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Refereed Papers

Edited by Ian R. Dobson and Raj Sharma



Association for Tertiary
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**ASSOCIATION FOR TERTIARY EDUCATION MANAGEMENT
AND TERTIARY EDUCATION FACILITIES MANAGERS'
ASSOCIATION**

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Refereed Papers**

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EDITORS' INTRODUCTION

Ian R Dobson and Raj Sharma

We start this introduction by apologising for the considerable borrowing of text from previous years' Tertiary Education Management (TEM) Conference refereed papers publications. Avoiding paraphrasing (and even self-plagiarisation) is difficult in text that has to repeat material or information published in equivalent documents from previous years. This is the formal e-book of TEM Conference refereed stream papers for 2015, a service first provided to TEMC delegates in 2010.

TEM conferences have always attracted many excellent papers, and the advent of a refereed stream was a good thing. There is no reason why a conference attended predominantly by 'admin' staff should not also offer the opportunity for those delegates presenting a paper to be including within the system of metrics that generates federal government funding. However the TEM Conference has a rather strong practitioner focus to support the sharing of knowledge and 'know how'. That is only to be expected, because it is a conference sponsored by organisations of administrators and managers. The main reason for mentioning this is that we managers and administrators don't necessarily approach writing in the same way as academics do.

It is possible that there has been minor confusion as to which papers can be included in the refereed proceedings of a conference. Papers 'published' in this way constitute a funded research output and therefore such papers must meet the Higher Education Research Data Collection's definition of 'research' before being eligible for inclusion in refereed proceedings. Not all practitioner papers can be defined as 'research', but this does not mean that they are not excellent papers. This goes some way towards explaining why it took over 30 years before the TEM Conference offered a refereed stream.

Writing up the results of 'scholarly research' is not typically the lot of university administrators, however, being in 'admin' does not preclude being able to publish. The editors of this volume are a good example of this. Between us, we have authored or co-authored well over 100 articles published in journals or in edited books. There is also nothing to prevent career administrators from acquiring a PhD, something else the editors of this volume have done. Getting started in publishing is not all that easy, but once you have done so, it gets easier every time. Publishing in a conference refereed stream is probably a good place to kick off a publishing career. The editors are more than happy to discuss with authors matters relating to submitting a paper to the refereed stream of future TEM conferences.

For the TEM Conference 2015, of the 17 papers submitted for assessment under provisions for the refereed stream, 14 appear in this volume. Two papers were not published because it could not be deemed that they constituted 'research'. Another paper needed to be resubmitted so it could meet style and content requirements, but the authors did not do so.

And so to this year's papers. Mary-Rose Adkins and her colleagues present a paper which follows up on a presentation at last year's TEM Conference. The theme is 'massive on-campus courses', and the paper tells us about strengths and weaknesses,

and presents some telling statistics on student attendance and subsequent attainment. Something to read about MOCCs rather than the ever-popular MOOCs!

Ann Cheryl Armstrong was party to two papers at TEMC 2015. The first saw her collaborating with Katrina White in a paper that explains how the University of Western Sydney sought to enhance the student experience through a summer programme. The second was co-authored with Deidre Cox and presents a review of the development of the University of Western Sydney's Summer concept / project, 'launched and implemented through the lens of a change management communication strategy'.

The next paper presents findings on a research project about leadership development. Tony Brown and Heather Davis describe the project between Curtin University of Technology and the LH Martin Institute for Tertiary Education Leadership and Management at the University of Melbourne (respectively) to evaluate the first Emerging Leadership and Managers' Programme (eLAMP). Their data suggest that eLAMP 'is viewed ... as a successful organisational development initiative'.

Brigid Freeman from the University of Melbourne's Graduate School of Education was also prolific, presenting two papers at TEMC 2015. The first looks at environment and sustainability plans and policies and wonders whether these present 'solutions, straightjackets or meaningless drivel'. Do tails end up wagging dogs? In her second paper, Brigid examines the 'how' of institutional decisions in four disparate countries: Australia, the US, New Guinea and New Zealand. She found that there was 'a remarkable level of consistency' between these countries in how they communicated higher education institutional policy. Compared with Australia, perhaps New Zealand isn't all that 'disparate', but isn't that how New Zealanders say 'desperate'?

The presentation by Stephen A Gray from the University of New South Wales (whose surname my spell checker wants to *correct* to 'Gary' or 'Grey') was on a topic dear to my heart, and in fact to the hearts of many ATEM members. He poses the question 'Are professional staff seen as allies or are they viewed in a far more negative light?' By going down this track, he refers to, and is extending, work on the topic published by ATEM members such as Maree Conway, Carroll Graham, Judy Szekeres and even yours-truly. This is an important topic on several fronts, but is particularly important in the context of the blurring of the line between 'administrative' and 'academic' work in the contemporary university.

Jonathon Hagger and Kathryn Pavlovich are this issue's New Zealand publishees. As with the Brown and Davis paper described earlier, this paper concerns leadership, specifically the development of leadership skill through practice mindfulness. Read their paper to find out about the three key attributes of leadership.

This issue of the refereed papers presents a couple of papers from the TEFMA side of TEMC 2015. Gerald Healey and Tom Dean explain about sustainability performance for university buildings, working around the University of Melbourne's Arts West redevelopment as a case study. How is it possible to create a 5 Star Green Star building in a value-for-money way? Later in this volume, Liz Topolcsanyi and Rob Norton describe how to enhance facilities management, and describe the path they took to attaining ISO 5500 accreditation. I think that more papers about the 'facilities' side of universities is a good thing.

Tess Howes and her colleagues look at how ‘strategic planning’ flowed out of the Dawkins reforms (all those years ago!) having an impact on ‘academic planning’. Increased organisational complexity is one of things that eventuated, according to their findings.

Peta Humphreys is a librarian at the University of Melbourne, and looks at the impact of change on universities (among other things), and the establishment of the Research Impact Library Advisory Service, which she describes as ‘a completely new service requiring a new skill set for librarians’. Plus ça change, and all that.

Do you have an ePortfolio, an online repository in which you store and share written, visual and auditory resources? In this paper, Christine Slade from the University of the Sunshine Coast reports on ‘the perceptions of students at the beginning of their ePortfolio learning journey...’ It is based on a pre-use survey of 567 students.

Last cab off the rank in this first author alphabetically-arranged collection of refereed papers is by Richard Watson and colleagues from the University of Southern Queensland, collaborating with researchers from the Universities of Melbourne and Tasmania. Their topic? Academic workload allocation models. They surveyed deans of science and workload managers, asking them about things like models, rules, policy, systems and software. The stuff they found out has ‘informed the development of an in-depth research project’.

The editors hope that readers find this set of papers to be of interest. They also hope that ATEM members who attend the TEM Conference regularly might start to consider submitting their work for consideration for the refereed stream. The more papers accepted in the refereed stream publication, the better. The editors’ main requests are that authors make sure their papers are ‘research’ (as defined), and that they follow the style guidelines.

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

Until next year,

Your editors, Ian R Dobson and Raj Sharma.

BIOGRAPHICAL NOTES

Ian R Dobson’s career in higher education started in the early 1970s with a couple years in the Planning Branch, then the library at RMIT. Since then he enjoyed (for much of the time) long spells at the University of Melbourne and Monash University, and was a research director at the University of Helsinki, Finland, for nearly three years from mid-2010. He is an adjunct professional staff member at Monash University and is editor of the Journal of Higher Education Policy and Management and the NTEU’s 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 Master of Educational Administration and PhD degrees 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. He remains the most prolifically published author in the Journal of Higher Education Policy and Management, and is a past recipient of the Peter Karmel International Travel Grant.

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MANAGING A MOCC. KEY CONSIDERATIONS FOR A SUCCESSFUL MASSIVE ON-CAMPUS COURSE

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ABSTRACT

In 2014, Communication and Thought (COR109) became the first mandatory course for all students in first semester of study at the University of the Sunshine Coast (USC). This paper builds on the ‘Rise of a MOCC: Massive On-Campus Course’ paper presented at the 2014 TEM conference, and reflects upon the lessons learned from design and logistical challenges on one of Australia’s largest university courses. Firstly, this paper discusses the strengths and weaknesses of specific assessment items: how they evolved through feedback from students and staff, and how they were developed to scaffold for academic success, to be relevant to every discipline and to promote graduate attributes. Secondly, statistical data on student attainment and attendance is provided, alongside student feedback related to identified strengths and weaknesses of COR109 content and delivery. This analysis includes a discussion on a high Fail Absent (FA) rate and provides examples of how attendance impacted final grade attainment.

KEY WORDS

management, leadership, large course/unit, assessment design, course design.

INTRODUCTION

This paper provides reflections on one year of co-ordinating COR109 at the University of the Sunshine Coast, a Massive On-Campus Course (MOCC) which provides face-to-face lectures and tutorials on four campus sites. It is a mandatory course for all undergraduate students in their first semester of their first year of study, and is aimed at providing students from all disciplines with essential skills and resources for ‘success within the academy’ while promoting a ‘sense of belonging’. In first semester of 2014, the course content was designed by the COR109 management team as directed by a university reference group formed to oversee the implementation of the course.

The reflections presented in this paper are based on an ‘empowerment evaluation’ (Fetterman, 2001; Fetterman et al., 1996) of the course. An empowerment evaluation requires the reviewer to clarify the course’s main mission, investigate the values and principles of the course, and, in response to reflection, plan for the future (Fetterman, 2001). Crucially, empowerment evaluations are undertaken by the practitioner (Dewey,

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1929). In this instance, the practitioners are the course coordination team and teaching staff. The practitioners/teaching staff carries out the curriculum evaluation as part of an 'internal professional mandate', in contrast to external drivers (McKernan, 2007). The methodology for the reflection and re-design of curriculum are congruent with the principles of action research, a method of investigation by practitioners that looks for practical solutions to identified problems or limitations (Elliot, 1991; McKernan, 1996). Action research aligns with empowerment evaluation as both are participative and involve a cyclical, reflective process. In addition, action research responds to the emerging needs of the course and aims to refine earlier cycles (Dick, 2000).

Iterative reflections on the course delivery over two semesters have resulted in considerable changes to the course content, resources and assessment. The changes were predominantly made in response to the teaching team's and students' lived experience of engaging in the course, and informed by the main mission of the course: to engage first semester, first year students in the culture and processes of academia including research, critical thinking and communication. In particular, the teaching team's empowerment evaluation identified a need for clearer scaffolding of assessment items, in order to provide feedforward opportunities to students and enhance their likelihood of success in subsequent assessment requirements within COR109 and concurrent or future units of study; it also sought to make the assessments more explicitly relevant to students by strengthening the links to their discipline and the graduate attributes sought by future employers.

Reflection has also identified student attainment and attendance to be interdependent. This paper discusses this as a key factor that is likely to inform the next iteration of curriculum re-design. To motivate and maintain attendance, the students are also encouraged to engage with or personally referred to further support provided by Academic Skills, Student Services, the Library, the Student Guild, International Student Services and Careers Connection. Tutors are empowered to address student issues that may impact on attendance or attainment and provided with information sessions from the course team and support service staff about how they can facilitate student access to these support services. Specific skills classes aligned with COR109 assessments have been developed by academic skills advisors and the library, and weekly promotion of these classes are embedded in the tutorial content. Next, the teaching and assessment design are discussed.

TEACHING AND ASSESSMENT DESIGN

In Semester 1 2014, course assessment tasks were implemented as advised by the COR109 reference group that was formed in 2013 to oversee the development and implementation of the first compulsory course to be undertaken by all first year students in their first semester of study. The reference group consists of representatives from all discipline areas, the Pro-Vice Chancellor (Students), the Director of the Office of Learning and Teaching, the Director of Student Life and Learning, the Associate Deans of Learning and Teaching and a representative from timetabling. The reference group proposed a whole of institution approach to designing and reflecting on the design and implementation of a COR course, heeding Krause's claim that 'coherent and holistic approaches to planning, delivering and reviewing the first year curriculum are foundational to success in the first year' (2006, p. 3). Furthermore, in order to ensure

that the values espoused in university policies are operationalised in the day-to-day delivery of the curriculum, an institution-wide ownership of effective curriculum design is required for first year courses and programs so that they reflect a central core of agreed values (Krause, 2006).

Consequently, in alignment with USC's core values, the course's assessment design, course content and delivery have been informed by transition pedagogy (Nash et.al., 2013), a focus on 'student learning' (Umbach & Wawrzynski, 2005) and enabling students to view their undergraduate degree as a process or journey of 'becoming somebody' (Ecclestone, 2009) by achieving certain graduate attributes. A focus on graduate attributes helps both the students and teachers view specific course units as only part of a whole degree programme and how the course unit will contribute to the whole learning journey or process.

Bowden et al. (2000) suggest that these attributes need to be interpreted and elaborated within specific disciplines for practical meaning to develop. The Week 1 lecture provides students with information about the University of the Sunshine Coast's (USC) graduate attributes, explicitly linking them to the introductory level skills and qualities they will acquire upon completion of this course; this is reinforced in the course outline where graduate attributes are linked to assessment. Furthermore, each week a brief video is prepared for students which outlined what information is covered in readings, lectures and tutorials and how each linked, not only to grade outcomes, but also to graduate attributes and the skills required in their own discipline. Therefore, transition pedagogy and a focus on embedding graduate attributes were central considerations in the empowerment evaluation detailed below.

The COR109 management team is also committed to respond to student and tutor feedback about the course and revises assessment, content and teaching strategies each semester. This assuages Bath et al.'s (2004, p. 325) warning against being content with 'static snapshots' of curriculum and is congruent with processes of review and renewal that create a 'living and validated curriculum' for teachers and students. Assessment is recognised as having a profound effect on student behavior (Entwistle, 1991), exerting even more influence on what a student does than teaching (Boud, 2012); therefore, changes in assessment tasks, constructively aligned with learning outcomes and teaching and learning activities (Biggs & Tang, 2007), were redesigned to foster student learning and enhance academic confidence.

In 2013, assessment task one was an Annotated Bibliography worth twenty percent of the total mark. The goal of the task was to enhance the skills of researching, referencing, academic writing skills and critical reflection. However, at the end of semester one, in consideration of the feedback from both students and staff it was decided to change the first assessment item to provide more specific scaffolding for task two (Biggs & Tang, 2007). Task one was then divided onto two sections: a) an online quiz which requires knowledge of research preparation, paraphrasing, referencing, and academic writing (worth five percent of the total mark; and b) writing a paragraph or a report section which requires demonstration of the ability to locate specific academic sources, apply the appropriate structure, format, writing conventions, paraphrasing and referencing (worth fifteen percent of the total mark). Students can choose to use the genre and referencing style that they would most likely be asked to submit within their discipline area; however, in tutorials they are exposed to learning about both essays and reports

as it is very likely they could be required to use both. After consultation with programme leaders, a document listing all discipline areas with the genre and referencing style mostly required by each discipline is provided to students to reinforce that their learning in COR109 will equip them with relevant skills for learning within their discipline. The topic of assessment task 1b is focused on interpersonal communication skills in the workplace as this was found to be an important graduate attribute required by employers and provides relevance for student learning. Tutorials were redesigned to teach formal writing conventions, specific structural requirements of both genres, using evidence from academic sources and the importance of referencing. When assessing task 1b, tutors are required to provide extensive feedback with the aim of enabling students to improve their performance in task 2, for which task 1b is an explicit scaffold in both generic and content requirements. Students are required to engage with this written feedback and are offered further individual face-to-face feedback to clarify understanding and strategise their approach to task two.

Assessment task two has remained as an Argumentative Essay or Analytical Report worth forty percent of the total mark. There are two main goals of this task. The first goal is to continue to enhance student's academic writing skills, focussing upon the format and structure of typical written assessment types that they will encounter in academic and professional settings. Students could again choose to use the genre and referencing style that they would most likely be asked to submit within their discipline. It requires students to choose a communication topic and discuss three skills within that topic that benefit their specific discipline. The change from semester one to semester two was to limit the communication topic to interpersonal communication and to specify the three skills, which research supports as graduate attributes which are highly valued by employers (Velasco, 2012). Secondly, the link to students' disciplines is an important curriculum design element as students need to both 'come to terms with what it is to learn and succeed in higher education, but they also need to learn the new language and conventions of their disciplinary study' (Krause, 2006), a challenge often overlooked when assessment tasks are decontextualised.

Assessment task three is a Group Oral Presentation worth forty percent of the total mark. The goal of this task is to enhance students' knowledge of and skills in a) group development, group communication and conflict management; and b) public speaking, persuasive speaking, speech development and the presentation of visual information. Changes made to task three include a change in choice of topics, a change in format and the method of reflecting on their group work skills in relation to the graduate attribute of communication and collaboration. The format changed from a TED style presentation to a persuasive presentation where students are required to select a topic from a choice of four topics and work collaboratively to take a stance on that topic and provide premises to support their group argument. The move from one set topic for the whole cohort to a choice of one topic from four enables students to choose an area of specific interest that is aligned with USC's core values. For example, one topic focuses on the value of indigenous knowledge; even if students do not personally engage with this topic, they will hear the presentations of those who have and develop their understanding of indigenous knowledge and perspectives which the university is currently in process to embed across the whole of university curriculum. The incorporation of various topics has also enabled the course to engage further with academics across the university; USC academics with expertise in these areas have provided academic resources and guest lecture videos to assist students in developing

their understanding of the content from within a framework of discipline knowledge and professional identity.

When students have completed their presentation they are required to complete a 'Group processes self-assessment tool' individually and confidentially in class before leaving. In tutorials, students are informed clearly about the graduate attributes assessed in task three by explicitly linking them with the set task. Students have been provided with an opportunity to use a workbook provided on 'Pebble Pad', an online e-portfolio, to reflect on their group processes, adoption of group roles and graduate attributes. The inclusion and emphasis placed on student reflection in action and on action (Schon, 1983) in their group work approaches is designed to help students to diagnose their core strengths and areas for development and facilitate a questioning approach to their learning and facilitate student self-regulation (Nicol & Macfarlane-Dick, 2006). The reflections can assist student to complete their group processes self-assessment tool and assist them to see their acquisition of graduate attributes in context.

ATTENDANCE AND ATTAINMENT

Along with a change in assessment was a focus on showing students the importance of attendance and engagement with course materials, aiming to establish the expectation that students would be proactive in engaging with course materials. Setting this expectation for attendance and engagement was important as previous research has demonstrated a link between attendance and grades (Corbin et al., 2010). The first lecture of each week is recorded and made available to students for viewing on line as part of the USC blended learning strategy. However, in keeping with the COR109 mandate as a face-to-face on-campus course, all students are enrolled in a face to face lecture as well. Attendance at tutorials is seen a vital so students can develop a 'sense of belonging' and 'self-efficacy' in an environment of trust within the classroom (Pompper, 2006). Tutorials are structured as two hour workshops providing activities that are designed to show students 'how to' complete assessment tasks and promotion of information about where they can access extra resources online and help from university wide professional support services including academic skills, library services, student administration and counselling (Szekeres, 2013). A recording is made of one tutorial each week but is made available to students only in special circumstances, such as in the case of scheduled tutorials on public holidays or other special needs requests. Attendance at tutorials was viewed as essential for success in COR109.

In order to establish the expectation of regular tutorial attendance and engagement, tutorial attendance was specifically recorded in class each week, even though there were no marks allocated for class attendance. The attendance data below (Table 1 and Figure 1) is from 1,571 out of 2,265 enrolled students enrolled in semester one, 2015 (note: classes were analysed only where it was confirmed that correct attendance data had been entered each week).

The data available demonstrates that, generally, higher attendance was necessary to receive higher grades. For instance, almost all of the students scoring an HD attended for nine or more of the eleven recorded tutorials, with over half attending for all eleven tutorials. Similarly, almost 70 per cent of students who scored a DN had attended nine

tutorials and 90 per cent had attended for seven or more of the eleven tutorials. There were clearly a higher number of fails from lower attenders (137 of the 212 failing students attended five tutorials or less), although fails were recorded right along the spectrum. Of the 75 failing students who attended most of the semester, 65 did not submit at least one or piece of assessment and 10 failed with full submission but inadequate overall grade.

Table 1. Attendance and grades per number of tutorials attended

Grade	Attendance (No. of Tutorials out of 11)												Total
	Nil	1	2	3	4	5	6	7	8	9	10	11	
FL	26	19	21	27	23	21	14	13	9	15	8	16	212
PS	13	3	17	9	22	34	52	58	53	40	43	45	389
CR	3	0	9	8	16	26	32	59	84	97	64	75	473
DN	1	1	0	3	6	10	14	33	49	72	88	99	376
HD	0	0	0	1	1	1	1	1	4	13	27	53	102
TOTAL	43	23	47	48	68	92	113	164	199	237	230	288	1552

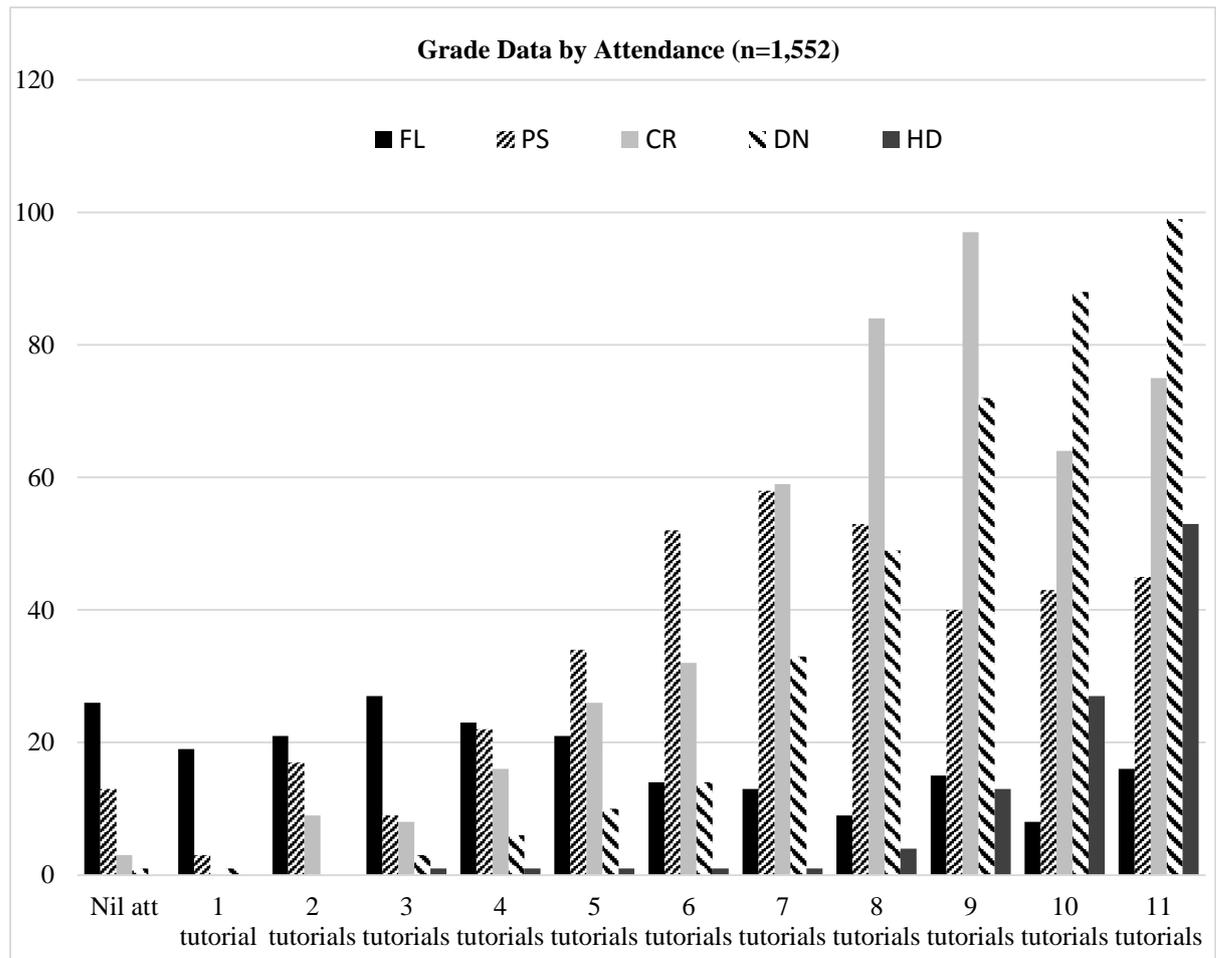


Figure 1. Grade data by attendance

One of the most significant findings of this analysis was that there seemed to be a critical minimum attendance rate which had a large influence on the difference in grades. It seemed that attending for at least five of the eleven tutorials was an important factor in success, with students attending that number of tutorials far more likely to achieve a higher grade compared to those who attended less. In cases of attendance at four or less tutorials, the most common grade was fail (over 50 per cent of this group failed). Some low attending students did pass the course (28 per cent) but only a very minor number reached higher grades with this attendance pattern. Students who only attended once or twice during semester usually did so in the first three weeks of semester. This pattern matches a pattern of student attendance as identified by Sawon et al. (2012). Conversely, where students attended five or more of the eleven tutorials, the majority (93 per cent) passed with only 7 per cent fails. The pass rate was 25 per cent and many scored much higher with 33 per cent CR, 28 per cent DN and 25 per cent HD. This comparison is even more obvious when only comparing pass and fail rates for the two groups (see Figure 2).

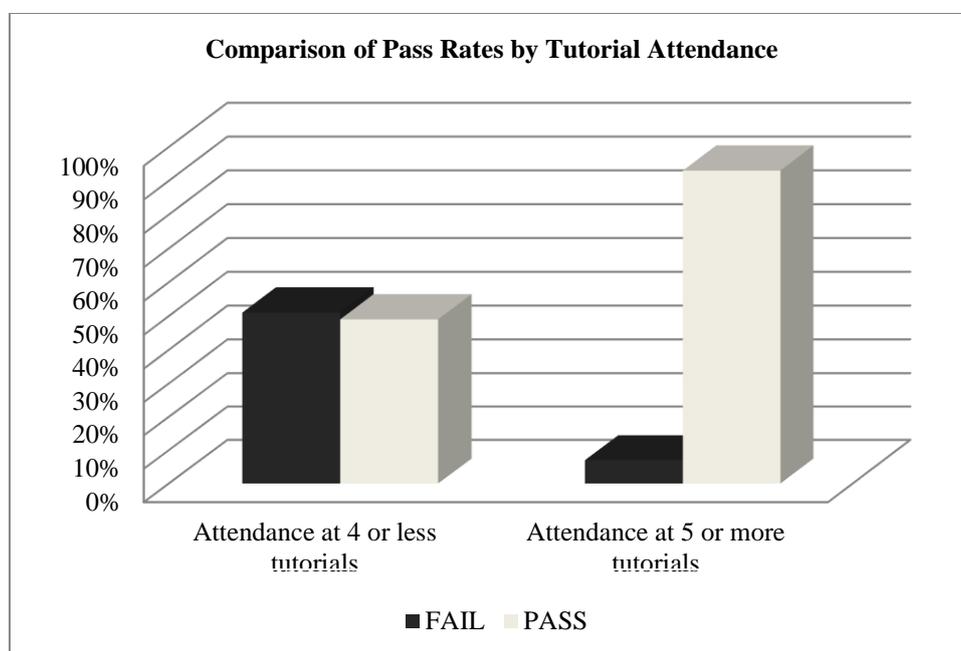


Figure 2. Comparison of pass rates by tutorial attendance

We revised and used the course assessment to provide better scaffolding, a clearer link to various disciplines, and a focus on graduate attributes, along with communicating a clearer expectations of attendance in order to support academic success, increased sense of belonging through connection to discipline and improved graduate attributes. From an institutional perspective, the COR109 reference group became a whole-of-institution first-year reference group. This will provide the COR109 management team with the opportunity to gain a greater understanding of what students are experiencing in other courses, and just as importantly, allow other first-year coordinators to have better access to the content and resources in COR109 to create much stronger transitions for future students.

The next phase of re-design is currently focused in these areas:

- Developing of a contracted textbook (John Wiley & Sons) on approaches to university assessments that will encompass assessment types currently

addressed in COR109, as well as including those that are not in order to further scaffold and promote academic success??

- Early discussions are taking place that will lead to the possible expansion of assessment types currently offered in the course. The likely focus here will be the inclusion of a scientific report as it has been identified as a significant gap in the current content in order to further connect students to their discipline requirements
- Expanding to offer more assessment types will bring about discussions on the potential of streaming students during the last third of the semester into classes that will focus on particular assessment items (essay, business report, scientific report)
- There is very early discussion on the possibility of addressing numeracy through an assessment item
- Addressing attendance through engagement/early intervention strategies – phone calls and follow up.

BIOGRAPHICAL NOTES

Mary-Rose Adkins, Gail Crimmins, Gregory Nash, Lee-anne Bye, Florin Oprescu, Ann Robertson, Richard Bond and Janet Turley are colleagues in the School of Communication, Faculty of Arts and Business at the University of the Sunshine Coast involved in presenting and administering Communication and Thought (COR109). Nash and Crimmins won the Good Practice BLASST award in 2013, a national award from the National Office of Learning and Teaching for boosting the expertise of benchmarking leadership and advancement of standards for sessional teaching.

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ACHIEVING EFFECTIVE CHANGE MANAGEMENT THROUGH A DYNAMIC COMMUNICATION STRATEGY

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ABSTRACT

This paper will review the development of the UWS Summer concept and how it was successfully piloted, launched and implemented through the lens of a change management communication strategy. The main goal was to build communication excellence and encourage teamwork, active participation and a flow of communication between the central coordinating project team and the various academic and business operations groups within the University. This paper traces the development of a change management strategy in which it was critically important to ensure that the communication framework was inclusive and comprehensive. The centrally-located Summer Team worked across the University to engage staff, secure high-level buy-in, utilise the expertise of key personnel and units and, where necessary, develop completely new processes, activities or groups to move the initiative forward. This paper will also discuss how the communication strategy for UWS Summer was refined and executed over a two-year period, with a focus on stakeholder engagement, cross-unit collaboration, multi-channel delivery and information cascading.

KEYWORDS

communication, change management, summer school, student experience, strategic initiative

INTRODUCTION

Clark (2004) argued that:

During the last quarter of the twentieth century universities around the world found themselves under increasing pressure to change the way they operate. Alert universities gradually recognised that they had to respond to proliferating new demands of government, industry and societal groups, while maintaining and improving their traditional field of research, teaching and student learning that became more complicated with every passing year. Whatever their heritage, or individual traditional character, the pace of change dictated a more flexible and adaptable posture.

Eight years later, the idea that universities needed to change the way they operate in order to survive was encapsulated in the Ernst & Young Australia (2012) paper entitled 'Future Challenges for Universities'. They indicated that:

New university models will require significant change. Universities have traditionally been resistant to change and new business models, with academics typically citing the need for academic independence and the purity of the mission. University leaders will need to find ways to stay true to the mission, maintain academic integrity and independence, while at the same time changing their business and operating models.

In 2012, the University of Western Sydney embarked on a review of its academic year with the intention of adopting three teaching sessions. The third teaching session was an enhanced 'Summer School' branded as 'UWS Summer'. In order to make this a reality, several units within the organisation needed to change their business processes and collaborate in ways that had not been conceived before. In planning this university-wide intervention, some participants seemed so overwhelmed with the task that they preferred discussing program desirables to developing the strategies that would achieve them.

Communication became the key element to this change strategy and, like change, it proved to be complex and sometimes misunderstood. The Irish playwright George Bernard Shaw (1856–1950) was quoted by Marlene Caroselli (p.71, 2000) in her book *Leadership Skills for Managers* as saying, 'The single biggest problem in communication is the illusion that it has taken place.'

We all communicate every day in a number of different ways and to different audiences. As George Bernard Shaw alluded to, there is a flawed assumption that communication has taken place if one has sent an email, mounted a poster on a wall or posted a message on Facebook, Twitter or Yammer (the private communication networking tool used by the University). If one is in the process of innovating, it is critically important to be able to communicate those big ideas and the possible areas of transformation in a manner that can be understood and, if necessary, actioned by the desired audience. This was especially true for UWS Summer as a new innovation of the University. We needed to ask ourselves what we wanted to communicate and what was important about that message. We decided that we wanted to inspire others – both staff and students - and to build a transformational momentum that lifted the game of the University.

In recognising that the University was about to embark on a huge change, we decided to ensure that we developed a comprehensive plan, and deliver this with expediency. We endeavoured to ensure that the messages were clear with an appropriate level of detail, as well as authenticity. We wanted to invoke the warmth and energy of the summer season into our communications, ensuring that the messages were welcoming, enthusiastic, energetic, and always positive, polite and encouraging.

Relationship building played a major part in the success of the strategy, particularly in the first year when a positive outcome hinged on winning the hearts and minds of those key stakeholders who would not only be recipients of communications but, in some cases, the conduits of them. The project team managed to bring together individuals and teams from across the University that had never interacted before. Many of the activities and processes executed by the team led to improved communications overall within and between Schools and Business Units.

The paper will also explore the approach that was taken to dealing with pockets of

resistance and scepticism, converting them into project champions, and communicating the serious or mundane aspects of the project while instilling a sense of fun and excitement.

BACKGROUND

Throughout a year-long review process, the Academic Year Review team worked closely with Schools and conducted focus groups with students to develop a solution that would provide more flexibility for students whilst remaining feasible in terms of teaching, student support and administration. It was clear that there was support in the majority of Schools for an extension to the academic year through a formalised Summer teaching session. Based on this feedback, the UWS Executive endorsed the implementation of some form of extended academic year – not necessarily a trimester system. From the outset, it was abundantly clear that such an intervention could only be successful with the full ownership and leadership of senior executives. The initiative was launched in 2013 with a Marketing and Communications Strategy.

‘UWS Summer’, the University’s ‘new look’ Summer session, commenced in December 2013, and extended the academic year by providing three learning and teaching periods between December and February. UWS Summer provided students with more flexibility to plan and manage their study to suit their lifestyle and other commitments. It also provided a third entry point for new Business students (non-school leavers), as well as an opportunity for external students to study cross-institutionally during Summer.

For the inaugural year of UWS Summer (2013/14 – Cycle One), the communications strategy focused on launching the concept of a full-scale Summer session to students and staff. This included high-level communications from the Vice-Chancellor, the development of specific UWS Summer branding, and the delivery of UWS Summer-focused events on campuses.

In UWS Summer (2014/15 - Cycle Two), the focus shifted to the consolidation of previous activities, explanation of what was different to the previous offering, and the revitalisation of the UWS Summer branding.

Evidence collated from Year One was used to develop a Marketing and Communications Strategy for the 2014/2015 Summer offering under which activities fell into two main categories:

- External marketing activities, aimed predominantly at attracting cross-institutional students (i.e. students studying at another university) to study at UWS during Summer.
- Internal communications activities, including events, targeted at both current UWS students and staff.

THE SUMMER PROGRAM COMMUNICATION STRATEGY

The entire initiative was embedded within a project management methodology with a continuous improvement approach. This model supported the management of the change process; a model that was sustainable with a continuous improvement approach. There needed to be an orchestrated management point of view balanced with an inclusive staff point of view.

The methodology needed to be as non-threatening and pragmatic as possible because this was a complex University-wide intervention. We had to recognise the power of technology and enable the inclusion of technology-supported practices both at the academic and divisional levels.

For Cycle One of UWS Summer (2013/14), the focus of communications was on launching the concept of a full scale Summer session to students and staff. This included high level communications from the Vice-Chancellor, the development of specific Summer branding, and the delivery of Summer-focused events on campuses.

In the Cycle Two (2014/15) the focus shifted to consolidation of previous activities, an explanation of what was different to the previous offering, and the revitalisation of Summer branding.

The importance of communication as a crucial process in change management was recognised and in Cycle One a Communications Manager was recruited to support the Summer Team as a central coordinating hub for all Summer-related communications activities. This Manager executed most internal communications elements directly, as well as a small number of student-facing activities. However, most activities were executed by the relevant communications units: ARO Communications, Internal Communications, Digital & Social Media Manager, Marketing, uwsconnect and Web Services.

When the decision was first made to deliver an enhanced Summer program, we developed a conceptual framework within which to operate. The Summer Team developed messages aimed at clearly communicating the University's vision and mission for the program and took time to establish the alignment between the program and the University's wider strategic objectives. The project goals and objectives were clearly explained in a multiplicity of ways, paying particular attention to the different dependent audiences involved, and we also explained the ways in which this new enterprise would be likely to affect various groups at the School and Business Unit level as well as student groups.

Our communication was consistent, frequent, and utilised multiple channels. We encouraged recipients of the messages (both staff and students) to engage in dialogue if they required more information or clarification. They were provided with several points of contact because we wanted to relay that this was not a top-down approach but part of an ongoing conversation. By keeping the conversation flowing we were able to identify process challenges along the way and used this information to support a continuous improvement approach to enhancing the program.

Several working groups were established within Business Units and Schools across the University to keep the communication cascade flowing. This was a crucial step within the change management strategy because the people at the 'coal-face' were expected to

implement the changes so their advice was sought regarding the best ways of achieving success. We created opportunities to include staff and students in discussions around the design and delivery of the initiative as much as possible, ensuring that we received buy-in and expediency for the delivery of program outcomes.

Recognising that communication was bi-directional, we needed to spend time developing a strategy which engaged and enthused staff and students, and through which they were able to share their experiences and learning with others. In particular, we invited them to participate and contribute as co-creators, commenting on and critiquing the program as it progressed. Thus, the change management process was located within the context of a strategic initiative at UWS.

The very focused and clear intention was to build and maintain relationships across the University so the intervention was understood. Through the UWS Summer initiative, a measure of organisational effectiveness was achieved that could be modelled in other initiatives across the University. The communications strategy was designed to communicate with key audiences to support organisational transformation and growth.

In addition to the normal project governing structure, which included a Steering Committee Advisory Groups, and Planning and Implementation Working groups, this project had a high level Marketing and Communication Group which reported to the Steering Committee. This Group provided an overall marketing and communication strategy to support the UWS Summer initiative and ensure consistency of messages.

A key driver behind the staff communication strategy was to build a foundation of engagement and enthusiasm about UWS Summer that would radiate outwards and encouraging students to participate. There was also a focused student engagement strategy that included the use of various communications channels and campus events. Each major Business Unit and School established Planning and Implementation Groups within their area of expertise that would meet the needs of each discipline or business unit and develop solutions for implementation. Collectively, they developed solutions that optimised the academic year through the development of timetabling, enrolment and other systems and schedules, and identified an integrated approach to UWS Summer that aligned with blended learning formats being integrated into Schools.

In Cycle Two, a UWS Summer Marketing and Communications Working Group was created, formalising cross-unit relationships developed by the Summer Team and Summer Communications Manager in Cycle One. The Working Group included representatives from relevant UWS communications units with direct impact/influence on UWS Summer marketing and/or communications activities: Internal Communications, Academic Registrar's Office, Marketing, uwsconnect, Digital & Social Media and the members of the Summer Team.

Chaired by the Summer Communications Manager, the Group met regularly to discuss the Summer Communications Activity Schedule and brainstorm ideas for additional activities. Out-of-session, Group members liaised to finalise activities, seek input on new or revised activities, and sign-off on materials such as the uwsconnect Summer Guides. This Group made recommendations to the Summer Team and Director, Academic Year Optimisation on improvements, changes and/or additions for future UWS Summer session communications. Its responsibilities included:

- executing the agreed marketing and communications activities in the UWS Summer Communications Activity Schedule;
- suggesting/researching additional UWS Summer marketing and communication activities for both students and staff;
- ensuring a coordinated approach to all marketing and communications activities for UWS Summer, especially those aimed at students, to limit duplication of effort, over-communication or missed communication opportunities;
- developing and implementing communications processes across UWS to assist with communication cascading within and between Schools and Business Units; and
- assisting with ongoing communication cascading within Schools and Business Units, in line with agreed procedures.

The Working Group was also engaged in: identifying and managing issues and risks that might impact these marketing and communications activities for the overall delivery of a successful UWS Summer; capturing and reporting student and/or staff feedback on UWS Summer to the Summer Team/Director, Academic Year Optimisation; and, measuring the success of marketing and communications activities.

The members of the Summer Marketing and Communications Working Group were responsible for various aspects of the marketing and communication work across the University and provided advice and feedback which was reported to the Summer Steering Committee. The bulk of communication to students was through the Communications team from Academic Registrar's Office (ARO) and this team's advice on the appropriateness of communications material and messages was crucially important.

A comprehensive spreadsheet of all scheduled activities by all communications units was captured in a Communications Activity Schedule, which was discussed at Working Group meetings and updated regularly, with completed items marked off and new or amended items flagged.

Internal Communications

Internal communications were managed via the UWS Summer Marketing & Communications Working Group with all activities captured in the detailed Communications Activity Schedule. The Summer website, managed by the Academic Registrar's Office, was the central hub of information for UWS Summer and fed into the Summer Module of the UWS Application which was managed by Web Services.

Staff Communications

Communications to staff focused on two main areas: keeping relevant staff up-to-date with logistical aspects of Summer, and building excitement among the entire staff population. Targeted operational communications were issued via email to key internal stakeholders and 'All Staff' communications were mainly dispatched via e-update (the daily electronic staff newsletter) and Yammer. A set of Summer FAQs for staff was created in Cycle One and revised extensively for Cycle Two. These communications included general information regarding the UWS Summer format, agreed procedures and policies related to Summer, and promotion of events as well as enrolment updates in the lead-up to Summer.

Communications to current students

These communications focused on:

- informing students about UWS Summer as a study option.
- advising what units were available and when enrolment and tutorial registration were open.
- promoting Summer-focused events.
- operational matters such as SSAF and Exam Results.
- general information about campus life during Summer (food and beverage, libraries, careers service, capital works, parking, events and activities).

The majority of these activities were delivered by ARO Communications via email, Twitter, digital screens, vUWS, MyUWS and webpages, in consultation with the Summer Communications Manager and supplemented by:

- the Digital & Social Media Manager (Facebook).
- uwsconnect (digital screens, retail outlet promotions including posters, Shuttle Bus advertising, Summer Guide booklets).
- CrUWSible student newspaper articles and FAQs (Summer Communications Manager);
- Internal Communications (screens and Vision 6 broadcast emails).
- School-issued communications mostly via email, posters and webpages.

Summer Events

The Summer Team partnered with Student Central to promote UWS Summer during the Student Services Fair (August) and 'Summer Fest' (October) across the five campuses in both cycles of Summer. The level of interest among students at the Fairs varied, possibly because it was too early in the year for students to think about Summer enrolment. Summer Fest events generated greater interest and there was a significant increase in enrolment as a result.

Student Filming and Professional Staff Conference

During the first cycle of UWS Summer 2013/14, the Summer Team partnered with TVS to film Summer students answering a series of questions about their experience of the new teaching session. Filming was undertaken across all five campuses where Summer classes were taking place and the footage was developed into five short promotional films responding to the questions:

- Why did you choose to do UWS Summer?
- What have you enjoyed most about UWS Summer?
- Have you made any new friends at UWS Summer?
- Would you come back to UWS Summer next year? Why?
- Would you encourage your friends to participate in UWS Summer? Why?

Copies of these films were released on the UWS YouTube site and linked to the Summer website to promote UWS Cycle Two Summer 2014/2015 and the reasons why students should consider enrolling in the session.

Interestingly, in spite of using a multi-channel approach to communication, some of the comments from the student survey regarding the improvement of Summer included suggestions for more Marketing and Communication:

- *Advertise, advertise, advertise; there has been a limited amount of information relayed to students about what is happening in UWS Summer. Although flyers, emails and the website were available, they were used in the first couple of weeks and nothing happened after that. Although there may have been a social media presence, it was not strong.*
- *I found out about UWS Summer through my student email. However, I am aware of fellow students who don't regularly check their email during Summer as they are not studying. A 1st year friend of mine was not aware of summer school without my mentioning of it. I would suggest increasing the advertising of summer school more creatively at campuses leading up to UWS summer to make people more aware of this great opportunity. This could be done through setting up stalls in the final weeks and handing out incentives as well as information about UWS Summer. I feel offering UWS Summer through email and word of mouth is not enough, especially for 1st year students who are unaware of this option.*
- *So i think if i had that knowledge i would have participated in uws summer much sooner so i think you could look into sharing that information with students through various mediums such as email and social networks.[sic]*
- *There needs to be On-Campus Social Events. This will take away from the tedious nature of attending UWS Summer and make it that bit more exciting.*
- *A lot of students are under the assumption that summer is for students who have failed a unit, or don't really understand how summer session works. I think it's important that students are aware that they are able to get a step ahead of their studies by planning and preparing ahead throughout their course to enable them a chance to enroll in a summer unit. Personally I have found it very beneficial and will definitely be recommending it.*

External communications to prospective students

Promotion to prospective students focused on attracting cross-institutional students to study during Summer. In October and November of Year One, an above-the-line marketing campaign was executed via Mx transport press, digital advertising and radio. Success in terms of both enquiries and enrolments of cross-institutional students was low.

In Year Two, the Marketing team conducted more extensive research on the processes for cross-institutional study which showed that advertising needed to be executed earlier in the year during a very small window of opportunity. The above-the-line campaign in this cycle focused on Mx transport press and an extensive digital campaign. The Summer website was also split into two major sections: one for current students and one for prospective students, each with its own Summer branding and differing information, where required.

Although the Cycle Two (2014/15) target of 100 cross-institutional applications was reached, the number of conversions to enrolment was still low. This is partly due to the difficulties inherent in the processes at other institutions which discourage their students from studying cross-institutionally.

CONCLUSION

Most change management strategies fail or are not properly executed because of the

lack of recognition of the virtues of a well-designed communication strategy. Communication should be authentic, perceived to be relevant to employees and students, consistent with action, endorsed by senior management, and continuously monitored and evaluated.

Throughout the two cycles of implementing UWS Summer, we often questioned:

- How much is too much, when it comes to strategic change management?
- What actually happens as a result of communication taking place?
- Did the recipient access the communication channels used and therefore did they receive, read, and most importantly, understand the communication in the manner that it was meant to be understood?

Cycle Three (2015/16) UWS Summer is being mainstreamed and is therefore becoming business as usual. Relevant staff are being kept up-to-date on operational aspects of Summer by the activity owners, including the Academic Registrar's Office, Capital Works and Facilities, Library Services, Information Technology Services, Security, and uwsconnect. Coordination of program communications will no longer be undertaken by a specialist program team, but rather by the Office of Marketing and Communication. After two cycles of Summer, 'All Staff' communications will be limited to high level decisions and FAQs on the Summer website.

