscape, internships, lessons

INTRODUCTION

The Tertiary Education Managers Conference 2012 falls close to the end of the United Nations Decade for Education for Sustainable Development (2005-2014, see Commonwealth of Australia, 2009). This makes it very fitting that the conference theme is ‘to explore innovative development and new ideas around people, services, facilities and environment’. The concept of using university campuses as action learning classrooms for studying sustainability has been developing steadily during this decade. It has emerged as a key opportunity for connecting the people at tertiary institutions to campus facilities and services in an effort to reduce environmental impacts of operations and enrich the learning.

This paper presents insights from more than a decade of experience applying the campus as classroom concept at the Australian National University (ANU). It seeks to convey these insights as lessons that can readily be applied at other institutions. The paper adopts the themes of leadership, people and environment to explore these experiences.

LEADERSHIP

Individual leadership is defined as ‘a process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task’. Within organisations such as tertiary institutions, leadership is formally embodied in institutional

structures, but also emerges in the context of the informal organisations that underlie the formal structure (Chemers, 1997).

The decade of sustainability in education is implicitly a leadership initiative. The United Nations adoption of this theme recognises the widely-held view that urgent and informed action is needed at all scales to tackle serious threats posed by current unsustainable human systems. Through the decade of sustainability in education, the United Nations has enlisted educational institutions to help in accomplishing the common task of transitioning to sustainability. This leadership initiative aims not just to design curriculum, but to use education to bring about a shift in capacity and conviction towards sustainability outcomes (Commonwealth of Australia, 2009).

Strategies adopted by Australia to meet the challenge of the Decade of Sustainability include the intention to demonstrate government leadership role in education for sustainability, reorient education systems to sustainability focuses, foster sustainability and harness community spirit (Commonwealth of Australia, 2009). During the Decade, these strategies have resulted in such initiatives as a national website containing listings of programs and courses for learning and teaching sustainability in higher education. The website supports searching and browsing across institutions, geographic locations and various types of courses, and is particularly helpful for future students selecting institutions within which to study sustainability (University of Technology Sydney, 2012).

Another initiative was a research project to investigate the features of leadership for Sustainability (Turnaround, 2012). This study involved 188 respondents and 500 key informants in workshops across Australia and New Zealand in areas where education for sustainability can be embedded, led and scaled up in our universities and colleges. These and other initiatives have confirmed both student and educational institution interest in education for sustainability.

The last decade has also seen a steep rise in engagement with sustainability by educational institution facilities managers. An audit conducted in 2002 showed that it was rare for universities at that time to have environmental plans, control processes and community engagement geared towards sustainability (Carpenter & Meehan, 2002). Much has changed in the intervening years, and managing for sustainability is now comparatively mainstream within higher education institutions in Australia. Environmental plans are encouraged through forums such as the International Alliance of Research Universities Sustainability toolkit, providing links and tips for developing environmental management plans. Control processes are supported by detailed reports, such as the recently released Group of Eight Universities Carbon Emission Predictions (Caron House, 2012). And growth in community engagement can be measured in the expansion of Australasian Campuses Towards Sustainability from an email network of a few institutions in 1991 to a vibrant group comprising most Australasian higher education institutions at the present time (ACTS, 2012). Today, Australasian campuses compete to demonstrate environmental leadership through vehicles such as the international Green Gowns Awards program.

The campus as classroom concept also has many less formal leadership features than many other sustainability initiatives within higher education. It falls within the narrow field of initiatives that combine both academic endeavours and facilities management. Since joint academic/general staff appointments or offices are rare, it requires either partnerships

between academics and general staff, or non-academic approaches to learning and teaching, both of which tend to be informal.

At the ANU, the connection between facilities management and education for sustainability is evident in the Environmental Management Plan (EMP) 2009-2015. This EMP is the third adopted by the ANU over the last decade, and is structured around the three focal areas of people, place and performance. This novel structure emerged from recognition of the central importance of campus *people* in achieving sustainability. Previous EMPs had focused on strategies and performance indicators for more typical matters such as energy and water usage. But each annual report had dedicated more space presenting outcomes associated with the campus community and its actions towards sustainability. In recognition of this, the informal sustainability connections were formally enshrined as programs, strategies and targets in the current ANU EMP.

PEOPLE

The ANU *People* program aims to research, teach, connect and inspire the campus communities towards sustainability (ANU EMP, 2009 p. 10). The program's strategies involve outreach, events, training and projects, where the latter aims to maximise student time spent on sustainability projects. *Projects* strategies include internship programs, coursework projects and student supervision. Performance indicators are maintained for novel indicators such as 'number of student hours spent on sustainability projects' (ANU EMP, 2009, p. 18). Consistent with the target of continuously increasing, student project hours continue to rise. The ANU Green Precinct final report shows reports over 10,000 student hours were invested in that project over three years from 2009-2012 (ANU, 2012).

Programming and reporting the outcomes associated with the people program is problematic because of its informal elements. Ideally, the university would report on all of the sustainability-related outreach, events, training and projects. But because virtually any student or staff member might run a sustainability initiative, but only the Sustainability Office does the reporting, many initiatives are excluded from institutional reporting on engagement with sustainability. The general staff within the Sustainability Office strive to maintain sufficient institutional connections to allow for reporting through strategic liaison with those staff and student groups that are most focused on sustainability, and by systematically recording all people initiatives that they are directly involved in. This approach has created an unusual situation where a general staff area takes the lead in some areas that are more appropriately tackled by academics. One example is that the ANU Sustainability Office provided the ANU list to the national website of sustainability courses, despite playing an active role in only a handful of the courses reported. Sustainability office staff are also frequently approached by students seeking sustainability supervisors with real-world experience.

There are several limitations stemming from the informal nature of the campus as classroom concept, that impact on the people working on it. A first is that courses run by general staff are not recorded on students' academic records. Projects can count if they are embedded in coursework, but internships, and extra-curricular courses do not. A second limitation is that unless staff have been accepted as visiting fellows by academic areas, general staff publications do not count towards the institutional records of refereed publications. A third limitation is that general staff receive little or no kudos for teaching or research activities.

Without such kudos, it is a drain on general staff time, effort and other resources to engage in education for sustainability. Fourthly, the general staff are formally limited in the degree of their engagement. They are unable for example, to be primary supervisors for students, and can only be registered as adjunct supervisors. So even when their informal role is that of primary supervisor, the record of their engagement does not show that.

The benefits to people from the Campus as Classroom concept have been better documented than their limitations. They include fostering environmental literacy, encouraging sustainable behaviour, providing rich research materials and enhancing the campus experience (Rooney & McMillin, 2010). We now move onto a discussion of the environmental benefits of projects.

ENVIRONMENT

Environmental management involves wicked problems. These are notoriously multi-faceted, messy and circular. They are hard to solve, and when progress is made, it can rarely be attributed to a single source (Wildkinson & Eidenow, 2008). These features make it hard to identify exactly when an environmental outcome has been achieved, and how individual contributions have helped. But it is sometimes possible to identify positive contributions. To try to acknowledge the outstanding sustainability contributions of individual students in the absence of an entry in the students' academic transcript, the ANU Sustainability Office publishes fact sheets on-line with summaries of the sustainability contributions from individual projects. This section presents some of those case studies.

Several student projects have tackled the ubiquitous subject of food sustainability. One such project was undertaken by Austin Shiner - an intern from Yale University on an International Alliance of Research (IARU) Student exchange. Yale has a strong tradition of campus-living, including more than a decade of coordinated sustainability office efforts to promote sustainable eating. ANU IARU students always stay at Bruce Hall, and Austin's project aimed to identify some simple actions that could be taken to improve the sustainability of the food served by this catered hall of residence. It also surveyed students to see what sort of price increase they would be willing to pay to achieve sustainability improvements. The majority of Austin's survey respondents indicated a willingness to pay an additional $10 per week to improve sustainability. Since then, Bruce Hall has served more vegetation meals, and has significantly reduced the food miles of its menu. Bruce Hall caterers take pride in serving low-food-mile meals, and so for many events including an annual Great Green Debate (Shiner, 2009).

Melati moved to Australia from Indonesia to study Environment and Development at the ANU Crawford School. She took the Extracurricular GreenSteps course in 2009. The course - run in partnership with Monash University - gives five days of intensive training in practical sustainability auditing skills and environmental basics. Students then do a 12 day internship project. Melati has been concerned about disposable cup wastage at the Crawford School and used this internship to investigate the issue. Her project was timely since the Student Association was also interested in the issue on a campus-scale. Melati's results, combined with broader student effort, was sufficient for the Sustainability Office to support a student campaign for a cup-free-campus. Re-usable cups were purchased and sold to students at cost price. Meanwhile, several halls of residence, and the ANU Marketing Office all had travel-cups of various designs made for distribution to the campus community. The campaign

continues, and subsequent orders of travel-cups have been produced. Work is not underway to have water re-filling stations across campus to further reduce the demand for throw-away drinking containers. Much more work could be done in both the facilities management and classroom aspects of this initiative, so it remains a rich opportunity for research and cost-saving environmental initiatives. Melati's waste audits at the Crawford school are retained as a valuable data set to support such future work.

An i-phone app to allow students living on campus to compare their energy and water usage with others is the current project in a string of projects trying to reduce phantom power. That is the power used by appliances when they are not in use, and it is sometimes a significant environmental and financial cost. A project conducted by David Noble investigated the incidence of phantom power through a survey of student rooms. David found that nearly half of students' power usage was from phantom power, and that students had an average of seven items plugged in, and not in use at all times. A top-scoring 27 items plugged in, turned on, and not in use was found in one student's room. As a result of this powerful data, an IARU student project developed a comprehensive tool tas calculate the energy and power usage, and cost of student's residential behaviour. The tool was trialed by a GreenSteps intern who was also a residential environmental representative. He found it to be too complicated for easy use, and this finding led to yet another project. The i-phone app project is devising a simple tool for ready access by any student (with a smart-phone), and should be launched in coming months.