Relationships established during the first two cycles of Summer have been nurtured to ensure ongoing cross-unit collaboration and brainstorming for UWS Summer, and other University-wide activities and initiatives.

Challenges

Every effort was made to ensure that there was extensive internal stakeholder engagement across Schools and Business Units to 'sell' the concept prior to launch. This was not always an easy task in an environment where many staff, both Academic and Professional, already felt their hands were full with the delivery of two regular semesters. Resistance to the implementation of the inaugural UWS Summer was strong in some surprising areas of the business, mainly due to a lack of understanding of the role of the Summer Team or how this session would significantly differ from earlier, much smaller 'Summer Schools'. Through a process of intense stakeholder engagement, focused on dispelling these misconceptions and positioning the Summer Team as an enabler and partner in the process, rather than as another bureaucratic layer of management, this resistance gradually diminished. A major indicator of success was when several of the early sceptics became the biggest champions of the program and the contribution of the Summer Team.

Added to this were the inherent gaps in communication between and within Schools and Business Units, some duplication of activities and responsibilities, little or no existing relationship between communications units, and process limitations or gaps – all of which would prove challenging to overcome.

Although there were most certainly benefits to the University – better utilisation of infrastructure, improved cross-University collaboration, and an increase in revenue as a result of greater student flow-through – the key driver of UWS Summer was to improve the student experience through greater flexibility and choice. Despite the

majority of students having indicated a desire for more of these elements at UWS, students still needed to be convinced of the purpose and benefits of this additional teaching session.

Much of the engagement with staff centred around how best to provide a holistic experience that would satisfy students' expectations in terms of quality teaching, best use of time and resources, and a variety of study options and delivery modes in an inviting, fun and vibrant campus environment. While relatively simple as an overall concept, this approach threw up a surprising array of challenges in the pilot year of the project. The Summer Team pulled out all the stops to ensure the vision of a premium student experience was not only achieved but surpassed!

BIOGRAPHICAL NOTES

Dr. Ann Cheryl Armstrong is the Director, Academic Year Optimisation at the University of Western Sydney. In 2012, Ann Cheryl led the Academic Year Review which canvassed the views of staff and students of the University about the possible move to a trimester system.

Deidre Cox was the 'Summer Communications Manager' and she worked as part of the Summer Team to ensure that the initiative was successfully communicated. She also chaired the UWS Summer Marketing and Communications Working Group. Deidre is currently employed at UTS:INSEARCH, the premium pathway provider to the University of Technology Sydney, as the Stakeholder Engagement Adviser.

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ENHANCING THE STUDENT EXPERIENCE THROUGH UWS SUMMER

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ABSTRACT

A review of the University's academic year was commissioned in 2012. This review revealed that the two things students wanted most were: greater flexibility and choice. From this extensive review, the University's fledgling summer program was rebranded as 'UWS Summer' and expanded with over 100 units of study on offer across five campuses. This initiative was conceptualised within a case study framework and was piloted and monitored as an action research/learning project. Embedded within the overarching project implementation strategy was a continuous improvement methodology designed to provide a structured approach to reviewing and improving performance, which are two key elements of the academic year optimisation strategy. This paper will explore the growth and development of the initial UWS Summer concept, and how this was successfully piloted over two years. It will discuss the relevance of three key implementation issues: the critical importance of authentic consultation with staff and students, the need for detailed operational planning, and the necessity of serious consideration of resource implications.

KEY WORDS

summer school, student experience, academic year, trimester, flexibility, choice

INTRODUCTION

Higher Education Reform in Australia

Over the past 50 years, many universities in Australia offered their courses through a two semester system, generally running from early March to late November. More recently, some institutions have offered a third teaching and learning period either through a trimester system or the introduction of a summer school from December to February and winter school during June and July. These changes are consistent with one of the policy principles identified in the Universities Australia (2013) paper, *Smarter Australia: An Agenda for Higher Education 2013 – 2016*; namely, 'the need for provision of flexible learning options to support students who may have work, family and other commitments.'

Following the Bradley Review (2008), the then Labour government introduced significant reform to higher education in Australia. These reforms included: the removal of enrolment caps; student income support reforms; regional loading, international student visa review and a base funding review. The policy aim was that by 2025, 40 per cent of 25 – 34 year olds will hold a Bachelor's degree, which represents a very significant increase in the number of young people accessing higher education. In the absence of additional base funding, deregulation of the higher

education market and thus greater competition between universities have become the main drivers for increasing revenue. The current Liberal government has maintained the uncapped numbers for university entry as well as attempting to significantly extend the deregulation agenda. A critical consideration for higher education institutions therefore has been that of how to reduce costs and gain efficiencies through fuller utilisation of resources without sacrificing quality and service. Universities have been forced by the circumstances of their funding to investigate ways of exploring new revenue opportunities together with streamlining their business processes in order to improve efficiency, productivity and profitability while providing students with a more enriching learning experience.

The projection according to IBIS World (2015) is that the higher education industry is expected to grow strongly over the next five years mostly driven by the uncapping of university places. However, the actual performance will be determined by reaction of potential students to changes in government policy and funding during a time when the Federal Government has been expressing concerns about how to fund an expanding higher education system. Opportunities for growth are being facilitated by the rapid advancement in technology, improvement in course flexibility and in some cases, changes to the academic year and new pathways into undergraduate and postgraduate courses. These adjustments and modifications have been in response to the demands of students who frequently have to manage study with work and lifestyle commitments.

BACKGROUND

The Case for an Extended Academic Year

The University of Western Sydney recognised the importance of encouraging a broader discussion ‘of how proposed structural changes may impact on the core activities of the university (teaching, learning and research)’ (Baldwin & McInnis, 2002). A review of the University of Western Sydney academic year, conducted in 2012, canvassed the views of staff and students of the University about the possible move to a trimester system. The findings revealed that students wanted more opportunities to complete their degrees within a shorter timeframe in a system that offered greater flexibility and choice without the rigidity of a trimester system.

However, there were several issues that the University’s Board and Senior Executive wished to contemplate regarding the implications of a move to a trimester system. For example, some universities in Australia were exploring how implementing trimesters could lead to improvements in efficiency, and growth in student revenues. Trimesters could also be appealing to universities that are expected to compete for more students in a deregulated environment.

The experience of implementation of the trimester system in Australian Universities indicates that staff and student involvement is essential for successful outcomes. In addition, the following lessons can be drawn: before moving to a trimester system there is a need for strategic clarity and consultation; careful planning and change management procedures are required to avoid flaws in execution; it is important to identify inefficiencies in the way electives are currently offered and reduce duplication; there is a need to explore the option of having core units across the curriculum available in the third trimester; the institution needs to ensure that there are systems in place to

allow students to ‘flow’ through the trimesters with maximum flexibility; there should be an appropriate number of units or fulfilling projects in the third trimester; and, the university needs to review its assessment and examination timetabling in order to minimise stress and ensure flow, cohesion and wellbeing.

In the Australian case studies, the main issues identified by students were: having enough time to study; coping with workloads; having enough time to revise before exams; making sure that assessments are spread out and marked fairly; ensuring that a wide range of units were offered in the third trimester; the perceived extra pressure on students who supported their studies by working in the mid-term and summer breaks due to a shortening of the mid-term break and the prospect of dropping from 13 teaching weeks to 11 or less. Some students also felt that the lecturers were unprepared in the transition from a semester to a trimester system and this had a negative impact on both the learning and the examination process.

Changes in government policy have certainly contributed to the growth in university enrolments in Australia. IBISWorld (2012) in their paper ‘University and Other Higher Education in Australia’ argue that ‘...the master’s degree by coursework has become the second most popular option after bachelor’s degrees with enrolments up 15.5 per cent in 2009’ (p.8). In their analysis, they ‘expect the postgraduate market to grow faster than undergraduate student demand in the coming years. This is due to the significant numbers of older students wishing to update their qualifications or make a career change’ (p. 11). In order to support this anticipated growth, universities will probably need to consider expanding their ‘online educational capabilities, increase the number of external and multi-modal courses and improve the flexibility of internal courses’ (p.11, 2012).

In 2013/14, after considering a range of alternatives, the University of Western Sydney adopted an enhanced Summer School model where student participation was based on self-selection. This third learning and teaching session was branded ‘UWS Summer’. The model was modified in 2014/15 based on findings and feedback received during the first cycle and that model was subsequently again modified slightly based on the 2014/15 feedback.

The main objective of the Academic Year Optimisation Project was to offer greater flexibility and choice to support students’ varying learning needs. Students were encouraged to take advantage of the summer break to begin or continue their university degree. It was envisaged that students would be able to use this opportunity to progress through their program of study more quickly, make up for unsatisfactory performance in a previous semester, or spread their workload more evenly across the year.

During the first two cycles, UWS Summer was piloted and monitored as an action research/learning project. Embedded within the overarching project implementation methodology was a **continuous improvement approach** which provided a structured methodology for reviewing and improving performance, which are two key elements of the initiative. An important aspect in this process of planning and implementation has been the willingness of colleagues to work in teams.

Drawing on the comparative UWS Summer evaluation data over a two year period, we will explore some of the ways in which UWS increased efficiencies while providing

greater flexibility to support students' varying learning needs and provide an overview of the successes, the challenges, and insights into how Summer was experienced by students, professional staff and academics.

Managing UWS Summer

Implementation and overall project management of UWS Summer was undertaken by a dedicated Summer Team who managed the day-to-day running of the project and operated as a central monitoring and coordinating hub during each cycle of the initiative. A collaborative approach was adopted to work with Schools and the relevant business units across the University to ensure that appropriate units were selected, offered, advertised and delivered within a supportive framework.

There was extensive internal stakeholder engagement across Schools and Business Units to 'sell' the concept and to gain traction through widespread acceptance. This was not always an easy task in an environment where many staff, both Academic and Professional, felt that their workloads were already stretched with the delivery of two regular semesters. The Summer Team worked across the University to: secure high-level buy-in from the Executive, Deans and Heads of Business Units; engage staff more widely; utilise the expertise of key personnel or units; and, where necessary, develop completely new processes or activities and establish working groups to progress the initiative. They also developed Summer-branded merchandise, printed material, and organised promotional events that were unique to UWS Summer.

Governance

A very clear governance structure was used to manage UWS Summer:

A Steering Committee comprised senior university stakeholders who provided support, guidance and oversight of progress, ensured delivery of outputs and achievements of outcomes.

An Academic Advisory Group provided advice and technical assistance on academic-related matters based on Schools' preferences for extending the academic year; **School Planning and Implementation Working Groups** - to work with colleagues in their School to identify an integrated approach that optimised the academic year, and align blended learning and online strategies that would meet the needs of their disciplines.

A Business Operations Advisory Group provided advice and technical assistance on operational issues related to the planning and implementation phase of the project; **Business Planning and Implementation Working Groups** worked with Schools and other business units to develop solutions that optimised the academic year.

A Marketing and Communication Group provided an overall marketing and communication strategy to support the UWS Summer initiative and ensure consistency of messages. A key driver behind the staff communication strategy was to build a foundation of engagement and enthusiasm about UWS Summer that would radiate outwards, encouraging students to participate. There was also a focused student engagement strategy which included the use of various communication channels and campus events. Each major Business Unit and each School developed **Planning and Implementation Groups** within their area of expertise to work across the university that would meet the needs of each discipline and business unit and develop solutions for implementation.

Collectively they developed solutions that optimised the academic year through the development of timetabling, enrolment and other systems and schedules and identified an integrated approach to Summer that aligned with the proposed blended learning formats of the Schools.

METHODOLOGY

An overarching project implementation methodology was applied with a continuous improvement cycle designed to provide a structured approach to reviewing and improving performance. These two approaches were connected to the communication strategy through which feedback was provided and the UWS community informed on the project's process and progress. Schools and Business Units were encouraged to strategise about their plans for extending and optimising the Academic Year and consider resource implications as well as issues and risks associated with operationalising the development of a third teaching and learning session. It was a comprehensive university-wide strategy.

There were 3 major components of the initiative:

- Broad engagement with Schools and Business Units primarily through the use of proformas, presentations, face-to-face meetings, and web-based material.
- Specific issue-based engagement using the various governance committees to work through the issues for implementation.
- A detailed Marketing and Communication Strategy to support change management.

The objectives of the Academic Year Optimisation Project were expressed clearly and transparently and these were referred to throughout the implementation process and used as a road map in setting expectations, guidelines and direction. The time dedicated to this phase of the AYOP set a strong foundation, offering an important basis for scheduled implementation in December 2013. The team gathered extensive feedback from Deans regarding their preference for extending and optimising the academic year. Data included staffing costs, projected income, one-off investments and so on, with an implementation strategy developed based on the feedback. We then undertook a business analysis/ readiness assessment in order to understand the typical implementation life cycle, milestone events, methodology, issues, risks, with focus on implementation issues that were unique to the University. An initial implementation transition plan that was tailored to the known requirements was developed and agreed upon before the implementation process actually began. This was followed by further discussions and dissemination of information regarding the form of the modified academic year. The Summer Team then continued the planning for implementation and ensured that the evaluation was embedded in the implementation design. Comments and suggestions from staff were captured on an on-going basis and systems were modified where possible during the current cycle or saved for refinement during the following cycle. Upon completion, students who participated in UWS Summer were invited to complete a 10-minute survey with both close-ended and open-ended questions online to provide feedback on:

- Whether UWS Summer met their needs and expectations.;
- Whether they would recommend UWS Summer as an option to their friends and family who are studying;
- What they really liked about UWS Summer;
- What changes could be made to improve the experience.

RESULTS

Units and Enrolment

More than double the number of units were offered in Cycle 2 in 2014/15 (233) compared to Cycle 1 in 2013/14 (105). Eighty-eight units (38 per cent) of those offered in Cycle 1 were also offered in Cycle 2 while 145 (62 per cent) were ‘new’ that is, not offered in Cycle 1.

In 2012/13, 1,107 students were enrolled in 16 Summer School units. This suggests that Summer School was a very small-scale enterprise. In that cycle prior to UWS Summer, there were only 1,181 unit enrolments. One year later, for Cycle 1 of UWS Summer (2013/14), there was a very visible increase in all indicators. There were 105 units offered across 8 Schools resulting in 7,304 units’ enrolments (data at 22 January 2014 after student withdrawals). The number of enrolled students increased to 5,595 students which represented a 505 per cent increase in students and a 618 per cent increase in unit enrolments over the results of the previous year. The majority of students enrolled in only 1 unit (3,997 students) or 2 units (1,494 students), with 97 students enrolling in 3 units and 7 students enrolling in 4 units. See Table 1)

Table 1: Comparison of Units, Students and Unit Enrolments over three Cycles of Summer

Category	Pre-Cycle 1 2012/13	Increase 2013 - 2014		Cycle 1 2013/14	Increase 2014 – 2015		Cycle 2 2014/15
		#	%		#	%	
Units Offered	16	89	556.3	105	128	122	233
Students Enrolled	1107	4488	405.4	5595	1603	28.7	7198
Unit Enrolment	1181	6123	518.5	7304	2302	31.5	9606

Any analysis of the data showed that 1,330 (18.5 per cent) of those who undertook study during UWS Summer in 2014/15 were also students in Summer Cycle 1 (2013/14).

Acceleration

A preliminary analysis indicates that in 2014/15 a smaller proportion of students (17.4 per cent) used UWS Summer in order to accelerate their study compared to 2013/14 (36.7 per cent), and a larger proportion spread their load (45.2 per cent) to include participation in UWS Summer. A further 2.3 per cent of enrolments were new to UWS. This result should be treated with caution as the category allocations for the 2014/15 cohort are based on their 2013/14 study pattern. Further analysis will be required when the students’ 2014/15 study pattern is available later in the year. Of the total students, 73.4 per cent were non-repeaters, showing that there is significant demand to ‘study my way’ by choice, rather than just re-taking failed units. See Table 2.

Table 2. Student Study Pattern / Profile

Student Study Pattern/Profile	Cycle 2: 2014/15		Cycle 1: 2013/14	
	No. of Enrolments	Enrolments %	No. of Enrolments	Enrolments %
Accelerating/Catching up	1,195	17.4	1,863	36.7
Spreading / Standard Load	3,109	45.2	1,196	23.5
Reduced Load	2,412	35.1	2,022	39.8
Not enrolled in 2013/14	155	2.3	-	-
Total	6,871	100.0	5,081	100.0
Repeaters	1,830	26.6	1,371	27.0
Non-Repeaters	5,041	73.4	3,710	73.0
Total	6,871	100.0	5,081	100.0

Repeating students

Students who undertook study in UWS Summer have been classified into groups based on their pattern of study. This has been done separately for the group of students who were undertaking at least one unit they had previously failed ('repeaters') and for students who were taking units they had not previously attempted ('non-repeaters'). Table 3 shows similar proportions of students repeating units in Summer 2014/15 (27 per cent) and 2013/14 (26.6 per cent). In both cases the proportions of 'repeaters' are closer to the usual pattern of failure rates in UWS.

Table 3. Repeaters and Non-Repeaters in 2014 and 2015 Summer School

	2013/14		2014/15	
	Frequency	Per cent	Frequency	Per cent
Repeaters	1,371	27.0	1,830	26.6
Non-Repeaters	3,710	73.0	5,041	73.4
Total	5,081	100.0	6,871	100.0

Table 4 shows that a relatively large proportion of students (54.7 per cent) did not use UWS Summer to repeat any units. Of those students who were repeaters, 13.9 per cent were repeaters in both years, compared with just over 15 per cent who were repeaters only in 2014/15 and just over 16 per cent who were repeaters only in 2013/14.

Resourcing

From the onset, the Senior Executive agreed to fully fund UWS Summer based on the calculated estimates requested from each School and Business Division. The Summer and Financial Sustainability teams engaged with the Schools to estimate the costs of each unit to be offered and the Business Units to determine the costs related to supporting an enhanced teaching and learning period during Summer. Over the period of 2014/15 Summer, a significant revenue was generated with an overall student load of 1,192.3

Table 4. Repeaters and Non-Repeaters Who Undertook Summer School Cycles 1 and 2

	Frequency	Per cent
Repeaters - both years	185	13.9
Non-Repeaters - both years	728	54.7
Repeaters in 2013/14 (Cycle 1) but not in 2014/15 (Cycle 2)	216	16.2
Repeaters in 2014/15 (Cycle 2) but not in 2013/14 (Cycle 1)	201	15.1
Total	1,330	100.0

UWS Summer Cohort Analysis

There was only marginal and statistically insignificant difference in academic performance (GPA) between the 2013/14 and 2014/15 UWS Summer cohorts: mean of 3.85 in 2013/14 and 3.86 in 2014/15.

For Summer 2013/14, the actual costs incurred were less than the forecasted expenditure. This trend was the same for Summer 2014/15 where the average cost per unit fell to \$6,447 from approximately \$ 28,519 in 2013/14. This may have occurred because Schools were managing their costs more efficiently. This may also have been the result of more efficient use of Academic staff. For example, offering units in Summer rather than Autumn or Spring semesters would not necessarily increase incremental costs.

The incremental Division costs per unit also improved significantly from \$7,117 in 2013/14 to \$3,711 in 2014/15. This may be the result of economies of scale and efficiencies from knowledge gained during Cycle 1. Our review indicated that UWS Summer generated a significant cash flow during each cycle while also progressively reducing its costs.

Summer Survey Results

Of the 2068 students (30.1per cent of participants) who responded to the Summer Survey, 92 per cent felt that Summer was adequate or of more than adequate standard than was expected. However, 13per cent of respondents seemed to have experienced some problems.

Of the respondents, 1139 (55.1 per cent) participated in Summer A which was conducted between 10 December 2014 - 15 February 2015, 30.4 per cent participated in Summer B between 5 January 2015 - 15 February 2015 and 14.6 per cent participated in both Summer Sessions.

Because students self-select to participate in Summer, most of them felt that their choice of Summer Session was **'just right' in length** with 85 per cent indicating that the number of teaching weeks allocated to Summer A was 'just right' and nearly 81 per cent felt that Summer B was long enough.

When asked about the **preferred teaching style**, the majority of students who responded participated in Summer A (10 December 2014 - 15 February 2015) and they preferred a equal mix of face to face and online content (41.5 per cent), followed by minimal use of online content and mostly face to face (24.9 per cent) with 16 per cent

preferring sessions that were entirely face to face, 11.7 per cent preferring sessions that had extensive online content with some face to face and a small number 5.9 per cent preferring an entirely online mode of delivery..

When asked whether they would participate again, 57.5 per cent indicated that they would definitely participate in UWS Summer again next year, 32.9 per cent would have liked to participate again next year, but were graduating before the next Summer cycle and 9.6 per cent indicated that they would not participate again.

The majority of respondents (88 per cent) suggested that they would recommend UWS Summer to family or friends.

The following provides an overview of some of the positive comments that were submitted:

- *I had recently quit my job to come back to university so I had no reason not to do summer uni, it was my favourite semester so far, great learning experience kept me in study mode and ready to smash Autumn so thank you UWS.*
- *Great experience, highly valuable in terms of knowledge and flexibility to integrate the unit into work and training lifestyle. Very good at taking pressure off regular semester and allowing for a fall-back.*
- *Was exciting to see another campus after 3 years at Penrith*
- *I can't remember how I even found out about summer, I recommend it to my friends at UWS because I still feel as though I get a holiday, I work 4 days with a full time load normally during the semester, and I still thought summer was fine. I'll be the first to admit I'm not a distinction average student or anything like that, so perhaps it would be an idea to market summer in such a way that doesn't make it seem like the traditional summer school vibe as found on television, that is, not a slog. As I felt like 10 credit points, 2 days a week with a break over Christmas was a pretty good deal, still with 2-3 weeks off at the end before Autumn starts, pretty alright holiday to me.*
- *Unit offering was great and varied.*
- *Great to see the Campus decked out with Summer gear.*
- *Although the schedules are intense, it isn't too bad. Students do feel the fatigue in attending classes many times a week, but UWS Summer is an option which they were willing to take.*

Some of the comments focussed on areas that required improvements such as a request for earlier availability of learning guides and materials. These comments were related to specific units.

- *The learning material and unit information should have been released earlier than ON the starting day of the unit, so students are able to properly prepare for it. As a student with a disability, I felt I was disadvantaged due to the late release of the unit information and learning guide. I wasn't able to properly plan a head of time, with my work roster and medical treatment around uni commitments for the summer session. As a consequence I couldn't do as well in this unit as I would have liked it.*
- *Learning guides were not Summer specific in regards to due dates. However, all other content was fine.*

- *Learning guides were not adjusted for our unit and there was a bit of confusion with the assignment due to this.*

Negative Comments

It is clear that an overwhelming majority of students benefited and at times enjoyed their Summer experience however there were still some students that stated they had a poor experience and it is important that consideration be given to their comments.

Of those who completed the survey, 263 students reported that they experienced problems while studying in Summer School.

- *I am under the care of the disability department. There should be some way that people like me can verify that everything is in place for us. The exam room was not set up properly for me and this caused me to be thrown into a shocked reaction and therefore affected my performance. It is not the lecturers fault and the disability service had done the hard yards, so what is the answer. In future I would like to have the right of consultation with whoever is responsible for these things and I will go to the exam assured that once again there will not be a foul up. Very happy to meet with whomever and consult. I am a registered nurse and know what I am talking about.*
- *I really enjoyed the course that I completed and received so much support from the course coordinator Karen. It was only towards the end with the technical issues in ordering my transcript that I felt unvalued when speaking to staff in the transcripts/ student centre. I don't think they quite understood how important getting my transcript on time was - I most certainly would NOT have spent the amount of money I did on this course to have my transcript delayed this long.*

Lecturers' comments

While there are some challenges along the way, those lecturers who opt to participate in the teaching and coordinating of Summer find it quite rewarding. The following is an example of some of the comments from lecturers, this one from the School of Social Sciences and Psychology.

- *What a pleasure to arrive back from a month in the UK on Monday 6.1.14 and then front up for a brand new Summer School class in Lifespan Development and the Human Services with Social Work students at Bankstown campus at 9am on Tuesday 7.1.14 to find a bunch of keen, delightful, engaged and committed students. For the first time in over 25 years of teaching to a variety of students, every student in the class on Day 1 had accessed, downloaded and read the Learning Guide, read the required chapters of the text, interacted with the activities on vUWS and arrived early ready to begin! I have congratulated these Social Work students on this first in 25 years and said I thought it worthy of a mention to you. We have now had three 4 hour meetings and at each meeting the students have been prepared, engaged, motivated, challenged, and ready to engage in critical thinking. They have been an absolute pleasure to teach and work with. The room, equipment, resources, food, library and bookshop have been excellent and most helpful and so far it has been a pleasure to teach Summer school ...particularly in an air conditioned room in this heat!*

DISCUSSION

Students self-select to participate in Summer sessions. This is one of the strengths. They realise that they are making a commitment to study to successfully complete their degree during what would otherwise be a vacation period. The increase in enrolments in Cycle 1 clearly indicated the appetite of students for new ways of experiencing and participating in higher education. On the evidence, UWS Summer 2013/14 appeared to meet significant student demand, with participation representing 22.5 per cent or approximately 1 in 4.5 of the 24,877 eligible undergraduate and postgraduate student population. In Cycle 2 (2014/15) at 12 January 2015 (Summer B census date), there were 7,198 students enrolled out of 25,296 eligible undergraduate and postgraduate students, with participation representing 28.5 per cent or 1 in 3.5 students.

Flexibility was not only delivered through a change in the time of the teaching and learning period but also via the mode that some of the units were delivered. In 2014/15, 174 units were offered in a blended mode, 37 were offered via face-to-face and 21 were totally online. In 2013/14 only 8 units were offered in an online mode. During earlier focus group sessions, some students indicated their preference for online units because they were perceived to provide greater flexibility for those trying to seamlessly accommodate study, work and leisure activities.

Overall, the average number of credit points for the period from Summer to Spring was significantly greater for those students who undertook Summer than those who didn't, which implies that a reasonable proportion were accelerating or catching up on failed units rather than spreading their load. This includes students who are genuinely accelerating by attempting more than a standard study load within a 12 month period (from Summer 2013-14 to Spring 2014) as well as students who are catching up on failed units by attempting these units during UWS Summer.

CONCLUSION

Cognisant of the emerging trends in higher education institutions in Australia, the University of Western Sydney (UWS) decided to consider optimising and extending the academic year to best equip the University to respond to the rapidly changing and increasing competitive context of the higher education environment.

In conclusion, this study suggests that the introduction of greater flexibility and choice in student learning programs meets the needs of students and enhances opportunities for student participation and engagement within universities. However, the three key implementation issues identified in this paper (authentic consultation with staff and students, detailed operational planning, and adequate resourcing of both the new structures and the change process, are critical to successful outcomes.

BIOGRAPHICAL NOTES

Dr. Ann Cheryl Armstrong is the Director, Academic Year Optimisation at the University of Western Sydney. In 2012, Ann Cheryl led the review of the Academic Year Review which canvassed the views of staff and students of the University about the possible move to a trimester system.

Katrina White is the Operations Manager for UWS Summer at the University of Western Sydney. She has worked with UWS as the Enrolments Manager within the Academic Registrar's Office and as a School Manager for the School of Communication Arts

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LEADERSHIP DEVELOPMENT IN INCREASINGLY GLOBAL AND COMPETITIVE TERTIARY EDUCATION ENVIRONMENTS

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ABSTRACT

This paper presents findings from a joint research project between Curtin University and the LH Martin Institute to evaluate the first Emerging Leadership and Managers Program (eLAMP) institutional cohort in the sector, which was sponsored by Curtin University. The paper presents discussion about leadership development opportunities in higher education that address the complex, global and competitive funding, student and labour challenges facing universities today. Data collected and analysed from the pre and post eLAMP evaluations by this Curtin cohort in 2014 suggest that participants enhanced their knowledge, skills and abilities across the eLAMP learning outcomes in all four modules of eLAMP. Whilst low response rates from line managers has made it difficult to draw definitive conclusions about observable participant behaviour change, anecdotal evidence suggests that eLAMP is viewed by participants and their line managers as a successful organisational development initiative for Curtin University.

KEYWORDS

leadership, leadership development, management development, organisational development

INTRODUCTION

Organisations around the globe have identified that leadership development is a key current and future priority (Gurdjian, Halbeisen & Lane, 2014) and tertiary education institutions are no exception. Each year Curtin University commits contestable resources to develop the leadership capabilities of individuals and the organisation's leadership capacity – its pipeline of current and future leaders able to contend with the volatile, uncertain, complex and ambiguous (VUCA) environment. Given the internal competition for funds, the University expects that these funds are used wisely and so all development programs are regularly evaluated to ensure they are relevant and effective.

The Emerging Leadership and Managers Program (eLAMP) was launched at TEMC 2012 in Adelaide following a 12 month scoping project sponsored by the LH Martin Institute and the Association for Tertiary Education Management (ATEM) to scope out the needs of the sector and ascertain how best to provide relevant and engaging leadership and management development programs for those who work in tertiary education management (see Nguyen Ba et al., 2014 for more detail).

The first section of this paper reports on a concise selection of the contemporary leadership literature, with emphasis on tertiary education leadership, and how that literature informs the leadership development programs and activities for tertiary education leaders and managers. In particular, the focus is on the capabilities and development methods required now and, more importantly, for the future as identified in a selection of the literature.

The second section of this paper provides an overview of Curtin's approach to leadership development and, similarly, eLAMP's development and curriculum. The extent to which eLAMP and Curtin, as a case study, have adopted the recommendations in the literature, and the alignment of eLAMP and Curtin's approach to leadership development will be discussed.

The paper's third section will, through an organisational development (OD) lens, examine the efficacy of eLAMP as a key component of Curtin's suite of leadership and management development programs. The final sections of the paper discuss the evaluation project's findings and recommendations.

The contemporary leadership literature: a succinct summary

Day (2001) distinguishes between leader development and leadership by asserting that the former develops individual human capital and the latter develops relational-based social capital. Drawing on emotional intelligence theory, Day (2001) posits that leader development's focus is intra-personal skills – self-awareness, self-regulation, and self-motivation whereas leadership development's foci are social awareness and social skills. Day (2001) also indicates that there is a cognitive dimension to social capital, pointing to a shared understanding of an organisation's culture, vision and values. Day recommends that organisations 'link leader development with leadership development such that the development of leadership transcends but does not replace the development of individual leaders' (2001, p.605). Although Day's (2001) article focussed on leadership development broadly rather than just the higher education sector, resonates with subsequent research of leadership in the higher and tertiary education sector.

In 2008 in a seminal leadership study in Australian higher education, Scott, Coates and Anderson (2008) noted that 'studies of how higher education leaders manage change along with their own learning and development are relatively rare' (p. vii). This study focusing on learning and teaching leaders introduced a leadership framework comprised of five domains that 'are necessary for effective performance as an academic leader' (p.18) has since been replicated and validated for professional staff (Scott & McKellar, 2012). As illustrated at Figure 1 below, the five domains are broken into three describing leadership capabilities – personal, interpersonal and cognitive – and two skill and knowledge domains: generic and role-specific.

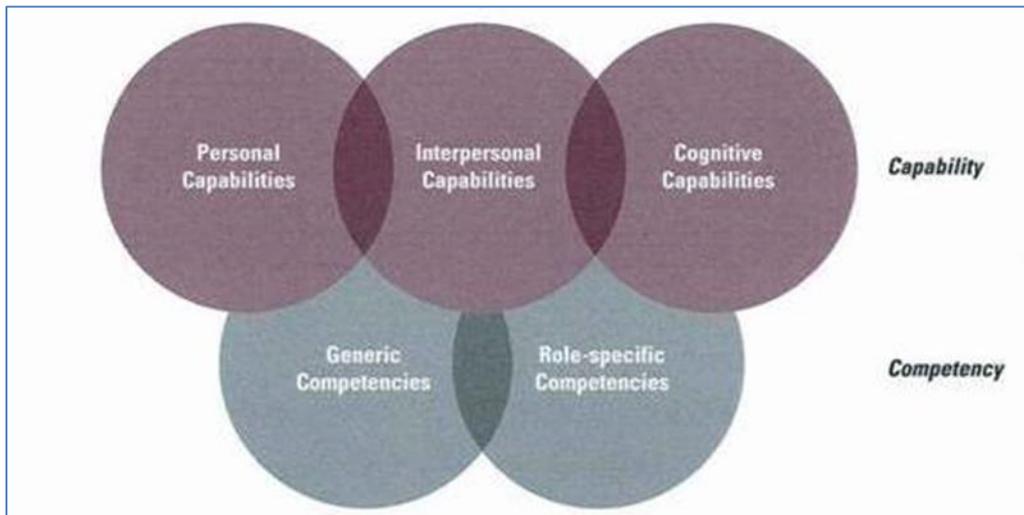


Figure 1: ‘Learning Leaders’ Leadership Framework (Scott, Coates & Anderson, 2008)

Both the Scott et al. (2008) report and the subsequent Association for Tertiary Education Management (ATEM) funded study (Scott & McKellar, 2012) recommend that a leader’s capability can be enhanced by (in order of leaders’ reported preference): practice-based learning, self-managed and informal learning and, formal leadership development. This preference hierarchy is similar to the 70:20:10 learning model (Kajewski & Madsen, 2013).which suggests that 70 per cent of learning occurs informally on the job, 20 per cent via coaching and mentoring, and 10 per cent from formal learning courses, workshops, etc.

This learning leaders framework and, in particular, the three capabilities mirror the leader development and leadership development foci identified by Day (2001). It also resonates with a later study of executive and professional education courses which concluded that programs should be contextualised to local community’s needs and based on a two-tier program hierarchy: functional and soft skills development (Daniels & Preziosi, 2010).

Davis (2012) contextualised the conditions for leadership in the Knowledge Era and introduced a ‘speculative typology’ (Thrift, 2008 p. 2) of five leadership literacies as lenses to consider working with changing mindsets, complexity and power relations identified as leadership contexts in higher education so far in the 21st century. These are the worldly, sustaining, leadingful, relational and learningful leadership literacies, which, in particular, ‘contribute to leadership theory as it applies to leadership for professional staff in [Australian] universities’ (2012, p.165). As part of this study, the Scott, Coates and Anderson report (2008) was the subject of a thematic analysis against these leadership literacies where Davis found that the learning leaders report ‘indicators of theoretical congruence with the Leadership Literacies’ (Davis, 2012, p.110). Rabin (2014, p.2) points to ‘the 70-20-10 rule that emerged from 30 years of CCL’s *Lessons of Experience* research, which explores how executives learn, grow, and change over the course of their careers. This ‘rule’ suggests that successful leaders learn within three clusters of experience: challenging assignments [rather than just on the job experience] (70 per cent), developmental relationships (20 per cent), and coursework and training (10 per cent).’

The Center for Creative Leadership (CCL) recent white paper (Rabin, 2014), while supporting the 70:20:10 model, argues that a blended approach that encourages critical reflection from workplace experiences enhances informal learning effectiveness. The current CCL approach includes:

- On-demand learning: online learning modules, webinars, video vignettes, job aids, and assessments
- Social learning: Yammer, Twitter, blogging, and games and simulations
- Workplace learning: action learning, reflections, post-program coaching, learning cohort check-ins (Rabin, 2014, p.5).

Further, Kajewski and Madsen's (2013) white paper presents a variety of interpretations of how 70:20:10 is utilised in organisations and notes that evaluating the effect of informal learning is a common challenge for organisations. The white paper states 'From our [literature] review it is clear that there is a lack of empirical data supporting 70:20:10 and...there is also a lack of certainty about the origin' (Kajewski & Madsen, 2013, p.3). Jefferson and Pollock (2014) observe that an oft-claimed source of 70:20:10 model (The book *Lessons of Experience*) was based on successful leaders' self-identifying key sources of learning and claim that 'The hypothesis about how much learning occurred and where is impossible to test.' Thus it appears that the 70:20:10 model's was developed in a similar manner to that employed by Scott, et al. (2008) – self-reporting by leaders rather than a formal assessment of the efficacy of various modes of learning. Regardless of the lack of empirical data, the 70:20:10 model has gained widespread currency as an approach to encourage a more holistic, organisational-wide approach to leadership development.

Contemporary leadership studies also highlight that the context within which leaders operate has moved from a more predictable environment with incremental change to a volatile, uncertain, complex and ambiguous (VUCA) environment (Johansen, 2009; Petrie, 2014; Davis, 2015). In a similar vein, Snowden and Boone (2007) identify four contexts in which leaders operate: simple (stable, clear cause and effect relationships), complicated (multiple right answers, not everyone can determine the cause and effect relationships), complex (right answers emerge in situ), and chaotic (no manageable cause and effect patterns). The authors identify that most organisations face complexity given the amount of significant change in the environment [as an aside, the challenge of change was a key finding in the 'Learning Leaders' report] and that 'leaders who try to impose order in a complex context will fail, but those who set the stage, step back a bit, allow patterns to emerge, and determine which ones are desirable will succeed' (Snowden & Boone, 2007, p.5).

Given the inherent challenges for leaders in a VUCA environment new forms of leadership development have been proposed including 'vertical development' (Petrie, 2014; Brown, 2013). Vertical development has a future focus: transformational learning, mindset shifts, thinking and complex problem-solving abilities (capabilities) and is in addition to the more traditional horizontal leadership development of leader competencies (Brown, 2014; Petrie, 2014). The Centre for Creative Leadership describes horizontal development as being focused on the '*what* of leadership' whereas vertical development has the '*what* and *how* of development' as its focus (Petrie, 2014, p.6). These concepts align with the leadership and leadership development arguments of Day (2001); Scott, Coates & Anderson (2008); Scott & McKellar (2012); and Davis (2012). The idea of incorporating vertical development (capabilities and competencies)

is also aligned to the idea of the ‘T-shaped professional’ (Ing, 2008) which shaped the development of the eLAMP curriculum.

In summary, this review points to more expansive understandings of leadership in higher education today, and just how critical this work is for successful outcomes for institutions and the sector as it faces unprecedented changes, challenges and opportunities (see Bolden et al., 2015). It is timely now also reflect upon these challenges as we look at leadership studies and development more expansively (Davis, 2015):

If past experiences of cultural shifts are any indication, these alternative frames expect something more onerous and seemingly difficult to grasp. That is, they expect more from all of us, as leaders and followers, in asking that we all take responsibility for our place in the interrelated worlds in which we live. Underlying the seeming simplicity of these expectations are many layers of culture, power and identity. Such changes to macro, meso and micro norms are very difficult to make and frankly easier to resist that act upon for most people. To counter this leaders and leadership development approaches will need to be vigilant, vocal and intentional about their purposes for change (n.p.).

The articles and research reports examined above suggest that the conclusions from the two Scott et al. studies align and are consistent with, current leadership development trends and practice more broadly. The 2012 study (Scott & McKellar) confirmed the order of leaders’ preferences for leadership development described in the 2008 report (Scott, Coates & Anderson, 2008). Given the two Scott et al. reports cover both academic and professional staff leadership development, they can be used as a benchmark for examining eLAMP and Curtin’s leadership development approach.

Curtin University and the Emerging Leaders and Managers Program leadership development approaches

Curtin University

Following an extensive literature review and internal consultation, in 2009 Curtin’s organisational development team proposed a leadership framework for the institution. *The Curtin Leadership Framework* (CLF – Figure 2) drew on the leadership literature and known leadership foci to support the university’s leaders and the university’s 2009-2013 strategic plan. The framework was adopted in late 2009 and is currently being refreshed to reflect changes in the University’s strategic direction and its values and signature behaviours.



Figure 2: The Curtin Leadership Framework (Curtin, 2015)

The CLF is adapted from the Competing Values Framework (CVF) (Quinn, Faerman, Thompson & McGrath, 2003) and a related model, the Integrated Competing Values Framework (iCVF) developed by Professor Tricia Vilkinas (2009) from the University of South Australia.

The underlying premise of the CLF, the CVF and the iCVF is that leaders and managers need to respond to the internal and external aspects of their role and focus on both relationships and tasks. The situations faced by leaders require them to acquire and use a range of different and sometimes competing capabilities to be effective.

The *Curtin Leadership Framework* guides the University's leadership development curriculum. In-house leadership programs feature components from each of the five CLF meta-capabilities or domains. Longer programs cover all five domains while workshops tend to focus on one or more related capabilities. Some programs and workshops target specific cohorts (e.g. heads of schools, senior professional staff, etc.) so as to ensure that they provide the appropriate context for the application of the knowledge and capabilities.

A number of Curtin's leadership development programs are developed and delivered by internal organisational development specialists and other programs and workshops are sourced externally. Externally delivered programs are customised to reflect Curtin priorities as identified by Curtin's Organisational Development Unit and the CLF. For some years Curtin engaged an external provider to provide the VET Certificate IV in Frontline Management and Diploma of Management. These two programs target a similar audience as the LH Martin Institute's eLAMP.

The Emerging Leaders and Managers Program (eLAMP)

The eLAMP curriculum is offered online and is scalable with the intent to develop leadership and management capacities for tertiary education managers at a time when the sector is facing upheaval and uncertainty. The program can be taken as professional

development, or with further attention to assessment and learning consolidation face to face workshops can be taken ‘for credit’ into the LH Martin Institute’s graduate certificate programs.

- The overarching program aims of eLAMP are to enable participants to:
- gain a grasp of the breadth and depth of the tertiary education landscape in Australia, New Zealand and in the global context;
- develop an understanding of the complex internal and external drivers influencing the tertiary sector and learn how to respond appropriately to these drivers;
- gain insight into the different roles and styles leaders and managers need to adopt to be successful in their roles and develop flexibility across these styles and roles;
- and grasp the nuances of policy and learn how it aligns with strategic intention and how it influences the development of organisational culture.

So far, between September 2012 and February 2015, 525 individuals from 81 institutions and six countries have enrolled in one or more of the online modules of eLAMP. In addition, 12 institutions have sponsored eLAMP guided cohorts, mainly as part of multi-institution regional cohorts.

According to the introductory section of the eLAMP curriculum, Geoff [Sharrock] has developed archetypes of 'good management' for academic enterprises and these have influenced the development of the curriculum for eLAMP (eLAMP, n.d.). The LHMI Program Director Awards has advised that while Sharrock’s work has influenced the program design, her own PhD research and that of her colleague Kay Hemsall in ‘mapping the field’ also contributed to the design of the eLAMP curriculum (H. Davis, personal communication, July 27, 2015). In addition, Davis noted that ‘some the contexts and leadership studies approaches that scaffold the design of eLAMP [are]:

- Context: VUCA, knowledge work
- Leadership studies: post heroic standpoint, i.e. leadingful, distributed, relational
- Underpinning understandings: leaders are in the business of energy management; everyone is responsible for leadership, at least of the self; human relations movement/American pragmatist understandings of the world.’ (H. Davis, personal communication, July 27, 2015).

The eLAMP curriculum features Sharrock’s (2012) framework (Figure 3) which parallels the Quinn, Faerman, Thompson & McGrath (2003) Competing Values Framework.

The LH Martin Institute website provides the following summary of the eLAMP curriculum.

Module 1: Managing and Developing Yourself

This module considers leading the self. It focuses on developing critical reflective professional practice, intra-personal intelligence and developing your personal career plan.

Module 2: Managing and Developing Others

This module addresses transitioning into a management role. It focuses on inter-personal intelligence, managing relationships in the workplace and developing others.

Module 3: Managing and Developing the Business

This module concentrates tertiary education management. It focuses on thinking and working strategically and sustaining tertiary education institutions.

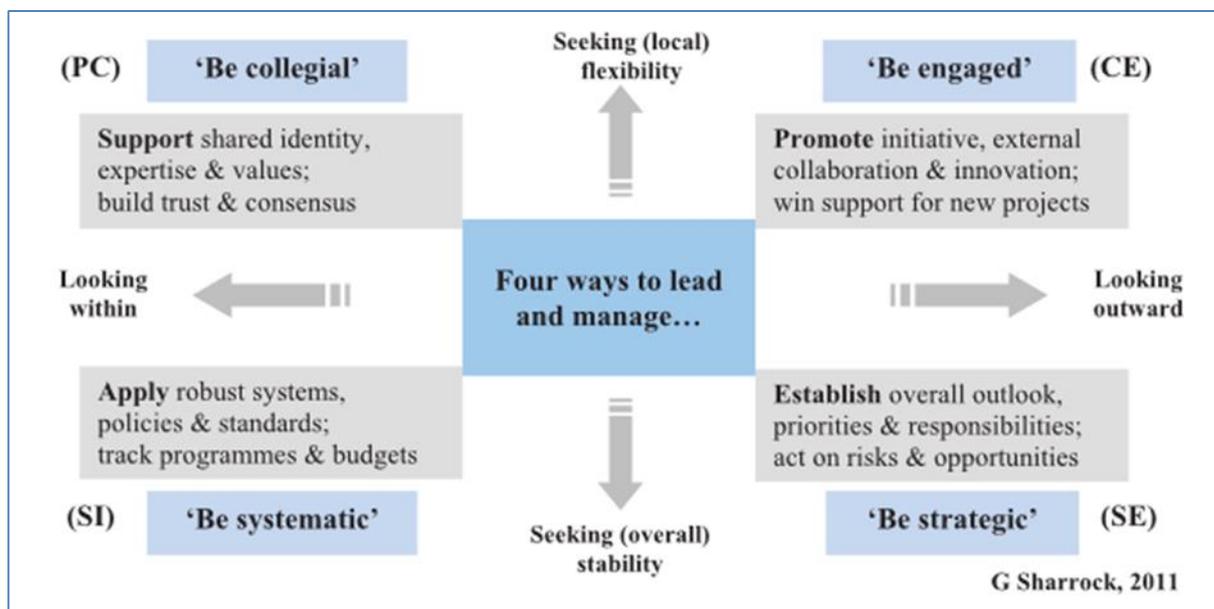


Figure 3: Four archetypes of 'good management' for academic enterprises (Sharrock, 2012)

Module 4: Understanding the Tertiary Education Landscape

This is the most theoretical module of all four. It has two main components: the history and evolution of Australian tertiary education and policy processes and outcomes. It explores the increasing importance of management and the marketplace, institutional governance, funding, internationalisation, institutional and sector diversity, and globalisation and the knowledge economy. (LHMI, n.d.)

Alignment with the literature

Curtin's leadership development approach is generally consistent with the Scott, et al. (2008, 2012) recommendation and the 70:20:10 model – a combination of learning methodologies. Current in-house leadership development opportunities include: formal multi-day off the job programs, several leadership forums (e.g. senior leaders; professoriate; heads of schools; senior professional staff; leadership alumni), coaching and mentoring, 360-degree feedback, action learning assignments, assessments (e.g. Myers Briggs Type Indicator, emotional intelligence, team roles, etc.), providing authentic feedback and a manager as coach approach.