A Singaporean student undertook an ANUgreen internship as part of an Australian Government-funded Green Precinct Project to investigate the communication of sustainability within a multicultural context. Many ANU students are international and this project aimed to learn whether sustainability engagement messages were being effectively communicated across cultures. The work showed that facilities that seem straightforward to Australians may not be clear to others. Split bins to allow for recycling was one example, and dual-flush toilets another. Communications products to support these types of systems need to be clear, and even explained personally to many foreign students. This issue is exacerbated in a cases where critical environmental issues - like water shortages - are not as pressing in students' home countries. Such students will not have seen dual flush toilets, or been exposed to messages about short-showers, or other behavioural contributions to environmental outcomes. Unless such issues are explained effectively, students may inadvertently waste Australian and university resources (Cheong, 2009).

CLASSIC ELEMENTS, CHALLENGES AND SOLUTIONS

Several classic elements of each of the above projects deserve some reflection. These are the features that make campus classroom projects special to students and valuable to facilities managers. Whereas many student projects are theoretical, these are applied projects with real life and real time data. The projects take on an urgency and importance to students who frequently put in additional hours to get greater results. The flip-side is that pitfalls can be associated with exactly those elements that make the projects especially interesting. These pitfalls however, can generally be anticipated and eliminated, or identified and managed through the course of a project. This section provides insights and solutions for these issues.

Projects that are conducted in real-time - to address a current facilities management issue frequently suffer from data problems. Sometimes data is unavailable at the start of a project,

but is expected to be available in a reasonable time-frame. Such data rarely does come in within a time-frame suitable for student coursework. When the expected data has not been available at ANU, project leaders have considered a range of options. Projects can be re-oriented to become more theoretical and less applied, they can use dummy or historical data, they can seek to establish future research questions, or they can be replaced by alternative projects. Clearly, none of these options is as good as doing a highly elegant and timely project. Experience has shown that it is better to gather all relevant data at the time of establishing a project, and keep it together in a file ready for student attention. It then becomes an easy task to provide the information when it is needed.

Projects that are scoped too widely are also problematic. Early campus as classroom projects had topics like ‘energy efficiency options for ANU’ or other similarly broad questions. It simply has not been possible to identify any specific outcome to emerge from such broad projects. Far more successful are those with topics such as Austin Shiner's one which has a limited topic (food) and location (Bruce Hall) as well as target group (students). Narrow projects support focused excellence. When successful, the results can readily be extended to other areas, and this leads to more excellent projects that build on the others.

Intellectual property rights are another issue that demands attention. Student projects lie outside of the intellectual property rights of higher education institutions, and it cannot be assumed that the university can retain or use project outcomes. The ANU legal office assisted in drawing up a standard student 'disclaimer' to solve this problem. All student coursework projects that involve the Sustainability Office are now formalised by students signing the disclaimer. They agree to allow the University access to their results and in return they receive supervision from general staff. This has proven to be a highly cost-effective and transparent arrangement that benefits both parties.

Cost-effectiveness is worthy of mention as a stand-alone issue. The current generation of students is very highly motivated towards sustainability - as discussed above in relation to leadership in the decade of sustainability in education. They are often willing and able to invest immense time, effort and talent in sustainability projects. This is especially the case when there is the possibility of actually making a practical difference, getting a publication (including a fact sheet), or otherwise obtaining a stand-alone item for their growing resumes. Properly resourced, scoped and supported projects can deliver remarkable outcomes. One recent GreenSteps project conducted by two students received feedback that it was as useful and well-written as one that the internship host paid $60,000 for. The project had cost them $5,000 through GreenSteps and the students were only too pleased to be paid just a fraction of the identified value of the project in exchange for the professional experience that is helping them both to transition into careers in sustainability.

CONCLUSIONS

This paper has aimed to build on previous discussions of the campus as classroom concept by presenting lessons learned from the experience. It has identified both challenges and opportunities involved. They relate to the people, environment and leadership features of higher education institutions, their facilities managers academic staff and students. When these can all be aligned, positive outcomes can readily be achieved, that can make important contributions to the sustainability of higher education facilities management.

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BIOGRAPHICAL NOTE

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HOW DO WE ASSESS THE IMPACT SESSIONAL STAFF HAVE ON THE STUDENT EXPERIENCE?

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ABSTRACT

This paper explores the relationship between the employment status of teaching staff (sessional or continuing) and the student experience. Using interview data from a university, this paper investigates the impact sessional employment has, if any, on the quality of teaching and, in turn, the student experience. A number of sessional staff members and managers of sessional staff from a cross-section of university faculties were interviewed. These two cohorts place different emphasis on what they consider to be important when monitoring the quality of their teaching practices and the engagement of their students. In summary, there are differences between sessional staff and their managers, and also between the university and broader global measures of quality. The challenge is now to find an innovative and strategic approach to supporting and managing sessional staff that draws on integral theory and targets the diverse range of sessional requirements in order to enhance the student experience.

KEY WORDS

sessional teaching, academic staff, student experience, student engagement.

INTRODUCTION

The way a group of managers and sessional staff gain an understanding of their impact on the student experience is explored in this paper. Here, the term 'managers of sessional staff' refers to course co-ordinators in higher education, program directors in further education and program managers in vocational education; a manager of sessional staff is the person to whom the teaching staff report on a weekly basis. In this study the term 'sessional' makes reference to the transitory nature of the employment, generally on a semester by semester contract arrangement and includes casual teachers from vocational education, higher education and further education. Relationships between students and teaching staff have been found to impact on student retention, overall satisfaction and engagement (Richardson, 2011). We explore whether the relationship sessional staff members themselves have with the university has the potential to affect students' engagement. What is not clear, however, is whether there is variance between the way sessional staff and the managers of sessional staff appreciate and/or understand the impact they have on their students' engagement. Ryan *et al*., (2011) found that sessional teachers themselves do not pose a risk to the quality of teaching and learning, however universities may be at risk if they do not adequately engage and support sessional staff and provide positive teaching experiences. Indicators that were found to enable managers and sessional staff to understand their impact on student engagement are presented in the results of this paper. This paper also suggests ways in which student engagement may be enhanced through sessional staff.

The proportion of sessional academics at Australian universities has increased by ten per cent each year over the past decade (DEEWR, 2010). Given this trend, it is important to explore on a deeper level whether a clear relationship exists between the quality of the student experience and the nature of the teacher's employment. This trend is reflected at the dual-sector university where this study was undertaken; between 2009 and 2011 the number of sessional staff employed increased from 1043 to 1334, an increase of 28 per cent (Note source of data: University Compliance Report – *The Equal Opportunity for Women in the Workplace* April 2010 – March 2011).

The problematic nature of the full-time equivalent basis for calculation of sessional staff together with the definition of sessional has been identified as one of the key problems in providing an accurate account of the sessional population. The time of year at which the calculation is taken is also problematic due to peaks at some points in the teaching year (May *et al*., 2011; Percy *et al*., 2008). At the university where this study was undertaken, the number of women employed as sessional staff had also steadily increased; in 2009 women made up 59 per cent of the higher education sessional staff, with this figure increasing to 61 per cent in 2011. In the latter year, women comprised 61 per cent of sessional staff, but only 43 per cent of permanent academic staff. Sessional academics have traditionally been industry experts, postgraduate students, research fellows, part-time tutors and demonstrators. However, recent studies indicate that the population of sessional staff has diversified – many sessional academics have several jobs and are seeking greater job security (Gottschalk & McEachern, 2010; May, 2011). The diverse nature of the sessional population means that there is a blend of teaching expertise which may require different levels of support (Anderson *et al*., 2002; Castleman *et al*., 1995; Percy *et al*., 2008).

A 'Code of Good Practice for the Employment and Management of Sessional Staff' (the Code) has been developed in consultation with teaching and learning advisors within each of the schools represented in the study and the university's Human Resources team. Several policies also exist that aim to guide good teaching practice and these are referred to within the Code. The Code encourages good practice by promoting, for example, an effective induction for new teachers, more rigorous recruitment processes and relevant teaching and learning guidelines.

LITERATURE REVIEW

Working as a sessional employee is increasingly seen as a pathway to more permanent academic work (Bexley *et al.*, 2011). Sessional work for some provides a way to explore an interest in academic work. Meanwhile, increased 'flexible staffing' has been described as a way for universities to deal with competing objectives (Blackmore, 2002; Bryson & Barnes, 2000; Gappa & Leslie, 1993). Conley (2006) describes flexibility as a key feature of the government modernisation agenda, a feature that undermines aspects of service delivery. Conley (2006) argues that flexibility is a key driver in public sector organisations, but the impact on quality, equal opportunity and recruitment and retention is often overlooked, and the cost associated with ignoring these aspects of employment has implications for the quality of service provided.

The concept of 'flexibility' traditionally means that there is a 'hard core' of permanent staff and a 'softer core' which expands and contracts when required. However, it would seem that the soft core is continuing to expand and the hard core is contracting at the university where

this study took place. Bardoel *et al*., (2007) found that part-time and casual workers in Australia are often excluded from development activities and this has an impact on the service they provide and the individual's opportunity for future employment. Bardoel's (2007) findings may be applied to the sessional teachers, particularly those for whom sessional work is their main or only source of income whilst managing family and other responsibilities. Opportunities for this group may therefore be limited if they are not given access to professional development and training.