When comparing Curtin's development landscape to the literature reviewed above, it is apparent that developing reflective practice in challenging assignments (and in the workplace in general) remains a challenge. With one notable exception (eLAMP) online learning has not been a feature of the Curtin approach to date. However, Curtin is in the process of acquiring a whole of institution license for a suite of online learning modules including numerous leadership and management-related skill topics. A further opportunity for Curtin is to provide more focus on vertical learning, particularly developing leaders' abilities to navigate the VUCA environment.

In terms of conceptual frameworks informing tertiary education leadership development, Sharrock's framework underpinning the eLAMP curriculum is consistent with the *Curtin Leadership Framework*. But how do the eLAMP and CLF compare with the leadership framework promulgated by Scott and his collaborators and their recommendations for leadership development in tertiary institutions?

Scott et al.'s framework's three capabilities are personal, interpersonal and cognitive. Each capability (and competency) is comprised of scales and items (individual skill/capability attributes). In this framework the personal capability scales are self-regulation, decisiveness and commitment. Self-awareness and self-regulation (self-control/management) are the intrapersonal side of emotional intelligence (Hempall, 2012). In the iCVF and the CLF these scales are primarily in the 'integrator' or 'Managing Self' central domain. In the CVF and Sharrock's framework these personal capabilities are implied rather than being explicitly present. The eLAMP curriculum focuses on intrapersonal intelligence in Module 1.

Influencing and empathising are the scales in Scott et al.'s interpersonal capability. Influencing-related items are located in the top right quadrant of the CVF, iCVF, CLF and Sharrock's framework. Scott et al.'s empathising scale and items are consistent with top left quadrant of the CVF, iCVF, CLF and Sharrock's framework. These interpersonal capabilities, scales and items are covered in Module 2 of eLAMP.

Scott et al.'s third capability is cognitive which includes diagnosis, strategy and flexibility and responsiveness. Elements of each of these scales is found within the two lower quadrants, and partially in the top right quadrant, of the CVF, iCVF, CLF and Sharrock's framework. Module 3 of eLAMP particularly addresses these cognitive capability scales.

The leadership competency in Scott et al.'s framework is comprised of the following scales: learning and teaching (academic leaders)/management (professional staff); university operations; and self-organisation skills. These scales and related items are present in the iCVF and CLF within the 'integrator' or 'Managing Self' central domain of each framework with other items picked up within the lower left and upper right quadrants of these two frameworks and the CVF and Sharrock's framework plus the lower right quadrant of the iCVF.

eLAMP outcomes at Curtin

The Curtin eLAMP pilot commenced with 30 participants – 23 in a Curtin staff only cohort and a further seven in combined cohort comprised of staff from Curtin, Edith Cowan University, the University of WA and the Central Institute of Technology. Curtin participants and line managers were asked to complete pre-program and post-program questionnaires. The intention was to compare the questionnaire results by way of a longitudinal study. However, very few line managers completed both questionnaires so the study focussed on participant responses.

The questionnaire utilised a four point scale for participants to report their proficiency with the eLAMP module foci and topics. The four items on the scale were:

- 1 Not yet competent
- 2 Developing competence

- 3 Capable
- 4 Mastered

As Figure 4 demonstrates, participants reported an enhanced understanding of the field for each of the four modules with the greatest increase being reported for Module 4 - Understanding the Tertiary Education Landscape and the least development growth being reported for Module 2 - Managing and Developing Others.

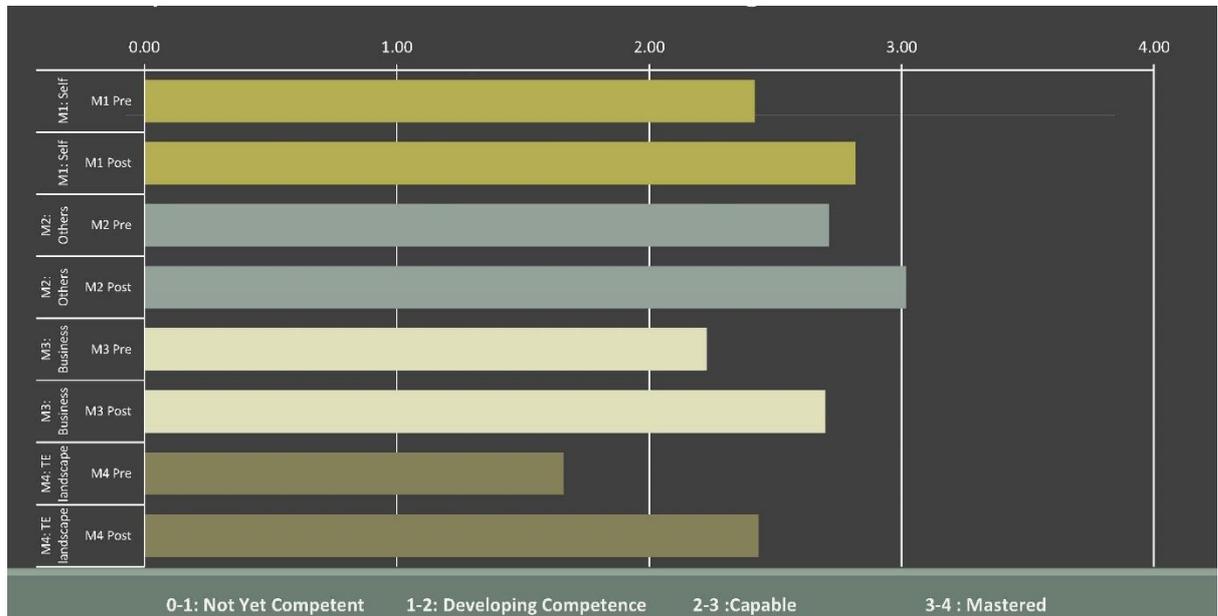


Figure 4: Participant self-evaluation of understandings of the field

Figures 5 to 8 present the participants’ evaluation of the component topics for each module. Following completion of the year long program participants reported improved leadership knowledge, skills and abilities, albeit slight improvements for some topic areas, in all instances. Significant improvement was reported for the following focus areas of Module 1 (Managing and Developing Yourself):

- Developed critical reflective practices
- Developed reflective writing practices
- Developed personal career plan with an understanding of tertiary education sector career opportunities
- Clearly identified personal and professional goals

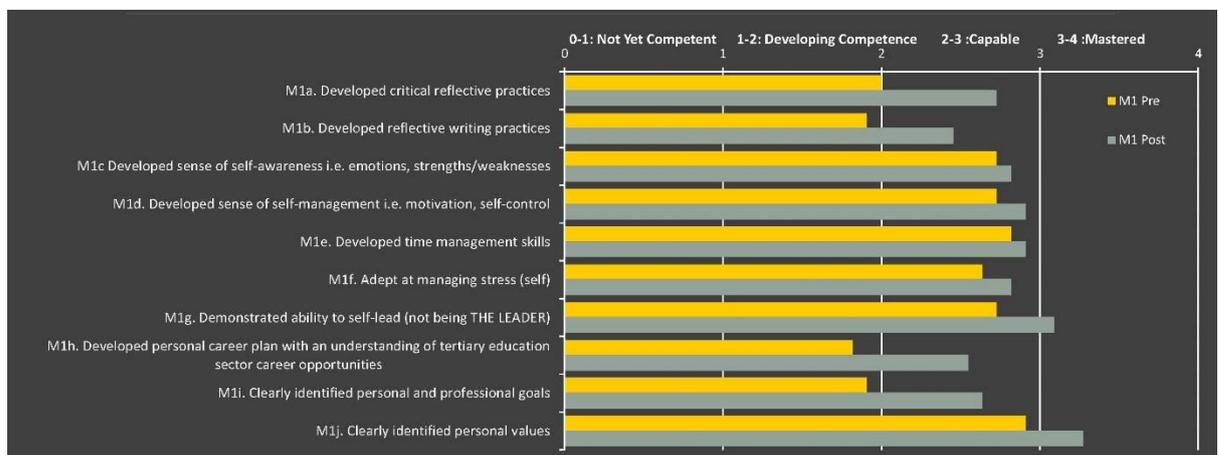


Figure 5: Participant self-evaluation of pre and post eLAMP understandings for Module 1

Improvement was particularly noticeable for two topics in Module 2 (Managing and Developing Others):

- Demonstrate a good understanding of management basics
- Effectively coach and mentor others

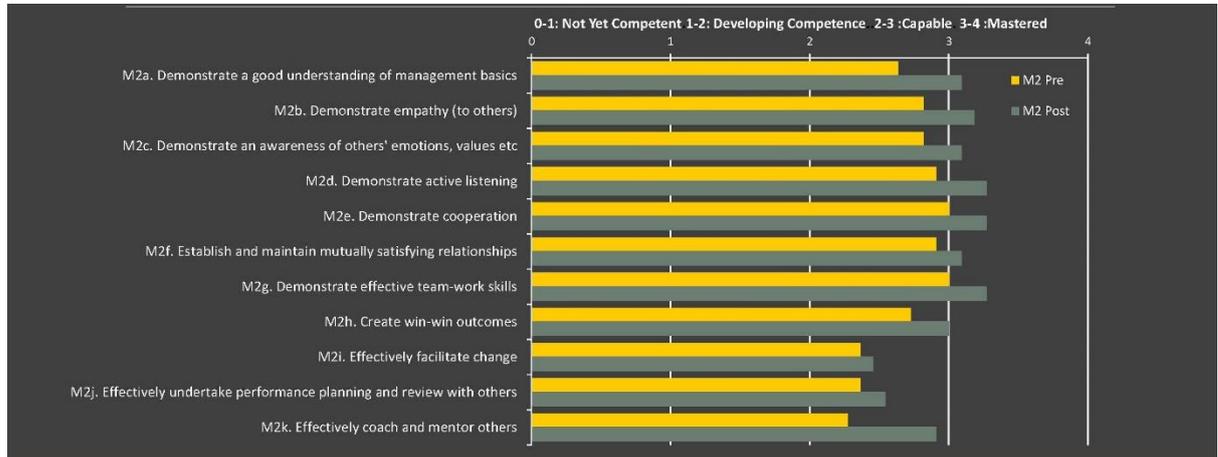


Figure 6: Participant self-evaluation of pre and post eLAMP understandings for Module 2

Participants reported the most improvement in two of the six topics in Module 3 (Managing and Developing the Business):

- Demonstrate values-based leadership
- Utilise strategic thinking tools

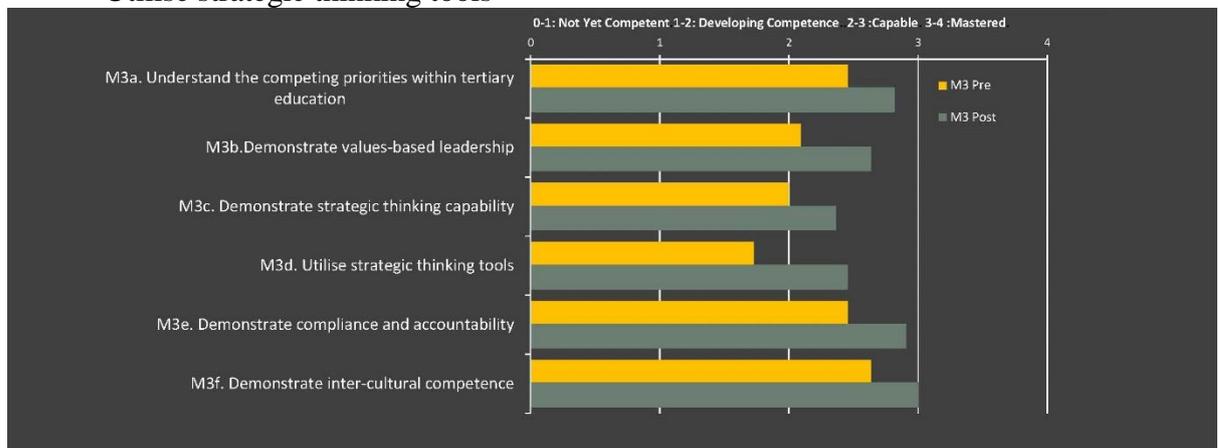


Figure 7: Participant self-evaluation of pre and post eLAMP understandings for Module 3

Participants reported improvement for all four topics of Module 4 (Understanding the Tertiary Education Landscape) which was particularly pleasing given that similar content to this module had not been provided to Curtin staff in prior development programs.

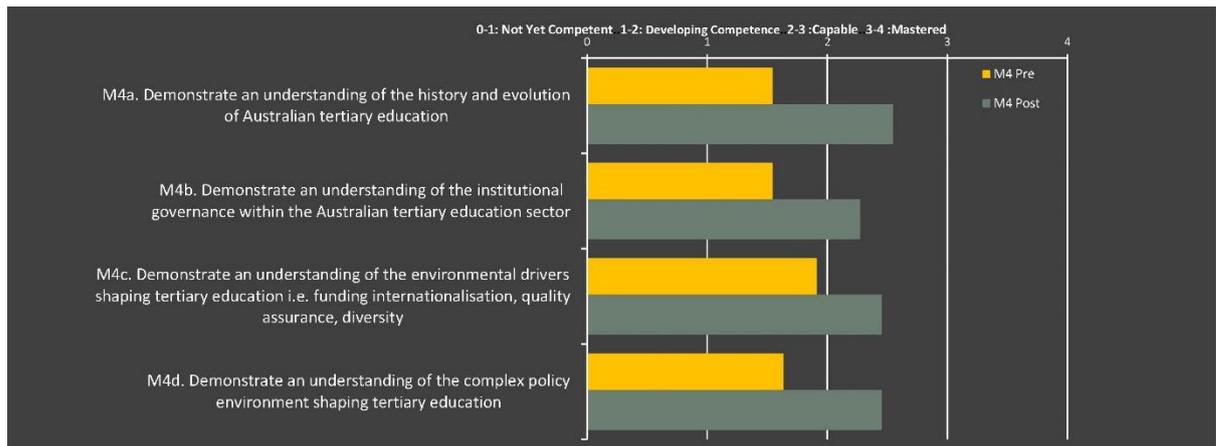


Figure 8: Participant self-evaluation of pre and post eLAMP understandings for Module 4

The post-program questionnaire asked participants if participating in eLAMP assisted them to deal or address workplace challenges in a different way. A sample of responses indicates that the program was successful in this regard:

- *Yes, I think being a part of the program helped me understand the importance of looking at challenging situations from other people’s perspectives which gives a greater insight regarding the issue or problem.*
- *It has helped me to be more reflective and I now have a clearer approach on tackling issues.*
- *Dealing with staff issues (program has been a big help) Excessive work load (program has assisted) Understanding the issues the university will face in the future (program has helped)*
- *Yes, I have put into place learning from the program.*
- *I have been able to understand a lot more about my own and other staff personalities and the skills and abilities required to become an effective manager. In some ways the program has helped me in growing personally and viewing other staff members with more empathy and emotional intelligence and understanding myself in how I relate to others.*
- *The program has given me an opportunity to reflect on my leadership practices - strategic thinking and reflective practice in particular. In turn, these have assisted me better deal with challenges*

DISCUSSION

The positive results reported above are from preliminary data analysis of the pre and post program questionnaires. Individual managers (participants) have reported improvement in their capabilities and competencies. From an organisational development perspective, the improvements strengthen the University’s talent pipeline and should result in improved workplace outcomes as the participants embed their learning within their management practice. Introducing a blended learning program also demonstrates the University’s commitment to alternate delivery approaches to staff as well as to students.

The results described above validate the decision to pilot eLAMP as a guided, institutional cohort. In addition to the pre and post program questionnaires, participants were required to complete several assessment tasks to pass each module. At this stage,

completion rates have not been examined – this will form part of the ongoing research project.

Informal feedback from participants throughout the pilot program period (2014) was generally positive. At the final workshop participants were asked if they recommended that eLAMP be offered again in 2015. There was strong support to continue the program and another 30 Curtin staff enrolled in the 2015 program.

CONCLUSION AND RECOMMENDATIONS

This paper examined several contemporary approaches to leadership development, both for the workplace generally and for tertiary education in particular. The themes from the literature suggest that (1) formal learning (e.g. classroom learning) is only one learning strategy, (2) informal learning provides greater scope for leader development, and (3) ensuring individuals and organisations are capable of leading effectively in the now pervasive volatile, uncertain, complex and ambiguous Australian tertiary education environment.

A brief examination of both Curtin University's leadership development approach and that of LH Martin Institute's LAMP approach demonstrates that both approaches are generally congruent with contemporaneous literature. The Curtin Leadership Framework and both its formal and informal leadership development approaches generally reflect the literature's recommendations. eLAMP, as a blended learning approach, places reflective practice at the heart of the curriculum and also has a primary focus on developing skills and abilities to allow leaders to navigate the VUCA environment. Curtin's adoption of eLAMP complements and enhances leadership development at Curtin.

The early results of the Curtin pilot are encouraging in that eLAMP is seen as a valuable new development program for Curtin's lower to mid-level managers. The ongoing research project will review completion rates and further examine the questionnaire data. In addition, participants of the 2015 program will also be surveyed to provide the researchers with additional data for both outcome and comparison purposes.

Although not addressed in this paper, a recommended topic for future focus is the institutional processes for identifying and supporting staff to be developed in leadership and management capabilities and competencies.

BIOGRAPHICAL NOTES

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ENVIRONMENT AND SUSTAINABILITY PLANS AND POLICIES: SOLUTIONS, STRAIGHTJACKETS OR MEANINGLESS DRIVEL?

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ABSTRACT

In recent years, Australian university managers have increasingly put pen to paper to articulate their various approaches to the environment, and sustainability more broadly. Australian universities are operating in a difficult context of increasing regulation, reporting and accountability requirements concerning their environmental and sustainability-related activities and obligations. Concurrently, they are facing increasing calls to provide solutions reflecting myriad and potentially conflicting priorities of staff, students, and the broader community. In response, a plethora of planning, design and policy instruments have been produced to scope, evidence, guide and monitor these ambitious endeavours. This presentation will explore how a number of Australian universities have responded. In particular, the research will examine Australian universities' approaches in areas spanning: the natural environment; the built environment and precincts; use of natural resources; sustainability-focused teaching, learning and research; and the relationship between the physical and cultural environment. Publicly available governance documentation, principally including plans and policies, will provide the lens for the research. The presentation aims to communicate key findings to practitioners, including examples of good practice, to support ongoing development and documentation of effective planning and policy solutions.

KEY WORDS

environment, sustainability, higher education, university, institutional policy

INTRODUCTION

Higher education institutions play a pivotal role in metropolitan and regional communities worldwide, in terms of education provision, research, creative and technological innovation and employment. Attention has now turned to the moral and ethical role, footprint and environmental impact of these large organisations as the global impetus for ecological, social and economic sustainability has grown. In recent decades, as massification and competition have come to characterise higher education systems globally (Freeman, 2015), international sustainability declarations and environmental regulation have both grown alongside public concern regarding the environment and sustainability issues (Hanh, 2013). Concurrently, associations specifically focused on environmental sustainability in higher education have emerged most particularly in Europe and the United States (Table 1). In Australasia, the vast majority of Australian and New Zealand universities and some Technical and Further Education (TAFE) colleges and Institutes of Technology and Polytechnics (ITPs) are members of the

Australasian Campuses Towards Sustainability (ACTS).

Table 1: Associations focused on environmental sustainability in higher education

BASE	ASSOCIATION	KEY INITIATIVES
International	International Alliance of Research Universities Campus Sustainability Initiative (IARU)	- Collaboration
International	International Sustainable Campus Network (ISCN)	- Conference - Resources (awards, networks)
Europe	University Educators for Sustainable Development (UE4SD)	- Conference
Europe	COPERNICUS Alliance (European Network on Higher Education for Sustainable Development)	- Conference
United Kingdom	The Environmental Association for Universities and Colleges (EAUC)	- Green Directory - Green Gown Awards UK - International Green Gown Awards - Sustainability exchange
Scotland	Universities and Colleges Climate Commitment for Scotland (UCCCfS)	- Climate Change Action Plan
United States	Association for the Advancement of Sustainability in Higher Education (AASHE)	- Sustainability Tracking, Assessment & Rating System (STARS) - Workshops and conferences
United States	Association of University Leaders for a Sustainable Future (ULSF)	- Secretariat for signatories of the Talloires Declaration - Research and resource development
United States	Campus Ecology Program of the National Wildlife Federation	- Campus Ecology Program and Campus Ecology Network
United States	College and University Recycling Council (CURC) of the National Recycling Coalition	- Recycling
United States	Higher Education Associations Sustainability Consortium (HEASC)	- Networking
United States	Second Nature (SN)	- Campus Sustainability Day - Climate Leadership Awards - American College & University Presidents' Climate Commitment
United States	US Partnership for Education for Sustainable Development (USPESD)	- Summits and workshops - Action and Sector Teams
South Korea	Korean Association for Green Campus Initiative	- Case studies - Guidelines
China	China Green Universities Network (CGUN)	- Network - Built environment and energy use
Asia and the Pacific	United Nations University: Promotion of Sustainability in Postgraduate Education and Research (ProSPER.Net) - Asia and Pacific Islands	- Network
Australia and New Zealand	Australasian Campuses Towards Sustainability (ACTS)	- Conference and workshops - Green Gown Awards Australasia - International Green Gown Awards
Australia	Australian Education for Sustainability Alliance (AESA)	- School curriculum
Africa	Mainstreaming Environment & Sustainability in African Universities (MESA)	- ESD Innovation Toolkit

This paper explores Australian university governance artefacts that focus on environmental sustainability, including formally articulated plans and policies. Previously, Australian universities had somewhat minimalistic policies embedding limited scope outside of legislative compliance and environmental sustainability-related teaching and research reflecting their traditional streams of activities (Freeman & Jensen, 2010); however, Australian universities have now developed whole-of-institution responses, including planning, design and policy instruments that embody environmental sustainability aspirations, intentions and specifications. Many Australian universities also have well-established master plans aimed at 'accommodating growth in student numbers while maintaining quality space and academic achievement' (Davies & Sheahan, 2014, p. 1). Alongside these governance artefacts, universities also implement a rich range of sustainability initiatives (for example, see programs highlighted from the Green Gown Award Australasia winners and highly commended entries at www.acts.asn.au; and Group of Eight, 2015).

In keeping with the complexity and compelling challenges of global, national and local environmental issues, there is a wealth of literature regarding public environment policy (Bauriol & Oates, 1988; Richards, 2000; Cohen, 2014). In addition, there is a growing body of literature exploring higher education institutional responses (Lozano, Lozano, Mulder, Huisinigh & Waas, 2013; Wright, 2002; Wright, 2006). Concurrently, there is literature emerging regarding higher education sustainability-related evaluation instruments (Yarime & Tanaka, 2012; Shriberg, 2002), including the United Kingdom's new 'Green League Table' (Jones, 2015) and the Learning in Future Environments (LiFE) Index developed in the United Kingdom to demonstrate higher education institutions' environmental sustainability commitments (LiFE, 2015, *About LiFE*). The LiFE Index is being promoted in Australasia through the Australasian Campuses Towards Sustainability (ACTS).

Indicative of this international interest, several journals specifically focus on sustainability in higher education, including the *International Journal of Sustainability in Higher Education* (IJSHE), *Journal of Cleaner Production* (JCLEPRO) and *Environmental Education Research, Clean Technologies and Environmental Policy*. While the majority of such research focuses on European and North American higher education institutions (Karatzoglou, 2013) this paper explores formally articulated, plan and policy responses established by Australia's universities and asks: Are these university planning and policy instruments solutions, straightjackets or meaningless drivel?

METHOD

The research involved the identification, coding and analysis of publicly available, internet-delivered governance documents, or 'artefacts' that have 'as their central feature an inscribed text' (Scott, 2014). The research sought to identify environment and/or sustainability policies published by all 40 public and private Australian universities, and environment and/or sustainability plans for 11 selected Australian universities. The data set included formal, internet-delivered environment and/or sustainability policies from 26 public Australian universities. Of the 21 whole-of-institution, publicly available environment and/or sustainability plans or frameworks identified, the data set of 11 plans included two from each of the Group of Eight universities (the University of Queensland,

the University of Melbourne), Innovative Research Universities (Murdoch University, Flinders University), and Australian Technology Network (University of South Australia, University of Technology, Sydney); one from a Regional Universities Network university (Federation University Australia) as it was not possible to locate a second one online, and plans from four non-affiliated universities (Griffith University, University of Canberra, Charles Sturt University, University of Tasmania). The data set for environment and/or sustainability plans spans public universities in all states and territories other than the Northern Territory where it was not possible to source one online. The data were coded using thematic analysis (Braun & Clarke, 2006). The planning and policy documents were examined against criteria including level of prescription (high/low) and scope (governance, operations, education, research, outreach), after Yarime and Tanaka (2012).

DRIVERS FOR INSTITUTIONAL PLANS AND POLICIES

International sustainability declarations and national initiatives

Internationally, a series of sustainability declarations relevant to higher education have been introduced, commencing with the Stockholm *Declaration of the United Nations Conference on the Human Environment* (UNEP, 1972), followed by *The Belgrade Charter: A global framework for environmental education* (MEDIES, n.d.) and the Tbilisi Declaration (UNESCO-UNEP, 1978). These early declarations emphasise the fundamental importance of environmental education for both young people and adults. Following the release of the seminal report, *Our Common Future* (Brundtland, 1987), university administrators specifically committed to sustainability through the Talloires Declaration, stating that 'university heads must provide leadership and support to mobilise internal and external resources so that their institutions respond to this urgent challenge' (ULSF, 1990, n.p.). The following year (1991), the Halifax Declaration (IISD, n.d.) recommends universities commit to sustainable development, better utilise their intellectual resources and meet ethical obligations to overcome malpractices of resource utilisation.

In 1992, the United Nations Conference on Environment and Development in Rio de Janeiro endorsed *Agenda 21* (United Nations, 1992) including sections focused on promoting environmental education, public awareness and science for sustainable development (see chapters 35 and 36). The Kyoto Declaration of 1993 followed shortly thereafter. Endorsed by the International Association of Universities (IAU) members, the Kyoto Declaration emphasises universities' ethical obligations and calls for them to establish sustainability action plans encompassing both environmental education and sustainable physical operations. Building on these, the Association of Commonwealth Universities (ACU) Swansea Declaration of 1993 asserts the role of universities in developing an environmentally secure world. The Conference of European Rectors *COPERNICUS – The University Charter for Sustainable Development* (1994) subsequently shifted the focus to the leadership role of universities in fostering environmental literacy and environmental ethics through education, encouraging inter-disciplinarity in education and research, and the dissemination of sustainable development knowledge. The *Declaration of Thessaloniki* (UNESCO-EPD, 1997) calls for the reorientation of education towards the environment and sustainable development (including all levels and all disciplines), and public awareness programs.

In 2000, ULSF, IAU, COPERNICUS-CAMPUS in addition to UNESCO formed the

Global Higher Education for Sustainability Partnership. Shortly thereafter (2001), the *Lüneburg Declaration on Higher Education for Sustainable Development* (UNESCO) declared ‘the ultimate goal of education for sustainable development is to impart the knowledge, values, attitudes and skills needed to empower people to bring about the changes required to achieve sustainability’ (p. 1). The *Declaration of Barcelona* (EESD, 2004), which specifically focused on engineering education, encourages the development of moral and ethical values in addition to disciplinary knowledge. Launching the United Nations Decade of Education for Sustainable Development in higher education, the international conference on Committing Universities to Sustainable Development endorsed the *Graz Declaration on Committing Universities to Sustainable Development* (Uni Graz, Oikos, COPERNICUS & TUG, 2005) calling ‘on universities to give sustainable development fundamental status in their strategy and their activities’ (p. 1). Finally, the *University Summit Torino Declaration on Education and Research for Sustainable and Responsible Development (Turin Declaration)* (G8, 2009) acknowledges the pivotal role of higher education institutions in sustainable and responsible development.

Table 2: Chronology of international declarations encouraging sustainable development in higher education

YEAR	TITLE OF DECLARATION	MEETING
1972	Stockholm Declaration of the United Nations Conference on the Human Environment	United Nations Conference on the Human Environment (Sweden)
1975	The Belgrade Charter: A global framework for environmental education	UNESCO International Environmental Workshop (Yugoslavia)
1978	Tbilisi Declaration	UNESCO-UNEP Intergovernmental Conference on Environmental Education (Georgia)
1990	Talloires Declaration	International Presidents Conference (France)
1991	Halifax Declaration	International Association of Universities, United Nations University, Association of Universities and Colleges of Canada and Dalhousie University sponsored International Conference on University Action for Sustainable Development (Canada)
1992	Agenda 21	United Nations Conference on Environment and Development in Rio de Janeiro (Brazil)
1993	Kyoto Declaration	International Association of Universities (IAU) Ninth Round Table (Japan)
1993	Swansea Declaration	Association of Commonwealth Universities (ACU) Fifteenth Quinquennial Conference (Wales)
1994	COPERNICUS – The University Charter for Sustainable Development	Conference of European Rectors (Switzerland)
1997	Declaration of Thessaloniki	UNESCO-EPD International Conference, Environment and Society: Education and Public Awareness for Sustainability (Greece)
2001	The Lüneburg Declaration on Higher Education for Sustainable Development	International conference, Higher Education and Sustainability: Towards the World Summit on Sustainable Development 2002 (Germany)
2004	Declaration of Barcelona	Second International Conference of the Engineering Education in Sustainable Development (EESD) (Spain)
2005	Graz Declaration on Committing Universities to Sustainable Development	COPERNICUS-CAMPUS and UNESCO sponsored International conference on Committing Universities to Sustainable Development (Austria)
2009	Turin Declaration	G8 University Summit (Italy)

Source: Adapted and updated from Wright (2002) and Lozano, Lukman, Lozano, Huisingsh & Lambrechts (2013).

Spanning over 40 years these international declarations have consistently emphasised the role of higher education institutions in fostering environmental literacy, delivering environmental education embedded in science, technology, engineering and mathematics (STEM), social science and humanities disciplines, conducting leading-edge sustainability-related research (including interdisciplinary efforts), disseminating knowledge to the public, and managing physical operations sustainably. These declarations have also positioned higher education institutions as leaders in this arena, calling on them to contribute their intellectual resources and meet their ethical and moral obligations to environmental sustainability. Explicitly, commitment to principles embodied in these international declarations involves fundamental institutional reconsideration and reconfiguration: 'It requires [higher education institutions] to rethink their missions, and to restructure their courses, research priorities, community outreach and campus operations' (Yarime & Tanaka, 2012, p. 64).

Government environment policy

In the public sector, government employs a range of environmental strategies, plans and policies including 'emissions taxes, abatement subsidies, marketable allowances, regulation based on performance standards or technology, property rights, deposit-refund schemes, information programs, liability rules' (Richards, 1999, p. 222), along with education, research and information-oriented policy instruments. These instruments represent a continuum spanning 'command-and-control' (regulatory instruments) versus 'incentive-based' (market-based instruments). The relative merits of public strategies, plans and policies (see Majone, 1976; Bohm & Clifford, 1985) vary with respect to efficiency or cost effectiveness, incentives to innovate (technology), administrative burden (information requirements and monitoring costs), political feasibility/public acceptance, flexibility/adaptability and legal constraints (summarised as minimising costs subject to constraints including pollution abatement, legal and political constraints) (Richards, 1999, p. 228).

Australian universities are subject to Commonwealth, State and Territory public environment policies, legislation and regulatory instruments that shape institutional responses in myriad ways, the relevance and influence of which vary. While the National Greenhouse and Energy Reporting (NGER) legislation stipulates greenhouse gas emissions monitoring and reporting requirements, government policy does not specifically require universities to institute mitigation strategies or formulate policy responses.

Higher education institutional environment policies, plans and strategies

Globally, a growing number of higher education institutions are developing environment policies (Wright, 2002; Wright, 2006). Many such policies are publicly available on the Sustainable School and Campus Policy Bank developed by the Canadian-based International Institute for Sustainable Development (IISD). These policies span education (curriculum; education for environmental sustainability), sustainable operations (energy management; environmental management of facilities and grounds; chemicals and hazardous waste management; waste management and recycling), governance (planning/processes) and finance (procurement/purchasing). Higher education environment policies recognise the ethical and moral obligations of these institutions to play a leadership role in promoting environmental sustainability, running sustainable operations, conducting sustainability-related research and undertaking public outreach

(Wright, 2002).

Higher education institutions have also established both environment plans and master plans to guide campus development. For example, key themes identified in Australian university master plans include 'transport, pedestrian movement and way finding, student services and centres (hubs), teaching and research space growth, pedagogy changes, co-location and clustering, place making, precinct planning, enhancement of the campus experience, student housing needs, outdoor learning and open space, heritage [and] university as part of the city' (Davies & Sheahan, 2014, p. 1). Environment plans and policies intersect in complex and curious ways with master plans.

Globally, sustainable development initiatives in higher education institutions have focused on 'education, research, outreach and partnership, and sustainability on campus' (Velazquez, Munguia & Taddei, 2004). Karatzoglou (2013) suggests that 'Universities continue to cope effectively ... with the dynamic nature of sustainability by displacing barriers, changing teaching paradigms, developing social competencies, communication skills, and community relations, and deepening their involvement in local and regional initiatives' (p. 50). By way of contrast, others (see Wright, 2006) observe that higher education institutions have been slow to respond effectively to the sustainability agenda, and faced many challenges when doing so, leading to the conclusion that '[t]he adequate conditions for the successful implementation of sustainability programs do not exist' (Velazquez, Munguia & Taddei, 2004, p. 383). The range of challenges for higher education institutions introducing sustainable development initiatives include lack of awareness, funding, support, time, data access, training, interdisciplinary research, performance indicators and policies to promote sustainability on campus (Velazquez, Munguia & Sanchez, 2005). Further, Wright (2006) suggests that such institutional policies lack 'teeth': 'rarely do university environmental policies offer specific directions or action plans through which to achieve the overall goals and objectives of the policy' (p. 761).

The effectiveness of higher education institutions' environmental sustainability efforts may be measured using various evaluation instruments. For example, Shriberg (2002) developed cross-institutional assessment instruments to evaluate measures including 'decreasing throughput; pursuing incremental and systemic change simultaneously; including sustainability education as a central part of curricula; and engaging in cross-functional and cross-institutional efforts' (p. 254). As an alternative, rankings-based approach, the United Kingdom's People & Planet 'green league' criteria assesses: policy and strategy; human resources; environmental auditing and management systems; ethical investment; carbon management; workers rights; sustainable food; staff and student engagement; education for sustainable development; key sustainability impacts; energy sources; waste and recycling; carbon reduction; and water reduction.

The Sustainability Tracking, Assessment & Rating System (AASHE), launched in the United States, is a self-reporting framework used globally by higher education institutions to measure sustainability performance. Registered participants use the STARS Reporting Tool to measure performance regarding academics (curriculum and research), engagement (campus and public), operations (air and climate, buildings, dining services, energy, grounds, purchasing, transportation, waste, water) and planning and administration (coordination, planning and governance; diversity and affordability; health, wellbeing and work; investment; and innovation).

Building on a range of emerging evaluation approaches, Yarime and Tanaka (2012) analyse environmental sustainability assessment tools through the lens of governance (including development and implementation of policies and plans), operations, education, research and outreach. They find, with respect to governance, that 'most of the assessment tools address the importance of creating policies, strategies, planning, initiatives and visions. ... Conversely, ... *implementation* of policies ... ha[s] not received much attention' (Yarime & Tanaka, 2012, p. 73, emphasis added). These tools and analyses have several common components, including governance (vision or strategy, policy, planning, ethical investment), operations (energy, waste, water, infrastructure, purchasing), education (curriculum), research and outreach (staff, students and community). The focus on operations is consistent with research indicating the ecological footprint of Australian universities largely comprises buildings and transportation (Flint, 2001).

The challenge of policy and plan implementation is a consistently emerging theme. Andrew Smith of the Higher Education Funding Council of England (HEFCE) observes that 'We've got a load of plans and strategies, but what we really need now is delivery' (The Guardian, 2011). Shah and Nair (2014), exploring strategic planning instruments concur: 'one would question the extent to which 'the glossy plans' are fully implemented' (p. 148). Challenges regarding environment policy implementation and review are consistent with research regarding institutional policy more broadly in Australian, United States, New Zealand and Papua New Guinea higher education institutions (Freeman, 2010; Freeman, 2012; Freeman, Jensen & Hatwell, 2013; Freeman, 2014; Freeman, Capell, Goldblatt, Lapan, Mafile'o & Thompson, 2014; Freeman, Lapan, Mafile'o, Capell, Goldblatt & Thompson, 2014).

AUSTRALIAN UNIVERSITY ENVIRONMENT POLICIES

The level of prescription in Australian university environment policies is low. Typically these policies are very brief (two to three pages), comprising a small number of principles-based, generalised, umbrella provisions and peripheral information required by institutional policy templates (that is, title, responsibilities, definitions, version control). Taken as a set, environment policies are generally scant and patchy in terms of content; however, there are several exemplars of more developed policies (see the University of Tasmania *Sustainability Policy* [2015]).

The definition of sustainable development established in the seminal Brundtland report, *Our Common Future: World Commission on Environment and Development* (1987), is reflected in a number of environment policies: 'Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future' (clause 49). In several other instances, environment policies reflect the goal of the *National Strategy for Ecologically Sustainable Development* (ESDSC, 1992): 'Development that improves the quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends' (n.p.).

Australian university environment policies have ambitious and broad-ranging environmental objectives. These include, but are not limited to, formally acknowledging the institutions' contribution to climate change, committing to environmentally responsible practices that minimise impacts and committing to exemplary compliance

with environmental legislation and regulation. Other objectives – relating to social and financial goals - include embedding a culture of responsibility, increasing awareness of staff, students and the community, conducting sustainability-related education and research, minimising consumption and assuring organisational sustainability. Policy objectives are underpinned by governing principles in a few instances. For example, the University of Tasmania’s *Sustainability Policy* (2015) includes governing principles covering open participation; integration; shared responsibility; leadership, innovation, creativity and best practice; global perspective; precautionary principle; student-focused. Reflecting different prioritisation, the University of Adelaide’s *Sustainability Policy* (2011) has governing principles which include sustainability knowledge; participation by all; and the campus environment.

Policy nomenclature is a signifier of institutional emphasis and prioritisation, as much as a reflection of content. Whereas in some policy domains there is a high level of nomenclature homogeneity between Australian universities (for example, risk), in others, there is not, suggesting greater diversity in terms of institutional emphases and approaches (for example, academic integrity / honesty and plagiarism). In this instance, policy nomenclature is reasonably evenly split between an emphasis on the environment (42 per cent) and an emphasis on sustainability (38 per cent), with the remainder including both environment and sustainability in the title (19 per cent) (Table 3).

Table 3: Nomenclature for environment and sustainability policies (n=26)

ENVIRONMENT		ENVIRONMENT AND SUSTAINABILITY		SUSTAINABILITY	
Environment Policy OR Environmental Policy 7 (27%)	Environmental Management Policy 4 (15%)	Environment and Sustainability Policy 1 (4%)	Environmental Sustainability Policy 4 (15%)	Sustainability Policy 9 (35%)	Sustainable Built Environment Designs Policy 1 (4%)
11 (42%)		5 (19%)		10 (38%)	

This suggests that, at least for the purposes of Australian university environment policy nomenclature, the words ‘environment’ and ‘sustainability’ may be inter-changeable; however, as sustainability policies broadly encompass environmental, social and financial principles, ‘environment’ may be perceived as a sub-set of the broader ‘sustainability’ agenda. This issue is subject to discussion amongst sustainability practitioners.

Australian universities must respond to, and are shaped by, a large body of government regulation; however, none of this legislation explicitly obliges them to adopt environment plans or policies. Australian university environment policies inconsistently identify either none, or some of the following acts, regulations, standards and guidelines (Table 4). This includes both mandatory Commonwealth and State/Territory legislation, and non-mandatory reference materials (standards, guidelines and international declarations).

Environment policies consistently refer to institutional environment plans, and not infrequently, university-specific design standards and specifications. Australian university environment policies also identify either no, or some related institutional policies, including governance policies (corporate social responsibility, quality), finance policies (procurement/purchasing, tendering, Fairtrade, investment), human resources policies (equal opportunity, travel, health and safety), infrastructure policies (vehicle fleet, air conditioning, waste management) and academic policies (course policy).

Table 4: Regulation shaping Australian university environment policy, operations and sustainability initiatives

Legislation and regulations (Commonwealth)	<ul style="list-style-type: none"> - Clean Energy Act 2011 (Cth) - Energy Efficiency Opportunities Act 2006 (Cth) - Energy Efficiency Opportunities Regulations 2006 (Cth) - Environmental Protection and Biodiversity Conservation Act 1999 (Cth) - National Environment Protection Measures Act 1998 (Cth) - National Greenhouse and Energy Reporting Act 2007 (Cth) - National Greenhouse and Energy Reporting Regulations 2008 (Cth) - National Greenhouse and Energy Reporting (Measurement) Determination 2008 (Cth) - Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth) - Renewable Energy (Electricity) Act 2000 (Cth)
State and Territory Standards and guidelines	<ul style="list-style-type: none"> - Various state and territory acts and regulations - Australian/New Zealand Standard (AS/NZS) ISO 14001:2004 Environmental management systems – Requirements with guidance for use (Standards Australia) - Green Star Building Rating System (Green Building Council of Australia) - HB 203:2006 Environmental risk management – Principles and process (Standards Australia, 2006) - National Australian Built Environment Rating System (NABERS) (NSW Office of Environment and Heritage) - National Construction Code (NCC) - National Greenhouse and Energy Reporting (Measurement) Technical Guidelines
International declarations	<ul style="list-style-type: none"> - Talloires Declaration (ULSF, 1990)

There is much emphasis in Australian university environment policies on provisions relating to physical operations, including minimisation of waste, energy sourcing and use, greenhouse gas emissions and water, and the introduction of sustainable design, transport and procurement practices. The following section briefly explores these policy provisions.

Many Australian university environment policies have umbrella provisions regarding waste minimisation. For example, La Trobe University aims to ‘minimis[e] waste to landfill by following the waste hierarchy of avoid, minimise, reduce, reuse, recycle and then dispose of correctly as the last option’ (2015, p. 2). Similarly, many policies incorporate umbrella provisions broadly committing to minimisation of energy consumption (including embodied energy), and in a few instances, committing to optimising the use of renewable energy sources such as green power.

Many Australian university environment policies explicitly commit to reducing the consumption of energy. In some instances, institutional greenhouse gas reduction targets are established in policy documents. More broadly, minimisation objectives for waste and energy consumption extend to building materials, furniture and other manufactured products such as paper and office supplies.

Many Australian university environment policies include provisions committing to sustainable design for capital and infrastructure projects including new buildings, retrofits and refurbishments. For example, the Deakin University *Environmental Sustainability Policy* (2009) states that ‘the University will strive to reduce the environmental footprint resulting from its operations by: ... incorporating principles of environmental

sustainability into the design, construction, refurbishment and operation of its buildings, plant and grounds' (p. 1). In some instances, institutions specifically commit to using the Green Building Council Australia's Green Star sustainability rating system for new infrastructure.

Many Australian university environment policies incorporate provisions committing to minimisation of water consumption, frequently providing more detailed provisions regarding commitments to deploy water efficient infrastructure and water consumption monitoring systems. In addition to umbrella provisions generally supporting efficiency, more detailed policy clauses focus on capturing, treating and re-using stormwater and rainwater; treating and re-using grey water; and protecting surface water and groundwater through soil and water management practices.

Several Australian university environment policies commit to sustainable transport through the reduction of work-related travel, and facilitating opportunities for alternatives such as carpooling, video-conferencing, walking, public transport and cycling. A few policies commit to providing secure bicycle facilities with lockers and showers for riders.

Several Australian university environment policies promote sustainable business and procurement practices. For example, the University of Newcastle *Environmental Sustainability Policy* (2011) states the institution will:

- i. employ sustainable procurement practices which take a whole of life cycle approach to minimising waste and damage to the environment, while achieving value for money benefits for the University and the broader community
- ii. incorporate the cost and impact of environmental externalities into decision making
- iii. purchase local products and services where possible
- iv. employ business practices that support the global [F]airtrade movement aimed at tackling poverty and empowering producers through trade. (p. 4)

In a few instances, Australian university environment policies deal specifically with biodiversity, landscaping and grounds maintenance, including provisions seeking to promote integrated pest management targeting noxious weeds and feral animals; minimising the use of fertilisers, soil conditioners and pesticides; using native vegetation/plant species (occasionally excluding heritage plantings); and protecting native flora and fauna.

All Australian university environment policies include provisions regarding the delivery of curriculum aimed at fostering students' sustainability literacy and knowledge, and fostering the capacity of graduates to respond to complex sustainability issues. For example, Newcastle University aims, through the *Environmental Sustainability Policy* (2011), to 'deliver leading-edge interdisciplinary teaching and learning experiences to equip students with knowledge, confidence and enthusiasm so that they can positively engage in fostering environmentally sustainable solutions through their careers and everyday living' (p. 2). Environment policy provisions also focus on equipping staff and graduates to apply sustainable environmental practices in both professional and personal spheres.

All Australian university environment policies include provisions reinforcing their role in environmental sustainability research, frequently in partnership with government and industry, to collaboratively contribute towards solutions for a more sustainable world. Finally, Australian university environment policies frequently refer to ‘third stream’ or community engagement activities. Policy provisions relate to promoting environmental awareness and responsibility, encouraging environmentally sustainable behaviours, and sharing sustainability knowledge with government, industry, community and other institutions.

AUSTRALIAN UNIVERSITY ENVIRONMENT PLANS

In contrast with policy, the level of prescription in Australian university environment plans is higher, with broad goals, objectives, targets and performance measures articulated in most plans. With the exception of two plans, each of which is one page long, environment plans are comparatively long (four between 5-10 pages; three between 15-20 pages; and two over 30 pages). Other than the one-page plans, they are typically detailed and comprehensive, but not overly constraining. Plan nomenclature includes an emphasis on environmental management (two plans), EMS framework (one), environmental sustainability (three) and sustainability (two plans and three strategies). Where plans had a nominated time period (ten plans), this ranged from two years (one plan), three years (four), four years (two), five years (two) and six years (one).

Table 5: Nomenclature for environment and sustainability plans (n=11)

ENVIRONMENT	ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) FRAMEWORK	ENVIRONMENTAL SUSTAINABILITY	SUSTAINABILITY	
Environmental Management Plan	EMS Framework and Sustainability	Environmental Sustainability Enabling/Strategic Plan	Sustainability (Action) Plan	Sustainability Strategy
2 (18%)	1 (9%)	3 (27%)	2	3
			5 (45%)	

Similar to the environment policies, the definition of sustainable development established in the Brundtland report, *Our Common Future: World Commission on Environment and Development* (1987) is reflected in a number of Australian university environment plans. Of all of the international sustainability declarations, the Talloires Declaration has had the most influence with over half of all Australian universities signatories (University of Canberra, 2011). The document analysis supported this finding, with half of all environment plans examined specifically noting adherence to the Talloires Declaration.

Several university environment plans specifically note the influence of the United Nations Conference on Sustainable Development (Rio+20) held in 2012 and resulting report, *The Future We Want* (United Nations, 2012) that encourages higher education institutions to adopt environmental sustainability management practices. Other influences acknowledged in Australian university environment plans include the Turnaround Leadership for Sustainability in Higher Education (TLSHE) project sponsored through the Office for Learning and Teaching (OLT), the World Commission on Environment and Development, and the Australian Technology Network’s (ATN) *Declaration of commitment to local, national and global sustainability*. Australian government strategies

and agreements have also influenced university environment plans, including the *National Strategy for Ecologically Sustainable Development* (ESDSC, 1992) and *Heads of Agreement on Commonwealth/State Roles and Responsibility for the Environment* (COAG, 1997).

Australian university environment plans have broad-ranging objectives including operationalising corporate social responsibility (CSR) and identifying 'goals, objectives, [key performance indicators], targets and strategies, and associated accountabilities for executive management, teaching, research, community engagement and partnerships, and operational practice' (Griffith University, p. 2013, p. 2). Environment plans also aim to 'put into place strategic initiatives to meet this commitment [to environmental sustainability principles] and build on [the university's] reputation as a sustainability leader' (University of Technology Sydney, 2011, p. 2). In several instances, environment plans intentionally replicate governing principles and objectives articulated in environment policies.

Unlike most environment policies, environment plans recognise, to varying degrees, key components of environmental management systems or frameworks for environmental action, including: council and operational environment committees; organisational leadership and culture; accountability, performance monitoring and reporting; budgets and sustainability-dedicated funding schemes; strategic plans, policy instruments, operational or action plans; and sustainability staff. A few environment plans explicitly refer to related, external initiatives such as local council sustainability visions or programs.

There is much emphasis in environment plans on waste minimisation, frequently expressed as some combination of 'the R's' - rethink, redesign, reduce, reuse and recycle. Recycling extends to 'paper, cardboard, polystyrene, commingled (glass, plastics and cans) fluorescent tubes, books, e-waste, furniture, metal, printer cartridges, mobile phones and batteries' (Griffith University, 2013, p. 25). The focus on waste minimisation extends to purchasing of recycled or recyclable consumables (furniture, operational products, food containers and utensils) and correct disposal of specialist waste.

Similarly, environment plans focus on reduction of absolute energy consumption through the installation of efficient technology, metering and monitoring, energy audits, sustainable design standards and controls. Environment plans also include strategies to reduce greenhouse gas emission levels (frequently within the context of institutional growth) and purchase energy from renewable energy sources. The University of Queensland *EMS Framework and Sustainability* (2010) identifies the production of energy, and the University of Technology Sydney *Sustainability Strategy: 2012-2015* aims to meet targets in part through the installation of 'one or more trigeneration facilities to reduce the greenhouse gas emissions generated by the UTS City Campus' (p. 4). There are many examples of calculation methods, such as the Federation University Australia carbon inventory. This inventory provides a template that allows for the calculation of net emissions as follows: 'direct emissions (natural gas, petrol for vehicles, diesel for vehicles), indirect emissions, optional emissions (electricity, flights, waste – landfill, natural gas extraction, train travel, water consumption, paper consumption, petrol and diesel fuel extraction), less green power' (2014, p. 4).

Many Australian university environment plans include provisions regarding sustainable design including retrofitting existing infrastructure and ensuring that such design principles are embedded in new infrastructure developments. Sustainable design features include insulation, energy management systems to control lighting and air conditioning, motion detectors, sustainable water heating and rainwater harvesting and reuse, recycling and water efficiency (Griffith University, 2013). Operations-related plan provisions, particularly related to sustainable design, also reference university master and space management plans, and design targets, for example, the Green Building Council of Australia's Green Star ratings.

There is much emphasis in Australian university environment plans on objectives and strategies regarding minimisation of water consumption through water efficiency measures, and water quality strategies. Water efficiency measures include the installation of flow restrictors, conversion of toilet cisterns, identification and resolution of water leaks, water recycling, monitoring and management. Water quality strategies include projects to maintain groundwater quality and minimise pollution entering storm water systems.

There is also a key emphasis on sustainable transport through increasing patronage of public transport, installing bike infrastructure (paths, signage, racks and shelters, pumps, lockers and showers), modifying vehicle fleets (more fuel efficient, non-petroleum power sources), facilitating carpooling and introducing virtual meeting and transport technologies (video-conferencing, teleconferencing, Skype, emerging technology, working from home, online course offerings).

Most Australian university environment plans include provisions regarding sustainable procurement practices such as giving preference to Fairtrade and ethically sourced products and incorporating sustainability principles into purchasing and tendering processes. Griffith University's plan provides that 'comparisons may consider the source of raw materials, production, manufacturing, packaging, distribution, potential for reuse and recycling, operation, maintenance or disposal of the product' (2013, p. 28).

Australian university environment plans also frequently include provisions regarding biodiversity, landscaping and grounds maintenance. As public organisations with large ecological footprints, Australian universities have responsibility for stewardship of the environment through sustainable landscape design and preserving, monitoring and enhancing biodiversity of the campus environment. Environment plan provisions relate to the management of weeds, wildlife, fire and landscape asset management, along with responsibility for protected reserves, significant trees and protected species living on campus.

Australian university environment plans include a range of provisions regarding environmental education, from the development of sustainability literacy, delivery of cross-disciplinary environmental curriculum and commitment to fostering staff capacity. In addition to formal undergraduate and postgraduate environmental offerings, several plans discuss voluntary programs, workshops and community outreach initiatives involving students. For example, the core teaching and learning objective of the University of Canberra *Sustainability Strategy 2010-2015* is 'graduates equipped to take place as leaders and catalysts for change in forging a sustainable future' (2011, p. 6).

Almost all Australian university environment plans include provisions regarding sustainability research such as increasing research scale, quality, profile and impact. Provisions also relate to increasing networking through cross-disciplinary collaboration and knowledge sharing. In several instances, plans specifically refer to niche specialisations. For example, see *Energy Research* (2010) for examples of energy-related research undertaken at Australian Group of Eight (GO8) universities.

Finally, Australian university environment plans include provisions regarding community outreach through networking with international and national sustainability associations and groups, advocating sustainability to staff, students and the community, and conducting sustainability events such as workshops, exhibitions and competitions.

DISCUSSION

The question posed is: are environment plans and policies solutions, straightjackets or meaningless drivel? There is no doubt Australian universities need leadership, cultural awareness, systems, instruments and infrastructure to address the urgent challenge of environmental sustainability. Given the low level of prescription of environment policies, and only moderate level of prescription of environment plans it would be difficult to claim that these governance artefacts represent straightjackets for Australian universities. Indeed many environment plans incorporate broad strategies and specific performance indicators that will contribute positively towards a culture of implementation monitoring and evaluation.

Do they represent solutions, or are they meaningless drivel? Plans and policies collectively provide principles and implementation strategies spanning the broad areas of governance, operations, education and research, and outreach consistent with the analytical framework developed by Yarime and Tanaka (2012). Australian university policies appear to be highly homogenous in terms of their broad focus; however, most environment policies are scant, patchy and somewhat haphazard with respect to content. As stand-alone documents, environment policies manifest an institutional commitment to environmental sustainability principles, but unlike many other matters governed by institutional policy they do not in and of themselves provide solutions. Australian university environment policies are heavily reliant on attendant environment plans for sense-making in terms of implementation. The extent to which this is problematic is then dependent on the nature of the relationship between policy and plans at the institutional level, and the extent to which the text itself is meaningful (that is, relevant to practice). Where the relationship is strong and the content is meaningful (two big asks), environment policy and plans read together can provide solutions.

Australian universities are influenced by international declarations (most notably the Talloires Declaration) and shaped by their environmental management systems. They are also influenced in various ways by the work of numerous international and national sustainability organisations. Government legislation, Building Codes, ISO and Australian Standards and design guidelines are extremely influential, particularly with respect to campus operations (waste, energy, emissions, water, design, transport, procurement). Education and research initiatives are closely aligned with, and influenced by, high-level strategic and academic plans. Environment plans and policies involve community outreach as universities have the opportunity to take an intellectual leadership role in the

sustainability agenda, and connect with sustainability and environment organisations (Figure 1).

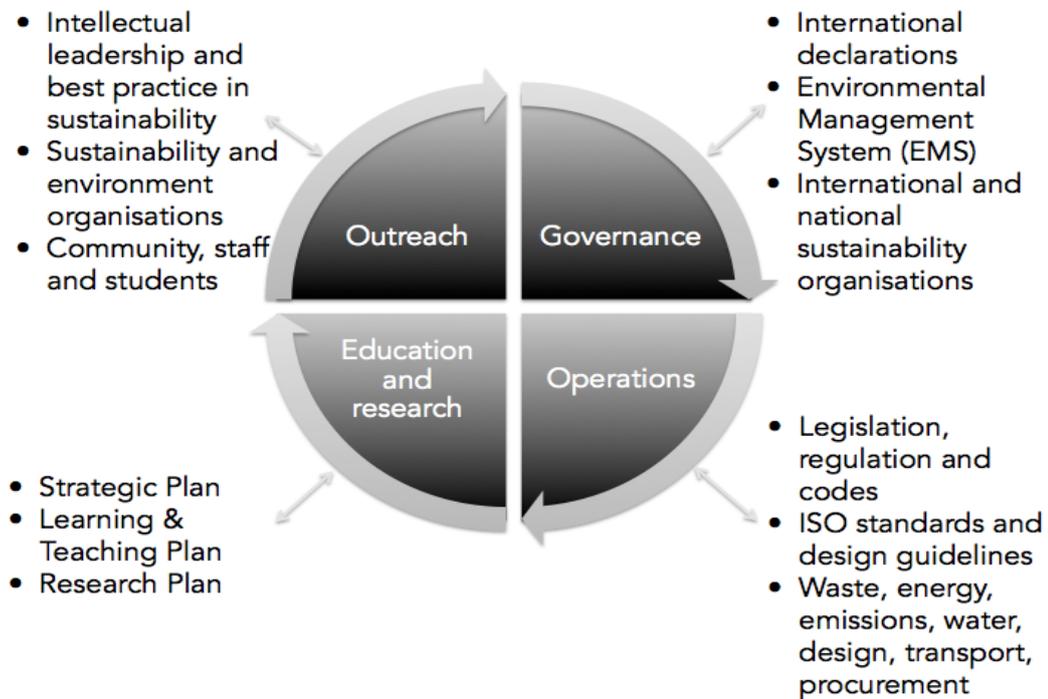


Figure 1: Scope of environment plans and policies for Australian universities

Unlike almost any other matter addressed at the governance level through university plans and policies, there is a globally compelling urgency for large organisations such as Australian universities to act in the name of sustainability. Despite the promise of new technologies to suppress growing infrastructure and operational requirements (such as Massive Open Online Courses [MOOCs] and virtual transport and meeting technologies), the introduction of the demand-driven system and massification more generally have resulted in increasing student numbers for almost all Australian universities. Without successful consumption mitigation strategies, this must increase the impact of the ecological footprint of both individual universities and the sector as a whole (see Flint, 2001).

These global challenges oblige public universities to take intellectual and practical responsibility for nurturing graduates with environmental literacy, conducting leading-edge sustainability-related research, and leading sustainability action with respect to physical operations. These challenges collectively require an organisational commitment to sustainability, including cultural change, governance, budget, academic and professional staffing infrastructure, strategy implementation, monitoring and evaluation. Rachel Williams suggests that, for higher education institutions, there are 'Five things there are no excuses for: Lack of a transition vision ... Failure to engage students ... Not employing sustainability staff ... Lack of action on carbon reduction ... Not telling the whole story' (The Guardian, 2011, *The Green League university tables*). Those Australian universities who are yet to establish an environment policy, or environment plan would not readily meet these criteria.

CONCLUSION

This research suggests that most Australian universities have developed frameworks responding to this challenge, including governance committees, environmental management systems, environment plans, master plans, targets and performance measurement systems, staffing infrastructure and environment and related policies. In addition to formal governance structures and artefacts, most if not all Australian universities implement a range of campus and community outreach sustainability initiatives, network with local and international environmental associations, and participate in State/Territory, national and international activities such as World Environment Day and Earth Hour.

Where environment policy has been established prior to environment plans, policy may be employed as a lever to secure and express university management commitment to environmental sustainability action in the form of a comprehensive environment plan, government structure, budgetary commitment, staffing and performance measurement regime. Policy may also be established to drive cultural change and embed the principle of environmental sustainability across the university focus areas of learning and teaching, research, community outreach and operations.

There are only a few instances where Australian universities have both university-wide plans and institutional policies addressing essentially the same subject matter; the prime examples being research and information communication technology (ICT). In such instances, there is frequently overlap between the texts, confusion regarding objectives and coverage, and potential for misalignment. At least the first two of these concerns – overlap and confusion regarding objectives – are arguably demonstrated by a comparison of Australian university environment plans and environment policies. The nature of the relationship between the two influences the relevance and potential impact of both texts. Rather than meaningless drivel, environment policy may simply be redundant where governing principles are replicated in environment plans. In most cases, though, Australian universities are yet to reach a level of sustainability maturity such that plans alone represent the solutions required. As such, the combined model of governance artefacts – environment policies and environment plans –represents a contemporary solution to tacking this most challenging of areas.

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BIOGRAPHICAL NOTE

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HIGHER EDUCATION POLICY TECHNOLOGY AND PROCESS INNOVATION IN FOUR DIFFERENT WORLDS: AUSTRALIA, UNITED STATES, NEW ZEALAND AND PAPUA NEW GUINEA

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ABSTRACT

Higher education institutions codify institutional decisions and publish governance instruments in part in response to government regulation and accountability requirements, and increasing corporatisation. This paper explores technology-based solutions to communicate governance instruments (principally institutional policy), and considers the relationship between policy and institutional research derived from business intelligence (BI) systems. Data is drawn from surveys and interviews with higher education managers and policy practitioners from the United States and Australasia (Australia, New Zealand and Papua New Guinea). While the management and communication of higher education institutional policy from fundamentally different contexts varies in many respects, there is a remarkable level of consistency. These commonalities include approaches to institutional policy websites, online policy libraries and the use of information technology-based systems to operationalise finance, human resources and student life cycle policy, particularly between the United States, Australia and New Zealand. This paper explores institutional policy technologies and practices progressively professionalising this emerging field.

KEY WORDS

institutional policy, policy technology, policy library, business intelligence

INTRODUCTION

Institutional policy is an emerging focus for higher education research, as many higher education institutions in the United States and Australasia codify institutional decisions and publish governance instruments. In part, these developments represent an institutional response to government regulation and growing accountability requirements and corporatisation (Freeman, 2014). These developments require the production of evidence, and compilation and reporting of institutional research, giving rise to concerns higher education institutions are governed by numbers (Ozga, 2008). Despite this, there has been little attention given to higher education institutional policy and related policy technology, and very few institutional policy studies have employed an international comparative approach, unlike public policy research.

This paper draws on data from the Institutional Policy Project and doctoral research focused on higher education institutional policy in the United States and Australasia (Australia, New Zealand and Papua New Guinea). The Institutional Policy Project was initiated to explore conceptions of higher education institutional policy and identify

innovative organisational processes, technologies and practices. Despite fundamentally different national contexts for higher education systems, greatly varying organisational structures and missions, and internal variation in these jurisdictions, the research reveals surprising commonalities as well as points of differentiation. This paper is provided to communicate key findings to practitioners to support ongoing policy technology and process innovation.

METHOD

This paper draws on data from the Institutional Policy Project examining institutional policy in the United States, New Zealand and Papua New Guinea, and doctoral research focused explicitly on institutional policy in the Australian university sector. The mixed methods research (Cresswell, 2013) involved semi-structured interviews, a survey and document analysis of publicly available, internet-delivered governance documents, or 'artefacts' (Scott, 2014). The interviews were conducted face-to-face and using Skype (video and audio-only). In one instance, a Papua New Guinean interviewee provided written responses to the interview questions. The survey, comprising 94 questions, included multiple-choice questions and several opportunities for free text comments. Additionally, the survey enabled the collection of demographic data regarding the respondents' institution. The survey was administered online using SurveyMonkey to Australian, United States and New Zealand respondents. Papua New Guinean participants were invited to complete the surveys manually at an Association for Tertiary Education Management (ATEM) policy seminar, and the chief investigator entered responses manually.

In total, 138 survey responses were received (Australia: 66; New Zealand: 10; United States: 58; Papua New Guinea: 4). They were tabulated using SurveyMonkey; with qualitative survey responses coded using thematic analysis (Boyatzis, 1998; Braun and Clarke, 2006). The survey results are indicative only given the low response rate, particularly with respect to Papua New Guinea and New Zealand. In many instances, Papua New Guinea and/or New Zealand survey responses are excluded from the published findings due to low response rate at the individual question level. 76 semi-structured interviews were conducted with higher education managers and policy practitioners (Australia: 37; New Zealand: 11; United States: 21; Papua New Guinea: 7). The interviews were recorded, transcribed and coded using thematic analysis (Boyatzis, 1998; Braun and Clarke, 2006). The University of Melbourne human ethics committee approved the research.

LITERATURE

Despite the wealth of public policy research there remains a dearth of literature specifically related to policy developed by higher education institutions (Blobaum, Ford, Hippchen, Petersen and Spellacy, 2005; Clark, Griffin and Martin, 2008; Freeman, Jensen and Hatwell, 2013). This small body of work includes research regarding policy content and readability analysis (Smith and Williams-Jones, 2009), policy-making governance structures (Eckert, 1970; Boren, 1965), policy process (Romana, 1975) and meta-policy (Freeman, 2014). There is an emerging body of research exploring institutional policy focused on specific academic matters, including plagiarism and

academic integrity (Jordan, 2001; Sutherland Smith, 2010; Bretag et al., 2011), research training (Tinkler & Jackson, 2000), admissions (Freeman, 2015) and student attendance (Marburger, 2006; Aaron, 2012). There is also a small body of work exploring higher education environment policies (Wright, 2006; Freeman, 2015), and policy implementation evaluation and review (Freeman, 2012a; Freeman, 2012b; Wong, Wong and Pang, 2015). More recently, research has provided an international comparative perspective of institutional policy development and management (Freeman, Lapan, Mafile'o, Capell, Goldblatt & Thompson, 2014; Freeman, Capell, Goldblatt, Lapan, Mafile'o & Thompson, 2014; Freeman, 2014).

Similarly, there is very little research regarding policy technology and related process innovations, such as policy websites, online policy libraries, policy management systems and business process software developed or employed by higher education institutions. Institutional policy websites have been referred to as 'the 'front door' to the policy repository' (Freeman, Jensen and Hatwell, 2013, p. 51). These policy websites 'generally function as: the online interface with the University Policy Repository; or [a] portal to provide information regarding the University Policy Framework; or [a] portal to provide resources supporting the university policy development cycle' (Freeman, 2010, p. 9). Online policy libraries are information technology-based systems that essentially hold and make available policy texts to communicate, drive and evidence institutional practices. Online policy libraries provide the authoritative source for institution-wide policy texts, and may be complemented by academic and administrative organisational unit collections of policy texts (including local policy) (Freeman and Jensen, 2010).

Some online policy libraries are automated using a policy management system. Gross and Churchill (2013) define such systems as 'a software package that automates the management of policies through their life cycle, from drafting to compliance monitoring' (p. 18), differentiating such systems from a webpage or content management system. Popular policy management systems include 'Microsoft SharePoint, Oracle (formerly Stellent), 2Compli, Doxcelerate, ECM Documentum, GovDelivery, Integrated GRC Solutions, Rsam Policy Management [and] PolicyTech' (Gross and Churchill, 2013, p. 22). In Australia, TWEEK! is currently used by a number of Australian universities as a sophisticated policy management system that can also interface with delegations systems.

Again, while there is much research regarding public policy evaluation (Dunn, 2003), there is little in terms of evaluation of institutional policy implementation (Freeman, Kelder and Brown, 2013). Despite the emergence of 'Big Data', where 'the quantity, range and scale of data that can be and is gathered has increased exponentially (or close to exponentially)' (Clow, 2013, p. 683), few studies have explored the use of institutional research or data held in business intelligence systems to develop or review institutional policy governing core operations. Institutional research offices provide a range of initiatives that could contribute towards institutional policy development or review, particularly at the 'issue identification and evaluation stages' (Whiteley and Skuja, n.d., p. 8). However, Whiteley and Skuja (n.d.) acknowledge that institutional research (IR) practitioners are ill equipped to provide the link between IR and institutional policy:

If the trend towards an insistence on the development of evidence-based policy continues, we may find that we lack the skills and resources to contribute meaningfully to policy development. There are no simple remedies, but we might at least start by having a look at our universities' existing policies, assess their quantitative dimensions and consider expanding our repertoire of research utilisation strategies. (p. 11)

Practitioners even suggest that 'of course, more often than not, the [institutional] research has no effect on policy outcomes at all' (Whiteley and Skuja, n.d., p. 2). Recognising that little research has been done in this area, Barnett et al. (2005) recommend based on their preliminary investigations that 'perhaps the more important outcome for institutional policy-makers and managers is the demonstration that standard institutional datasets can be mined for insights that have potential operational value' (p. 296).

Business intelligence is defined as 'a broad category of technologies, applications, and processes used for gathering, storing, accessing, and analysing data to help its users make better decisions' (Wixom and Watson, 2010, p. 14). Encouraging the use of such data for policy evaluation purposes, Freeman, Jensen and Hatwell (2013) observe that:

Many institutions now have management information systems and data warehouses which present institutional data and enable easy analysis of the data in the core institutional systems, to support management decision-making. The policy developer needs to engage with these sources of data, planning how to measure efficacy from the earliest stages of the policy project. Those undertaking reviews of policy implementation need to be aware of data available to support evaluation and review. (p. 46)

The progressive introduction of business intelligence systems in higher education institutions has also been coupled with the emergence of business and academic analytics technologies and expertise. The successful introduction of business analytics involves 'high-quality technology and data infrastructure; people with business analytics, banking and interpersonal skills' (Shanks and Bekmamedova, 2012), and senior management support. Key obstacles include 'lack of understanding of how to leverage analytics ... [and] accessibility of the data' (Gudfinnsson, Strand and Berndtsson, 2015, p. 40).

While business analytics is relevant to corporate operations, learning analytics - 'the application of these Big Data techniques to improve learning' (Clow, 2013, p. 684), and research evaluation systems (Woelert and Millar, 2013) have progressively been introduced by higher education institutions to explore the core academic endeavours. While the application of analytics to education is relatively new (Gasevic, Mirriahi, Long, & Dawson, 2014), Wohlers and Jamieson (2013) suggest that 'there is a growing sense of urgency for educational organisations to understand Big Data and to develop and deploy analytical capabilities' (p. 1). Concurrently, the range of learning analytics packages (for example, Blackboard, Desire2Learn) and vendors (for example, Instructure and Tribal) has grown (Clow, 2013). Despite the urgency and rapid introduction of analytics packages, there are challenges with this technological innovation. Wohlers and Jamieson (2013) observe that:

For many in education, this evolving discipline of analytics is a dark science -- unfamiliar, overwhelming, and expensive. Knowing where to start is unclear, let alone beginning to make sense of what data is useful and developing the capabilities to use it. While the potential value of analytics is compelling, it is difficult to know where to begin. (p. 2)

In addition to these challenges, faculty concerns regarding commodification have emerged in recent decades with performativity conceived as ‘a powerful and insidious policy technology that is now at work at all levels and in all kinds of education and public service, a technology that links effort, values, purposes and self-understanding to measures and comparisons of output’ (Ball, 2012). While this tyranny of metrics (Ball, 2012) is of concern given the 'pressure towards performance management, metrics and quantification' (Clow, 2013, p. 685), business and academic analytics are being introduced alongside learning management systems and business intelligence systems to drive innovation, performance and quality improvements. Business intelligence, and business and academic analytics will transform higher education as data increasingly drives decision-making, planning and core operations. The question is: at what point will higher education institutional policy practitioners join this data and technology-driven transformation?

INSTITUTIONAL POLICY WEBSITE

The survey asked respondents to indicate if their institution had an institutional policy website *distinct from* their online policy library. The majority of Australian and United States survey respondents reported their institution had such an institutional policy website (62.50 per cent and 75.00 per cent respectively); however, only one New Zealand survey respondent answered ‘yes’. The survey asked those respondents whose institutions *did have* such an institutional policy website to elaborate on the elements that made up the institution's policy website (Table 1).

Table 1: Elements of institutional policy websites (Australia and United States)

	Australia % (n=25)	United States % (n=30)
The 'policy on policy' / 'policy framework'	96.00	86.67
The online policy library	92.00	90.00
Policy development resources (such as templates)	92.00	73.33
Contact details for policy staff	88.00	80.00
A list of new (recently approved) policies	68.00	60.00
Policies under development (that is, draft and proposed amended policies for consultation purposes)	64.00	46.67
Policy news items	44.00	56.67
Other high level institutional documents such as plans and governance documents	36.00	33.33

The vast majority of Australian and United States survey respondents reported their institutional policy websites included ‘the ‘policy on policy’ / ‘policy framework’ or meta-policy, links to the ‘the online policy library’, ‘policy development resources (such as templates)’ and ‘contact details for policy staff’. Nearly two thirds reported their institutional policy website included 'a list of new (recently approved) policies. Fewer survey respondents reported including 'Policies under development ...', or 'policy news items'. Only approximately one third reported including 'other high level

institutional documents such as plans and governance documents'. In relation to these features, there was a remarkable degree of similarity between institutional policy webpages reported by Australian and United States survey respondents.

There are many examples of comprehensive policy websites in Australia, the United States and New Zealand, as illustrated in the following figures; however, by way of contrast, it appears no Papua New Guinea university has a policy website *distinct from* their online policy library, and only a couple of Papua New Guinea universities have published policies online. In some instances policy websites provide links to other policy technologies, such as discussion boards and *listservs* used for consultation processes associated with policy development, implementation evaluation and review. In at least one instance they link to an online training platform that trains policy development users in the institution's policy technology.

In Australia, the University of Tasmania policy and delegations webpage (Figure) provides a gateway to the online policy library (Policy Repository). The webpage also provides a coherent introduction to the institution's policy management functions through linking to the meta-policy (policy framework), policy resources (Policy Toolkit and Policy Cycle), policy network and policy announcements, and linking to related governance instruments (legislation, by-laws, ordinances, rules, principles, codes of conduct).

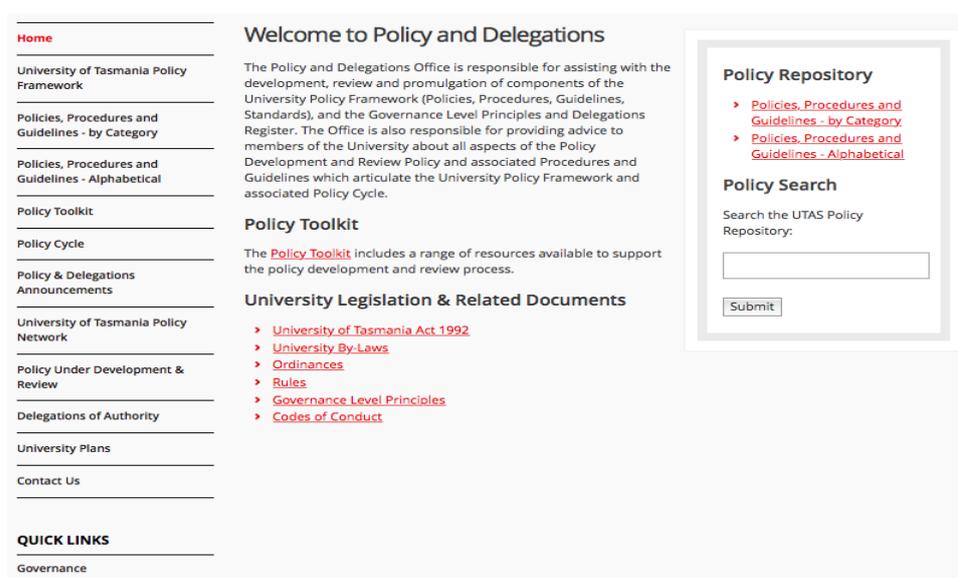


Figure 1: University of Tasmania 'Policy & Delegations' webpage
<http://www.utas.edu.au/policy>

In the United States, the Cornell University policy office webpage (Figure) also provides a gateway to the institution's online policy library (A-Z Policy Index). The webpage provides an historical account of the University Policy Office, and an introduction to contemporary policy management functions through linking to the meta-policy (Policy on Policies), policy resources (Policy Development Took Kit, Policy Listserv) and news articles. The policy webpage also provides links to related policy functions (Information Technology Policy Office, Office of Human Resources).

Contact Us
Search Policy Site

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 E-mail: policy@cornell.edu

[DFA Home](#) > [University Treasurer](#) >
University Policy Office

Welcome to the home page of Cornell University's Policy Office (UPO). The UPO coordinates the editing, review, issuance, and archiving of all official university policies, presented in eight "subject" volumes: [Academic/Research](#); [Facilities](#); [Finance](#); [Governance/Legal](#); [Information Technologies](#); [Human Resources](#); [Student Services](#); and [Risk Management and Public Safety](#). Within these volumes you will find standardized policies that have been through the official development process, and "legacy" policies that, in time, will be standardized. (Learn what is a "university policy").

Cornell's policies connect the university's mission to the everyday actions of its community, clarify the institution's expectations of its individual members, mitigate institutional risk, enhance efficiency, and support the university's compliance with laws and regulations.

Search Policies

SEARCH:

Quick Links

- > [A-Z Policy Index](#)
- > [Policy Volumes](#)
- > [Subscribe to the Policy Listserv](#)
- > [Policy Development Tool Kit](#)
- > [Review and Approval Groups](#)
- > [Policy on Policies](#)
- > [History of the UPO](#)
- > [Cornell Information Technologies Policy Office](#)
- > [Office of Human Resources](#)

University Policy Office News



[University Policy 3.24, Mobile Communication Devices](#)
 University Policy 3.24, Mobile Communication Devices has been revised.
[See all news articles](#) >

Figure 2: Cornell 'University Policy Office' webpage
<http://www.dfa.cornell.edu/treasurer/policyoffice/>

In New Zealand, the University of Auckland Policy Hub (Figure) introduces the institution's policy and administration functions, including links to online policy library chapters (primarily by functional area, and an A-Z listing), and policy development and review resources, legislative compliance, and governance (principles, statutes and structure).

Policy Hub



Welcome to the University of Auckland Policy and Administration area. This area provides convenient, user-friendly access to our University statutes, policies, procedures, standards and associated documents.

All these documents connect the University's mission and values to the everyday actions of its community. Members of the University community include our staff (whether permanent, temporary or part time), honorary staff, students (whether full time or part time), contractors, subcontractors, consultants, alumni, associates, business partners or official visitors or guests of members of the University or our subsidiaries.

The documents clarify the University's expectations of individual members of our community, mitigate institutional risk, enhance efficiency and support compliance with our legal obligations. All members of the University community must comply with University statutes, policies, procedures, standards, and associated documents.

Stuart McCutcheon
 Vice-Chancellor

Search the Policy Hub

Search policy and administration

 University organisation and governance The University's guiding principles, statutes and structure	 Information technology IT policies, standards and guidelines relating to usage, security, identification, and data management
 Finance Establish appropriate financial authorities and manage financial transactions	 Research These policies govern the conduct of research at the University
 Human resources Policies related to employment, including the hiring process, compensation, benefit programs, workplace conduct, training, performance reviews, insurance, and protection of privacy	 Learning and teaching Learning and teaching practice, academic conduct and the enhancement and assurance of learning and teaching
 Health, safety and wellbeing Services, training, communication, and performance standards and discipline, medical examinations, workplace hazards, emergency/accident procedures, and incident reporting	 Equity Policies to support the University's commitment to achieving equitable outcomes for all staff and students
 Policy development and review Adding and reviewing policy and other guidance documents	 Forms All forms are kept in the University's Forms Register
 Legislative compliance How the University ensures its activities are undertaken within the law	 A-Z listing An A-Z listing of all documents held in the register

Figure 3: University of Auckland Policy Hub webpage
<https://www.auckland.ac.nz/en/about/the-university/how-university-works/policy-and-administration.html>

As such, the institutional policy websites both represent and link to policy technology and process innovations, including information technology delivered policy development and review resources (toolkits), policy networks and *listservs*, and online policy libraries.

ONLINE POLICY LIBRARIES

Historical development of policy compilations

Prior to the emergence of the Internet and widespread accessibility of information technology in Australia, New Zealand and the United States, higher education institutions used a variety of approaches to codify and publish decisions and policy texts. This included notebooks, academic handbooks or calendars, policy manuals (particularly for finance and human resources policies and work instructions), and formal minutes of committee meetings. Several interviewees discussed the historical development of policy compilations. For example, United States interviewees indicated the issuing and compilation of governance texts represented a precursor to contemporary online policy libraries:

Back in the 60s, we had something called university memorandum where any university department would send out its policies on its own letterhead to the rest of the campus telling them what they needed to know. And so somehow it was loosely gathered into a notebook. And the president also sent out memorandum ... and set up a notebook similarly. But the keeping of all of that soon became untenable and they started to codify a different system. ... And we put all these in something we called the policy directory. (United States interviewee #2)

Another United States interviewee reported that centralised collections of policy documentation dated back nearly fifty years, varying principally with respect to the institutional locus of control:

... we really have documentation of the first policy document going back in the early 70s and from the 70s until about five years ago ... there are some periods of time where there is really good documentation of policies and their establishment, and there are other periods of time where there's absolutely no documentation because we were probably in a period of decentralised control. (United States interviewee #6)

In Papua New Guinea, interviewees reported that academic policies are published in paper-based academic handbooks or calendars, and increasingly Internet-delivered, compilations (for example, see the Divine Word University *Academic Policies & Attachments* webpage). One Papua New Guinean interviewee advised that some administrative policies remain in manuals:

The HRM Manual and the Finance Manual have all their policies in one document. I find this is not as user-friendly as having each one separately as [occurs] ... with the 17 current academic policies. (Papua New Guinea interviewee #7)

The noticeably lower prevalence of online policy libraries in Papua New Guinea universities reflects both the 'strength of the oral culture' (Papua New Guinea interviewee #1), and limited access to information technology infrastructure and Internet connectivity (both for institutions, students and higher education aspirants).

In New Zealand, several interviewees reported that higher education institutions are phasing out traditional, hard-copy academic handbooks and calendars, particularly as online policy libraries and institutional webpages increasingly hold course information, policy texts and general student-facing information. This follows similar developments in Australia from the early 2000s. For example, the University of Melbourne *Undergraduate Studies Handbook*, comprising course information and references to statutes and regulations, was last published in hard copy in 2006; while the *University Calendar*, containing statutes and regulations, was last published in 2005 in hard copy form. Digitisation of higher education governance instruments and policy texts, in part through the progressive emergence of online policy libraries, has been a consistent trend across most of these countries. Information technology has fundamentally changed institutional operations including the manner in which governance instruments are communicated and maintained.

Prevalence and features of online policy libraries

Almost all Australian, New Zealand and United States survey respondents reported that their institution had an online policy library, including all New Zealand survey respondents, 97.50 per cent of Australian survey respondents, and slightly fewer United States survey respondents (85.37 per cent). There was, however, variation in terms of accessibility of texts held in these libraries. More United States survey respondents reported that their texts are *all* publicly available (83.33 per cent), than New Zealand and Australian survey respondents (57.14 per cent and 47.37 per cent respectively). In New Zealand, this most likely reflects the high representation of the Institute of Technology and Polytechnic (ITP) sector in the sample, as these institutions frequently utilise institutional webpages for student recruitment rather than governance and management purposes (Freeman and Thompson, 2015). In Australia, this likely reflects restrictions placed on a small number of apparently commercial in confidence policies (for example, financial delegations of authority). A small proportion of survey respondents from the United States (5.71 per cent) and Australia (2.63 per cent) reported that none of these texts are publicly accessible through online policy libraries.

The majority of survey respondents in Australia, New Zealand and the United States reported that their online policy library included all institution-wide policies. By contrast, only a few included local policies developed by discrete organisational units (such as faculties and schools). No survey respondents reported that their online policy library included all local policies, while very small proportions of Australian and United States survey respondents reported that their library included some local policies (7.89 per cent and 17.14 per cent). As such, online policy libraries remain predominantly the domain for publication of institution-wide policies. Almost no Australian or United States survey respondents, and no New Zealand survey respondents, reported having a notification of amendment facility embedded in their online policy library. While online platforms may be modified to include such a facility, given sufficient resources, this development is not a common feature of Australian, New Zealand or United States online policy libraries.

Table 2: Features of online policy libraries (Australia, New Zealand, United States)

	Australia (%)	New Zealand (%)	United States (%)
Have online policy library	97.50	100	85.37
All texts are publicly accessible	47.37	57.14	83.33
Some texts are restricted	47.37	42.86	11.11
None of the texts are publicly accessible	5.26	0.00	5.56
Includes <i>all</i> institution-wide policies	97.37	100	85.71
Includes <i>all</i> 'local' policies	0.00	0.00	0.00
Includes <i>some</i> 'local' policies	7.89	0.00	17.14
Notification of amendment facility	2.63	0.00	5.71

Note: The New Zealand data are indicative only, given the low sample size.

Some interviewees discussed their institution's approach to the publication of governance instruments, including institutional policy, in online policy libraries. Interviewees recognised differences between institutions with respect to their traditions and approaches to the codification of institutional decisions. For example, one United States interviewee, reflecting on the institution's poor history of documenting decision-making, suggested that 'we are really bad at creating structures for institutional memory' (United States interviewee #6). Another interviewee commented that staff anticipated the introduction of new information technology (that is, the online policy library) somehow involved modification to institutional policy content:

So for some peculiar reason people thought that the policies were something quite different to what we'd had in the past. So it was an interesting exercise in that regard because really nothing had changed. It was simply that they were written differently and published differently. (Australian interviewee #24)

While most or all New Zealand, Australian and United States respondents reported having online policy libraries, several interviewees clarify that these repositories require further technical development:

So right now, it's online. It's accessible to anybody. ... but it's kind of cumbersome to manage and we are looking for some sort of software tool that might make that easier for us. (United States interviewee #8)

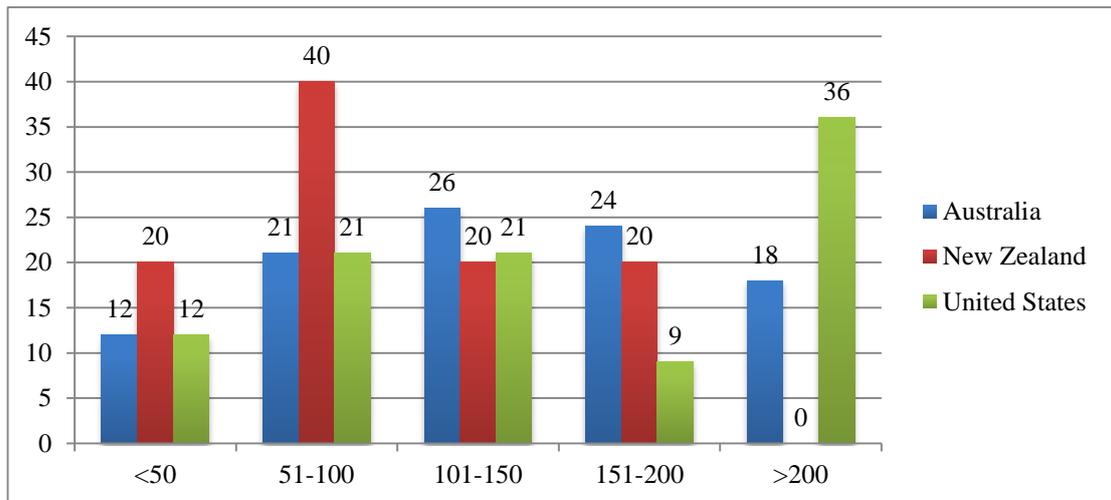
Number of texts in online policy libraries

The focus on policy development in recent years, partly in response to increasing government regulation, institutional corporatisation and concern regarding academic standards and quality, has led to a proliferation of discrete policy texts. Interviewees in Australia, the United States, New Zealand and Papua New Guinea consistently expressed concerns regarding policy proliferation, as many questioned whether a 'magic policy number' existed. One interviewee summed this up:

Is there an optimum number of policies a university should have? Someone has said that [our institution] has too many policies but we have far fewer than overseas universities. [Papua New Guinea interviewee #7]

Respondents were invited to provide an estimate of the number of discrete policy instruments held in their online policy library. Survey respondents from Australia, New

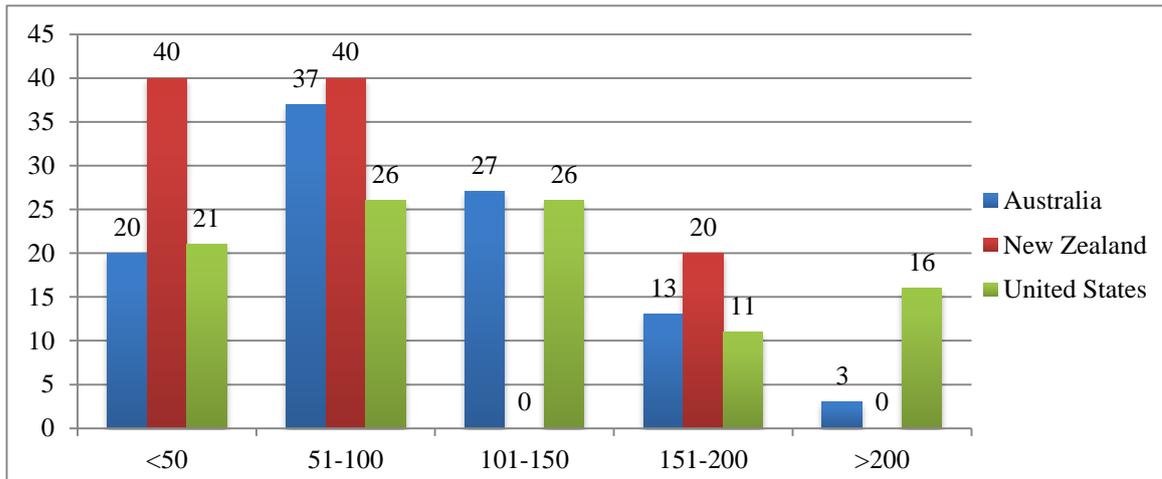
Zealand and the United States revealed their institutions held more policies than procedures, and more procedures than guidelines in their online policy libraries. It appears the United States online policy libraries hold the highest numbers of policies, as more than one third of all United States survey respondents (36 per cent) reported having over 200 policies in their online policy library. Indeed, nearly two thirds of United States survey respondents reported having over 100 policies in their online policy library. In Australia, fewer survey respondents (18 per cent) reported having over 200 policies in their online policy library, while half reported having either between 101-150 policies (26 per cent) or 151-200 policies (24 per cent). In New Zealand, there were fewer again, as the majority of survey respondents reported having either up to 50 policies (20 per cent) or between 51-100 policies (40 per cent). No New Zealand survey respondent reported having over 200 policies.



Note: The New Zealand data is indicative only, given the low sample size.

Figure 4: Proportion of survey respondents in Australia, New Zealand and the United States with varying numbers of ‘policies’ in their online policy libraries

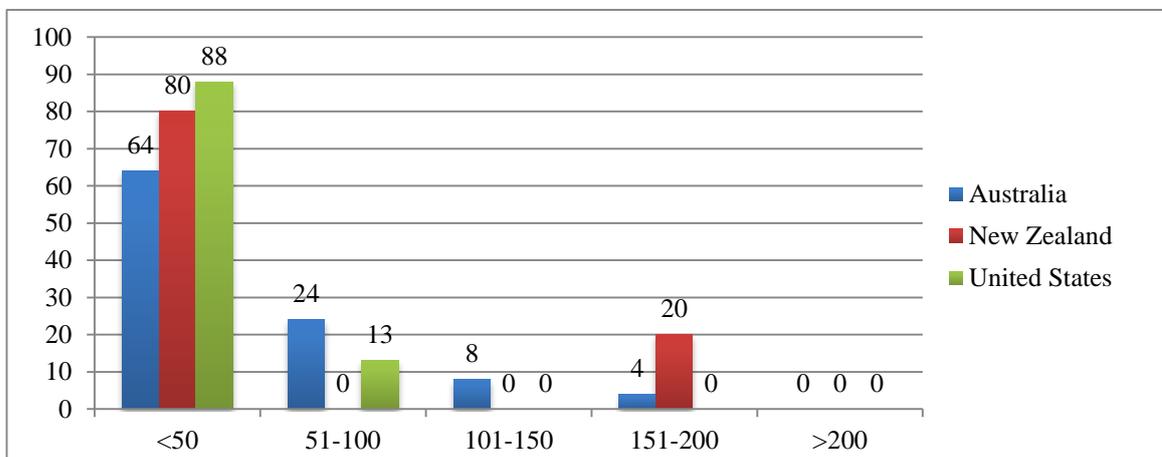
The majority of New Zealand and Australian survey respondents reported having up to 100 procedures (80 per cent and 57 per cent respectively), while the majority of United States survey respondents (73 per cent) reported having more (up to 150 procedures).



Note: The New Zealand data is indicative only, given the low sample size

Figure 5: Proportion of survey respondents in Australia, New Zealand and the United States with varying numbers of ‘procedures’ in their online policy libraries

Online policy libraries held fewer guidelines, with the majority of survey respondents reporting that their online policy libraries held up to 50 guidelines (Australia: 64 per cent; New Zealand: 80 per cent; United States: 88 per cent). As many online policy libraries *explicitly exclude* guidelines (as they are frequently considered ‘local documents’) this may under-state the actual number of guidelines in place at Australian, New Zealand and United States institutions.



Note: The New Zealand data is indicative only, given the low sample size.