If sessional employees are coming into the university as a pathway to academia and remaining in these roles for some time, then it is critical that these new employees to the university establish good practice early on when working with students. However, sessional staff have been found to have a lack of formal and informal development opportunities (Anderson, 2007; Ryan *et al*., 2011). Developing good practice may involve increased support from the university in terms of providing incentives and rewards for good performance of sessional staff, strong leadership and management and appropriate and valuable training and development. A number of issues have been identified that impact on the quality of teaching and associated duties/activities that sessional staff can provide. Brown *et al*. (2008) found that sessional staff members often have limited input to curriculum development and consequently 'ownership' of the course or unit. Sessional staff have also been found to be excluded from meetings where discussions about moderation, standards and curriculum activities are discussed and planned (Percy *et al*., 2008; Lazarsfeld Jensen & Morgan, 2009).

The questions posed in this research are related to quality and support. The key question is whether the level of support provided to sessional staff impacts on the students' engagement. We explored, first, whether there was a relationship between support and clarity of engagement. In other words, if sessional staff believe they are supported and have a good employment experience do they have greater clarity about the way they engage their students? Second, in what ways do a cohort of sessional staff gain an understanding of the impact they have on student engagement? How do the managers of sessional staff measure the impact their staff have on students' engagement?

METHODS

A qualitative research design was used to explore the relationship identified above in the research questions outlined. A narrative method of interviewing and analysis was applied and the study used a theoretical framework – integral theory – developed by Wilber (2001). The theory essentially proposes that people have different ways of knowing and consequently developing their practice. Development of knowledge can occur on an individual level and a collective level and it is likely to occur in a more balanced way if it is appropriately targeted to the individual's prior knowledge (Mate, 2010).

Wilber (2001) has developed an epistemological model of knowledge and ways of knowing that, at its simplest, has divided knowledge into four categories diagrammatically represented as four quadrants. Wilber's (2001) four quadrants provide a most useful device for helping us to think about and explore different ways of knowing. Integral theory provides a frame of reference to explore how people experience and learn differently and bring alternative ways of understanding phenomena. The sessional group in this study had a collective view of what engaging their students meant to them and how they understood the way their students

engaged. However, individuals also demonstrated different ways of understanding what engagement was and how it can be measured.

The interviews that provided the data for analysis were semi-structured. 24 participants were interviewed (12 staff from each of the two cohorts - sessional staff and managers of sessional staff). A cross section of representatives from higher education, vocational education and further education schools in the university participated. A gender and age balance was sought. Most of the sessional staff who participated in this study had been teaching as a sessional staff member for three to five years, two for more than ten years and two were new to sessional teaching, ie the participants interviewed had varied levels of experience. The length of service and experience profile was similar for the managers interviewed. The sample group self-nominated with the support of their Associate Dean of Learning and Teaching or their Head of School. Ethics approval was granted and confidentiality was maintained throughout the project.

A narrative interview was conducted with each participant (drawing on approaches outlined by Mishler, 1999 and Prosser, 2006). Interviews were recorded subject to the participant's permission. Gubrium and Holstein (2002) describe the narrative interview as a process that involves facilitating the respondent's story. In the case of this research the respondents told their story about what they believed enhanced student engagement and how they measured engagement. The sessional teachers told a story about their experience of support and the managers told a story about what they saw as important when supporting sessional staff to engage their students. Explored within each response was the experience and interpretation of the processes that enable respondents to evaluate their impact on student engagement. What limited and enhanced the quality of the services they provide was also explored.

This research had a focus on analysis of what are known as 'small stories' in the narrative tradition (Georgakopoulou, 2006). Themes in the data were identified by moving from a detailed analysis of the language in each transcript to a more general analysis that looked for patterns or themes in the language between the two cohorts.

RESULTS

The stories provided by participants indicated that experienced sessional staff members will produce good standards of teaching regardless of the level of support that the institution provides. The majority of sessional staff are able to engage their students more effectively if they are supported by the institution, although a small proportion of sessional staff will not engage their students effectively irrespective of the level of support they receive, probably because at the end of the day they are not suited to the teaching profession. Sessional staff who are new to teaching are particularly vulnerable if not supported by the institution and this can adversely affect student engagement. This is consistent with the findings of earlier research indicating that when the institution does not support its sessional staff to a similar level as its more permanent staff then there are potential risks to the quality of student engagement (Percy *et al*., 2008; Ryan *et al*., 2011; May *et al*., 2011).

An analysis of the participants' backgrounds revealed that the experience of the sessional staff member may influence the way they talk about the support they require and the identification of that which would assist them to further engage their students. Level of experience of the sessional staff cohort was also seen to influence the way that the

respondents understood the concept of engagement. The variation of experience of the group of sessional teachers interviewed bears some resemblance to the findings of earlier research; Junior (2004) identifies nine different categories of sessional academic staff. May *et al*. (2011) developed a typology that outlines motivation, career preference and employment mode as the defining variables that make up the profile of sessional teaching staff. This study extends this work by suggesting that the experience of different groups of sessional staff varies and this variation affects the level of support expected. Furthermore, different experiences have an impact on the sessional staff member's values not only relating to support, but also concerning the way they measure engagement. Here, seven 'groups' of sessional staff are proposed. A summation of these groups' range of experience, measures of engagement and potential types of support is outlined in *Figure 1*.