Figure 6: Proportion of survey respondents in Australia, New Zealand and the United States with varying numbers of ‘guidelines’ in their online policy libraries

Survey respondents reported that their online policy libraries held a relatively small number of forms (with United States survey respondents reporting more than Australian or New Zealand survey respondents). Similarly, survey respondents reported that their online policy libraries held a relatively small number of other texts (again with United States survey respondents reporting more). An examination of online policy libraries at a number of institutions reveals that these texts include higher order governance instruments (such as enabling legislation, statutes, charters and plans), indicating a

trend whereby ‘policy libraries’ are effectively broadened in scope to ‘governance instrument libraries’.

The proliferation of institutional policy coupled with lax policy review practices has led many institutions to conduct comprehensive reviews of their whole suite of policy texts. The survey asked ‘Has your institution, within the last five years, conducted a review of the whole suite of policies?’ Large proportions of the New Zealand (71.43 per cent), Australian (46.67 per cent) and United States (40.48 per cent) advised that their institution had.

Organisation of online policy libraries

In terms of organisation, the vast majority of Australian and New Zealand survey respondents (82.05 per cent and 83.33 per cent respectively) reported that their online policy library was presented using both an alphabetical list of titles, and a list of titles under broad categories; however, a large proportion of United States survey respondents (42.42 per cent) reported that their online policy library was organised using a list of titles under broad categories only.

The survey asked: ‘What are the categories that you use to organise your policy library?’ and respondents in Australia, the United States and New Zealand answered this question providing a diverse range of organising constructs with little consistency across institutions or between countries. While it is possible to discern the broad categories ‘administrative policy’ (finance, human resources, information and communication technology, occupational health and safety, facilities and assets), ‘academic policy’ (teaching and learning, research and research training, student administration), and in some instances ‘governance policy’ from the survey responses, there is then considerable variation in terms of categories employed. These organising constructs, while varied, frequently employ one of four alternatives.

- higher education streams of operations (learning and teaching, research, community engagement);
- organisational structure (human resources, finance, information technology, campus operations/infrastructure, work health and safety, student administration/life cycle, academic);
- policy category (administrative, academic, governance); or
- some combination of these.

Several United States survey respondents reported that their online policy libraries comprised administrative policy, excluding some or all academic policy (that is, teaching and learning, and research policy). Notable points of differentiation are observable between the responses from the United States (athletics, gifts and endowments, health sciences, safety, security), New Zealand (quality management, commercialisation) and Australian survey respondents (equity, community engagement, advancement).

Versioning

More than half of the Australian and United States survey respondents (57.89 per cent and 73.53 per cent respectively) reported that their online policy library *did not* hold previous versions of policy texts; however, as a point of differentiation, the majority of New Zealand survey respondents (83.33 per cent) reported their online policy library

did. When then asked: ‘Are these previous versions accessible?’ only a small proportion of Australian and United States survey respondents reported they were readily accessible (8.33 per cent and 7.41 per cent respectively). Respondents did note, however, that previous versions could be made available to policy owners, staff, students or the public either electronically through the policy library, or through authentication processes, or on request (Table 7). Only a small proportion of survey respondents reported that previous versions of policy texts were neither publicly accessible nor available through the online policy library by any other means to staff, students or policy owners (Australia: 13.89 per cent; New Zealand: 25 per cent; United States: 14.81 per cent).

Table 3: Availability of previous versions in institutional policy (Australia, New Zealand and United States)

	Australia % (n=36)	New Zealand % (n=4)	United States % (n=27)
Yes, they are publicly accessible (that is, to the public, staff and students)	8.33	0	7.41
No, but they are available to the policy owners (that is, electronically through the policy library)	36.11	75.00	29.63
No, but they are available to staff through an authentication process (for example, login) or by request	41.67	25.00	29.63
No, but they are available to students through an authentication process (for example, login) or by request	11.11	25.00	7.41
No, but they are available to the public on request	19.44	25.00	44.44
Not, they are not available	13.89	25.00	14.81

Note: The New Zealand data is indicative only, given the low sample size.

The majority of survey respondents reported their online policy libraries are searchable by keyword within metadata (Australia: 59.46 per cent; New Zealand: 100 per cent; United States: 51.52 per cent). In addition, the majority of Australian and United States survey respondents reported that their online policy libraries are searchable by word or phrase within the policy text (51.35 per cent and 63.64 per cent). Fewer survey respondents reported their online policy libraries were searchable by the area responsible for the policy (Table 4).

Table 4: Search capacity of online policy libraries (Australia, New Zealand and United States)

	Australia % (n=37)	New Zealand % (n=5)	United States % (n=33)
Yes, searchable by keyword within metadata	59.46	100.00	51.52
Yes, searchable by word or phrase within the policy text	51.35	0.00	63.64
Yes, searchable by area responsible for the policy	29.73	40.00	30.30
No, not searchable	16.22	0.00	21.21

Note: The New Zealand data is indicative only, given the low sample size.

INFORMATION TECHNOLOGY-BASED SYSTEMS

The survey asked respondents to consider the extent to which institutional policy is operationalised through information technology-based systems. Typically this could

systems for accounting and financial management, student information management, research output monitoring (grants, publications, doctoral completions, ethics) and learning management. The majority of Australian survey respondents (72.22 per cent) reported that *at least some of* their institution's policies were operationalised through information-technology based systems; however, the majority of United States survey respondents (63.89 per cent) reported that they *were not*. Australian and United States survey respondents who reported that at least some of their institution's policies were operationalised through information-technology based systems elaborated in Table 5.

Table 5: Policies operationalised through information-technology based systems (Australia and United States)

Category of policy operationalised through information-technology based systems	Australia % (n=24)	United States % (n=9)
Student administration policies	91.67	77.78
Finance policies	75.00	77.78
Human resources policies	70.83	88.89
Teaching and learning policies	70.83	44.44
Research (including research grants and publications)	45.83	66.67
Occupational health and safety	37.50	66.67
Governance	33.33	33.33

The majority of Australian and United States survey respondents reported that student administration policies, finance policies and human resources policies were operationalised through information-technology based systems. The majority of Australian survey respondents (70.83 per cent) reported that teaching and learning policies were operationalised through information-technology based systems. Two thirds of United States survey respondents (66.67 per cent) reported that research, and occupational health and safety policies were operationalised through such systems.

BUSINESS INTELLIGENCE SYSTEMS / DATA WAREHOUSES

The survey asked: 'Does your institution have a business intelligence system or data warehouse to collect, store and/or present institutional data?' The majority of the survey respondents responded in the affirmative (Australia: 89.19 per cent; United States: 68.75 per cent; New Zealand: 100 per cent). The survey then asked those respondents whose institutions did have such systems to elaborate on the sets of data collected, stored and/or presented in these repositories (Table 66).

Table 6: Sets of institutional data collected, stored and/or presented (Australia, New Zealand, United States)

	Australia % (n=32)	New Zealand % (n=4)	United States % (n=22)
Student administration related	96.88	100.00	86.36
Finance related	87.50	75.00	90.91
Human resources related	81.25	75.00	90.91
Teaching and learning related	75.00	100.00	54.55
Research (including research grants and publications) related	71.88	75.00	50.00
Occupational health and safety related	53.13	50.00	36.36
Research training related	53.13	50.00	22.73
Governance related	34.38	50.00	40.91

Note: The New Zealand data is indicative only, given the low sample size.

The majority of survey respondents in Australia, New Zealand and the United States reported their business intelligence system or data warehouse collected, stored and/or presented student administration, finance and human resources data. Further, the majority of Australian and New Zealand survey respondents reported that these systems also held teaching and learning, and research related data.

The survey asked respondents to indicate what institutional data was used for (Table 7). The majority of Australian, New Zealand and United States survey respondents reported that data was used for management decision making, external reporting to government and accreditation associations/bodies, internal reporting and strategic planning.

Table 7: Intended use of institutional data collected, stored and/or presented (Australia, New Zealand, United States)

	Australia % (n=35)	New Zealand % (n=5)	United States % (n=24)
Management decision making	91.43	80.00	83.33
External reporting to government	82.86	100.00	79.17
External reporting to accreditation associations/bodies	71.43	80.00	79.17
Internal reporting	88.57	80.00	75.00
Strategic planning	85.71	100.00	70.83
Operational planning	88.57	60.00	70.83
External reporting to a quality assurance body or regulator	80.00	80.00	37.50
External reporting for international institutional rankings purposes	51.43	40.00	37.50
To analyse or evaluate policy options (in the policy development process)	31.43	20.00	20.83
Monitoring and evaluation of policy implementation	17.14	20.00	16.67
Review of policy implementation	28.57	20.00	12.50

Note: The New Zealand data is indicative only, given the low sample size.

Over 80 per cent of Australian and New Zealand survey respondents reported their institution used data for external reporting to a quality assurance body or regulator; while over 70 per cent of Australian and United States survey respondents reported that data informed operational planning. Notably, a very low proportion of Australian, New Zealand and United States survey respondents reported that data was used for policy-related purposes, including analysis or evaluation of policy options, monitoring and evaluation policy implementation, or reviewing policy implementation, suggesting the relationship between institutional data and institutional policy is loose.

The interviewees in all countries, including Papua New Guinea, confirmed that insufficient resources or management attention was given to policy implementation monitoring, evaluation and review. For example, one United States interviewee reported that:

... there are policies on the books, you know, one from what, 1997, that hasn't been looked at so you know, we have our challenges in terms of getting a, you know, management review process engaged. (United States interviewee #5)

Indeed, one United States interviewee suggested that appreciation of the implications of this failure was not well understood:

[Senior management] don't realise the impact. And it only takes one lawsuit with an old policy that people are trying desperately to walk away from to make them realise what the problem is. But you don't want the lawsuit, and you don't want the penalty' (United States interviewee #2)

RELATIONSHIP BETWEEN POLICY AND INSTITUTIONAL RESEARCH

Interviewees were asked to consider the relationship between institutional policy and institutional research (IR), amongst other things such as strategic planning, delegations, risk and quality. The majority of interviewees in Australia, New Zealand, the United States and Papua New Guinea perceived no apparent or current linkage between institutional policy and data held by the institution, and indeed frequently misunderstand the question. For example, a typical response is:

We don't have any existing systems in the University that interface with the policy system, at present. (Australian interviewee #24)

A small number of interviewees acknowledged the potential for linkage, where none generally existed, while very few acknowledged that there is, and indeed should be, a relationship between institutional policy and institutional research. These interviewees tended to be more senior in the organisation. As such, the majority of interviewees could be categorised as Level 1 in the following maturity grid.

Table 8: Maturity grid: Perceived linkage between institutional policy and strategy, budget, delegations, quality, risk, compliance and audit, and institutional research

Level 1 = Silo	Interviewees report no apparent or current linkage
Level 2 = Emergent	Interviewees acknowledge the potential for linkage
Level 3 = Aligned	Interviewees report well established and articulated linkages

Source: Freeman, Capell, Goldblatt, Lapan, Mafile'o and Thompson, 2014, p. 16

DISCUSSION

The findings of the research start to paint the picture of policy technology and process innovations as employed by policy practitioners from United States and Australasian higher education institutions. Many Australian and United States higher education institutions have institutional policy websites; whereas fewer New Zealand and no Papua New Guinea higher education institutions appear to. Variation in prevalence may be attributed to differential resourcing of centralised policy functions, divergent objectives for institutional webpages, or limited information technology capacity. New Zealand Institutes of Technology and Polytechnics (ITPs) operate in a highly competitive market and frequently employ their publicly-accessible institutional webpages for marketing purposes. In Papua New Guinea, a developing country with limited information technology infrastructure, institutional webpages are recent

developments and present major connectivity challenges for institutions, staff and students.

In higher education institutions in Australia and the United States, where institutional policy websites are most prevalent, there is a remarkable degree of similarity in terms of features. As suggested by Freeman, Jensen and Hatwell (2013), institutional policy websites provide the 'front door' to the online policy library and allow users to access institutional meta-policy, policy development resources and contact details. While institutional policy websites provide ready access to online policy libraries and a relatively small number of features, the technology remains underutilised. There is scope for such websites to be deployed, both by more higher education institutions and in more innovative ways for policy development, consultation and review purposes, and to better communicate policy in an effort to facilitate successful policy implementation.

In the United States, in particular, there are a large number of longstanding higher education institutions with a history of codifying and publishing decisions in academic handbooks, calendars, manuals and formal committee minutes. In all jurisdictions, technology has been employed to digitize authoritative source, centralised institutional policies and in doing so, making at least some of these texts redundant. Widespread in the United States, Australia and New Zealand, and emerging in Papua New Guinea, governance instruments, principally including institutional policies, have been standardised and published in online policy libraries. The transition from paper-based to digital records represents an apparent efficiency for higher education institutions that have established online policy libraries. There is variation in terms of accessibility, with online policy libraries more accessible in United States higher education institutions than other jurisdictions, and such technologies least likely to be used in Papua New Guinea. There is commonality across the jurisdictions in terms of the publication of institution-wide policies, and general exclusion of local policies in these online policy libraries. Many of these libraries are subject to ongoing development as technology advances, and human resources are made available for policy functions or related technical developments.

This transition to digitised policies has not come without challenges. Higher education institutions in Australia, New Zealand and the United States have suffered from an extended period of policy proliferation, and questions regarding the optimum number of policies are even asked by Papua New Guinea higher education managers. In codifying decisions and centralising governance instruments, policy has come to be seen as a panacea. With United States higher education institutions leading in terms of the number of texts held in online policy libraries, Australia and New Zealand institutions follow in number. There may well be too many policies; however, slashing the number without reconceptualising intent and content is too simplistic. In part, policy proliferation reflects the increasing complexity of large, bureaucratic organisations with broad-ranging academic and corporate operations. It also reflects increasing government regulation that frequently requires policies as evidence of practice and/or quality. The trend towards comprehensive policy suite reviews, where institutions heroically 'review' their whole suite of institutional policy, illustrates that institutions are failing to maintain their policy.

There is much variation in categorisation used in online policy libraries, both between and within jurisdictions. It is possible to discern four main approaches to categorisation:

- higher education streams of operations (teaching and learning, research, community engagement);
- organisational structure;
- policy category (administrative, academic, governance); or
- some combination of these.

Variations between the jurisdictions also reflect differences in government policy priorities (for example, social inclusion), regulatory drivers (compliance quality and health science regulation) and funding regimes (privatisation, diversity of contributions, commercialisation). These differences remind us that while there are many similarities, higher education institutions employ policy technologies within different contexts.

Institutional policy is operationalised, to varying degrees, through information technology-based systems. Where this does occur it is most common in the areas of student administration, finance and human resources. As one of the key challenges remains the disconnect between policy and practice, further research is required to investigate the extent to which institutional policy is embedded in information technology-based systems for core academic and corporate operations.

Table 9: Potential areas of connection for operationalisation of institutional policy through IT-based systems

INSTITUTIONAL POLICY	INFORMATION TECHNOLOGY-BASED SYSTEMS
Student administration policies	Student information management systems
Finance policies	Accounting and financial management systems
Human resources policies	Human resources systems
Teaching and learning policies	Learning management systems
Research (including research grants and publications)	Research output monitoring systems (grants, publications, doctoral completions, ethics)

Given the emergence of business intelligence systems and business and academic analytics, the research explored the relationship between institutional policy and institutional research. While somewhat expected, it is concerning to find that despite having business intelligence systems, data was rarely used for policy implementation monitoring, evaluation or review. Furthermore, most interviewees failed to see a relationship between policy and institutional research, and appear unaware of the transformation such systems promise. Until or unless this disconnect between institutional policy and practice is recognised for the risk that it is, the potential for change appears disappointingly low.

CONCLUSION

Rapid information technology advancement has provided opportunities for higher education institutions to innovate. In the governance space, institutions have employed technological solutions in quite consistent ways to centralise and consolidate authoritative documentation codifying institutional decisions. These innovations enable

higher education institutions to effectively disseminate governance instruments, principally including institutional policy, to the growing number of staff and students. In part, the necessity to codify and disseminate readily accessible policy information has been driven by government regulation, corporatisation and massification against a backdrop of contracting financial and human resources. The ‘efficiency and effectiveness’ agenda that has permeated the academy is reliant on technology. Despite this, there is a serious disconnect between institutional policy and institutional research, with policy practitioners unaware of important developments relevant to their field of operations. This is particularly the case for the development of evidence-based policy, evaluation of policy implementation, and institutional decision-making more broadly. Higher education institutions are ill equipped to maintain their frequently extensive suites of institutional policy. As such, the shared and pressing challenge is to avoid the emerging situation whereby online policy libraries become repositories for outdated, irrelevant, redundant texts disconnected from institutional practices.

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BIOGRAPHICAL NOTE

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WHAT DO ACADEMICS THINK OF PROFESSIONAL STAFF AND WHAT SHOULD WE DO ABOUT IT?

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ABSTRACT

This study investigates the attitudes of a sample of academics across five Australian universities towards professional staff; both to staff at the local, departmental level and to those in centralised or shared services units. Are professional staff seen as allies or are they viewed in a far more negative light? Is there a difference in perceptions of locally situated professional staff versus those in central units? Is the relationship healthy or is it on the brink of divorce? From the extant literature on professional staff, five themes emerged that are historically representative of the relationship between academics and professional staff. These five themes informed the development of a framework that guided the composition of online surveys and interviews which sought to ascertain academic attitudes towards professional staff. The findings of this primary research is presented along with a discussion of what the findings mean in practice for the academic and professional staff working relationship.

KEY WORDS

professional staff; general staff university management; staffing strategy; complementary agendas.

INTRODUCTION

The world of higher education is changing at a rapid pace. Increasingly, our students are also our customers. New operational paradigms and models of service delivery and financial sustainability are needed in an environment where government funding can no longer be relied upon to meet 100 per cent of what it costs universities to operate. Indeed we are no longer simply part of a national or global higher education *community*, but also competitors in a national and global *marketplace*. Sadly one kneejerk response to these challenges is a call for universities to reduce numbers of professional staff (Ernst and Young, 2012). While this may reap short-term benefits to the bottom line, little focus is given to how this would impact on the lives of academic staff.

It is against this turbulent backdrop that the interest in this topic led to formal research into the interface between professional and academic staff. According to Department of Education figures (2013), professional staff make up around 55 per cent of the Australian university workforce, but little research has been undertaken on what academics think about their working relationship with professional staff. This paper adds to scholarship on that topic.

LITERATURE REVIEW

Whilst reading a wide selection of all that has been written on the topic of university professional staff over the past 30 years or so, five themes began to emerge. As I will discuss in the methodology section, the five themes formed the basis of my subsequent survey and analysis stages.

i) The professional other

This theme tracks changes in the profession over the past 30 years from tea ladies, typists and departmental secretaries, to administrators to today's highly skilled professional staff. There are two interwoven threads: One being the inequality and invisibility felt by professional staff and the other being specialisation and professionalism as roles have evolved. Running throughout the theme is the sense of 'otherness' or a 'divide' between academics and professional staff.

Authors writing in this vein include Conway (1998, 2012), Szekeres (2004, 2006, 2011) and Dobson (2000). Much that has been written in this theme tends to be by people with backgrounds as professional staff.

One indicative quote comes from Judy Szekeres who stated:

This construction of administrative workers—relatively powerless women doing menial tasks—is a rather old-fashioned one. It may have had its place in the 1970s but seems anachronistic today. Administrative roles are, on the whole, more complex, more specialised, more skilled and more responsive to the external environment than these constructions of administrators. (Szekeres, 2004, p. 17)

And Ian Dobson had this to say '...the propensity for general staff to be ignored is high.' (Dobson, 2000, p. 203)

ii) Managerialism

Managerialism crudely pitches traditional (although perhaps utopian) notions of collegiate decision making and *primus inter pares* leadership against leadership that is appointed, not elected and management that is more likely to be characterised by top-down decision making with an emphasis on more tightly controlled financial and human resource management. Institutional power comes to be held in the hands of an executive group headed by the Vice Chancellor and supported by Deputy and Pro Vice Chancellors and 'Mega-Deans'.

Richard Hil (2012), Bob Bessant (1995) and other academic authors write disparagingly of the largely negative changes that they see 'invading' the institution. The invasion is led by the spread of corporate values and language. According to writers in this vein, traditional collegialism is replaced by cold business processes, cost centres, KPIs and efficiency drives that sideline academics and trivialises or de-professionalises their work.

We can be sure that Hil doesn't use the term 'gurus' kindly when he states: '[There is a] formidable range of routine regulatory practices introduced and overseen by

administrative gurus' (Hil, 2012 p.41).

25 years ago a former ANU Vice Chancellor remarked

...the modern university is usually a large complex organisation. As such, it needs to be 'managed'. Thus, tension between collegial and managerial styles is bound to be chronic (Karmel, 1990 p. 332).

iii) An expensive bureaucracy

In this theme, professional staff are seen almost entirely for what they cost rather than what they contribute to their institutions. It's almost as though professional staff come to be seen as parasites, sucking both resources (money) and life (academic freedom) from their institutions.

Szekeres (2011, p. 8) quotes a disgruntled academic writing in *The Australian*, '...to support a corporate culture, university bureaucracies have become gigantic. Campuses are filled with layer upon layer of administrators'.

Another perspective is put forward in this non sequitur that appeared in an article published in *The Conversation* in 2013.

If spending on the costs of employing non-academics could be reduced by 50 per cent ... universities could employ additional academic staff. A further boost to productivity could be expected as old and new staff benefit from a decrease in the amount of time they must dedicate to bureaucratic transactions (Graves, Barnett, & Clarke, 2013).

Of course there's no evidence that much-loathed 'bureaucratic transactions' would decrease in volume after removing 50 per cent of the cohort of staff whose very job it is to alleviate academics of these very transactions.

iv) Complementary agendas and symbiosis

This theme is more recent and nuanced than its predecessors. The term *complementary agendas* stems from Geoff Sharrock's 2012 paper entitled *Four management agendas for Australian universities*. Sharrock and others writing of complementarity or partnerships such as Kwiek (2008), Winter (2009) and Conway (2012), acknowledge that the contemporary university is a highly complex organisation operating in a volatile and changing environment and that there is a balancing act between academic freedom and collegiality on the one hand and effective, strategic management of people and resources on the other. Sharrock (2012) presents four agendas of management that when in harmony – despite their inherent 'pull factors' – lead to a balanced and comprehensive approach to university management. He calls these *A Professional Community, Creative Engagement, System Integrity and Sustainable Enterprise*. Gray (in press) discusses these themes in more detail in light of the results of this study's findings.

As the following quote eloquently states, there is recognition that many roles and

functions are more expertly performed by professionals than by academics.

‘Multiple non-academic tasks are increasingly being performed by well-paid experts and specialists, rather than amateurs recruited from among former or current academics; these units include especially finances, student affairs, alumni and fundraising affairs’ (Kweik, 2008, p. 73)

The third space and beyond

This theme, stems largely from the work of Whitchurch (2008, 2009). She sees the ‘...emergence of [a] ‘third space’ between the activities of professional and academic staff, creating new understandings in relation to universities as organisations. These understandings have implications for the concepts of ‘management’ and ‘leadership’ in universities’ (Whitchurch et al., 2009 p. 57). This suggests the possibility of a less bipolar relationship between academics and professional staff. For instance it may be the space inhabited by e-learning professionals working at the intersection of technology and pedagogy. Equally it could refer to academics who hold leadership and management positions such as that of pro-vice chancellor, a title that is also increasingly held by staff who haven’t arrived via traditional academic careers.

Writing in an Australian university context, Graham (2014) posits a neat evolution from the work of Whitchurch in proposing a two dimensional matrix where all university roles are plotted against two axes that measure the degree of academic focus on the horizontal axis and the degree of management responsibility on the vertical. This matrix model is built on the premise that the academic or professional designation of a staff member’s title does not necessarily determine the relative degrees of management and academic endeavour that they engage in. Whitchurch’s conception of the third space would fall in the centre of Graham’s matrix there a person’s role has approximately equal amounts of academic and management focus. The focus of Graham’s matrix encourages us to shift from a designation of an *individual* as academic or professional over to a focus on the *work* that university staff perform.

METHODOLOGY

This research project was founded on a *framework analysis* methodology (Ritchie & Spencer, 1994, Gale et al., 2013). Framework analysis is a methodology that seeks to organise and manage disparate data via a thematic framework, thus enabling the identification of patterns and a systematic analysis. This analytical structure guided the inductive approach taken to the literature review where critical and reflective reading led to the emergence of the five themes of the *professional other*, *managerialism*, *an expensive bureaucracy*, *complementary agendas* and *the third space and beyond*.

An online survey consisting of 20 questions was developed to measure academics’ opinions of professional staff at both local and central levels of their institutions against the five themes. The survey was divided into two parts: Part A asked respondents the extent to which they agreed with 10 statements (2 per theme) about professional staff at the local level. Part B asked them to what extent they agreed with the same set of 10 statements about professional staff at the central level.

The survey instrument employed a Likert scale (Likert, 1932) which presented statements with options to ‘strongly disagree’, ‘disagree’, ‘agree’ or ‘strongly agree’. A fifth ‘neutral’ response was also allowed. In the analysis stage, ‘strongly agree’ and ‘agree’ statements were aggregated, as were ‘disagree’ and ‘strongly disagree’ thus enabling percentages to be given to show whether respondents broadly agreed or disagreed with each statement.

Some 54 academic staff across five Australian universities were invited to participate in the survey. There were 34 respondents. The academics who were invited to participate were all from scientific disciplines such as mathematics, physics and earth sciences. The survey did not collect any demographic or identifying data. Given the number of responses and narrow population sample, this study does not purport to offer a statistically significant dataset. However the responses do show clear trends across the five themes as well as a marked difference between attitudes held by academics towards local and central professional staff.

The next stage of the inquiry consisted of semi-structured interviews with four academics. The purpose of these interviews was to gather anecdotes and subjective opinions based on subjects’ experiences of working with professional staff, both in their departments and in central units. The interview questions were open-ended and attempted to elicit responses around the five themes. Recordings were taken of the interviews. Rather than full, verbatim transcriptions, statements and passages that related to each of the five themes were typed into the analytical framework. They provide case-studies to illustrate and illuminate the findings of the surveys.

SUMMARY OF KEY FINDINGS

From this study, it can be surmised that the overall impression of academics towards professional staff is a positive one. The *complementary agendas* theme was the one with highest levels of agreement among survey respondents. However there is a significant divergence of opinions between attitudes towards staff located at the local, departmental level compared to those who work in central units.

The great majority agreed with the two *complementary agendas* statements ‘Professional staff in my department show an understanding of academic workloads, pressures and priorities in areas such as teaching, research and service’ and ‘Local professional staff are able to make valuable contributions to the management of people and resources’ (94 and 91 per cent agreement respectively). This indicates recognition of the importance of sound management practices, and also that academics appear willing to delegate the responsibility for the stewardship of human and physical resources to trusted, ideally locally based, professional staff. This is significant because it suggests that there is genuine potential for complementary aims, values and practices to align the two groups of staff rather than divide them. However less positive is the fact that the same statements in relation to centrally located professional staff only met with 35 and 38 per cent agreement respectively.

On the theme of managerialism, most (88 per cent) respondents disagreed with the statement ‘Professional staff in my department represent a culture of “managerialism” that is incompatible with university culture of academic independence and freedom.’

There was also clear disagreement (74 per cent) with the statement ‘Professional staff in my department increase the amount of day-to-day bureaucracy and red tape faced by academic staff’. When these questions were asked in relation to professional staff in central work units, the response was less favourable with 41 per cent of respondents actually agreeing with both these statements on managerialism. When combined with over one third of academics who gave a neutral response to these questions, less than a quarter of respondents disagreed with the two assertions that central professional staff are representative of managerialism. Thus the difference between local and central staff is very stark for this theme.

Similarly polarising was the response to the question ‘My overall workload is lower because of professional staff in my department’ versus the same question regarding professional staff in central units. Twice as many academics agreed with the statement at the local level compared to staff in central units (88 per cent and 44 per cent respectively).

The academics who responded to this survey generally agreed that paying professional staff salaries is money well spent. A strong majority (82 per cent) disagreed with the statement ‘I believe automated, self service, web –based administrative systems are viable and cost-effective alternatives for employing professional staff in my department’. Disagreement with this statement drops to 59 per cent in relation to centrally located professional staff.

Survey results in response to questions about the third space concept were somewhat spread and therefore inconclusive apart from 71 per cent agreement with the statement ‘My teaching, research and outreach performance is enhanced as a result of direct contributions from professional staff in my department’. In face-to-face interviews, participants had difficulty in proffering examples they’d seen of *third space* work, but with prompting recognised that the lines between professional and academic staff are blurred in some instances.

DISCUSSION

The findings of this study suggest that there is considerable good will felt by academics towards professional staff as well as recognition among academics of the importance of the work of professional staff. The response to this, both by professional staff at all levels of seniority as well as from those staff in positions of leadership and influence ought to be to find ways to capitalise on this complementarity and to critique the trope of a wide divide between professional and academic staff. These findings also raise a challenge to those in universities tasked with setting and implementing professional and career development agendas. Working in a university is not the same as showing up to a job in a bank or an insurance company. We inherit and carry centuries of tradition and we contribute to a better and fairer society via the power of tertiary education and the advancement of human knowledge via research – ‘we’ being not only academic staff but professional staff also. A culture of professional excellence among professional staff in universities can only be fully realised when active, two-way engagement between professional staff and their institutions is enabled by leadership and policy that support professional staff.

Within a professional development landscape largely bereft of clear and effective institutional strategies to engage professional staff and systematically build their careers, this paper proposes three resolutions for professional staff by which they may excel and engage as full citizens of their institutions and to raise the profile of the profession.

Be known

The starkest finding from this research is the difference of opinion academics hold between local and central professional staff. This study shows that while 94 per cent of academics agree that local professional staff show an understanding of their work, priorities and pressures, only 35 per cent believe this is true of professional staff in central units. One of the ramifications predicted by this study's findings therefore is a disenfranchisement between academic and professional staff when the relationship is predicated on a distant service-provision model rather than a collegiate one.

The reasons put forward for centralising administrative services in universities are generally financial ones couched in language of efficiency gains, standardisation of processes and eradicating duplication of functions across the institution. In line with responsible management of diminishing resources it is beholden on universities to operate efficiently and identify where there is unnecessary duplication or misallocation of resources. However, centralisation of professional staff without a strategy for maintaining personal relationships, collegiality and a mutual understanding of each other's complementary agendas (Sharrock, 2012) may have unintended consequences such as an erosion of trust and respect. In order to circumvent this, strategies ought to be implemented that maintain strong links between individual professional staff in central units and academics (and professionals) who work in schools and faculties.

Suggestions as to how this may be achieved include:

- having a dedicated person or small team that staff in a particular school or department routinely deal with, rather than the 'black hole' of a generic helpdesk email address;
- scheduling face-to-face meetings and desk-side support rather than conducting business primarily by email;
- centrally based staff doing regular 'rounds' of the schools they are assigned to; and
- a change in workplace culture away from staff being tied to a desktop computer, and instead 'hot desking' with a laptop or tablet at set times each week in the schools and departments within their portfolio in order to establish and nurture strong working relationships.

Managers of central units also carry a responsibility to ensure their staff have a more than superficial understanding of the academy. Future research in this area may examine theories of organisational culture and means by which business driven demands – which borrow heavily from the corporate world and/or new public management (Pick, Teo, & Yeung, 2012) – may coexist with the prevailing culture of universities such that academic staff see all professional staff as colleagues and collaborators working together towards excellence. Evidence from this study suggests this is already often the case at that local level where professional staff are known. Thus knowledge is key and breaking down anonymity is a necessary step towards building a

truly collaborative and cooperative culture.

Be bold

Professional staff may have a tendency to underestimate their level of experience and the value of their ideas and contributions based on a perceived assumption of inferiority within the institution.

In 2015 at UNSW an idea germinated to invite the newly appointed vice chancellor to address the professional staff body to speak about their place in the university's emerging strategic plan. 'There's no harm in asking. The worst he can do is say no' was the approach taken. The extremely positive outcome from this bold invitation was a strong engagement by the VC in the event and a stated endorsement of the contributions of professional staff to the development of the university's 2015-2025 strategic plan. Via the university leadership's consultative strategic planning exercises, professional staff have been empowered to have a voice. Via a number of professional staff taking the initiative to offer contributions to the emerging strategy, the university's senior leaders have heard first-hand the ideas and skills that professional staff are able to bring directly to the institution in its realisation of an ambitious set of strategies.

Another example of professional staff boldness is recognising where their strengths lie and being proactive in volunteering to share expertise in a way that complements the skills of others in the organisation. For instance a school manager with formal management qualifications and many years of experience leading teams may be the ideal facilitator for a team-building session with academic staff in their school due to an already well established rapport and respect which a hired facilitator may not be able to achieve in a short space of time. Where the manager has already been successful in being known and developing trust and respect, displaying boldness in volunteering to share their knowledge with academic colleagues may be a step outside of a comfort zone, but could also pay off by further increasing their estimation in the eyes of academic colleagues.

University human resources departments also ought to be bold in considering their approach to training and development of professional staff. At present, often the only training opportunities available to staff are ad-hoc, generic, skills based workshops rather than coordinated programs specific to professionals in the higher education sector. Professional associations could also be bold and ambitious in developing sector-wide accreditation programs or competency frameworks and persuading the sector to recognise their value.

Be cooperative

Here, the second of Sharrock's *Two Hippocratic Oaths for higher education* (2010, p.374) is pertinent:

To the best of my ability I will build my enterprise's capacity to support academic projects, by strengthening its resources, relationships and reputation, guided by the statements that define its public mission.

At the heart of cooperativeness is an understanding of, and respect for, the academic endeavour and institutional strategic aims. These are the *raison d'être* of the university. This study's findings show that academics strongly agreed with the statement that local

professional staff display an understanding of their work and are largely seen as allies in the pursuit of departmental goals. Results also show that academics see professional staff as relieving them from administrative burdens, as opposed to adding to those overheads. This points to a symbiotic working relationship based on a foundation of respect and cooperation. Indeed, symbiosis is a helpful metaphor from nature to view the academic/professional working relationship. Symbiosis is a relationship where two organisms rely on each other to thrive. This is in contrast to tropes that suggest that professional staff are little more than parasites strangling or sucking the life out of our institutions. When the working relationship is viewed from this perspective, it enables professional staff to articulate to themselves and their academic colleagues the importance of their work and to identify the very tangible benefits of their endeavour for advancing core academic priorities of teaching and research. This however may mean a philosophical shift for some professional staff who see their role as disciplinarians trying to bring academics into line like errant children.

However, as discussed elsewhere in this paper, institutions face a challenge in addressing the working relationship between centralised units and schools and faculties. Prior to embarking on institutional re-structures that centralise large numbers of professional staff, universities would do well to consider the strategic implications of the breakdown of the symbiotic relationships and trust between academics and departmental professional staff. This paper doesn't seek to take an ideological stance on the broad benefits or detriments of shared services models, however it does make the case that managers of central units need to balance increasingly business-driven KPIs and service indicators on the one hand against academic culture and flexibility on the other. The contemporary university risks losing its competitive advantage if the balance between these two agendas becomes weighted too heavily one way or the other. Technology and enterprise systems can also run the risk of becoming a cart in front of the horse; while they may streamline central office functions, a not uncommon flipside is to push greater levels of administrative work (and confusion) on to academics, thus breeding discontent that could be directed to 'administration' generally. Therefore it's critical that there be extensive dialogue to understand the needs and expectations of academics such that systems are people-oriented rather than purely process driven. Central managers ought to have at the forefront of their minds to cultivate a working relationship that is characterised as being between colleagues and collaborators rather than more distant 'clients' and 'service providers'. To achieve this we come full-circle back to being known.

CONCLUSION

This study has shown that the prevailing attitude of academic staff towards professional staff is positive. This is tempered however by the disconnection between attitudes towards those at the departmental level versus those in central administrative units. One can surmise from these findings that proactively cultivating relationships between academic and professional staff is a key to enhancing understanding, collaboration and positivity in the working relationship. This paper recommends three resolutions as means for professional staff to capitalise on the existing strengths of the academic-professional working relationship: be known; be bold; be cooperative.

Critical to success however is the need for meaningful support from academic staff and

as well as clear staff and career development strategy from institutional leaders and senior staff who are able to influence organisational culture. Further research in this field should seek to work with a larger and more diverse, statistically significant population of academic staff to determine whether the cautiously optimistic findings of this study are supported more broadly. Future studies should also examine further the direct and indirect implications on academics' working lives of centralising professional staff roles and personnel. Finally it would be valuable to examine the various strategies universities across the sector have developed for enhancing the performance, career aspirations and engagement of their professional staff as part of their institutional strategic plans. In an environment as dynamic and challenging as the one our universities now occupy, institutions can't afford *not* to be proactive in determining the shape of their future professional staff workforces and the skills those staff require in order to be true symbiotic partners of the academy.

BIOGRAPHICAL NOTE

Stephen Gray has worked at UNSW since 2006. In 2011 he became the Manager of the Australian Research Council Centre of Excellence for Climate System Science. Stephen graduated from the University of Melbourne with a Master of Tertiary Education Management in 2014.

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DEVELOPING LEADERSHIP THROUGH MINDFULNESS: EXAMINING LINKS BETWEEN MINDFULNESS AND MANAGEMENT IN THE AUSTRALASIAN TERTIARY EDUCATION SECTOR

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ABSTRACT

This article presents the findings of an exploratory qualitative study that examined the development of leadership skill through practice mindfulness in the tertiary education sector. This research was conducted by way of semi-structured interviews with persons holding leadership and management positions across the sector. Participants were asked to describe the changes their leadership had taken and any effects this had had for personnel reporting to them. This paper proposes a new conceptual model for understanding how mindfulness may support the development of leadership practice. The results suggest that three key attributes of leadership may increase through the development of a mindfulness practice resulting in greater displays of authenticity, increased levels of resilience in times of turbulence and improved task performance.

KEY WORDS

leadership, mindfulness, development

INTRODUCTION

Examples of restructuring and staff changes are evident through news reports and media releases such as 'Restructuring affecting 500 workers' (TEU, 2012). The downsizing of work units within the tertiary environment is an ongoing practice that has affected many universities, TAFE's and polytechnics in both Australia and New Zealand. For ongoing success to be achieved in such changeable environments the ability to demonstrate flexibility, adaptability and be able to respond creatively to the conditions which leaders operate within is needed.

The tertiary education sector differs when compared to commercial sectors such as manufacturing or sales in that a diverse range of academic and operational areas are covered. Tertiary Education Organisations (TEO's) strive to achieve success in learner outcomes along with academic and research excellence. Leadership practice within

education brings with it the pressure to succeed, achieve targets, goals and objectives and achieve excellence.

Mindfulness has been suggested to be a tool that may positively assist in developing leadership practice. It has been found within the school sector that educational leaders who practised mindfulness displayed greater levels of leadership ability (Kearney et al., 2013). Specific areas of skill development have been identified previously as being an increase in positive psychological effects including increases in hope, optimism and confidence (Luthans & Avolio, 2003, Boyatzis & McKee, 2005).

METHOD

Given that little is known about mindfulness as it relates to leadership in the tertiary education sector a qualitative approach was deemed to be the best method of study. Cavana, Delahaye and Sekaran (2001) state that exploratory studies are undertaken when there are no clear methods for resolving the problem from past studies. Eisenhardt & Graebner (2007) attest that inductive research complements deductive studies in that they provide theory which can go on and be tested in an empirical manner.

PURPOSE

Three research goals were set out for this study – the first was to understand the effects and changes mindfulness creates within leadership and management positions in the tertiary education sector. The second goal, to provide accounts of participant's experiences of mindfulness as it related to their leadership skill development. And the third to develop a conceptual framework to display the changes mindfulness has upon leadership development in the sector.

The key research questions were

- How does mindfulness enable a person to lead and manage their team credibly?
- How do leaders engage mindfulness to overcome the stresses of crisis and change within the tertiary sector?
- How does mindfulness enable optimal performance to occur within the tertiary sector and what impacts does this have?

The purpose of the study was not to prove or test a hypothesis but to gather data relating to the experiences of the participants. Participants provided accounts of their experiences which were analysed in a thematic way (Eisenhardt & Graebner, 2007). An emphasis was placed upon presenting accurate descriptions in such a way that others could immediately recognise the phenomenon through the description (Krefting, 1991). The sample comprised nine leaders who practise mindfulness. Three criteria for participation were set out, being –

1. Participants were actively engaged in a recognised mindful practice for a period of no less than 6 months e.g. meditation, reflective practice, spiritual practice;
2. Participants were presently employed in recognised positions of management within a tertiary education;
3. Participants had direct line management responsibilities for at least 2 persons.

Organisational size ranged in size from four employees through to three thousand employees. The organisations studied represented a cross section of the tertiary organisation sector including Universities (2), Polytechnics and Institutes of Technology (2) and Private Training Establishments (5). All participants self-selected and volunteered for the study.

Each participant was interviewed in a semi structured manner for 45 to 60 minutes. A standard set of interview questions was developed with three distinct sets of questions designed understand participant’s experiences. A majority of participants were geographically distant from the researcher therefore electronic interviews were conducted.

The data consisted of nine hours of audio recordings which were all transcribed solely by the researcher. The analysis of the data loosely followed a grounded theory approach by way of the stages of analysis. There were three main stages to the coding and analysis of data following this process –

1. Open coding. The transcripts were read and the text examined in detail with a focus on words, phrases and sentences. The words examined formed the basis for the codes and categories. These were in turn identified with short descriptive sentences.
2. Axial coding. Using the analytical software, Dedoose, major themes were identified as a result of the open coding. Categories were developed through the constant analysis of the major themes and the ongoing return to the literature.
3. Selective coding. Following on from the axial coding selective coding ensued. During this process themes and categories were referenced against each other. As a part of this process the researcher sought to fill the gaps within

Details of the nine participants, with their pseudonyms, are included in Table 1, to provide individual contexts.

Table 1. Participants and their contexts

	Pseudonym	Gender	Organisation	Position Held
Participant #1	Alex	Female	PTE*	General Manager
Participant #2	Jessie	Female	Polytechnic	Team Leader
Participant #3	Karyn	Female	University	Team Leader
Participant #4	Leyla	Female	PTE*	Team Leader
Participant #5	Rachel	Female	PTE*	Director / Owner / Operational Manager
Participant #6	Kerry	Female	Polytechnic	Team Leader
Participant #7	Wendy	Female	PTE*	Team Leader
Participant #8	Cam	Male	University	Team Leader
Participant #9	David	Male	PTE*	Director / Owner / Operational Manager

Results

From the data three definitive skills of leadership emerged were described through participant's experiences. The three attributes were – growth in authenticity, increased ability to achieve flow and an increase in demonstrated resilience.

Authenticity

Authenticity was the first theme to emerge in relation to mindfulness. The participants spoke about three particular areas of identified change and personal growth. The three major emerging themes were an increase in compassion, greater self-identity and new depth of interpersonal communication.

Compassion

Increases in self-compassion were a dominant theme emerging from participant's experiences. They described compassion as being how they understood the needs of others and the ways that concern was expressed. Compassion was firstly an inward change which then overflowed into outward expression being a greater display of authenticity towards others. The development of compassion towards others started through firstly having compassion for self.

Accepting one's strengths and being aware of failings was a key understanding one participant mentioned 'I had to accept myself for my failings and be compassionate with myself. That's one of the biggest things mindfulness has helped me with. When I am being mindful I find it a lot easier to repeat or repair than to make things right when I am being mean to myself' (Leyla)

Flowing on from an increase in self-compassion was an increase in the display of understanding and compassion for others.

'I think that mindfulness and the practice of mindfulness enables us to practise not only better leadership in terms of getting good outcomes but also compassion - compassion for others, compassion for those people who we are trying to work with or deliver for but also for ourselves' (Cam)

These findings affirm those of Kernochan, McCormick and White (2007, p. 70) who suggest that mindfulness can also lead to a growth in the expression of compassion as people develop the ability to calmly focus their attention and therefore better understand the needs of others.

Identity

The second quality of authenticity emerging from mindfulness was an increased ability to display the authentic self while leading in the workplace. Some participants spoke openly of having different selves which they displayed within the workplace and out of the formal workplace. Formal business training had for one participant led her to believe that she needed to operate with two different selves

'I was quite entrenched in the whole management philosophy of you've got to be the leader, you've got to be separate from your staff, you can't be personal with them and I always felt that I wasn't authentic with them' (Alex)

The development of authenticity through mindfulness enabled participants to recognise

when they acting as their true self which created a number positive of changes in how interactions with staff changed for the leader and the organisation as a whole. When participants began to lead through their authentic selves the resulting changes were noted as being more open and communicative workplaces, less tension and fear between leaders and employees and increases in accountability and co-operation.

Being able to switch position from the leader to the learner was another key area of development that emerged from leadership confidence. Participants spoke of maintaining their delegated authority and exercising that while at the same time being able to position them in such a way as to be learners and further develop their knowledge from others. The authentic self recognised others contributions in solutions finding and allowed a greater ability absorb the lessons and insights of others. The resulting outcome of change described by participants was the reciprocation of authentic behaviour by their employees in the workplace.

Meaningful Interaction

Another identified significant change that occurred was the participants describing themselves as being more engaged team players rather than stand-alone managers. Cam recognised that his style was to operate as an individual and authenticity enabled him to adjust his behaviour to become a functional team member 'I think that I am better in my team work when I am being mindful, I think I am much less driven by my own agenda'

Through the development of the authentic self the way participants approached conflict situations changed in that participants described feeling more empowered and confident in their ability to deal with conflict. The increased ability to manage feelings of anxiety that had previously overwhelmed some leaders in conflict situations was one specific change. Karyn described how she had previously struggled with being able to let go of the emotional residue of conflict. A conflict could stay with her emotionally for days after the event. Mindfulness as a tool enabled her to not harbour resentment or guilt in regards to confrontation situations.

For other leaders fear and avoidance of conflict was not an issue. One participant described herself as having a penchant for winning every argument or being purposefully stubborn in admitting she was wrong which were changed through mindfulness. Her developed leadership style was described as being 'more relaxed and in a peaceful state when I'm at work rather than having to always be right, having to have it my way. It doesn't mean giving in. It means that when I'm not right I can let go much more easily and I don't dwell on it for the next three days' (Karyn)

Participant's experiences reinforce the finding that 'follower's perceptions and trust in the leader are based largely on the leader's actions, these actions must be aligned with espoused values to convince followers of the leader's integrity' (Gardner, Avolio, Luthans, May & Walumba, 2005). It has also been found that employees will reciprocate the types of behaviour that an organisation is displaying towards them and will reciprocate accordingly both positively and negatively (Alok and Israel, 2012). Therefore it is suggested that any expected improvement in the behaviours employees is reliant upon the leader first actively displaying those attributes.