Sessional 'group'	**Assessment of experience and how it relates to student engagement**	**Assessment of types of support that may enhance student engagement**
1. Postgraduate student – academic orientation	Many in this group have some experience in a range of industries but not necessarily in teaching in higher education. The two staff members that represented this group thought they would be able to engage their students more effectively if they were provided with more guidelines about the expectations of the teaching in the sector and managing student groups. They also spoke about gaining support in designing activities that enabled them to discuss their own research knowledge in group activities with students. Income to supplement studies. The participants in this group were interested in a pathway into academic work on a permanent basis.	Many in this group are on campus regularly and know how to access resources, so induction was not a high priority. Mentoring by more experienced sessional staff was seen as important. Other support includes: -Formal tertiary teaching qualification -Community of Practice learning that focuses on methods to engage students in class discussion and classroom management -Teaching guides that discuss examples of class room activities -Opportunities to engage in research into the scholarship of teaching and learning.
2. Postgraduate Students – industry orientation	Gained qualification while working part-time in industry. Many in this group have gained experience with group facilitation and are thinking about the way practical learning relates to theory. The theory can be challenging to explain to students without drawing on practical examples.	Opportunities to engage in some induction if they had not worked in a university previously. Mentoring by experienced sessional staff was seen as important.
3. Industry expert - academic orientation	Income comes from industry job and is supplemented by teaching. The participants in this group saw their key challenge for engagement as the way they integrate theory and practical knowledge and share this with their students.	Appropriate support includes: -Formal and informal training and development opportunities organised through university services -Community of Practice learning that focuses on integrating theory and practice into teaching -Opportunities to engage in research into the scholarship of teaching and learning.
4. Academic aspirant – teaching orientation	Often female and completing studies with some prior work or industry experience. This group are often working as sessional teachers whilst juggling home and non-paid family duties. The participants in this group were interested in pathways into more permanent work as an academic.	For newcomers to this group having an induction 'manual' that introduced them to university resources and practices was seen as very important. The opportunity to be mentored by people working as permanent academics was also seen to enhance engagement with the university and potentially with students because the participants believed they would gain

		greater knowledge about academic work.
5. Casual by 'choice'	Often female and working in other non-paid home duties, family income often supplemented by partner.	Community of Practice opportunities that focus on innovations in teaching and learning.
6. Retiree	Casual work to supplement retirement and share expertise.	Networking and Community of Practice opportunities arranged through co-ordinator to ensure contemporary approach is maintained
7. Vocational expert or trade expert with interest in complementing practical work with teaching	Participants in this group wanted to work in the Vocational Education sector and share experience and to broaden their range of work opportunities. The key challenge they spoke about was engaging a group of adolescents. They had a lot of industry experience but not necessarily a lot of classroom management experience.	Mentoring with experienced class teacher which is focussed on classroom management. Opportunities to engage in Community of Practice learning that assists in developing knowledge in scholarship of teaching and learning.

Figure1: Summation of variation in sessional staff experience that potentially impacts on student engagement and support required

Some sessional staff discussed in detail the impact they felt they had on student engagement and others said they were unsure about how effectively they engaged their students. The vast majority of sessional staff in this study reported having minimal support to carry out their teaching, but were able to manage because they were experienced teachers with a long history of working in a sessional capacity. More than half of the sessional staff interviewed said they believed they would be more effective at engaging their students if the university supported them with appropriate and relevant development opportunities to enhance their own engagement. The types of suitable development activities suggested by sessional staff are outlined in the right-hand column of *Figure 1*.

Two examples are provided below that give some insight into the way a particular manager and a sessional staff member evaluate the quality of student engagement and how this evaluation differs.

Example 1: Lauren (a pseudonym) - manager of sessional staff within the Arts Faculty

Lauren, the co-ordinator of a group of eleven sessional staff members, talked about the planning of the semester as an important phase in the evaluation of the impact the sessional staff she manages had on student engagement.

'I invite them to an initial gathering to share resources; many are effective practitioners, and they know people in their own communities and share information about the industry. During the initial meeting we discuss case examples and the curriculum. Working here is more than about coming to class, we are not competing for limited resources, rather we share and build resources. Any new people are able to be supported by the broader group. I do not want to exploit the value sessional staff bring to the program; it would collapse without them. If sessional staff feel that they are not appreciated or recognised they tend not to give additional hours. I also hold an end of year function to recognise and celebrate the success of the sessional teachers. If they do not feel recognised they will not put in extra (unpaid) hours, it is about relationship building.'

Lauren discussed creating opportunities to develop her group by working in a community of practice, much of the learning she described sharing with the group was via electronic resources, emails and other networking media. She would advise her sessional staff of training or development opportunities that were offered within the university that may be of interest to them and some of these staff would volunteer their time to attend courses. The key way she obtained feedback was via the student-staff consultative committees. Learning experiences, course content and structure of the course was discussed during these consultative committees. Within these meetings student representatives provide feedback to members of the committee. Although sessional staff do not attend these consultative committees (they are invited but not paid to attend), feedback from the meetings are distributed to the entire teaching team (sessional staff and permanent staff). In these forums Lauren hears the passion the sessional staff bring to their teaching and she has never received any negative reports about the sessional staff. In contrast, the students who are taught by the permanent staff are more likely to complain about the lack of contemporary case studies used in the teaching. She also said the students tend to send positive emails to the sessional staff about their learning and sometimes this feedback is shared with her. Peer evaluation is provided to the teaching team at the end of year planning forums. Sessional staff are paid to attend these forums.

Lauren said she takes a lot more time than is allocated by the academic workload system to co-ordinate the teaching team because it is important for the development of her students. She sees her role of co-ordination as significantly impacting on the students' engagement.

'I have been in the role for two years and my experience as a sessional member for five years has given me ideas about how to support the students and sessional staff. I need to have expert conflict and negotiation skills to manage complaints from students. The complaints are generally about permanent staff. I've adapted feedback processes that encourage a participative style.'

Lauren believes a key part of her role is to be an advocate for students and provide a forum for them to discuss any concerns about their learning experience and their engagement with the subject. She saw herself as a resource for the sessional staff to gain insight into students' expectations.

Example 2: John (a pseudonym) - a sessional staff member within the Business Faculty

John, like many sessional staff members, teaches at other universities in a sessional capacity. Sessional teaching is his primary source of income. John has been involved in developing aspects of the curriculum he currently teaches. He participates in the end of year planning session, which involves some reflection on his progress for the year. He has participated in some units of the tertiary teaching qualification offered by the university and attended training to support him in the use of technologies integrated into the program. John currently mentors new sessional staff members. In relation to the way he evaluates his performance, John made the following statement:

'I have been working in a sessional capacity for approximately eight years at a number of universities. I have industry experience and a teaching qualification but no interest in doing a PhD. The way I evaluate the impact I have on students is through the formal student evaluation process at the end of each semester; I have been able to look at these and see variations in the comments from students in the lectures and tutorials over the years and this

gives me some ideas for future classes. I also believe I get direct feedback when I mark the student's assignments based on the quality of these assignments, and indirectly I get an indication of the students' engagement through the questions students ask in tutorials.'

John mentioned some frustration with the standards of the language in some of the students' work and said if he had the opportunity he would work more closely with the Student Language and Support Unit to embed some programs for students within the existing course that supported them further with writing and study skills. Currently he has no time to do this within the existing course.

The two examples provided above could be seen as good practice examples, however, not all participants in this study reported such positive experiences or were as clear about the way they measured the impact their work had on student engagement.

What are the key factors for the two cohorts (managers and sessional staff) that impact on student engagement?

Sessional staff

A common theme that sessional staff discussed as having a negative impact on their students' engagement was limited access to communication and resources. In general, sessional staff said that they rarely receive feedback about their impact on student engagement from staff employed by the university on a more permanent basis, most of their feedback coming from the students or other sessional staff members. Sessional staff spoke about having limited opportunities to work with managers to obtain constructive feedback and see this as having a negative impact on their students. Many of the sessional staff reported experiencing isolation, little connectedness with the rest of the university and limited opportunities to professionally develop themselves. A small number of sessional staff received student evaluations at the end of the course, but said this gave them no insight into the retention issues or why some chose not to continue studying their course.

Employment conditions also appear to impact negatively on the sessional staff members, in particular, late notice of teaching allocations was identified as a key factor impacting the staff member's capacity to plan effectively. Inefficient and untimely recruitment practices mean that new teachers are often not given system access in time for the beginning of the semester and this limits their access to the university's resources.

One sessional staff member who was new to teaching at the university had received some form of induction, but many said they had not received any induction resources until well into the semester. The group of sessional staff that were new to teaching spoke about the value of being able to have a contact person to talk to about the way their classes were developing. Those sessional staff who did not have support said they were discouraged to continue teaching and were very unclear about the impact their work had on their students.

A key concern expressed by the sessional staff was the lack of opportunity to meet other people within the university. Many had contact with no staff member other than the unit coordinator and found online resources difficult to navigate. The opportunity to network with other staff within their department was a high priority for all sessional staff interviewed.

Managers

Managers of sessional staff have limitations on their time and often do not see it as their role to offer induction materials or course-specific development opportunities, but felt the school or central university services should deliver this to new staff. Many of the managers do not have the time or resources to provide ongoing feedback or mentoring to sessional staff concerning their engagement with their students, some do not have a cohort of experienced sessional staff that can perform this role or the funding to pay the more experienced sessional staff to undertake a mentoring role. Many described funding limitations as a key barrier to creating development opportunities within the course they co-ordinate.