Resilience

The third theme emerging from participants experiences was that of resilience. Participants described shared a broad understanding of the term resilience but applied the term individually in very different ways. Some persons were unable to describe an exact situation where they felt they had exhibited resilience, however during the course of the interview a number of situations in which they had demonstrated the characteristics of resilience as per the definition stated were described. The definition 'resilience implies toughness, persistence and constructive perception of events which help individuals withstand the negative consequences of events and recover with optimism and buoyancy' (Kantur and Iseri-Say, 2012) was used to frame participants responses.

Perspective

How participants viewed turbulent situations (perspective) was a key determinant to their feelings and resulting reactions. Working through unexpected change and turbulence was a prevalent factor for all participants. The ability to be in the present moment had the effect of giving clarity of mind and a deeper understanding of what has affecting participants directly and others more broadly.

'The biggest benefit to me is that I'm much better at rolling with the punches now and I don't think I'm looking back at the past and thinking about whether I do things better or worse; I don't look into the future and wonder what does this all mean? I'm really just thinking about this point in time and this is where I am at' (Karyn)

Through engaging in mindfulness exercises participants learnt how to change their perspective of events resulting in the choosing of reactions in better ways than they may have previously.

Decentring

Processing was described as examination of thoughts occurring and choosing the correct reaction to them. Both cognitive and contemplative mindfulness practitioners undertook similar ways to process thoughts resulting from negative situations. Unclutching enabled Jessie to perceive more constructively the various situations she found herself in and helped her act upon them. The emotion of each thought was felt and experienced in a very real way by her but at the same time Jessie understood that the emotion associated with that thought was in that moment only. Jessie's exercise of unclutching from her thoughts was a practical demonstration of her resilience.

'I have learned a lot through meditation about the process of unclutching. When something happens and it's in our mind and our thoughts then I know I have to run around, unclutch and come back to the present moment' (Jessie)

This new understanding gave Jessie the ability to deal with her thoughts and in turn develop the trait of resilience. Unclutching did not infer that the bubbles of thoughts were popped but when finished with they were released to travel through to completion.

Positivity

The third aspect of resilience which interviewee's attested to was as increase in

positivity and optimism when faced with change situations. Through changing their perspective of a situation and unclutching any feelings and emotions associated with the situation the resulting outcome was an increased ability to be positive.

The experiences of the participants demonstrate that mindfulness may increase levels of resilience for individuals. The key qualities of being able to step back (perspective), let go of emotional aspects (process) and see possibilities of the future (positivity) are skills every leader within the tertiary education sector may benefit from learning.

Task Performance

The second leadership attribute that emerged was demonstrated improvements in task performance.

Flow

Flow is understood to be a felt experience where a person becomes so completely engaged in a task that the concept of time disappears and the task at hand appears to be effortless (Csikszentmihalyi, 1989). Participants described noticeable increases in their abilities to – use creativity for problem solving and a greater ability to focus on a single task at hand – resulting from developing mindfulness. Both of these were reliant upon a physical working environment they conducive to management of external distractions.

A number of participants described in great detail their felt experiences of achieving flow and quality gains. Their experiences started and finished erratically and without any regularity or pattern but were more likely to occur when environmental conditions were able to be controlled.

Focus

Participants self-identified having two distinct approaches to problem solving. Participants who predominantly engaged in approach #1 described having an ability to use sustained focus when problem solving. Mindfulness for this group enabled them to be more incorporating of others and their ideas. The remaining participants spoke of having a less intense focus when problem solving and attributed greater abilities to focus resulting mindful practice development.

Focused problem solvers spoke of mindfulness as assisting them in recognising and understanding their penchant to become embroiled within particular tasks. They described being wholly focused on a task, sometimes at the risk of being too focused, and described mindfulness as enabling them to be able to change perspective and zoom out from the task.

‘What I need to work on is taking in a wider set of information including how I’m feeling so for me it’s actually the opposite of a focus’(Cam)

The other participants described taking a broader problem solving approach and believed that mindfulness enabled them to develop greater focus to solve the task at hand which may affirm the experience of flow. Wendy described her experience of a flow state as feeling and utterly completely engaged with a task. Being in the moment and completely aware of what occurred around them created performance gains for Wendy. She described purposefulness in her approach and understanding of mindfulness.

‘I think there are a lot of performance gains that can come from presence. Just knowing that you’re breathing in an optimal way can create improvement; it’s that intentional way to practise. Being mindful is being conscious of whether or not you are intentionally practising then I think there’s huge gains that can come from that’ (Wendy)

Control

The controlling of the physical work environment of participants greatly influenced their ability to achieve optimal task performance. Through creating and managing the physical work spaces, including shutting out disruptions and managing other variables, were identified as key elements for optimisation to occur. Where participants could control these factors participants described very rich experiences of work performance. The creation of a specific workspace facilitated great improvements for one participant and her team. Her passionate description of the space was described as follows -

‘It was both the physical space and the dynamic of the people within that space. And it was the feeling that people got when they came into that space - it was a combination of those factors. I worked hard to create that kind of space’ (Kerry)

These experiences align with previous research suggesting that flow is a psychological state that is found to occur during optimal human experience and that they have feel as if they 'a sense of control over what they are doing and a merging of action and awareness, in which they report feeling as one with their movements' (Wright, Sadlo, & Stew, 2007, p.136).

DISCUSSION

The purpose of the study was to gain an understanding of what influence mindfulness may have upon development of leadership skill for persons leading in the tertiary education sector. The dominant themes that emerged from the data suggest that mindfulness may create significant positive changes for leadership practice. As Sigglekow (2007) suggests a conceptual framework seeks to describe the relationship between each attribute in a way that is analogous and applicable. What’s more the development of a conceptual model illustrates the phenomenon in a way that people can better imagine how the effects of mindfulness can be applied in real life settings (Sigglekow, 2007).

The emerging results suggest that links exist between each of the attributes. Each attribute is embedded to a degree within the attribute prior creating clear linkages between authenticity, resilience and productive in leadership skill development. Leadership skill development was outwardly displayed through interactions between leaders and their reports. From the participant’s experiences it was demonstrated that greater depths of relationship can be gained through development of the key traits discussed.

The key findings themes of this study have been categorised into attributes and the qualities underpinning each which are displayed in the conceptual framework below (table 2).

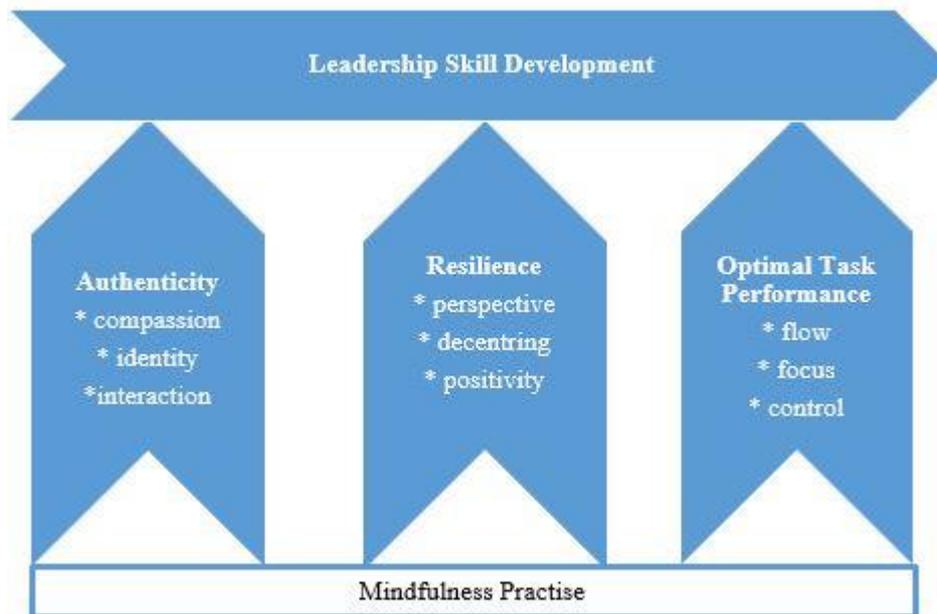


Table 2. The effects of mindfulness upon leadership skill development.

Authenticity

Increases in authenticity of leadership were described by participants as creating increases in - displays of compassion, confidence in self-identity and meaningful interaction with others. These results affirm the findings of Leroy, Anseel, Gardner and Sels (2012) in that authenticity occurs when leader has the ability to admit to an error, be sincere and honest with others and behaves in a way that is true to their personal beliefs.

Through mindfulness participants described being more purposeful in choosing to display their authentic self in the workplace. When not being mindful behaviours of inauthenticity such as reverting to the display of a false or fractured self occurred. Demonstrating authenticity through integrity and displaying the true self in the work environment created new depths of communication and honesty which previously may have not existed in their teams. Resulting from the development of authenticity workplaces were described as being more open, more honest and also more productive.

We posit that persons leading from a place of authenticity may be better able to recognise their strengths and weaknesses and behave accordingly while also displaying consistency between their words and deeds (Avolio and Gardner, 2005). Through deeper self-knowledge participants described being able to change their approach to others which at times meant switching to a learner position rather than the teacher.

Overall the results suggest that mindfulness has the ability to deepen the experience and display of authenticity by the leader which may extend to reciprocal changes in the behaviours of employees and team members. We suggest that through developing mindfulness managers and leaders may be able to achieve more optimistic and happier workplaces than those who do not.

Resilience

The attribute of resilience was found to be strengthened through mindfulness. Resilience was described by participants as being the ability to cope with and move on from stressful situations which they dealt with. A number of situations were described whereby resilience, consisting of optimism and hope, was demonstrated in positive and effective ways. Participants experiences align with Kantur and Iseri-Say's (2012) research which suggests that the demonstration of flexibility, adaptability and creative response to different conditions to be successful. This can occur at both an individual and organisational level.

Three distinctive qualities of resilience were in regards to its enactment and display in a leadership context. The first described quality was an increased ability to better see an issue and understand its context (perspective). Smyth (2012) states that the development of 'separation powers' is needed being that an individual creates an intellectual distance from a given situation allowing observation to occur. Participants described their being more able to calmly approach a potentially stressful situation which was found to have positive impacts upon their team members who modelled the same behaviours as their leader.

The second key result was in processing the thoughts and emotions relating to a situation. Participant's experiences suggest that mindful persons may be better able to positively manage their emotional behavioural patterns and responses. Developing the ability to choose how to respond to a situation using logic enabled participants to observe their thoughts and the corresponding emotions allowing them to choose mindful rather than mindless response. Prior to developing mindfulness participants described responding in automatic ways with their emotions often clouding or guiding their judgements. An interesting point noted was that participants were better able to recognise negative emotional reactions occurring in others and then coach and assist those people through to a more successful outcome.

Optimism was the third characteristic to be displayed as a result of resilience. Mindfulness had deepened the levels of resilience for participants assisting them to not be overwhelmed when facing uncertainty or external pressures.

Each of the three aspects of mindfulness was displayed most effectively through interactions with others. Dealing with interpersonal conflict was an area that participants identified as their being more able to deal constructively with when they were being mindful as opposed to being mindless. Mindfulness did not appear to participants an increased ability to communicate but did assist them to better deal with and manage conflict situations when they occurred.

The results of this study affirm that resilience as a tool can be developed through the cultivation of a mindfulness practice. Participant's levels of resilience were relatable across a broad range of employment settings which suggests that mindfulness could be a significant tool for developing leadership and management skills. The outcomes of this research are anticipated to be transferable across tertiary and education organisations worldwide. The findings could be different should a different theoretical framework be applied.

The implications of the findings are transferable across organisations of all sizes. The findings suggest that mindfulness may be able to create a new depth of management ability that other professional development programs may not be able to achieve.

Task Performance

We suggest that mindful leaders may have a greater awareness of and ability to achieve an optimal task performance state and understand the necessary conditions needed to do so.

Having the ability to control the physical work environment was found to be a key condition for flow to occur as distractions and interruptions were demonstrated to significantly affect a participant's ability to do so otherwise. In a controlled managed environment the ability to achieve a flow state increased with outputs potentially increasing in both quality and quantity.

Overall the results suggest that flow can be achieved by persons working within a tertiary education organisation. There are a number of conditions that need to be met for flow to occur, however through management and practise the ability to achieve this state is enhanced and increased.

CONCLUSION

Mindfulness as a tool for developing both the personal and professional self is becoming a widely discussed topic in modern business. Previous studies have mostly focused on changes occurring within an individual and have focused less on the dynamic nature of interpersonal relationships. From the data a conceptual framework has been developed as a way to try and pictorially display the changes mindfulness may enact and the resulting impact in leaders' and managers' practice. The findings of this study suggest that mindfulness may create significant changes within individual leadership practice and for relationships between leaders and their team members, potentially providing higher levels of engagement in the workplace resulting in an increase in quality of work produced.

This study was undertaken with a specific focus of understanding leadership and management practice and confirms and extends the area of research into management practice. The findings suggest that mindfulness can assist in increasing understanding of self, increased understanding of others and may result in positive changes for both the quality and quantity of interpersonal communication and work outputs.

The results of the study suggest that mindfulness can create significant changes both personally (internally) and interpersonally (externally) through relationships between managers and their team members. The findings suggest that levels of engagement at work and the quality of work produced improve as a result and that mindfulness can assist in development of self-knowledge, being more aligned with the wider environment which may result in positive changes in the quality and quantity of interpersonal communication and work outputs. Persons engaging in mindfulness may add greater value to their place of employment through their own personal development creating more effective managers and leaders.

BIOGRAPHICAL NOTES

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UNIVERSITY OF MELBOURNE'S ARTS WEST REDEVELOPMENT - A CASE STUDY IN VALUE-FOR-MONEY SUSTAINABILITY

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ABSTRACT

Green Star is an environmental rating tool that is used by many Universities to set minimum sustainability performance for their buildings. While the intentions of Green Star are admirable, many hold the view that Green Star does not always add value to a project, for example due to inappropriate design approaches and poorly implemented technology. Recognising this, for the Arts West Redevelopment at the University of Melbourne's Parkville Campus, the authors trialled a process that actively sought to make the design rationale transparent and achieve the 5 Star Green Star rating in a value for money manner. The paper finishes by reflecting on the extent to which the success of the approach used on this project was dependent on the specific project team and site, and whether it could also be successfully applied to a wider range of projects.

KEY WORDS

Green Star; sustainability; buildings; value for money

INTRODUCTION

Green Star is an environmental sustainability rating framework for buildings that is used by many universities to guide the design of facilities (e.g. Monash University, c2013; University of Melbourne, 2013; University of Tasmania, 2015). At the time of writing there are at least 57 tertiary education projects that have registered for or achieved Green Star ratings (GBCA, 2015).

While Green Star has provided a tremendous boost to the sustainability of the built environment over the past decade (GBCA, 2013a; GBCA, 2013b; GBCA, 2014), it has received criticism over the years from various stakeholders and commentators of having: limited industry impact, ineffective outcomes, perverse outcomes, excessive documentation requirements and inconsistent assessment (Owen, 2006; GBCA, 2007; GBCA, 2007a; GBCA, 2008; GBCA, 2013c; GBCA, 2013d; van der Heijden, 2014; Perinotto, 2014). The GBCA has recognised this and responded with a number of changes for the better (GBCA, 2011). However, this is only part of the solution. Design teams must shoulder some of the responsibility for the implementation of sustainability.

Healey (2014; 2015) describe one practitioner's ongoing action learning to improve the way that sustainability is incorporated into building projects. Methodologically, the action learning approach is characterised by cycles of planning, acting, observing and critically reflecting in real world settings in collaboration with stakeholders (Koshy, Koshy, & Waterman, 2011), making it well suited for use on building projects. It has the potential to simultaneously contribute to knowledge and practice, although because the learnings are situation and context specific, care needs to be taken in making generalisations (Koshy, Koshy, & Waterman, 2011).

Recently, the action learning approach was applied to the use of Green Star on the University of Melbourne's Arts West Redevelopment. The outcome of this action learning cycle is an approach to Green Star strategy and costing that has the potential to lead to more transparent, supported and effective sustainability decision-making than is typically the case.

The paper begins with an overview of Green Star, noting relevant aspects that affect project outcomes.

This is followed by a summary of the typical approaches taken by consultants to develop Green Star strategies and by Cost Consultants to estimate costs. These sections identify some of the issues with the typical approaches.

The paper then shifts focus to Arts West, starting with an overview of the project before detailing the Green Star strategy and costing approach that was used and how it responds to some of the issues noted with typical approaches.

Following the case study, we critically reflect and answer two key questions:

- 1) Was the approach an improvement on typical approaches?
- 2) Can the approach be applied to other projects?

OVERVIEW OF GREEN STAR

Green Star is an environmental rating system for buildings and community developments (GBCA, 2013e). It is used by many organizations, including universities, to set standards and demonstrate commitment to environmental performance.

Ratings are available for almost any building type and in the areas of design and construction of new buildings or major refurbishments, interiors, operations and maintenance, and communities. Star ratings are awarded in design and construction for Best Practice (4 Star), Australian Excellence (5 Star) and World Leadership (6 Star). Projects are awarded a rating based on a multi-criteria assessment of environmental performance in the areas of management, indoor environment quality, energy, water, transport, materials, land use and ecology, emissions and innovation. Each of these categories has a number of credits, points being awarded within each credit if set benchmarks are achieved.

The design initiatives and mix of credits used to achieve a rating are at the discretion of the project team, which in the best case enables the design and rating to be aligned to

all the project objectives, or in the worst case, to be biased towards the cheapest and easiest initiatives with limited regard for what is appropriate. This will be discussed further in subsequent sections.

SOME ISSUES WITH TYPICAL APPROACHES TO GREEN STAR COSTING AND STRATEGY

The first step in action research is planning. Healey (2014; 2015) developed ideas about ways that Ecologically Sustainable Design (ESD) could be better implemented on projects and saw an opportunity to test these ideas on the Arts West project. The following sub-sections provide background to help readers to understand some of the issues with typical approaches and the ideas for improvement that were tested.

Approaches to costing

There are three basic approaches to costing ESD initiatives in building projects:

- Percentage Allowance
- Included in the detail
- Detailed Costing

These are summarized in Table 1 along with their pros and cons.

Table 1 – Approaches to costing ESD initiatives

Approach	Potential Pros	Potential Cons
<i>Percentage Allowance</i> A percentage allowance is included as an extra over cost to the project, typically in the summary	<ul style="list-style-type: none"> • Can be applied when little to no information is known • The extra over cost for a particular Green Star range is clearly defined • Easily benchmarked against similar projects 	<ul style="list-style-type: none"> • The details of the individual points are not known, therefore reducing the ability to undertake a cost/benefit analysis • Does not take into a/c the particulars of the proposed project
<i>Included in the Detail</i> The cost of all the ESD initiatives are priced and included in the detail of the cost plan, but are not identified as costs beyond standard practice	<ul style="list-style-type: none"> • It is clear that all the items have been priced and included • Can reduce temptation for ESD cost cutting because the ESD specific costs are not separated out 	<ul style="list-style-type: none"> • Cannot identify the extra over cost of the ESD rating • Difficult and/or risky to apply when the Green Star Strategy hasn't been fully resolved • The costs of the individual points cf. to standard practice may not be known, reducing the ability to undertake a cost/benefit analysis
<i>Detailed Costing</i> The ESD initiatives are priced along with standard practice and the allowance is shown separately	<ul style="list-style-type: none"> • Clarity that everything has been priced and what that premium is • Potential to undertake a cost/benefit analysis 	<ul style="list-style-type: none"> • Difficult and/or risky to apply when the Green Star Strategy hasn't been resolved • Requires consensus regarding what is 'standard' practice vs a green premium. • Could require more work

Generally the cost consultant decides, at least initially, which approach or combination of approaches they will use for ESD costing at which stage of the project.

It is not uncommon for the cost plan during design to indicate that the project is over budget. The typical response is a process known as value management, which often struggles to transparently consider and reconcile value in all its forms across all aspects of the project. At this stage, the ESD / Green Star strategy, even if initially targeted to deliver greatest value to the owner/end-user, may be changed to a reduced-cost approach.

Approaches to developing a Green Star strategy

In our experience, there is not a standard method for developing a Green Star strategy across the industry. There are however some common characteristics worth noting:

- Cost is always a significant, and often the dominant, driver
- Other considerations may include technical complexity, risk, spatial requirements, compatibility with functional requirements and architectural intent, and innovation that will differentiate the development.
- The project location can sometimes provide easy points e.g. proximity to public transport.
- It is not uncommon for Green Star strategies to focus on the technologies to be implemented, rather than the outcomes that should be delivered during operation.
- It is common for strategies to be presented in terms of environmental impacts (like the Green Star framework is) rather than desirable outcomes (Healey, 2014).

One criticism that is significant for this paper is that Green Star doesn't necessarily lead to better outcomes in practice. In Healey's experience, this has historically been partly to do with the Green Star framework itself, specifically rigidity in assessment and in the past a bias towards technological solutions for higher ratings, combined with the design and construction industry climbing a steep learning curve (Healey, 2011).

Even if the project team initially develops an appropriate Green Star strategy, value management and / or Design & Construct procurement can dilute or override the original intent. It is not uncommon for example, for head contractors to commit to achieving the overall Green Star rating but reserve the right to change the mix of credits targeted. Some level of flexibility is not unreasonable, but in these situations there is a risk that the cheapest and/or most expedient initiatives becoming implemented, rather than those providing best value-for-money for the institution.

This issue is captured well by Monash University (2013), reflecting on their experiences with Green Star:

'The project groups using the Green Star framework often select categories that are the cheapest and easiest to implement to achieve the star ratings, rather than implementing design features that would benefit the University in the longer term. An example occurred with the third building where cogeneration was chosen over improvement to the façade.'

ARTS WEST ESD COSTING AND STRATEGY APPROACH

The second key step in action research is to put the plan into action – in this case to test the ideas for improvement on a real project. We'll start with an overview of the project, followed by some specifics about what we did.

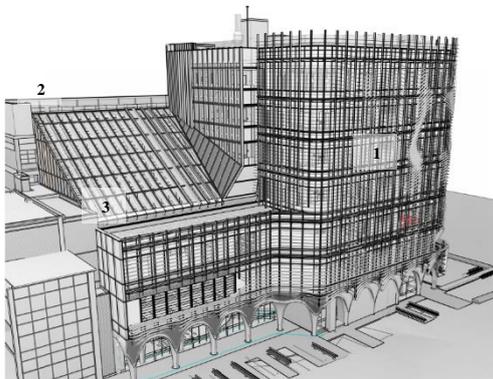
Overview of Arts West project

The Arts West Redevelopment is a \$66m project involving the demolition of an existing building located on the University of Melbourne Parkville Campus. The demolished building is being replaced with a new building consisting of a ground floor gallery, 5 levels of teaching spaces and an upper level of staff and researcher offices. Immediately to the south of the new building is a courtyard, called Professors Court, which will become a naturally ventilated atrium space. Some minor superficial refurbishment of a few floors of the adjacent 1990s building will occur at the same time. The new building will have an iconic shading system, as shown in Figure 1. The University's brief was for a 5 Star Green Star Design rating for the new building.



Existing buildings (Source: Apple Maps on iPad)

- (1) Building to be demolished
- (2) 1990s building for minor refurbishment
- (3) Professors Court



Proposed design (Source: ARM + Architectus)

- (1) New building
- (2) Refreshed 1990s building
- (3) Atrium over Professors Court



Proposed external view (Source: ARM + Architectus)



Proposed internal atrium view (Source: ARM + Architectus)

Figure 1 – Arts West Redevelopment images

Arts West Green Star strategy and costing approach

From the outset, Arup sought to address some of the issues associated with the typical approaches to the development of ESD strategies. Slattery were a supportive partner in this, and together led the project team through what was expected to be a better approach than typical, summarized in Table 2. The project team contributed in various ways as noted in the table, with the building services engineers, LCI, playing a crucial role with regards to cost estimates of building services items.

The key outcomes were:

- A Green Star strategy that was supported by the project team and University stakeholders, and which cost \$875,000 less than the typical ESD cost for a 5 Star project of this scale.
- Some credits were targeted because of their value to the University, even though they were more expensive than some others available (i.e. the process resulted in a different outcome than if a least-cost approach was taken).
- Feedback from the architect and external project manager that the process had run very smoothly.

Table 2 – Summary of the ESD value and costing approach used in the Arts West Redevelopment

(Final Green Star strategy agreed and approved by the University and project team.)

Project phase		Arup	Slattery	Other project team members
Concept design	1	Arup prepared an initial Green Star strategy which focused on credits that were technically and functionally appropriate. 73.5 points were taken forward at this stage, which is a 22.5% contingency on the 60 points required for a 5 star rating. Arup facilitated user group discussions to understand the University’s experience with Green Star buildings to date – what has worked / not worked.	Slattery included a percentage allowance in the budget because the Green Star strategy was not known. This defined a clear budget that would later be further tested and rationalized.	The University and design team members prepared the functional brief and concept designs.
Schematic design	2	Arup, Slattery and LCI (building services engineers) allocated cost estimating responsibility for each credit in the preliminary Green Star strategy. Each responsible party then estimated the cost beyond standard practice or brief requirement (i.e. what would occur in the absence of Green Star) for each credit.		
	3	Arup qualitatively estimated the non-environmental value of each credit in terms of enhancing core business, reducing cost, responsibility and reputation, and risk. Environmental value was taken as being measured by the Green Star points for each credit.		
	4	Arup combined the cost and value data to better understand the implications for the project and University of each credit. Refer to Figure 2, Figure 3 and Figure 4.		
	5	Arup made a recommendation about which credits to carry forward in the project and which to drop. 69 Points targeted at this stage (15% contingency)	Slattery reviewed the (positive) impact of no longer targeting the credits recommended by Arup. The rest of the project team and University stakeholders reviewed (or had the opportunity to review):	
Tender documents	7	Arup prepared a Green Star section for the D&C tender documents which gave an overview of the Green Star strategy and the role that value to the university played in developing it. It included a requirement that any changes proposed by the Contractor had to include a review of the impact on ‘value’.	<ul style="list-style-type: none"> • the implications of the credits being targeted • Arup’s estimates of value for each credit 	PM / University included Green Star section in Contract preliminaries.

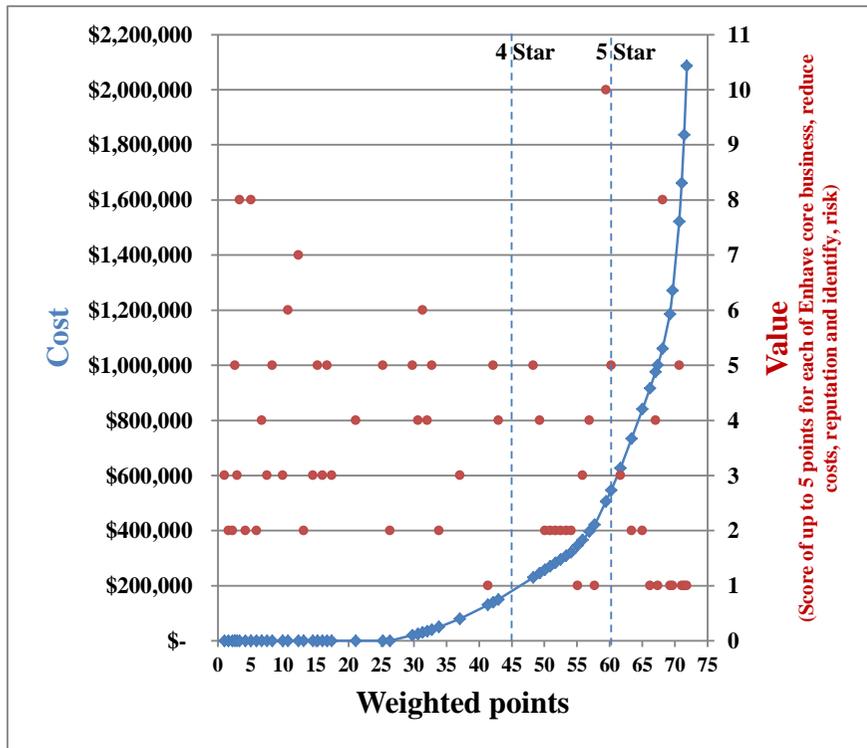


Figure 2 – Green Star points ordered cheapest to most expensive

The chart shows the exponential increase in cost to achieve higher total points.

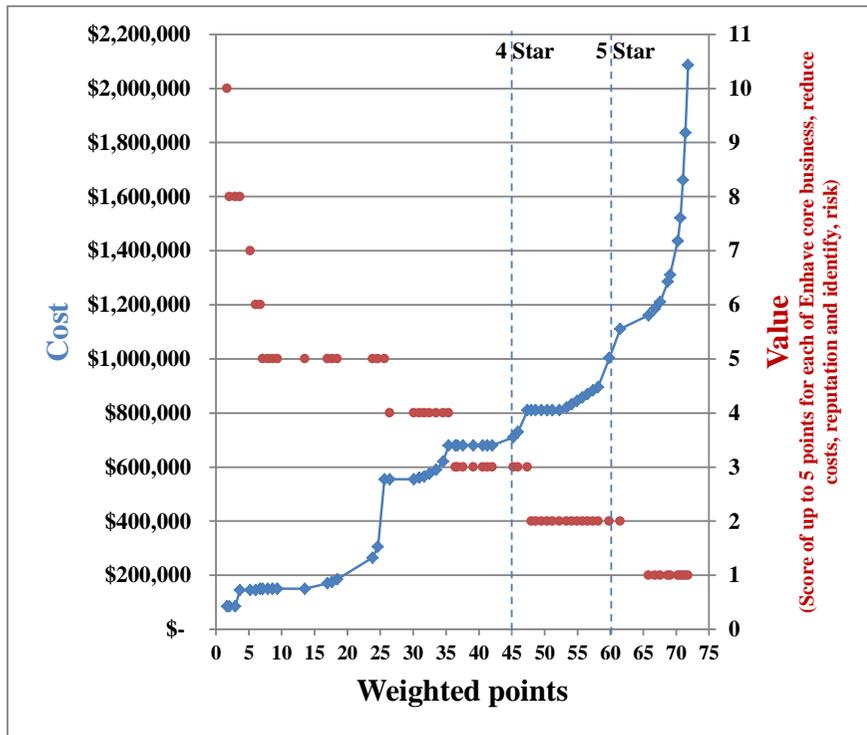


Figure 3-Green Star points ordered highest value to lowest value

Value was estimated by awarding each credit a score of up to 5 against categories of: enhance core business, reduce costs, reputation and identity, and risk.

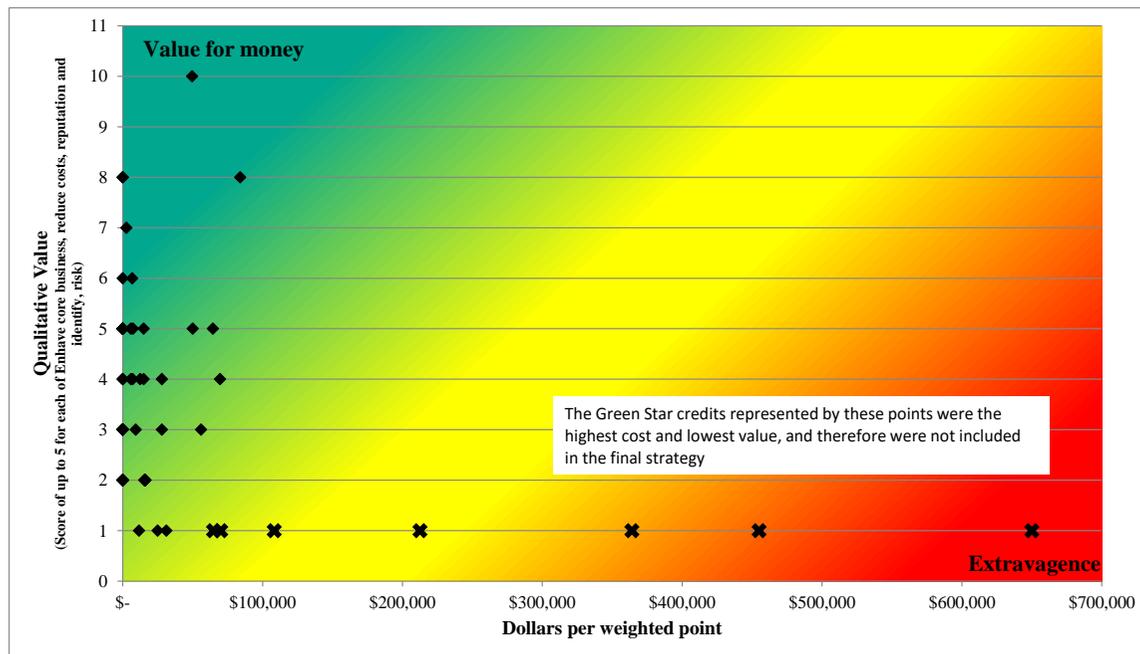


Figure 4 – Dollars vs value map for Green Star credits

CRITICAL REFLECTION

The final key steps in an action research cycle is to observe and critically reflect (Koshy, Koshy, & Waterman, 2011). As noted at the start, the two fundamental questions are whether the approach used is better than typical approaches and whether it is applicable on other future project.

Table 3 responds to these questions.

Table 3 – Assessment of Arts West Green Star approach compared to typical approaches

Issue and assessment	Explanation and evidence	Potential for other projects
Fostering stakeholder support by connecting ESD strategy to value in a transparent way	<p>Key project stakeholders participated in the process and ultimately supported the resulting ESD strategy as evidenced by sign-off of the strategy by the University’s project manager, faculty representative and sustainability manager; conflict-free implementation of the strategy by the design team, and positive feedback from the architect and external project manager comparing their experiences of Green Star on this project compared to other projects that they have worked on.</p> <p>✓ The approach did not engage as effectively as it could have with some University stakeholders who hold strong environmental values. For example, the approach doesn’t explicitly distinguish between environmental outcomes beyond the weightings that have been applied within Green Star.</p> <p>It allowed transparent discussion between university stakeholders regarding which credits should be targeted and why. This was particularly useful in relation to materials credits, where some University stakeholders felt that it was part of the University’s responsibility to influence the environmental performance of supply chains, whereas others didn’t.</p>	<p>The approach has potential, particularly for owner-occupier buildings, and is already being used on other projects.</p> <p>In a speculative office or apartment building, the end users are often not known, so the estimation of value has to be informed by generic studies and experience of sales and leasing agents.</p> <p>Users of the approach need to be mindful of not losing support or confidence of the more environmentally passionate stakeholders.</p>
Resulted in a different outcome than a least-(capital) cost approach	<p>✓ Figure 2 shows that simply dropping the credits with the highest cost per weighted point would potentially result in a lower value outcome for the University. This is because high value credits such as Man-3 Building Tuning and Ene-2 Energy Sub-metering would be dropped.</p>	<p>Some clients just want the cheapest outcome to meet an externally imposed requirement (e.g. from town planning) and may not buy in to the approach,</p>
Cost of ESD	<p>✓ or ? The functional brief and design team views on standard practice affects what is counted as an extra ESD cost. For this project, the extensive shading system was driven primarily by the architectural intent rather than ESD outcomes, meaning that it wasn’t costed as ‘extra’. If the cost of the shading was allocated to the ESD, then the overall ESD cost would have been almost 50% greater than the ESD budget.</p>	<p>Project teams need to be mindful when defining what is a base requirement for the project (e.g. functional requirement, University standard, or industry standard practice) and what is an ESD ‘extra’.</p>
Time and effort required by key stakeholders	<p>✓ Arup initially estimated the value of each credit in isolation from the University and project team. To be successful, the Green Star strategy needs support of the University and the project team, meaning that all stakeholders need to</p>	<p>The approach requires time and support from relevant consultants and client representatives so</p>

Issue and assessment		Explanation and evidence	Potential for other projects
		generally agree on the relative value of each Green Star credit. The costing approach did not seem to place a burden on either Slattery or LCI.	should be programmed in to the project as a distinct activity.
Resilience to 'value management' processes	?	<p>The approach was somewhat untested in a whole-project 'value management' process because the ESD initiatives came back below the initial allowance.</p> <p>There was a question in the minds of some University stakeholders that rather than release money from the ESD allowance to the rest of the project, that this money should have been spent on additional ESD initiatives i.e. getting more ESD value than the briefed requirement for the allocation, rather than viewing the brief requirement as all that was required.</p>	This style of approach should help during value management by highlighting non-environmental value to stakeholders. Whether it is successful or not will depend on how well stakeholders compare different types of value.
Resilience to contractor changes	?	The resilience to contractor changes was untested. The contractor, Kane, was engaged at 90% design and accepted the tendered Green Star strategy without changes.	To be explored on future projects.

CONCLUSIONS

Green Star is an environmental rating framework used by many Universities to guide the design of their facilities. Historically, the outcomes on Green Star rated projects have not always lived up to the expectations. Through action learning, we can improve the way that Green Star is implemented. The approach used in the Arts West Redevelopment shows promise for use on some types of other projects. Opportunities to learn further will be explored on future projects, particularly to understand whether the approach gives the Green Star strategy resilience during value management and D&C procurement processes.

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Client	University of Melbourne
Project Manager	Aurecon
Architect	ARM + Architectus
Cost Consultant	Slattery
Building Services	LCI
Structures and Civil	Irwin Consult
Facades	Inhabit Group
ESD Consultant	Arup
Audio Visual	Umow Lai
Acoustics and Fire Engineering	AECOM
Building Surveyor	McKenzie Group

BIOGRAPHICAL NOTES

Dr Gerard Healey is the Southern Buildings ESD Leader at design firm Arup. He is a Green Star Accredited Professional, has a degree in mechanical engineering and PhD in strategies to implement sustainable technology.

Tom Dean has been a cost planner at Slattery for over 7 years and is the Cost Planner on Arts West and other University of Melbourne projects.

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THE CONTESTED LANDSCAPE OF STRATEGIC PLANNING IN AUSTRALIAN UNIVERSITIES FROM THREE PERSPECTIVES: PARTICIPANT OBSERVER, ACADEMIC LEADER AND VICE-CHANCELLOR

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The introduction of strategic planning as a consequence of the Dawkins Reforms had a significant impact on Australian universities. This paper presents data collected during a recent study investigating leadership and strategic planning in Australian universities that illustrate three academic responses to the implementation of strategic planning: the Participant Observers who were not actively involved in strategic planning at the executive level; the Academic Leaders, who led strategic planning within their executive areas of responsibility; and the Vice-Chancellors who led the implementation of strategic planning in their employer universities. The findings reveal the organisational complexity that resulted from the shift to strategic rather than academic planning in the post-Dawkins era and provide first-hand insights into an area of contested leadership practice within Australian universities.

KEYWORDS

leadership, strategic planning, Australian universities.

INTRODUCTION

Strategic planning was formally introduced to Australian universities as part of the tertiary education reform reforms enacted by the Commonwealth Minister for Education, Employment and Training, John Dawkins, in July 1988.

The Dawkins Reforms dismantled the 'binary' system of tertiary education and established the United National System through large-scale structural reform to facilitate growth, improve efficiency and increase national productivity. A domestic co-payment scheme was established to subsidise a projected decline in government funding. Universities were also encouraged to recruit full-fee paying international students which proved to be a very lucrative revenue stream. Central to these reforms was a specific intention to replace collegial planning practices with modern management processes, including strategic planning, in all Australian universities. Constitutional changes to university governing bodies were also outlined to ensure they were more aligned with company boards thereby providing Vice-Chancellors with the commercial expertise to oversee growth in non-academic operations.

Marginson and Considine (2000) suggest that the Green (discussion) Paper released by Minister Dawkins in December 1987 six months before the Dawkins Reforms were enacted 'was as bold and threatening a document as the universities had ever faced' (p. 30). Connell (2013a) asserts that strategic planning contributed to the entrenchment of the neoliberal agenda impacting Australian educational institutions since the 1980s, and Field (2015) describes

quality assurance and other modern management interventions as new public management (NPM) manifestations. In this paper, the term ‘strategic planning’ will be used to refer to a formal planning process, led from the ‘Centre’ by the Vice-Chancellor or Senior Executive, to develop a formal, published, university-wide Strategic Plan.

This study represents an agency-level analysis of strategic planning and provides evidence of an ideological discord in Australian universities: executive personnel tend to assume that strategic planning is a responsibility of leadership – their leadership. Whereas, non-executive academics are critical of strategic planning, viewing it as a manifestation of neoliberalism and the NPM agenda in Australian universities.

CONTEXT

When Minister Dawkins introduced strategic planning to Australian universities in 1988, he expected all Australian universities to engage in generating institutional measures of performance for the purpose of matching funding to performance. He reasoned that this planning and leadership shift was necessary, since:

...many institutions are extremely large (many as a result of the mergers and amalgamations that were also a result of the Dawkins Reforms) and their budgets are equivalent to those of large business organisations. Their managers are required to exhibit high-level management skills and to show strong leadership in meeting the institution’s corporate goals (Dawkins, White Paper, 1988, p. 102).

However, the strategic planning approach proposed by Dawkins was based on the rational strategic planning model developed in North American business schools to improve the organisational performance of North American corporations. It had not been developed for use in public institutions, not-for-profit organisations, educational institutions or universities, particularly universities on the other side of the world with a unique Australian character. Nevertheless, over the next twenty-six years strategic planning was progressively implemented in Australian universities and as a consequence, traditional, collegial academic forms of planning were displaced.

METHOD

The data was collected by in-depth interview. The study participants were selected using a purposive sampling approach (Neuman, 2006; Punch 2007) to maximise the range of disciplinary expertise and breadth of experience. The final cohort of participants (n=9) constitutes a small but diverse group of senior academic and executive staff who led, participated in, or observed the implementation of strategic planning in their employer Australian universities.

The study participants can therefore be considered representatives of the generation of leaders who made the planning decisions that transformed Australian universities into the modern, academic-managerial institutions or enterprise universities (Marginson & Considine, 2000) they are today. The participants include a Vice-Chancellor, a two former Vice-Chancellors, a Dean, a Deputy Vice-Chancellor and four members of the professoriate. Collectively the

participants bring insights to the study from a range of different senior academic and executive careers at a number of Australian universities that span the pre- and post-Dawkins periods.

Table 1 – Participant demographics

Characteristic	Value
Gender	
Female, n (%)	3 (33%)
Male, n (%)	6 (66%)
Age	
Mean	65.5 years
Positional information	
Vice-Chancellor (current)	1 (11.1%)
Former Vice-Chancellors	2 (22.2%)
Professor of Education	1 (11.1%)
Professor of Industrial Relations	1 (11.1%)
Research Professor	1 (11.1%)
Deputy Vice-Chancellor	1 (11.1%)
Dean	1 (11.1%)
Professor of Higher Education	1 (11.1%)
Total years in the Australian HE sector, mean (SD)	31.2 years

THE DATA

The data is presented in three clusters: the Participant Observers (n=3); the Academic Leaders (n=3); and the Vice-Chancellors (n=3) so as to contrast the three primary academic responses to the introduction of strategic planning in Australian universities. The point of differentiation used to define the cluster boundaries was the degree of active engagement each participant was able to demonstrate in relation to leading strategic planning at the executive level. As the study participants are all senior members of staff they were all involved in episodes of strategic planning. However, some participants were actively involved at the executive level and others less so for reasons that will be briefly outlined in this paper.

It should be noted that the participants' responses to strategic planning cannot be categorised meaningfully into two opposed positions as the reflections offered by the study participants are considered and complex. For example, two participants provided critical reflections for two different reasons; two participants are critical of strategic planning in practice in Australian universities but not necessarily with strategic planning as a planning process; and the other five participants reflect positively on their experience as effective strategic planning practitioners however they are also critical of other practitioners as well as instances of past practice.

Table 2 – Categorisation of the response to strategic planning by the executive and professoriate

Participant	Role	Response	Rationale
Professor of Education	Professor: former Dean; former DVC	Critical	'Part of the problem with strategic planning is that when you start to think strategically you start to think corporately ... academics could not do anything about strategic planning because we did not have this type of expertise'.
Professor of Industrial Relations	Professor: Director	Critical	'There really needs to be a gender dimension to this discussion as this really is a male dominated university ... although strategic planning was ostensibly a collaborative

	Research Centre		process, we didn't really have much say. We were kept informed which is not the same as being consulted and we knew there was no way of stopping it'.
Professor of Higher Education	Professor: Deputy Chair Academic Board; Director Research Institute	Critical of strategic planning in practice	'There always seemed to be a sort of 'us' and 'them' development between parts of the Executive and the academic community ... one of the things that you realise as you become more sophisticated at strategic planning is that you actually have to bring the troops with you, and that having a 'disconnect' between management and the academic community is counter-productive for the institution'.
Research Professor	Professor: high output researcher	Critical of strategic planning in practice	'Universities are complex environments that can be manipulated but they also have a unique inner logic of their own that makes things happen or not happen despite the wishes of all the participants for good or bad. This is very different to strategic planning which should be more explicit about what it wants to achieve ... the problem with strategic planning has always been its rigid nature and the fact that it becomes a type of ideology that managers require everyone to adhere to whether it is working or not whether it was well based or not whether there was enough feedback or potential for evolution'.
Dean	Executive: Faculty Executive; University Executive	Confident strategic planning practitioner – critical of command and control approaches	'I think that the personal style, the vision and the aspirations of the person who drives the planning process comes through in the Strategic Plan ... in terms of strategic planning if you are the boss own it. Have somebody else do all the consultations; don't get involved at that level because you have got to be able to – if you need to – lead people in slightly different directions and it helps to have some distance. You also need to hold the planning process reasonably tight without driving it from the top because there is no point. If you drive everything from the top nobody will come with you and then it will all have been a waste of time'.
Deputy Vice-Chancellor	Executive: University Executive	Confident strategic planning practitioner – critical of command and control approaches	'The willingness to adopt change has to be managed very well so that it connects with peoples broader aspirations ... you must be able to connect with your colleagues because dissenters can undermine you easily in universities as they have enormous personal autonomy. The other thing to remember is that you can't tell academic staff what to think and you can't tell them what to do. They have to either want to do it, or understand why it is important for them to do it. That is the only way the strategy will work'.
Vice-Chancellor	Executive: Senior Executive	Confident strategic planning practitioner – critical of approaches that are not persuasive	'Strategic planning is a very serious process at this university. I think it is important to have a Strategic Plan that staff, students and stakeholders can refer to ... an important thing to remember is that each Strategic Plan must be developed and executed in its own context ... the other thing you need to do when you are leading strategically is to persuade people to come with you ... Strategic planning is linked to issues of pride and a sense of ownership that brings a very special dimension to the university. This is really the key – capturing the hearts and minds of your people'.
Former Vice-Chancellor	Executive: Senior Executive	Confident strategic planning practitioner – critical of Strategic Plans	'We had to decide what we were going to be good at and not assume that we could be good at everything. This is the motivation behind the whole concept of good strategic planning as it helps you make the choices you have to make to prioritise your resources ... strategic planning capability depends on the personality and leadership

		that are rigid and inflexible	attributes of the person at the top, so you could say it is still patchy as we all take different approaches... however the real conflict with local strategic planning is that if you make this too rigid you can easily get out of step with plans that are being developed in agencies that on your activities. It would only be possible to deliver 100% against the Strategic Plan if you had total control over everything and we don't'.
Emeritus Professor (former Vice-Chancellor)	Executive: Senior Executive	Confident strategic planning practitioner – critical of approaches that are not compatible with the culture or do not deal with the challenges faced by the university	Centralised strategic planning has had a significant impact on the organisational dynamics of Australian universities. This is what it is designed to do. It was hard for universities initially because they had never really had to work as a whole institution and agree on a shared vision. When it worked it was good; but if it didn't work, it had a negative effect on innovation. It also required a different decision making pathway in universities as Academic Boards were not always helpful in this regard ... I don't think there is one right way to plan strategically. The approach you take needs to be crafted to fit the culture of the organisation and be designed to ensure the right decisions are made so that you can meet the challenges faced at that particular time. This is the great challenge of strategic planning and also of leadership.