A key complaint by the managers was the seeming inability of university systems to pay the sessional staff within a reasonable time frame and to get contracts prepared and processed in time to start the semester.

Most managers of this group said the key advantage that sessional staff provided for their students was contemporary knowledge of industry practice and that many of the PhD students were working on research projects that they were passionate about and they shared this passion with their students.

A common opportunity reported by the managers from across the schools was the sessionals' capacity to apply a blend of theoretical knowledge, practical knowledge and good teaching practice. The capacity to draw on practical case examples or industry application was seen as an effective way to engage students. The capacity to engage students in higher order thinking and to provide a supportive and enriching learning environment was also seen as a significant indicator of student engagement. The features identified in the Australasian Survey of Student Engagement (AUSSE) produced by the Australian Council for Educational Research (ACER) highlights that a key factor impacting on student engagement is staff–student interactions (Richardson, 2011). The instrument also identified other factors as relevant (e.g. retention, work integrated learning opportunities, higher order thinking, development outcomes, academic challenge, supportive learning environment and enriching educational experiences). The features identified in the AUSSE were also evident in the stories the managers provided.

Both cohorts identified sessional staff experience and interactions with students as a key factor that impacts on student engagement**.** Based on the perceptions of the two cohorts in this study, the relationship students have with staff has been found to have an impact on student engagement.

DISCUSSION

The informal and varied nature of the way that sessional staff are managed means that some sessional staff appear particularly vulnerable if not adequately supported. The key types of support that were identified by the sessional staff involve suitably targeted development and training opportunities and learning and teaching resources to deliver their classes effectively. Constructive feedback and effective recruitment and induction were also seen as important for the sessional staff and had an impact on the way they engage their students. For example, if an inexperienced sessional staff member (from 'group' 1 in *Figure 1*) was not supported in their teaching, they may not engage their students effectively. A key concern for the managers of sessional staff is 'building in' support for delivery of effective teaching and

producing quality learning materials as well as aligning the central university systems to support the 'just in time' needs of the teaching teams.

Best practice and community of practice learning approaches have been shown to enhance student experience regardless of the nature of employment of the teacher who is delivering a program (i.e. a sessional or permanent staff member). A best practice model and/or community of practice model have both been used as an approach to benchmark quality teaching and learning with sessional staff (Chalmers *et al*., 2003). Whilst some staff in the university (from both cohorts) drew on practices that were promoted in the Code of Good Practice developed for the university, not all were seen to be aware of this document. Enhanced opportunities to promote effective practices appear, therefore, to be important at this university.

A number of studies have reported that there is an increased number of women entering the university on a sessional basis. As mentioned in the introduction the key increase in sessional staff at this university is women (group 4 in *Figure 1* – academic aspirant with teaching orientation). Hugo and Morriss (2010) indicate that casualisation can allow individuals and organisations more flexibility; however, the implications of this flexibility may impact on equal opportunity if some staff are excluded from developing their capacity to engage their students. May *et al*., (2011) notes that closer attention needs to be paid to the strategies to engage sessional academic staff in career pathways into academia. Conway (2011) concurs and suggests that the lessons acquired from integral theory be applied to manage change management within a university context. If sessional staff are to become part of the mainstream academic teaching body they need to be resourced to develop their teaching and research capabilities. If they are not engaged, they are unlikely to fully engage their students. Integral theory provides a way to explore how we can change the way we think about managing the 'softer core'. The application of this theory is considered to enhance the impact that sessional staff can provide for their students. When considering ways to develop the capacity of this group to deliver good practice it is important to take into consideration their prior experience. There are different ways of understanding engagement and different ways of supporting staff to manage the relationship they have with their students. A 'one size fits all' approach to developing this diverse group would limit the potential they bring to the university and to their students.

'Even though there is a spoken acknowledgement that all three (teaching, research and service) are important, every academic knows there is a hierarchy, with research sitting at the top ... I think academic institutions forget that we need a blended balance of strong teachers and strong researchers in order to make the university viable and profitable-and we can't expect that we'll get both out of one person who has any sort of work-life balance!' (Bexley *et al.*, 2011).

Bexley *et al*. (2011) points to the challenges for the future management of academics, which is developing a blended balance to cater for the needs of students. This also applies to sessional staff; a blend and balance of support, development and training is required if they are to continue to effectively engage their students.

CONCLUSIONS

The stories from respondents in this research indicate that the quality of engagement is not necessarily affected because a teacher is sessional. However, sessional staff who are well supported have an increased likelihood of engaging their students effectively. This paper explores the dimensions of what is commonly considered good practice when managing and engaging sessional staff. A 'one size fits all' model is not appropriate for supporting sessional staff to engage their students. A key finding from this research is that a blend of opportunities to enhance engagement is required to reduce the risks associated with ineffective engagement of students. The findings in this study indicate that the sessional teachers require different levels of support.

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