Cluster 1: The Participant Observers

The participants in this cluster include a Professor of Education, a Professor of Industrial Relations and a research Professor. The Participant Observers cluster represents the majority of academic staff who were not actively involved in strategic planning at the executive level for three different reasons.

The first participant in this Cluster, the Professor of Education, held several executive leadership positions including Dean and acting Deputy Vice-Chancellor while maintaining teaching and supervisory commitments in the Faculty. He enjoyed the benefits of what he describes as a 'traditional' academic career. He was promoted to the position of Associate Professor within ten years of his first academic appointment and benefited from leadership opportunities many male academics take for granted (see for example Blackmore 2014, 2010, 1999; White, 2003). His case study describes a leadership transition from an academic-centred collegial system of governance, to a centralised governance system in which power was held by the Vice-Chancellor and Senior Executive at his university. The new form of centralised, strategic leadership, enacted within the Sustainable Enterprise and System Integrity management archetypes identified by Sharrock (2012), did not encourage the involvement of traditional academics like the Professor of Education as he explains: 'academics couldn't do anything about it because we did not have that type of expertise'.

The second member of this cluster, the Professor of Industrial Relations, has not held an executive leadership role in the Faculty or the university because of what she describes as systemic, gender discrimination. She is also critical of the strategic planning consultation sessions she observed throughout her career which, in her view, were merely information forums not genuine attempts to engage, consult and incorporate the views of the academic community. As she explains: 'we were kept informed which is not the same as being consulted, and we knew there was no way of stopping it'.

Detriments that can result from a lack of meaningful and effective consultation, include criticism of the Vice-Chancellor and individual members of the executive leadership team

which may result in institutional reputational damage, lack of harmony in the university, a build-up of resistance leading to instances of sabotage, which in the Australian university sector translates into industrial action, such as the dissent articulated by Connell (2013b) and public strikes and protests held at several Australian universities reported in the mainstream press.

In this particular case, gender discrimination marginalised the highly qualified Professor of Industrial Relations with specialisations in economics, management and industrial relations from both the faculty and university executive strategic planning teams. She is also a long standing member of the National Tertiary Education Union (NTEU). It is possible that if she had been included in the executive strategic planning committee she may have been able to assist the university develop a new Strategic Plan in consultation with the NTEU and avoid the industrial action that was subsequently taken at this university when the strategies outlined in the Strategic Plan were implemented.

The research Professor elected to follow a research-only career path and was not required to lead strategic planning as part of his positional responsibilities. Nevertheless, he has published extensively on various aspects of the Australian higher education sector and is therefore able to bring perceptive insights to this study as a critical observer. The research Professor suggests that you can't divorce strategic planning from what he terms the 'rise of the strategic Vice-Chancellor, the executive group around the Vice-Chancellor, the DVCs (Deputy Vice-Chancellors) and PVCs (Pro-Vice-Chancellors) and the move towards Executive Deans who manage down primarily rather than managing up'. His insights led him to conclude that no single model of strategic planning will be effective in all situations, as there are many variables that need to be considered: the context; the timing; the mood of the constituents; and the type of leadership that will be most effective in driving the change.

The insights provided by the participants in this cluster support the proposition made by Sharrock (2012) that the Sustainable Enterprise and System Integrity management zones, within which most post-Dawkins strategic planning approaches were framed, are diametrically opposed to the Professional Community management zone which requires leaders to be collegial, to express shared values, aims and build trust and consensus, resulting in sustained organisational tensions. In the Professional Community zone leaders and managers focus on the needs, concerns and interests (personal and professional) of their academic and administrative colleagues; within the Creative Engagement zone leaders should be collaborative and foster new ideas; in the System Integrity zone they are factual, apply standards and measures and keep players, budgets and programs on track; in the Sustainable Enterprise zone they are focused on defining the goals, priorities, roles and resources of the enterprise itself. From the latter point of view, people are seen collectively as 'human resources' – a corporate asset, and also a corporate cost (Sharrock, 2012, p. 332).

Cluster 2: The Academic Leaders

The Academic Leaders cluster represents members of the executive who led strategic planning at the second-tier executive level, which in this study, includes a Faculty, and core university-wide activities, Teaching & Learning and Research. Two of the participants, the Dean and the Deputy Vice-Chancellor, developed Strategic Plans to increase performance in their areas of responsibility through collegial strategic planning processes. The Professor of Higher Education outlines a top-down academic-management approach to strategic planning at his former employer university led by the Vice-Chancellor and Senior Executive, which, in his view, neglected to adequately engage the academic community, particularly Academic Board.

The first participant in this cluster, the Dean, initially delegated leadership authority for the development of the new faculty Strategic Plan as she was approaching retirement. However, she used her positional authority to resume control of the process to lead the development of an updated draft as, in her view, the consultation process failed to identify a differentiation strategy. The Dean was aware that if the strategic planning did not commence with a consultation phase, and did not engage the academic community in the planning process, then the ideas and insights provided by the faculty academic community would be lost. This approach can be attributed to a former positive experience she describes in her case study: ‘what I remember most of all is that although I was only a Head of School, I felt involved, I was listened to, and also the feedback that I brought from our School was taken into account’.

The second participant in this cluster, the Professor of Higher Education, like the Professor of Education, was a former Deputy Chair of Academic Board. His case study provides an example of the organisational change arising from two leadership interventions implemented at his university which he argues generated a rift between academic staff and the executive. The first was a change in the financial delegations of authority implemented in the late 1990s or early 2000s, after which the University Budget by-passed Academic Board, proceeding from the Finance Office to the Vice-Chancellor’s Office and Council (Senate) thereby denying Academic Board its procedural right of review. This resulted in a loss of leadership authority for Academic Board and effectively marginalised the academic community from considering, and perhaps challenging, strategic budgetary decisions and new strategic priorities before they were implemented. The second leadership intervention referred to by the Professor of Higher Education, is the appointment of Executive Deans by the Vice-Chancellor, instead of being elected by their academic peers. He argues that in his view this ‘meant they (Executive Deans) were much more a part of the Executive than representatives of rank and file academic staff’.

Leadership authority and the institutional power held by the Vice-Chancellor and Senior Executive, including the Executive Deans, increased when the Vice-Chancellor assumed financial control of the university. And, as a direct result, the collegial power held by the academic community started to decline. As the Professor of Higher Education explains, ‘the Executive was responsible for finance and the University Budget; academics for teaching and research and never the twain shall meet! But of course what you do in teaching and research has budget and planning implications’. The Professor of Higher Education’s case study reveals a thread of negativity and powerlessness as he reflects on his experience at his former university where he was not able to mitigate the authoritative, top-down strategic planning approach with the academic community’s need for the leadership to be collegial, inclusive and respectful of Academic Board. He explains what these leadership changes meant to him as a senior academic and Deputy Chair of Academic Board: ‘I felt caught in the middle at times, as we had the Executive on one hand and the academic community on the other hand pulling in different directions ... I also felt manipulated by some of the people on the Executive’.

The third member of this cluster, the Deputy Vice-Chancellor, attempts to blend and balance his leadership and strategic planning approach to gain support from his colleagues and minimise resistance from academic staff at his university which is consistent with more effective forms of strategic management (Sharrock, 2012; Shattock, 2010; Quinn et al., 1990). As the Deputy Vice-Chancellor explains: ‘When I was appointed Deputy Vice-Chancellor I saw this as an opportunity to engage in a major strategic planning exercise. There was an existing strategy document but there had been no engagement in the development of the strategy so I thought it was important to refresh it using a broad engagement methodology’. He also admits that although he engaged in an extensive competitor analysis to develop a broad

research strategy ‘at that particular time it was more about getting all the internal stakeholders lined up’, as he was well aware that the current internal structures, including the composition of the research committees, would not facilitate the implementation of strategic change.

The Deputy Vice-Chancellor explains how he addressed this leadership challenge: ‘By the time I suggest a particular change, I have usually thought about it very carefully and bounced ideas off quite a few different people. This helps to develop an understanding of where the opposition is likely to come from and why, so that I can work out how to accommodate this before I suggest the change in the first place’. He is therefore thinking strategically and conceptually about the different leadership and management functions he must satisfy to lead strategic planning effectively in his employer university.

Although the three participants in the Academic Leader’s cluster were all members of the Senior Executive, and were responsible for leading strategic planning within their area of responsibility, each was also constrained to a greater or lesser extent by the shape and scope of the strategic planning priorities of the Vice-Chancellor. The Dean, for example, held positional responsibility for developing the Faculty Plan. However, the Faculty Plan was a cascading plan that was by necessity aligned with the university Strategic Plan. Therefore the strategic objectives outlined in the university Strategic Plan were also the strategic objectives for the faculty. Although the Dean and her Executive had the authority to develop the specific faculty initiatives that would contribute to the university’s Strategic Plan, it was, in many respects, a conditional planning environment. As the Professor of Education, a former Dean, also advises ‘it was difficult for a faculty to suddenly redirect itself and launch into a new direction’.

The Professor of Higher Education participated in numerous strategic planning projects as Deputy Chair of Academic Board and a senior member of staff in the Learning & Teaching portfolio. However, as he was not a Deputy Vice-Chancellor, he did not have positional responsibility for finalising the Learning & Teaching theme for inclusion in the Strategic Plan. He also describes a decline in the power of the Academic Board from the late 1990s when Academic Board lost oversight of the university budget. This loss of leadership authority constrained his influence over the development of the Learning & Teaching theme for the new Strategic Plan and the distribution of resources within the university.

The Deputy Vice-Chancellor held executive responsibility for designing and implementing the university-wide research strategy and led the development of several university-wide Research Plans. Serving under two Vice-Chancellors, he was provided with the resources to meet the university’s key strategic research objective, which was to improve research performance in areas that informed the evaluative framework in Excellence in Research Australia (ERA) ERA2010 and ERA2012. His leadership task, therefore, was to increase research excellence at his employer university, particularly in the sciences. He achieved this by aligning the internal governance structures, improving internal data collection and analysis, resourcing areas of research strength and addressing areas of poor research performance. As he is a researching scientist, his strategic research priorities were aligned with those of his Vice-Chancellor, another researching scientist. He was well positioned therefore, to lead the development of a university-wide research strategy from the position of a researching scholar.

Cluster 3: The Vice-Chancellors

The Vice-Chancellors’ cluster brings new insights to the study and reinforces issues raised by other study participants. This cluster contains one current Vice-Chancellor and two former Vice-Chancellors. In order to distinguish the case studies of the two former Vice-Chancellors,

one former Vice-Chancellor has been assigned the pseudonym 'Emeritus Professor'. Each Vice-Chancellor has more than 30 years of experience in a range of positions at a number of different universities, other tertiary education institutions, the public service, appointments with the government as well as state and national committees of review.

Leading strategic planning at the highest executive level was a positional responsibility for the Vice-Chancellor participants in this study. Therefore, the data presented in this cluster provides a comprehensive overview of how, when and why strategic planning was implemented in Australian universities in the post-Dawkins era. The Vice-Chancellors describe precisely how they led strategic planning in their employer universities, what challenges they had to address, and what sections of their constituency they engaged in the process. Each assumed a unique strategic planning approach and presented significant variations in the level, type and scope of consultation they applied to the process, although they are all strong, authoritative leaders within the directing leadership style proposed in the Situational Leadership Model (SLII) developed by Blanchard, Zigarmi and Zigarmi (1985).

When the first participant in this cluster, the Vice-Chancellor, commenced strategic planning at his university he justified adopting a top-down approach as 'people were not as familiar with the process as they are today'. Over the years, he progressively increased the amount of strategic consultation with the university community, and as a result, the community increased its engagement with the planning process so they are now able to use non-formal channels to discuss ideas. Welcoming suggestions 'percolating through from the community' the Vice-Chancellor uses this information to develop draft strategic objectives which, he argues, change shape as the consultation process continues. He is proud of the level of staff engagement in the strategic planning process, although he admits that 'staff seem to understand that if they don't participate in the planning process, then they can't complain afterwards about the outcomes ... my experience suggests that people will engage if they think they can influence the process'.

The Vice-Chancellor views staff concerns as important institutional problems that need to be addressed, and looks for ways to proactively identify these issues during the annual planning cycle. Information is shared in public forums to generate institutional inter-connectivity and increase the level of trust and staff satisfaction throughout the university. He claims he is happy for staff to use his initial ideas 'as target practice' and is relaxed about the criticism that results from open dialogue arguing that this provides an opportunity to work through the initial ideas to start a meaningful strategic discussion. The important thing, he stresses, is how leaders respond to the criticism and what steps they take to address issues of organisational concern, a view consistent with the literature (see for example, Gerzon, 2006).

The Vice-Chancellor sought to improve academic excellence through a strategic recruitment strategy to build researcher capability in areas of strength. He also developed collaborative relationships with partner institutions as he argues: 'collaboration helps to position the university, the city, the state and Australia in terms of international reputation and I think the sector needs to understand that forming strategic collaborations is a very important part of strategic planning' thus increasing the university's bargaining power with the government, philanthropists and industry. The Vice-Chancellor financed this strategy by establishing a staff payroll deduction student scholarship scheme to provide financial support for students from lower socio-economic backgrounds and pursued connections with key philanthropic investors. In this way, he was able to enrol the best and brightest students, irrespective of their ability to pay tuition fees and recruit high profile academics to build on existing areas of academic strength. He cautions, however, that in order to 'invest wisely you need to know your

community'. Senge (1990) suggests that leaders who bring organisational tension to the surface through open dialogue, can transform the tension into new forms of shared understanding, if the transformation process is managed carefully.

The second participant in this cluster, the Former Vice-Chancellor, demonstrates that Vice-Chancellors of research intensive universities must have deep connections with their scholarly communities so that they can balance their leadership and management skills effectively and ensure the university's high-impact researchers have the support required to win the competitive grants that generate a large portion of the income that sustains the university. This is not an easy leadership task, as research intensive universities must attract millions of dollars of income from external funding schemes that have very low success rates. In addition, the prestigious National Competitive Grants Schemes that award hundreds of millions of dollars of research income to Australian universities each year, mostly to research intensive universities and research institutes, do not fund the full cost of research outlined in the successful research proposal. Therefore significant fluctuations in income must be mitigated each year by Vice-Chancellors of research intensive universities.

Another significant leadership problem associated with leadership in research intensive universities is the idea that research can be managed, performance measured in a reliable way, and research activity can be directed towards strategic objectives, a concept that has been rigorously contested (see for example Croucher, Marginson et al., 2013; Green et al., 2009; Marginson & Considine, 2000; Lorenz, 2009) particularly, in the current climate dominated by the national research quality initiatives ERA2010, ERA2012 and ERA2015.

However, the Former Vice-Chancellor stresses that the 'real problem with strategic planning' is that it can be too rigid. Universities, particularly research intensive universities, must maintain flexibility to ensure that the university's strategic direction remains aligned with the strategic direction of external research funding organisations. He uses two examples, Atomic Physics and Archimedes, to illustrate this dilemma from a strategic planning perspective:

For example, if the ARC chose today not to fund Atomic Physics and we have decided that Atomic Physics is a priority for us - who wins? Then again if you try to filter the grant applications and say no we will not let you put in a research grant to study Archimedes because that is not our priority then you will have a different fight on your hands. But if you don't filter in the beginning, what do you do if they win the grant but in the meantime you have taken the Greek reference material out of the Library? So, there is continual conflict between the processes which has had an impact on us all and it has been significant (Former Vice-Chancellor).

The Emeritus Professor is the final participant in this cluster. She is able to conceptualise what changes are required to address pressing institutional challenges and has the leadership skills to implement strategic change. There are commonalities in her leadership approach with the approaches described by the Former Vice-Chancellor, the Vice-Chancellor, the Deputy Vice-Chancellor, and the Dean. These participants all share elements of charismatic leadership outlined by Hunt (1991) and House (1971) which states that charismatic leaders demonstrate dominance, self-confidence, need to influence, and a conviction in their beliefs.

The Emeritus Professor ensured the first Strategic Plan she developed for her new post-Dawkins university was aligned with, and referenced to, the institutional values of both amalgamating institutions arguing that this was necessary to bring organisational cohesion and

align staff from both institutions to the strategic direction of the new university. Familiar with the strategic planning literature from the North American Business Schools, she had the knowledge, skills and experience to lead the development of several ambitious strategic planning projects throughout her career that were supported by academic performance data. Aware that organisational structures were important in strategic implementation, the Emeritus Professor replaced her direct reports with young professionals who had ‘experience in performance-based management who could work collaboratively with others’ thus ensuring that there was a consistent application of the strategy through her lines of command.

The Emeritus Professor, like the Vice-Chancellor, the Former Vice-Chancellor and the Deputy Vice-Chancellor, is persuasive. Conger’s (1998) work into effective persuasion proposes a three step model which commences firstly with a strong statement of the position. Secondly, an outline of the arguments, supported by an assertive, data-based exposition. Finally, negotiation until the deal is closed. ‘In other words, you use logic, persistence, and personal enthusiasm to get others to buy a good idea’ (Conger, 1998, p.86).

The Emeritus Professor’s case study provides an example of how Conger’s (1998) three step model works in practice. Firstly, she prepared thoroughly and outlined the challenges in a series of documents supported by data to evince the case for change; secondly, she established a formal, linear strategic planning process to build credibility and legitimise the outcomes; thirdly, she established a broadly consultative process and ensured the feedback was incorporated into the final draft of the plan; and finally, she ensured the Strategic Plan was approved using the formal channels of authority. As there were no procedural flaws in the planning process itself, it would have been very difficult for dissenters to initiate disruption tactics and protest against the strategic priorities outlined in the Strategic Plan.

The Vice-Chancellors cluster demonstrates how each participant adapted their leadership practice to suit the strategic planning context, the organisational circumstances of the university and leverage relationships with stakeholders. As the Vice-Chancellors led strategic planning in very different university environments, they tailored their approach to maximise success. This finding is consistent with the managerial leadership models proposed by Sharrock (2012), Quinn et al. (1990), and the Contingency Model of leadership which suggests that leader effectiveness depends on the ‘match’ between personality characteristics and the degree of situational control held by the leader (Fielder, 1978, p.60) and enabled the development of a conceptual framework of leading strategic planning (Howes, Gonczi, Hayes, *forthcoming*).

CONCLUSION

This paper presents the findings from the first qualitative research project investigating the introduction of strategic planning in the Australian university sector. The data provides further evidence to support Marginson and Considine’s (2000) assertion that the Australian higher education sector had developed a ‘distinctively corporate character’ by the year 2000 as a result of the enforcement of neoliberal policies with great rigour on all public institutions, including universities, that were ‘under extreme pressure to corporatise their operations’ (p. 54). The study also provides fresh raw data to support the findings of the *Learning Leaders* survey (Scott, Coates and Anderson, 2008) particularly that ‘change does not just happen – it must be led, and led deftly’ (p. xiii), and addresses a challenge posed by Sharrock (2012) calling for researchers to provide examples of what strategic planning ‘looks like and what individuals leading strategic planning ‘actually do’ (pp. 324-325).

The Participant Observers represent the large majority of academic staff who did not actively engage in strategic planning for three main reasons: firstly, the strategic planning model proposed by Dawkins and the approach to leading strategic planning adopted by Vice-Chancellors and Senior Executive was primarily transacted from the Sustainable Enterprise and System Integrity strategic management zones (Sharrock, 2012) which was incompatible with more traditional, collegial forms of planning preferred by many academic staff; secondly, it was transacted at the executive leadership level which was not gender or culturally inclusive. Therefore large numbers of academic staff were excluded from active participation in strategic planning at the executive level because of structural inequities in the university leadership construct; and thirdly, as academic work is a highly demanding, time-intensive pursuit high output researchers, such as the research Professor, avoid leadership positions with time-consuming administrative and management responsibilities so that they are able to devote more time to their research and the dissemination of the results.

The Academic Leaders led strategic planning within their second-tier executive portfolios because it was a positional responsibility. Two of the participants reflect positively on their experience although their approaches were considerably different. The third member of this cluster highlights the organisational tension that can result if the academic community, particularly Academic Board, is marginalised from strategic planning and institutional leadership authority. This cluster represents a smaller cohort of senior academic staff who were confident leaders willing to assume executive leadership roles with strategic planning and strategic management responsibilities within their employer universities.

The Vice-Chancellors also reflect positively on their strategic planning practice and explain how they were instrumental in improving the performance of their universities through experienced stewardship and good strategic planning. They demonstrate that the form of leadership most effective in driving the implementation of strategic planning in the Australian university sector was that of an authoritative, 'strategic' Vice-Chancellor, strengthened by accompanying shifts in institutional power that increased the authority of the Senior Executive and decreased the power of the professoriate and Academic Board.

However, the Professor of Education and the Professor of Industrial Relations in the Participant Observers cluster, and the Professor of Higher Education in the Academic Leaders cluster, all senior members of the professoriate, reflect more critically on their experience. This alternative view is supported by a body of literature that suggests many Australian universities are expressing symptoms of organisational disharmony and dysfunction (see for example Briggs & David, 2002; Coady, 2000; Coaldrake & Stedman, 2013; Connell, 2013b; Hill, 2012; Lowe, 1994; Maslen & Slattery, 1994; Meyers, 2012) arising from decades of academic dissatisfaction with management, resourcing and strategic planning decisions.

This is a significant point of disagreement between the academic and executive participants in this study that has implications for the next generation of executive leaders that needs to be explored in a larger research study.

The introduction of strategic planning to Australian universities in 1988 was highly contested. As the resulting organisational and leadership tensions have not been adequately addressed the landscape of strategic planning remains contested today.

BIOGRAPHICAL NOTES

Dr Tess Howes is an Executive Leadership Coach with 20 years of experience as a professional member of staff in the Australian university sector. She completed her Doctor of Education at Sydney University researching leadership and strategic planning in Australian universities. Tess's supervisors Associate Professor Debra Hayes and Professor Andrew Gonczi are co-authors on this paper which presents one of the key findings of the study.

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THE INTRODUCTION OF RESEARCH IMPACT LIBRARY ADVISORY SERVICE: A CASE STUDY IN CHANGE MANAGEMENT IN HIGHER EDUCATION

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ABSTRACT

Change management is the perennial issue and this paper uses a university library as a case study to suggest some successful approaches or strategies. In 2012 the University Library introduced the Research Impact Library Advisory Service, a completely new service requiring a new skill set for librarians. This paper presents research findings from interviews with library managers and an online survey of liaison librarians conducted in 2014. A literature review was conducted as part of this research, and current change management theories and discourse will also be briefly analysed and discussed. The paper concludes that no *one* factor was responsible for the successful introduction of the new service. Having a change management strategy that encompasses a multi-step process would not succeed without attention to the emotional issues that staff have, and neither would succeed without a vision communicated by the organisation's leadership. Similarly, a vision without a realistic and practical pathway forward and without the support of critical stakeholders would quickly flounder.

KEY WORDS

change management; leadership; academic libraries.

INTRODUCTION

Change management is the perennial issue in all types industries and organisations. It could be argued that the higher education sector has been confronted by more externally imposed change than any other, with government policies, ICTs, globalisation and more all impacting directly and indirectly on how universities go about their business. A university is complex collection of both complimentary and contradictory faculties and administrative departments, which all contribute to achieving the strategic vision. But why is some change easier than others? What works and what doesn't? Why? This paper studies the theory of change management, applies it in a higher education setting, and uses the university library as a case study to suggest some approaches or strategies that are common to successful transitions.

In 2005, in response to several external and internal pressures, the University of Melbourne announced its Growing Esteem strategy. This identified 3 equal priorities for the university's activities:

- Research
- Learning & teaching
- Knowledge transfer

Like other administrative departments, the University Library has aligned itself to the Growing Esteem strategy. In July 2008 *Melbourne's Scholarly Information Future: a ten-year strategy*, was adopted by the University Council, and is now part of the Growing Esteem strategy. The Library sees itself as making the greatest contribution to Growing Esteem in the area of research support and research training. In 2012 the University Library introduced a new service, the Research Impact Library Advisory Service, a significant, from the library's point of view, contribution to Growing Esteem. This service assists researchers to document and demonstrate the impact of their previous research, usually in the context of an application for a grant.

Research Question

This paper will present an investigation that leads to an understanding, within a specific context, of the implementation of change management strategies to significantly alter staff objectives, priorities, culture, and other elements. Using case study methodology, the introduction of the Research Impact Library Advisory Service will be examined to identify and evaluate the strategies used by library management to introduce this new service. The purpose of the study is to identify, within the framework of current change management theory, what strategies were successful and what weren't, and why.

At first glance, it is not easy to understand the significance of the introduction of this new library service: it directly impacted on the work of around 45 liaison librarians, a very small proportion of a professional staff workforce of approximately 4,500 at one Australian university. However, as a case study for change management in higher education it is appropriate because this change was significant for several reasons:

- It was a completely new service
- It was a new skill set for liaison librarians: intensive training in 'bibliometrics' (a method of statistically measuring research impact by citation counts) was required.
- These specialised tasks were not identified in position descriptions
- It is an example of the university library evolving to comply with changes in academic librarianship, scholarship, technology and higher education.

The University of Melbourne Library is organised into separate functional teams. The teams which are the subject of this particular research paper are called 'liaison' teams. Each team is led by a 'discipline librarian' whose title emanates from the faculty they serve, so there is a Law Librarian, an Arts Librarian, a Business & Economics Librarian and so on, all of whom lead, manage and supervise teams of appropriately experienced and qualified librarians. The author of this research paper is the Science & Engineering Librarian and therefore, it will be demonstrated, played an active role in this particular change management undertaking, as did the other discipline librarians.

RESEARCH METHODOLOGY

Case Study Research Methodology

In his classic work on case study methodology, Robert K. Yin explains that if the circumstances and conditions in which a phenomenon takes place is a relevant and significant aspect of an empirical study: 'you would use the case study method because you deliberately wanted to cover contextual conditions – believing that they might be highly pertinent to your phenomenon of study.' (Yin, 1994, p.13). This certainly applies with research in change

management, as the context in which a particular change takes place has direct impact on the manner or nature of that change. Researchers into change management in higher education comment on the unique features of that environment which must be taken into consideration. 'Higher education [...] needs to approach change in a cautious way that takes into account its structure and values system. ('Understanding the Nature of Higher Education Organizations: Key to Successful Organizational Change,' 2001, pp. 59-60)

Joachim K Blatter provides further relevant analysis of case study research. His 'constructivist' perspective provides further affirmation of the appropriateness of case study method for this research: 'constructivists see the empirical endeavour of doing case studies as a contribution and check to a theoretical discourse.' (Blatter, 2008, p. 69). The introduction of a new library service as a case study of change management in higher education will provide insights into successful strategies for use in other similar situations and settings. The staff who had to learn the skills and make the changes to their work practices have been surveyed, and the managers who made the decision to introduce the new service have been interviewed. Furthermore, Blatter states 'Constructivists opt for selecting theoretically "crucial cases".' (Blatter, 2008, p.70) and this certainly applies to the introduction of Research Impact Library Advisory Service. The introduction of the new service showed that the library tangibly and demonstrably supported research at the University of Melbourne. Requests for assistance from the Research Impact Library Advisory Service in the 2 years it has been functioning have come from individual researchers, from the Melbourne Research Office and also directly from Deans and Research Managers.

Blatter continues by explaining that the constructivist approach 'has a strong deductive element because it begins with theories and assesses their comparative strength in understanding and explaining empirical cases.' (Blatter, 2008, p.70). This research project commences with a review of prevailing change management theories, as documented in the Literature Review. These theories have been used to comprehend and interpret the changes in librarians' skills, priorities and work practices with the introduction of the new service. The analysis of the liaison librarians' survey responses and the library managers' interviews articulates the success of the change management strategy used, or rather particular elements of it. 'The quality of a case study, thus, does not depend on providing detailed evidence for every step of a causal chain; rather it depends on the skilful use of empirical evidence for making a convincing argument within a scholarly discourse that consists of competing or complementary theories.' (Blatter, 2008, p.71).

Case Study and Generalisations

Case studies are often chosen as a research methodology because of their usefulness in making generalisations. (Donmoyer, 2009; Gomm, Hammersley and Foster, 2009; Yin, 1994). As mentioned above, this particular case study will inform about change management in general and in higher education specifically, but this is only worthwhile if what is learned can be applied in other similar situations:

The role of research, whether in physical science or in social science, was to discover and validate generalisations about these regularities. Practitioners could then link particular situations to general statements about causes and effects and know what to do to produce desired outcomes (Donmoyer, 2009, p.47).

Gomm, Hammersley, & Foster, (2009) state that there are two 'effective strategies for

drawing conclusions': theoretical inference and empirical generalisation. The former is what is relevant to this particular research. 'Theoretical inference involves reaching conclusions about what always happens, or what happens with a given degree of probability, in a certain type of theoretically defined situation' (Gomm et al., 2009, p. 3). The research conclusions will suggest that particular actions or strategies used to implement this change could be replicated in other similar situations with similar successful outcomes.

Researcher Objectivity

This research paper has been written from a particular and unique perspective, that of a discipline librarian who was a participant in the change management phenomena being studied. The question must therefore be asked: can this research be conducted, analysed and conclusions drawn in an objective and impartial manner by someone who was a participant in the phenomenon being researched? Peter Miller distinguishes between the role of 'objectivity' in qualitative and quantitative research. For the latter, which is characteristic of the positivist or post positivist research convention, research results should be 'untainted by researcher characteristics and therefore repeatable.' (Miller, 2008, p. 572). However, qualitative research recognises and defends the researcher's viewpoint. Furthermore, it contributes uniquely and meaningfully to the research outcomes. The data collected and subsequent analysis that emanate from this research aspire to, as Miller states, 'authentically, purposefully, and contextually emerge from the dynamic intersection of researchers' and research participants' unique identities, beliefs, ideas, passions, and actions.' (Miller, 2008, p.573)

The aim of this research is to inform generally on change management strategies, and specifically for those with a similar perspective (i.e. those who hold similar roles in similar organisations) to consider and learn from the research findings and conclusions, and to suggest further areas for future research.

RESEARCH DATA COLLECTION AND REPORTING METHODS

The data for this research project has been collected in two different ways:

Library Manager Interviews

Four current and former members of the senior library management team were asked to participate in semi-structured interviews, but only 3 current library managers were available. The fourth manager, who retired in 2013, was overseas during the research period. The interview questions for library managers, reproduced in full in Appendix 3, were designed to elicit the following information:

- Why was the service introduced? (Questions 1 and 2)
- What, if any, change management strategy was deployed? (Question 3)
- Did library management think the new service was a success? Why? (Question 5)
- What are the long-term consequences of the new service? (Question 4)

Online Survey of Librarians

*SurveyMonkey*TM was used to create, distribute and collate an online survey for discipline and liaison librarians, i.e. the librarians who are responsible for carrying out the work of the new service and their immediate supervisor or team leader. There were 8 questions for all respondents, and 2 additional questions specifically for those librarians who were members

of the RILAS Operational Group. The online survey was emailed to 45 liaison and discipline librarians, and 26 surveys were completed.

The first question of the online survey asked respondents to indicate their specific role in the discipline team. The role of the team leader or discipline librarian in the change management process was a significant one, as the ensuing discussion will demonstrate.

Answer choices	Responses	
Discipline Librarian	15.38%	4
Liaison Librarian	57.69%	15
Liaison Support Librarian	3.85	1
Other	23.08	5

Figure 1. Survey respondents' roles within their team

In the category of 'Other', most respondents were a 'hybrid' one, i.e. a liaison librarian combined with another role.

The remaining questions in the online survey for Liaison and Discipline Librarians, reproduced in full in Appendix 2, were designed with the inclusion of substantial free text boxes to elicit the following information:

- Did the library staff understand the need for change? (Questions 2, 3)
- Had staff heard and understood library management's vision regarding the strategy of increase library services to support research? Did they understand that this was part of the overall university's agenda? (Question 7)
- What activities helped staff to make the change? (Questions 4, 6)
- The extent, if any, of a 'mental shift' the staff had made to accommodate this new service. (Questions 5, 8)
- Was the RILAS Operational Group (to use J.P. Kotter's term) a 'Guiding Coalition?' How did it contribute to the introduction of RILAS? (Questions 9 and 10)

Data Reporting

The interview and survey responses and findings will be analysed in detail in Discussion of Results. Where appropriate, direct quotations from the interviews with library managers will be provided, with the three interviewees being identified in the analysis as 'library managers' or 'director', the latter being differentiated as she provides a unique perspective and insights into the case study.

The librarians who participated in the online survey were very generous with their 'free text' responses. Multiple full or partial quotations from these responses will be provided in the discussion of results as they are critical to the research findings and conclusion of this paper. The respondents will be identified as 'Liaison Librarian' or 'Discipline Librarian' as these roles and perspectives once again are critical to the findings and conclusion. Within the group identified as 'Liaison Librarian' there are multiple roles (Liaison Support Librarian, Other) but these particular differences do not alter the findings or conclusions of the research so they will not be distinguished in the analysis and discussion.

LITERATURE REVIEW

Change management theories, methods, examples, abound in popular, professional and scholarly literature. In order to comprehend this vast body of work, it has been segmented into 3 themes:

- current key works which provide a theory/ies applicable (in the author's opinion) to any type or size of organisation;
- literature covering change management as applied to higher education;
- literature covering change management issues in academic libraries.

Finally, a brief review of the role of middle management as discussed in current literature.

Change Management Theories

A logical place to start a literature review on change management is with J.P. Kotter. His works in the 1990s and early 2000s are seen as seminal in the field by many. Kotter advocates an 8 step process, and although he emphasises the importance of 'high-quality leadership, not just excellent management...' (J.P. Kotter, c1996, p.20) it is his 8 steps that are quoted by most and are promoted on his website (Kotter International, 2012). Kotter insists that each step must be followed through. 'Skipping steps creates only the illusion of speed and never produces a satisfying result.' (John P. Kotter, 1995, p. 59)

Waddell, Cummings and Worley published a contextualised examination of change management theory and practice in their text: *Organisation development and change in Australia*. (Waddell, Cummings, & Worley, 2000). The authors identify 5 activity areas that 'must be managed effectively if organisational change is to be successful.' (Waddell, et al., 2000, p.152). They locate these activity areas within a much broader range of activities that contribute to the 'professional field of social action and an area of scientific inquiry' that is Organisation Development. (Waddell, et al., 2000, p.1). This endows their theory with more relevance and context than Kotter's. Furthermore they provide 15 detailed case studies from commercial, government and not-for-profit sectors that explain and demonstrate their theory.

In 1990 Beer, Eisenstat and Spector's research concluded that successful change management could be achieved by adjusting employee 'task alignment' using their the 'critical path' of 6 sequential but overlapping steps. 'The sequence of steps is important because activities appropriate at one time are often counterproductive if started too early.' (Beer, Eisenstat, & Spector, 1990, p.161).

Kim and Mauborgne described the activities of change agent, William Bratton, in the United States as 'tipping point leadership' which has four steps that he used to implement significant changes in multiple public service organisations in the 1990s and early 2000s with limited resources. They describe them as 'hurdles' that need to be overcome: cognitive, resource, motivational, and political. (Kim & Mauborgne, 2003)

The above change management theories are all, to simplify, a series of sequential steps implemented in an organisation 'from above' by senior management. There are many such approaches described in the literature, none of which was explicitly followed by library management to introduce the Research Impact Library Advisory Service, as the discussion of the library management interviews in Section 4 will demonstrate. This research project aims to determine what strategy was successful and why it was successful in this case.

Other change management theorists propose that organisational change is most effective when it doesn't happen in this 'top down' manner. Multiple alternative change management strategies have a common view that those at the top of an organisation's hierarchy can still implement change in their organisation, but by using other methods. In 1997 Heifetz and Laurie stated that leaders should not provide direction in the form of 'solutions' for their employees. They used a balcony metaphor to explain the basis of their theory: 'Business leaders have to be able to view patterns as if they were on a balcony.[...] Leaders must be able to identify struggles over values and power, recognise patterns of work and avoidance, and watch for the many other functional and dysfunctional reactions to change.' (Heifetz & Laurie, 1997, p.125).

According to Beer and Nohria there are two approaches to change management in common usage:

- Theory E: economic approach, redundancies, incentives, restructuring.
- Theory O: developing organisational capability and culture through developing trust and loyalty.

They suggest that successful change management is achieved by combining and integrating the two approaches and that neither one should dominate management's strategy. (Beer & Nohria, 2000)

In 2005 Garvin and Roberto published their research into commercial, government, and not-for-profit organisations which explained that any successful change management program requires an effectual communication strategy, or rather 'an effective persuasion campaign'. 'Managers must perform significant work up front to ensure that employees will actually listen to tough messages, question old assumptions, and consider new ways of working.' (Garvin & Roberto, 2005, p. 106) There were elements of the above theories in the introduction of the Research Impact Library Advisory Service, but they also don't provide a complete explanation as to how and why it was successful. There is yet another group of researchers or theorists who have found the key to successful change management in the acknowledging and managing the emotional or human dimensions of change. Bridges and Mitchell focus on the internal transition that employees must make to accommodate the change into their individual work practices and attitudes. There are three separate but linked processes that people must undergo to move through transition: saying goodbye, shifting into neutral, moving forward. (Bridges & Mitchell, 2000, pp. 30-32). Jeanie Duck's *Change Monster* (2001) monograph deals solely with the emotional issues in change management. 'Changing an organisation is inherently and inescapably an emotional human process.' (Duck, 2001, p. 9).

The above is not at all an exhaustive review, but is apparent that the literature published in recent years describes or concludes change management as one of the following three paradigms:

- Process: The way to successful change management is a series of steps – overlapping, but sequential. The steps must be carried out in the correct sequence for the change management process to be successful.
- Leadership: Change management can be done successfully with the right leadership: it's about having a vision for the future and communicating it effectively; it's about convincing employees of the need for change.
- Emotion: Change management will not be successful unless or until leaders and managers deal with the emotional issues that their employees will have in relation to the change.

Change Management in Higher Education

There have been numerous studies of change management specifically in a higher education setting, and authors of such studies routinely describe the different culture, values, environment, etc., that are present and subsequently impact on any change management program or strategy. The ASHE-ERIC Higher Education Report series in 2001 was dedicated to change in higher education. This thorough appraisal of research literature into change management concludes with principles that, the report specifies, are not to be transformed into a model of change management to be followed, but 'they are offered as issues to consider as the reader engages in change.' ('Research-Based Principles of Change,' 2001, pp. 113-114). Seventeen principles are briefly described, and two in particular, it will be shown, contribute to understanding the success of the introduction of the new library service. The first relates to cultural or adaptive change, and its importance 'to help employees understand the change, develop new mental models, integrate these models with their existing understanding, and develop a language for articulating the change.' ('Research-Based Principles of Change,' 2001, p. 118) The second principle is concerned with the politics of change:

Savvy change agents should develop an understanding of alliances and coalitions on their campus, who are the heavyweights and people of influence, how informal processes can be used, what conflict exists, what the motivations are behind a proposed change or beyond resistance. ('Research-Based Principles of Change,' 2001, pp. 115-116).

There are many case studies on change in higher education that have been carried out from assorted perspectives. Spencer and Winn mapped a transitional time from the mid-1990s to early 2000s at the Utah Valley State College against Kotter's 8 steps. (Spencer & Winn, 2005) Claudia Meister-Scheytt and Tobias Scheytt's research on an Austrian university showed how a 'simple' change in a university context is complex. (Meister-Scheytt & Scheytt, 2005) Cao, Clarke and Lehaney researched the changes Luton College of Higher Education needed to make in order to become University of Luton in the 1980s. 'This resulted in the change characterised by a top-down and well planned approach, and in terms of the objective of becoming a university, it was successful.' (Cao, Clarke, & Lehaney, 2004) McRoy and Gibbs examined the role of leadership in a group of institutions in Britain as they changed from colleges to universities; they observed that leaders in academic institutions needed 'many skills and the knowledge needed in any leadership role in any profession, but also those unique to HE.' (McRoy & Gibbs, 2009, p. 700)

Whilst all these papers are inherently informative and worthwhile, they describe and analyse change implemented or imposed by upper or senior levels of the institutional structure. Most research or discussion on change management in higher education is similar to the above. This paper, however, has taken a different approach, and presents research into a change management phenomenon within one particular organisational section (the university library) and how the staff and managers within that section successfully implemented the change.

Change Management in Academic Libraries

In the mid-2000s Ian Smith from the La Trobe University Library published several articles on change management in academic libraries. They are not lengthy, and they are practical and pragmatic. In the first article he introduces his topic by explaining that 'Managing organisational change is at its core about managing people and their reactions and responses to change. Successful organisational change is achieved *through* people. It cannot, other

than in very exceptional circumstances, simply be imposed.’ (Smith, 2005, p. 154) Smith’s articles are obviously written from the perspective of a senior manager who has implemented many new programs and processes. This research paper is written from the perspective of a middle manager in the centre of the change.

David W. Lewis made some very insightful observations of librarians’ attitudes to change as he discussed ‘disruptive technologies’ and academic libraries. He recommends libraries need to change their culture to remain relevant in higher education today. There are two elements essential to changing academic librarians: ‘First, change what individuals need to do to be successful in the organisation and in their careers. Second, create structures that encourage and reinforce the cultural change.’ (Lewis, 2004, p. 73)

Change Management and Middle Managers

The role of middle management in the change management process has been described and analysed in numerous research papers. Middle managers are an ‘object’ and an ‘agency of change’ who ‘are expected to encourage commitment and empower employees to be receptive to change and technological innovation.’ (Caldwell, 2003, p.135)

The strategies used by middle managers in change vary widely, according to recent studies. Ole Hope identified the political approaches used by middle managers, based on a case study he carried out in an insurance company. He concluded ‘middle managers mobilise different sources of power and relies on different types of political tactics in order to influence others’ (superiors, peers and subordinates) sensemaking.’ (Hope, 2010, p.213) J.D. Raelin and C.G. Cataldo researched a failed change process at a large financial services company. Their interviews and discussions with ‘rank and file’, middle managers and executives lead them to conclude that ‘It is through empowered middle managers striving to bolster involvement, create a safe context, and provide concrete displays of support that closed systems can be converted to the open and empowered environment that enables sustainable change.’ (Raelin & Cataldo, 2011, p. 504)

The role of the middle manager, in this particular case study the ‘discipline librarian’, is of particular interest and relevance to this research paper. There has been little exploration of this role in change phenomenon in higher education institutions generally and specifically in libraries. The description and analysis of the online survey responses and the library manager interviews will demonstrate that the discipline librarians played a significant role.

DISCUSSION OF RESULTS

The literature review suggested that the literature published in recent years describes or concludes change management as one of the following three paradigms:

- **Process:** The way to successful change management is a series of steps – overlapping, but sequential. The steps must be carried out in the correct sequence for the change management process to be successful. There are many recommended processes available in the published literature, scholarly and professional.
- **Leadership:** Change management can be done successfully with the right leadership: it’s about communication, convincing employees of the need for change, and guiding them through it.
- **Emotional:** Change management will not be successful unless or until leaders and

managers deal with the emotional issues that their employees will have in relation to the change.

The librarians' responses to the online survey and the library managers' interviews have been analysed to determine the convergence of the above with the introduction of the Research Impact Library Advisory Service. Furthermore, the role of the discipline librarian as described in the survey responses and the interviews has been examined in order to explore issues relating to the role of middle management in change management.

Process

To reiterate, some change management theorists recommend that successful change management is achieved by following a particular process or a series of steps: Kotter has 8 steps (J.P. Kotter, c1996), Waddell et al has 5 (Waddell, et al., 2000), Beer, Eisenstat and Spector describe a 'critical path' comprising 6 steps. (Beer, et al., 1990) For this research project, three library managers (one director plus two other managers) were asked in their interviews what was the change management strategy used to introduce the new RILAS service into the liaison librarians' responsibilities. They concurred that a 'formal' documented strategy was not created, but there was informal agreement that the following actions would be taken in order to introduce the new service:

- Communicate the idea via meetings, in-services, staff forums;
- General training sessions, as well as targeted team based training;
- Small pilot program;
- Establish RILAS Operational Group - one librarian from each liaison team, plus 2 discipline librarians, plus library management representatives;
- Establish webpage, commence promotion of the service;
- Operationalise new service.

The above were not described as a process that needed to be followed in a specific order; however all of the library managers listed these activities in not quite but almost the same order with the first step being communication of the library's strategic objectives in relation to research support, and promotion and operationalising the service as the final steps. Kotter insists that his 8 steps must be followed sequentially 'skipping a single step or getting too far ahead without a solid base almost always creates problems.' (J.P. Kotter, c1996, p.23)

Notwithstanding that there was no formal or documented change management strategy, the sequence and content of these steps agreed to by library management contributed to liaison librarians' willingness and capability to implement the service. The first step in the agreed strategy or process, all the library managers agreed, was to communicate the idea to staff and this began in 2011 in multiple ways. In particular an in-service for discipline and liaison librarians was organised to which librarians from University of New South Wales who already had such a service were invited to speak. Previous to that, library executive had communicated in multiple fora the strategic direction for the library, including publication and dissemination of *Scholarly Information Future - a ten-year strategy*. This key planning document for the library articulates the vision for research support:

[...] we will participate in the collaborative development of tools for measuring research quality and impact. We will provide services and analysis to support individual researchers and the effective management of the University's research efforts. (The University of Melbourne Library, 2008, p. 4)

In the online survey Questions 2 and 3 were designed to determine if the liaison librarians

understood why the service was being introduced: *Did you volunteer to contribute to the Research Impact Library Advisory Service [...] Fourteen (54 per cent) respondents volunteered to participate in the new service, and the free text responses indicated a variety of motivations.*

Free text response examples:

I see this service as doing what we should be doing - providing support where it is needed and where academics and researchers are keen to get the support. It is a skill set we can master and deliver that adds value to the universities [sic] core business and it is not driven by Library idealogy! [sic] (*Liaison Librarian*)

Because it sounded like an interesting way to become more involved in the research end of the university's work [...] (*Liaison Librarian*)

The next 'step' in the change management process was the training of the liaison librarians in bibliometrics. The timing of the training program reinforced the early communications. The fourth online survey question inquired into which of the multiple training options available librarians participated in:

Free text response example:

[...Prior to the introduction of RILAS] I had attended seminars/information sessions on bibliometrics at work (but they were not training sessions). These covered things like the h-index, that I found useful when I first started RILAS reports. (*Liaison Librarian*)

The timing of the establishment up of the RILAS Operational Group is significant, because it comes after the communication step but is before the operationalising step. Kotter calls it 'Forming a powerful guiding coalition: Assembling a group with enough power to lead the change effort.

Encouraging the group to work together as a team.' (John P. Kotter, 1995, p.61) Waddell et al do not recommend the creation of a group, but do advocate identifying and harnessing sources of influence and power that will move the change process forward. This is the third of their five step change process and it includes the following:

- Assessing change agent power
- Identifying key stakeholders
- Influencing

stakeholders (Waddell, et al., 2000, pp. 160-161)

Kim and Mauborgne describe this step as 'Jump the motivational hurdle' by identifying and motivating 'key influencers': 'Getting the key influencers motivated frees an organisation from having to motivate everyone, yet everyone in the end is touched and changed.' (Kim & Mauborgne, 2003, p. 67) The ASHE-ERIC research findings also listed as one of its principles for change in higher education to 'Be aware of politics' and advises 'it is important to be aware of the way these dynamics are operating. ('Research-Based Principles of Change,' 2001, p.116) This very important middle step varies in nature between theorists but is in essence about ensuring the politics of the desired change are dealt with. This step involves identifying stakeholder individuals or even creating a key stakeholder group. The individuals or the group must have a stake in the successful outcome of the change management strategy implementing the change. This stake in the outcome might be intrinsic because of beliefs or role in the organisation, or it might be created, as was the case with the RILAS Operational

Group. Significant, however, is that this is a step within a series

of change management steps, and this ‘political’ one occurs in the middle of the sequence, after the initial steps around communicating the need for change. In the change management strategy implemented by the library this step was particularly successful. Once a librarian was part of the RILAS Operational Group, he or she had a palpable interest in the successful introduction of the service. Questions 9 and 10 in the online survey were directed to those librarians who were members of the RILAS Operational Group. Question 10 asked respondents to indicate if they considered the contribution of the Operational Group was positive, negative, or if they weren’t sure. Ten librarians answered this question, and 9 of them thought the group had made a positive contribution. The free text box responses were very informative, with many of the responses demonstrating that the librarians who were part on this group really enjoyed being in a ‘community of practice’. Mentoring, helping with requests, knowledge sharing were all listed as benefits of being part of the group.

Free text response examples:

This acted as a wonderful learning community for all of us where I think we all feel supported and learn from each other’s experiences. We share knowledge and we ask for others views. We are supported through wonderful leadership [...] (*Liaison Librarian*)

I think the operational group has done a good job in leading the Service. They have been leading from the front in doing a lot of the actual reporting, providing recommended frameworks for reporting to researchers, and compiling statistical reports for library management. They have also organised training and promotion of the service. Some of the possible ethical concerns raised by the service have been discussed, and sometimes a united position has been reached. (*Liaison Librarian*)

Leadership

According to J.P. Kotter, ‘Since the function of leadership is to produce change, setting the direction of that change is fundamental to leadership.’ (John P. Kotter, 1999, p. 54) When asked about the change management strategy used to implement the new service, the director said in her interview that she had an overarching change management strategy that she had implemented since coming into the position: ‘Change is driven by learning’. She had instigated a program of long term change management or rather a strategy to instil into staff a mind-set to facilitate change:

If people are learning they are still open to change. Keeping people’s minds open to change, open to learning new things, keeps people adaptable. ...You have an attitude that’s open to change, and you have the skills to be able to change as well.... People have to keep learning, if they do we have a chance to move into the future without it being too personally challenging. (*Director*)

This overarching strategy commenced many years ago (the Director took up her position in 2008) but its presence can be identified in the introduction of RILAS. An example is the 2011 in-service for all liaison librarians to which librarians from another academic library who provided a similar service were invited to speak. All the managers indicated in their interviews that there was a long preparation period leading up to the introduction of the new service. This preparation period was characterised by a great deal of communication:

- Senior library management communicated in multiple fora the need for the library to overtly and demonstrably support the university’s research activities.

- Key library staff were sent to relevant external conferences, seminars and workshops, and reported back to colleagues.
- Training and information sessions in bibliometrics were conducted for specific liaison teams.

To determine if the librarians in the liaison teams had heard and understood the communications from senior library management about the desirability to support more actively the university's research agenda, Question 7 of the online survey asked: *Do you think contributing to the university's research activities in the form of the Research Impact Library Advisory Service or other research support will be a permanent inclusion in the University of Melbourne Library's services?* Twenty librarians (77 per cent) chose 'Yes', and six responded 'Not sure' or 'No.' Most of the librarians demonstrated that they either knew increased research support was a priority for library management, or that they knew the research agenda was important to the university.

Free text box examples:

I feel the senior management of the Library - Jenny and Philip are very keen that this work is done by the library - so I see it continuing [...] (*Liaison Librarian*)

[...] this is a strongly needed service. Also, the University is very focused on its place in the world ranking tables, and this service strongly supports activity that contributes to increasing our ranking. (*Discipline Librarian*)

Yes. It is helpful to be seen to aligning ourselves with the university strategies in this area. Sitting on faculty research committees and being able to discuss this service, provides an opportunity for the library to be seen to be proactive and responsive to the faculty. [...] (*Liaison Librarian*)

Preparing staff for change is commonly the first step recommended by change management theorists: to use Kotter's words it is establishing 'a sense of urgency' (John P. Kotter, 1995, p. 61). Waddell et al used similar terms: 'motivating change' (Waddell, et al., 2000, p. 151). However, this preparation or ground work does take time, and the director in particular lamented the protracted period between when the establishment of the service was included in the library operational plan (2011) and when it was actually operationalised (4th quarter 2012 into 2013). To quote from the director's interview: 'Took us a good while to do it. There was a pretty long gestation period.' McRoy and Gibbs observed '... an important aspect of this research is the requirement for time in the transformative process.' They label it the 'temporal dimension of change' (McRoy & Gibbs, 2009, p.700), and this aspect must also be considered as a contributor to the success of this change management strategy. Time was a luxury that the library had to give to this change process, and it must be recognised that this is not always the case in organisational change. Library management has a vision for the strategic direction of the library in relation to library support for the university's research agenda, and it has communicated this multiple times and in multiple fora to library staff. However, in relation to the introduction of the Research Impact Library Advisory Service, library management permitted library staff to take the time it needed to absorb and contemplate this strategy.

Emotion

Multiple change management theorists attest that for a change management program to be

successful and the changes really embedded into an organisation's way of work with no likelihood of regression, employees need to change their 'mindset' or attitude. It's much more than just following a new process or adhering to a new policy. If the change in culture and attitude does not happen, the change management program will likely fail, old methods and perspectives will reappear and resume. As mentioned previously ASHE-ERIC 2001 research papers on change in higher education suggest multiple principles to consider when initiating and implementing change. The report urges managers to 'help employees understand the change, develop new mental models, integrate these models with their existing understanding, and develop a language for articulating the change.' ('Research-Based Principles of Change,' 2001, p. 118). Heifetz and Laurie describe it as 'adaptive change' (Heifetz & Laurie, 1997), Bridges and Mitchell portray staff as making a 'transition' (Bridges & Mitchell, 2000), whilst Duck states that change 'requires changing people's mindsets and work practices.' (Duck, 2001, p.27). Question 5 in the online survey was designed to elicit if librarians had made this change in 'mindset' and what factors had contributed to this. They were asked: *Did you need to adapt your workload/work priorities significantly to include time for bibliometrics training and for carrying out the work? If 'Yes' please explain how you adapted your workload/work priorities to include RILAS.* Nineteen or 73 per cent of the respondents understood the need to change work priorities and did so. They provided a variety of explanations for this:

- All free text responses mentioned that requests for reports were given priority over other tasks.
- Four librarians worked after hours, one even cancelled annual leave, to complete requests. Free Text Response Examples:
Reports tended to require a good deal of time to complete, especially the early reports where I was still investigating methods. RILAS work was sometimes quite urgent. I needed to prioritise work fairly carefully when I was asked, or volunteered, to compile or check reports. Less urgent matters were often postponed. (*Liaison Librarian*)

Significant- in terms of it's considered a high priority task. So when a rush request come in staff need to be reorganise their workload. (*Liaison Librarian*)

RILAS work being delivered on-call and on a just-in-time basis meant I postponed other work activities and worked after-hours to meet deadlines. (*Liaison Librarian*)

The Discipline Librarians played a role in assisting team members with re-organising their work, as the responses below indicate:

In the initial introduction of the service, I supported the [...] team member assigned to the service through mentoring and informal/formal feedback. I had to review her workflow and reassign some tasks within the [...] team to allow the staff member to build specialisation. (*Discipline Librarian*)

Other jobs had to be put aside to complete the tasks, such collection development, updating research guides. The D/L helped with this and advised what was necessary and what was not. (*Liaison Librarian*)

Question 6 in the online survey aimed to elucidate more information regarding influences on librarians' attitudes to the new service so the change could take place. *Please describe in what ways you have been supported by peers, your manager, other library staff to contribute*

to *Research Impact Library Advisory Service*. Respondents could only answer this question via the text box, and 24 out of the 26 librarians who completed the survey did answer. The commonest themes present in free text responses were:

- 14 librarians referred to peers, colleagues, team members.
- 9 referred to their manager or discipline librarian.
- 3 mentioned the RILAS Operational Group as providing assistance and support.

Question 8 had the intention to probe further into the nature of the change in librarians' attitudes or mindset. *Do you feel becoming skilled in bibliometrics and contributing to the Research Impact Library Advisory Service has been worthwhile for you personally? For your career?* If the librarians felt a personal and professional benefit from learning these skills, it can be assumed that they adapted readily to changes to their work practices. Although most librarians (17 or 65.4 per cent) felt they had benefitted personally and professionally by learning the new skills in bibliometrics, a significant number, nine librarians were either *Not Sure* (7 respondents) or were certain there was *No* benefit (2 respondents).

Themes present in the text boxes for *No* or *Not Sure* responses:

- Technology would inevitably soon make it easier for academics and researchers to carry out citation counts and other bibliometrics tasks themselves.
- 2 librarians stated that rather than doing the work for academic staff or researchers, the focus for librarians should be to teach them how to do this.
- 2 librarians indicated that they really didn't enjoy the work.

This is a relatively high ratio of 'No' and 'Not sure' answers when compared to Question 5 in which 19 or 73 per cent of librarians admitted to altering their work priorities in order to accommodate tasks relating to RILAS requests. It indicates that these librarians, despite having misgivings, were willing to contribute to this new and important service.

The online survey responses indicate that the emotional aspects of the change management process were addressed. Most of the librarians made the necessary adaptive changes in order to alter their work priorities; all of the librarians acknowledged support, assistance, and guidance from multiple sources including peers and supervisors; and most (but not as many as anticipated) believed they had benefitted both personally and professionally from acquiring the new skills and knowledge in bibliometrics. Two aspects in particular of library management's informal change management strategy contributed to the librarians making these necessary emotional and mindset adjustments. Firstly, the director's strategy of creating a learning culture by providing and encouraging opportunities for library staff to attend internal and external conferences, seminars, in-services, workshops. To quote again the director from her interview: 'Keeping people's minds open to change, open to learning new things, keeps people adaptable.' Secondly, the creation and leadership of and by the RILAS Operational Group also played a significant part. The group and its leadership were mentioned numerous times in responses to the online survey, and the three library managers (including the director) concurred as to the influence of the group. As one manager explained in her interview:

Op group has contributed because of the collegial approach so that any service enhancement or direction, I might flag it or suggest it but then it's socialised with the group so the group owns it in a way [sic] [...] The way of disseminating it out to the groups [i.e. library teams] has worked through the Op Group. They deliver the message. I send out broadcast emails, but people don't read them. They listen to their local reps. (*Library manager*)

The Role of the Middle Manager - the Discipline Librarian

All the library managers in their interviews mentioned the critical role of the Discipline Librarian in the introduction of the new service.

DL support has been really pivotal as well. (*Library manager*)

If the manager didn't support it, then it wasn't going to happen. If the DL wasn't behind it and said, 'I'm sorry so-and-so you are going to do that report' [the new service would not have been operationalised] [...] (*Director*)

The library managers in their interviews and the liaison librarians in their online survey responses identified the following contributions by the discipline librarians:

- reiterated key library management messages at team meetings,
- ensured team members attended training and information sessions,
- ensured that RILAS requests were given priority over other tasks including assisting individuals to re-organise their work,
- re-allocated tasks within the team to free up one or more librarians to work on an urgent request
- provide encouragement and support to individuals.

Discipline librarians regularly reinforce, reiterate, repeat, re-interpret library management's vision within the operational context. As Jeanie Duck observed: 'The middle managers and direct supervisors interpret the meaning of the executives' messages, translate the directives into specific work instructions, and, most significantly, do the personnel evaluations.' (Duck, 2001, p. 238)

The middle manager has to balance the requirements of senior executive with the employees' perspective on their jobs, and all of the four discipline librarians who participated in the online survey expressed the need to re-allocate and re-prioritise tasks in their teams in order to ensure requests are completed on time. Middle managers know their team members extremely well; their strengths, weaknesses, work preferences and what they try to avoid. This detailed knowledge can be a two-edged sword, as a discipline librarian I know I have avoided at times allocating new tasks to certain individuals because they will resist the change emphatically, and I have allocated these tasks to those librarians who are stimulated by variation and diversity. Kanter, Stein and Jick, in a monograph with diverse examples and explanations of change management in assorted organisations, described the middle manager's dilemma as 'they had to be careful not to get too far ahead of those below, to not push them farther and faster than they were ready to go.' (Kanter, Stein, & Jick, 1992, p. 430) If the middle management layer was not present or not supportive of the new service, it could be argued that the change might still have taken place, but I don't think so thoroughly.

Resistance to Change

Despite the successful introduction of Research Impact Library Advisory Service, there were some resistors to this change. In her interview, the director recounted early discussions between library managers and discipline librarians around the viability of the service when there was no individual or group with these tasks in their position descriptions. Furthermore, several felt that additional resources were required before the service could be launched.

Several librarians were concerned about the library being 'deluged' with requests for bibliometrics reports and not having the resources to deal with them.

In the responses to the online survey, multiple points of disagreement with the service as whole or particular aspects were expressed by liaison librarians.

Free text response examples:

While I don't mind undertaking RILAS reports, I think there was a general assumption that it is 'part of our job' (whether that is accurate or not) - it was not a question of volunteering. In fact what the current PD states is that the LL role is to provide 'specialist advice' regarding bibliometrics, so to assume the role involves preparing exhaustive and time consuming reports is probably drawing a long bow. (*Liaison Librarian*)

[...] Suffice to say that I don't enjoy this work and don't think it should be undertaken by all librarians for the library at all for that matter. (*Liaison Librarian*)

Despite these resistors the service commenced and the necessary resources have been found. The anticipated 'deluge' has not quite happened - but there have been several large and time consuming requests which, thanks to the cross team collaboration and cooperation, have been fulfilled within the requested time frame and to the appropriate standard

CONCLUSIONS

Change involves moving from a known state to an unknown one, of ending the way things are done and doing things in new ways, of letting go. (Smith, 2005, p. 152)

Leadership, Process, Emotional, Middle Manager - the secret to successful change?

As a Discipline Librarian I am very aware of tension between understanding the objectives and priorities of library management, and the day to day activities of a busy team of librarians. Before the introduction of the new service, all University of Melbourne liaison librarians were fully occupied with a range of tasks that they felt contributed to students' and academic staff's learning, teaching and research objectives. There is no doubt that these tasks *did* contribute to achieving those objectives, however many library tasks that previously took multiple staff multiple hours to complete (for example managing extensive print journal collections) have evolved into tasks that nowadays take little or no time. Libraries and librarians need to evolve, need to change. The director saw the need for her overarching strategy of changing the library culture and direction because of the dynamic information and academic environment:

We need to change. Scholarly communication is such a rapidly developing environment, rapidly changing environment all the time. We need to build into our psyche that we learn and change constantly. If you think about it as a learning thing, then it's something you welcome, if you think about it as change thing, then it's something that's imposed upon you. (*Director*)

The introduction of the new Research Impact Library Advisory Service has been a change management anomaly. The library managers in their interviews concurred that the following are all indicators of the success of the service:

- Operationalising the service and the demand for the service. The managers are very pleased with the number of reports being requested and completed.
- Evolution of the service – RILAS commenced with a narrow scope but this has broadened since it commenced, and simultaneously librarians have expanded their skills and knowledge in bibliometrics and research impact.
- Cross-team support – this wasn't an objective, but all the library managers interviewed commented on the pleasing collaboration between previously detached library liaison teams.

My conclusions from reviewing and analysing the librarians' responses to the online survey, and the library managers interviews is that no *one* factor was responsible for the successful introduction of the new service. Having a change management strategy that encompasses a multi-step process, regardless of those steps, would not succeed without due attention being paid to the emotional issues that staff have, and neither would succeed without a vision that is communicated appropriately by the organisation's leadership. Similarly, a vision without a realistic and practical pathway forward, and without the support of critical stakeholders or 'influencers' would very quickly flounder and fade away.

For the purposes of this paper, I separated the 3 change management approaches or paradigms that I identified and discussed them sequentially: first 'process', then 'leadership' and finally 'emotion'. Next I discussed the role of the discipline librarian, the middle manager. However, in reality these elements were all woven and intertwined inextricably into the change management narrative that was the introduction of Research Impact Library Advisory Service and cannot be meaningfully disconnected from each other. If any of these elements had not been present or had not been as influential, the introduction of the new service may have progressed very differently.

Research Limitations and Directions for Further Research

The topic for this research paper was first proposed and approved in April 2014. In early June 2014 the details of the University of Melbourne's Business Improvement Program were detailed in the Change Proposal for Formal Consultation. Previous to the release of this document University Library staff were under the impression that 'BIP' would not significantly impact on them. However, the change proposal document made it clear that before the end of 2014 library staff, like other parts of the university, would be transitioned to a new organisational structure, but that new structure would contain fewer positions for continuing staff than previously. Therefore, the data gathering phase of this research project, from August to October 2014 inclusive, was done at a time when library staff (including the managers interviewed) were uncertain of their future at the university. Many responses in the online survey speculated on the sustainability of RILAS and other library services after the Business Improvement Program is completed. It is therefore fair to presume that this survey would elucidate different responses for some questions from librarians if it was conducted after the Business Improvement Program had been completed, or, conversely before it was commenced.

The number of liaison and discipline librarians (approximately 45 in August 2014) and the time available to carry out the data gathering limited the data collection to an online survey. Notwithstanding the generosity of librarians responses in the free text boxes, a more thorough and in-depth data collection program via semi-structured interviews with all discipline and liaison librarians would provide much richer and more detailed data from which to elucidate

research outcomes. In particular, I would have like to interview discipline librarians to document and explore their experiences further as middle managers in a change management process, but time just did not allow for this.

Research Conclusion

One thing I have learned in my career as a librarian is that managing and/or leading a team of staff is really only ever dealing with one issue: the continuum that is change management. This case study research into the introduction of the Research Impact Library Advisory Service has shown that successful change management:

- is multi-dimensional and *always* necessitates consideration of process, leadership and emotional issues,
- requires commitment and support from most (but perhaps not all) staff at all levels, in which the middle manager is the nexus,
- has a temporal dimension and a political dimension, both of which need to be managed.

The purpose of this case study research was to identify the successful change management strategies so that others may learn from this research and generalise its findings to their own particular situation. The above provides guidance and pointers as to what is important when embarking on a change management program; it's not a pathway to follow, but it is a series of signposts. As Donmoyer explains: 'Research can only function as a heuristic; it can suggest possibilities but never dictate action.' (Donmoyer, 2009, p. 51) This is possibly the flaw in the prescriptive process approaches of Kotter, Waddell et al., and Beer, Eisenstat and Spector, and also the strength of the principles 'to think about change systematically and systemically on the reader's campus' as suggested by ASHE-ERIC reports. ('Research-Based Principles of Change,' 2001, p. 114)

Change management in any type of organisation is difficult, but few would disagree that there are unique challenges in Higher Education. The launch of the Growing Esteem Strategy at the University of Melbourne in 2005 was the catalyst for many changes in its academic and administrative activities, programs, priorities, structures, and more. The University Library was also part of this transformation and has worked hard to ensure that its strategic and operational planning aligned with the university's.

BIOGRAPHICAL NOTE

Peta Humphreys is Science & Engineering Librarian at The University of Melbourne. She has been managing, leading, herding, coaching and coaxing teams of librarians in academic and public libraries since the 1980s.

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APPENDIX 1: INTERVIEW QUESTIONS FOR LIBRARY MANAGERS

Interview Questions for Library Managers:

1. How did the library leadership team make the decision to introduce Research Information Library Assistance Service? What was the introduction of Research Information Library Assistance Service in response to? Growing esteem? Evolution of the profession? Something else?
2. Who proposed to establish a service to provide reports on research impact? If this proposal hadn't been made, would such a service have started? Why not?
3. RILAS required different skills and knowledge for most incumbent liaison librarians. Was a change management strategy implemented? If so, what were its elements?
4. In 2013, a Liaison Librarian review commenced, which has investigated the role of the Liaison Librarian, and its final report recommended, in part, that some Liaison Librarians have in their position description a focus on Research Support activities, for example RILAS services. In what way was the implementation of RILAS a catalyst for the review of the role of Liaison Librarian?
5. Were objectives for RILAS set in the planning stage? What were these? How was 'success' defined? Has it been successful? What do you think has contributed to its success/failure?

APPENDIX 2: ONLINE SURVEY QUESTIONS

1. What is your job role?

Discipline Librarian

Liaison Librarian

Liaison Support Librarian

Other

Other (Please specify) <Text Box>

2. Did you volunteer to contribute to the Research Impact Library Advisory Service ('Contributing' means completing one or more Impact Reports, or reviewing one or more impact reports, or assisting another library staff member in either of these tasks.)

Yes

No

Can't remember

3. If you volunteered, why? If you didn't volunteer, who asked you to participate or contribute to the Research Impact Library Advisory Service? Why? <Text Box>

4. To build up the skills and knowledge in bibliometrics necessary for you to contribute to the Research Impact Library Advisory Service, in which of the following activities did you participate? (Click as many as are applicable):

Training provided at work

Training provided externally

Your own research

On the job training

Taught/trained by a colleague

Can't remember

Other.

Please explain further how your training assisted you with RILAS:

<Text Box>

5. Did you need to adapt your workload/work priorities significantly to include time for bibliometrics training and for carrying out the work?

Yes

No

Can't remember

If 'Yes' please explain how you adapted your workload/work priorities to include RILAS:

<Text Box>

6. Please describe in what ways you have been supported by peers, your manager, other library staff, to contribute to the Research Impact Library Advisory Service?

<Text Box>

7. Do you think contributing to the university's research activities in the form of Research Impact Library Advisory Service or other research support will be a permanent inclusion in the University of Melbourne Library's services?

Yes

No
Not sure

Please explain further: <Text Box>

8. Do you feel becoming skilled in bibliometrics and contributing to the Research Impact Library Advisory Service has been worthwhile for you personally? For your career?

Yes
No
Not sure

Please explain further: <Text Box>

9. Question for members of the RILAS Operational Group. Did you volunteer to join the RILAS Operational Group?

Yes
No
Can't remember

Please explain in more detail how and why you joined the RILAS Operational Group.
<Text Box>

10. Question for members of the RILAS Operational Group. Think about the contribution of the RILAS Operational Group to the RILAS Service. Has the contribution been

Positive
Negative
Not sure

Please explain further how you think the RILAS Operational Group has contributed to the introduction of this service.

<Text Box>

EARLY STUDENT ASPIRATIONS OF USING ePORTFOLIOS

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ABSTRACT

The use of ePortfolios is a popular response to the increasing complexity and changes occurring in the higher education sector. Effective uptake of ePortfolios requires understanding of the users' foundational attitudes, early conceptualisation of the technology and its perceived relevance to their context. This research offers insights into the perceptions of students at the beginning of their ePortfolio learning journey in a regional university. This paper presents the quantitative data collected in the pre-use survey from 567 student respondents. The research showed that most of the student were confident and willing computer users, with a relatively mature understanding of the purposes of using an ePortfolio but only about half, however, were enthusiastic or positive about the introduction of an ePortfolio into their course. Yet conceptually, the students had a relatively mature understanding of using an ePortfolio for reflective practice and collection and storage of competency evidence.

KEY WORDS

ePortfolio, personal learning space, student perspectives, reflection, evidence of competency

INTRODUCTION

The higher education sector is responding to numerous and often competing drivers: industry expectations of work-ready graduates; changing government funding and reporting expectations; and meeting the needs of diverse student cohorts. Technological advances umbrella these drivers opening up the opportunity for flexible solutions to ongoing complexity and change. The embedding of ePortfolios into formal curricula, with overflow to informal learning situations, is proving a popular response. Yet Hallam and Creagh (2010) caution that seeing an ePortfolio only as a technological tool denies 'the agency and input of its users and much of the pedagogical and other complexities of its use' (p. 181).

A constructivist model of learning requires students to take responsibility for creating their own meaning and increasingly develop self-regulation and autonomy (Hartnell-Young, 2006). Student ownership as a vital part of a student-centred pedagogy involving their engagement with deep learning that connects formal academic study, personal development and professional life (Tosh et al., 2005). The pedagogical value, therefore, of providing ePortfolios for student learning includes facilitating the development of reflective practice, offering innovative assessment and feedback opportunities, capturing individualised experiential and work-integrated learning, and evidencing graduate attributes. Professional value includes enhanced employability, evidence of competencies and a place for graduates to provide evidence for ongoing accreditation (see Beetham, 2005; Wetzel and Strudler, 2006; Coffey and Ashford-Rowe 2014). Ultimately, students need to embrace these values for themselves to be intrinsically motivated to maintain and expand their ePortfolio use as they transition through their university studies and career pathway.

An ePortfolio can be defined as ‘an online repository in which students store and share a variety of informal and formal learning experiences, collected over time, using written, visual and auditory artefacts’ (Slade, Murfin & Readman, 2013, p. 177). A number of processes are involved for the user in using an ePortfolio such as capturing, selecting, reflecting on and presenting different material for varied audiences (Becta, 2007). Scholars recognise different types of ePortfolios, including process portfolios emphasising the learning process (see Abrami and Barret 2005); assessment portfolios readied for external evaluation; and showcase portfolios used to demonstrate competency (Maher and Gerbic, 2009). Whilst these are still useful end products of ePortfolio use, concomitantly with the increasing sophistication of software platforms, the conceptualisation of an ePortfolio is changing. Sutherland et al. (2011, pp.3-4) extended the idea of an ePortfolio system from ‘a collection of tools and functions used for creating eportfolios’ to a personal learning space controlled by the learner in which ‘learning can take place that is personal, eclectic and idiosyncratic’. An online personal learning space allows the user to engage with their achievements over time, thus building self-confidence in their ability to continue maturing, both professionally and personally. This conceptual shift expands the potential range of ePortfolio uses, and the impact on the user (in this case the student). Therefore, in this paper I adopt the conceptual view that an ePortfolio is a personal learning system that enables a student user, and/or other invited people, to view and reflect on the progress in their academic study, professional skills and/or personal development at any point in time, whether at university or beyond.

This view also confirms the importance of understanding students’ perspectives as users and controllers of their own ePortfolios, but Lin (2008) reports that this research has been limited, in lieu of a focus on administration and faculty perspectives. According to Peacock and Murray (2009) if we desire students to engage fully with ePortfolios from early in their studies we need to understand more about their expectations and experiences. The work of Tzeng (2011) concludes that those responsible for implementing a new ePortfolio system, who understand the perceived values of the users, will be better able to retain a student-centred focus in a change management design and implementation process. A study by Tosh et al. (2005) used student buy-in, motivation, assessment and ePortfolio technology as themes to measure student engagement with their individual ePortfolio. These authors found that students need a clear introduction of the value of using an ePortfolio to continue to be motivated and reinforcement from educators that it is the learning achieved using the technology that is assessable not the use of the technology itself.

Understanding students’ foundational aspirations and early conceptualisation of their perceived relevance of ePortfolios is vital for effective uptake. In response, this paper offers insights into the perceptions of students at the beginning of their ePortfolio learning journey in a regional Australian university.

RESEARCH CONTEXT AND RATIONALE

The ePortfolio work at the University of the Sunshine Coast is an integral part of the institution’s *Blended Learning Strategy 2014-2016*. It followed an *ePortfolio Early Adopters Phase* in 2013 in which two programs (one undergraduate and one postgraduate) embedded ePortfolios into their curriculum, and the initial *ePortfolio Feasibility Study* in late 2012 which found strong support for ePortfolio introduction, particularly in ‘professional’ degree programs.

A major objective of the corresponding *ePortfolio Implementation Research Project* was to explore the in-situ expectations and experiences of students using ePortfolios as part of their program's curriculum. Research areas of interest of the project included:

- The lived experience of using an ePortfolio
- Potential enhancement of student learning and engagement through use of an ePortfolio
- Staff and student perceptions
- Barriers and enablers of ePortfolio implementation
- The impact of ePortfolio activities
- Understanding the role of ePortfolios in graduate employability

Using pre-use and post-use surveys was considered a suitable data collection tool due to the size of the sample, resources available and timeframe constraints. This paper focuses on the quantitative data collected in the pre-use survey. A number of questions in the survey allowed participants to choose more than one response. As new programs and courses began implementation, the ePortfolio staff from the University's learning and teaching unit surveyed the students in the absence of the educator (a condition of the human ethics permission for the research project). The pre-use survey was administered at the time when students had received a brief introduction to the idea of using an ePortfolio but before they had started using the software tool. Students from twelve courses in eight programs across six disciplines, including tertiary enabling, undergraduate and postgraduate cohorts, were surveyed during 2013-2014. The largest cohorts involved were first year undergraduate students.

The initial surveys in 2013 were only in hardcopy with the learning and teaching staff administering the survey during face-to-face class time. In 2014, however, the survey template was transferred online using Survey Monkey. An invitation for students to participate was placed at the appropriate time in the announcement section of each course's Blackboard site, the university's learning management system. A corresponding email was sent to students in their course cohort through Blackboard. Both communications included a web link to the survey previously setup in Survey Monkey, the online surveying tool. Then, where possible the learning and teaching staff still administered the survey within class time with the majority of students using their mobile devices to access the link. Using this online method also allowed other students to participate in the survey outside of the classroom. An information sheet about the research accompanied both the hardcopy and online versions of the survey. Submission of a completed survey implied consent to participate in the research project, which was explained to potential participants in the information sheet and at the beginning of both the hardcopy and online versions of the survey. The Survey Monkey tool provided initial quantitative analysis of the results across each question for individual courses. The researcher then aggregated these results by individual questions using an excel spreadsheet.

RESULTS

There were 567 student responses to the ePortfolio pre-use survey. The first section of the survey asked respondents demographic questions i.e. age group, gender, and program level and delivery mode. Figure 1 illustrates that the majority of respondents (48 percent) were in the 18-22 years age range, followed by 23-27 years (14 percent) and under 18 years (13 percent), then 28-35 years and 36-45 years (both ten per cent), and then 46-55 years (three per cent), and finally 56+ and the Not Recorded categories (both one percent).

Eighty-one percent of respondents were female and 18 per cent were male, with one percent not recorded. The majority of students were in undergraduate or tertiary preparation programs (95 per cent) with the remaining small number in postgraduate study. Eighty-seven per cent of respondents were full time undergraduate or tertiary preparation students, with another seven per cent part-time. Three per cent were full time postgraduate students, with another two per cent part-time. Eighty per cent of respondents reported that their programs were delivered face-to-face, with a smaller number, 17 per cent, in a blend of face-to-face and online delivery, and three per cent solely online.

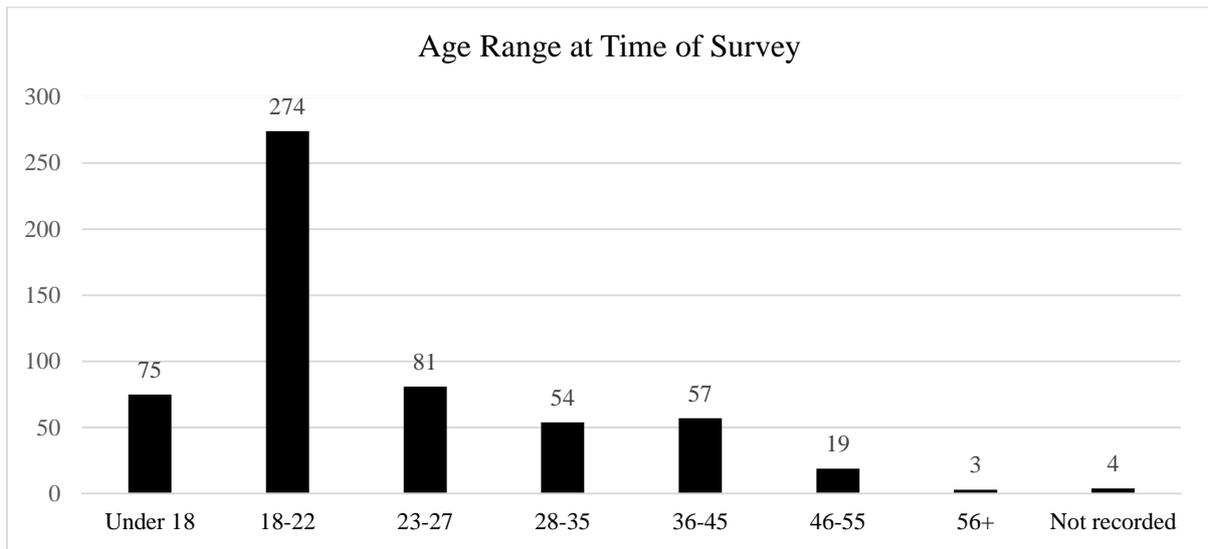


Figure 1. Age Ranges of Respondents

Attitudes towards anticipated use of ePortfolios

Figure 2 shows that a small number of respondents (five per cent) considered themselves as innovative and designers in their computer use while the majority of students considered themselves as early adopters and active computer users (70 per cent). Although 21 per cent considered themselves as later adopters they also saw themselves as willing users. Only three per cent saw themselves as reluctant and forced adopters and one per cent as luddites.

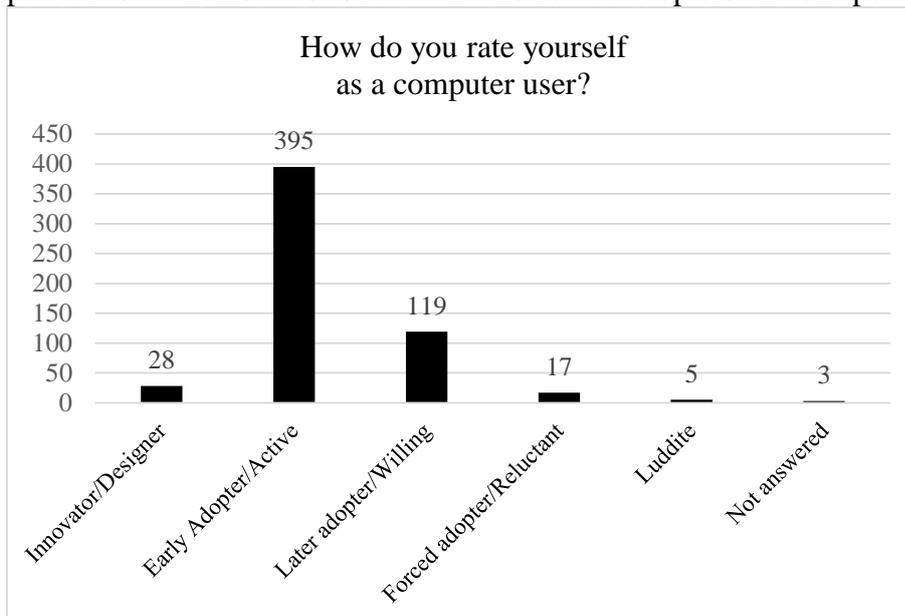


Figure 2. Self-rating of attitude towards computer use

Ten per cent of respondents reported being enthusiastic and 38 per cent positive about the prospect of using an ePortfolio in their course, thus making nearly half the students feeling optimistic about the upcoming experience as depicted in Figure 3. Thirty-four per cent of respondents reported feeling neutral while 17 per cent had some apprehension.

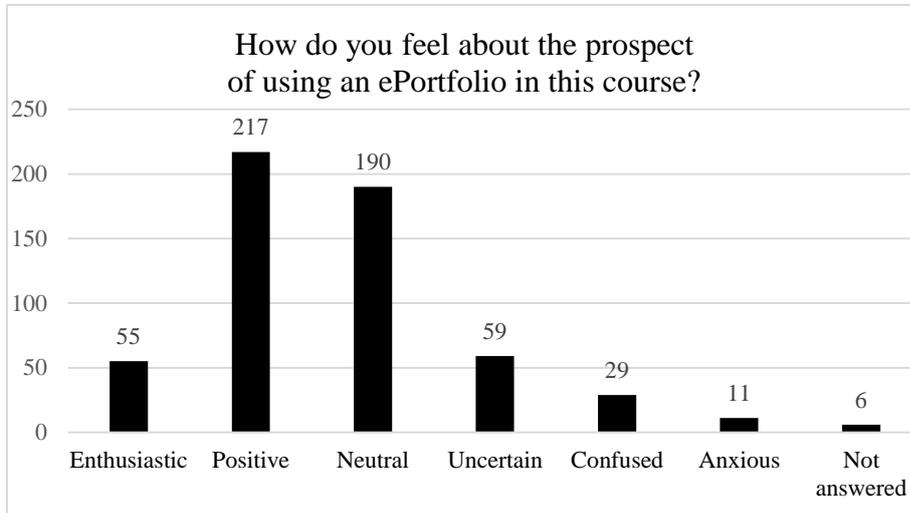


Figure 3. Feelings about using an ePortfolio

Most respondents envisaged that they would use their ePortfolio at least once a week (see Figure 4) with 3 per cent stating use every day, 11 per cent three times a week, another 20 per cent twice in a week, and the highest number of respondents (29 per cent) suggesting once a week. Then, 12 per cent anticipated once a fortnight and another nine per cent once a month. While four per cent of respondents did not answer this question, another five per cent only anticipated using their ePortfolio once a semester and seven per cent did not envisage they would be using it at all.

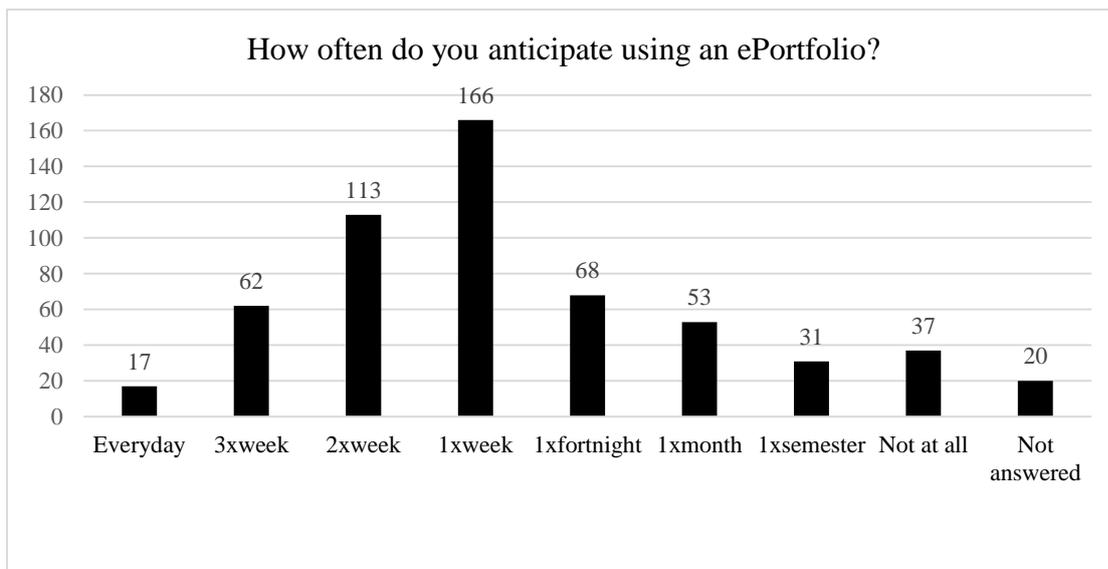


Figure 4. Rate of anticipated ePortfolio use

Conceptual understanding of ePortfolios

Several questions asked students for responses about the conceptual understanding of an ePortfolio. The first of these questions asked ‘Which statement/s best describe your

understanding of an ePortfolio? Below is an excerpt from the survey which details a number of statements that could be chosen. Participants were allowed to choose more than one option in their answer.

- a) It is an electronic tool for self-assessment, a place I can record my experiences during my course.
- b) It is an electronic version of a paper portfolio
- c) It is an electronic filing cabinet filled with examples of my course work.
- d) It is a secure electronic repository for me to collect and store evidence of my skills and knowledge attainment
- e) It is a place for me to reflect upon my learning journey – where I have come from and where I ‘m going – it’s about the process of learning
- f) It is about evidence of skills, but there’s also an opportunity to show the process and to reflect on what this means to me

While all of the options had high response rates as outlined in Figure 5, the most commonly chosen one was a) at 23 per cent, followed closely by b) and d) at 19 per cent. Statement e) was the next most frequent at 15 per cent, then finally f) and c) at 11 per cent of the total 932 responses recorded.

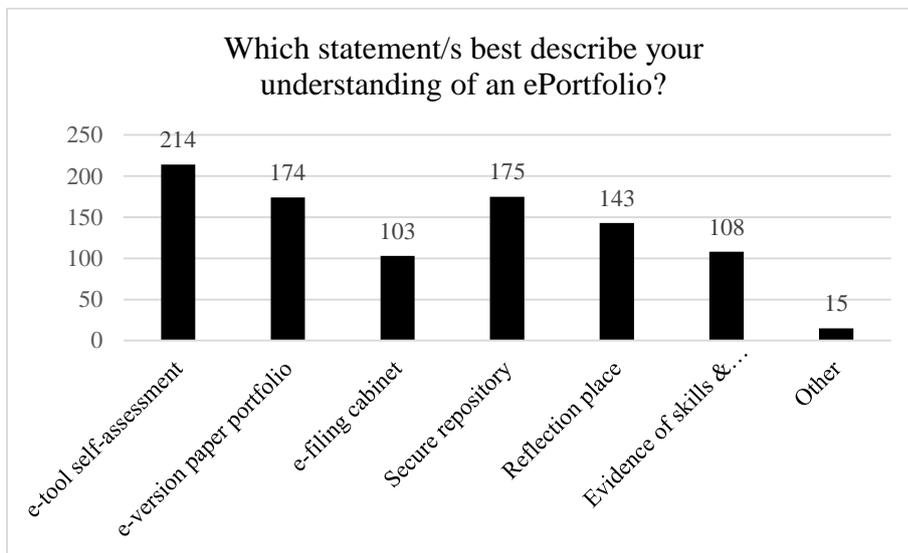


Figure 5. Optional statements describing respondents understanding of an ePortfolio

The second survey question in this group asked respondents about their expected purposes of using an ePortfolio in their particular course. Again, the list of options is set out below and participants were able to choose as many as they wished to answer the question, ‘What purpose do you expect an ePortfolio to service in this course?’

- a) Reflective practice
- b) Student learning
- c) Assessment
- d) Graduate career showcase
- e) Accreditation
- f) Continuing professional development
- g) Employment promotion
- h) Performance review evidence

Figure 6 outlines the students’ responses that totalled 1,539, nearly three times the number of respondents, indicating that students saw multiple purposes in using an ePortfolio in their

courses. The most commonly reported purpose was a) reflective practice (19 per cent), followed closely by b) student learning and f) continuing professional development (both 15 per cent), and then c) assessment at 14 per cent. Graduate career showcase (d) followed at 12 per cent, with h) performance review evidence next at ten per cent, and finally e) accreditation and g) employment promotion (both seven per cent).

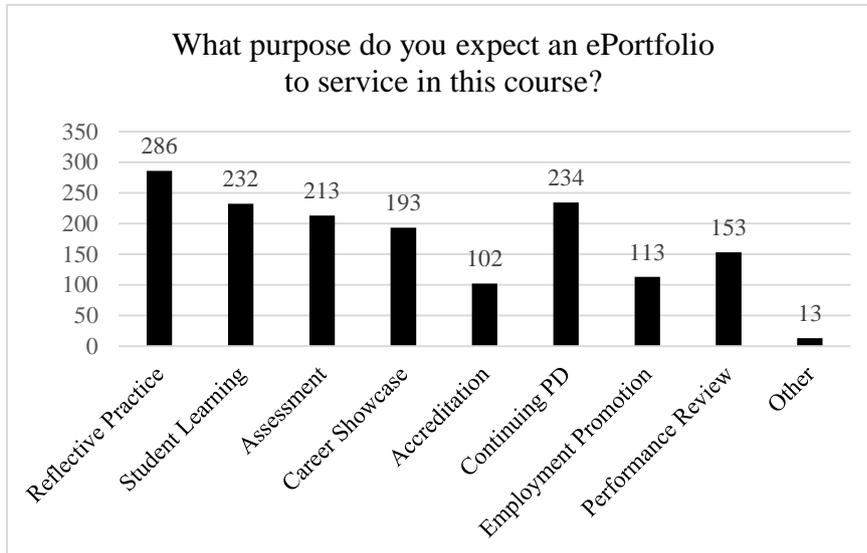


Figure 6. Potential purposes of an ePortfolio in a course

The final question in this set of questions asked respondents to outline what outputs they would like to achieve using an ePortfolio by the end of the semester. Again participants could choose multiple options in response to this questions.

The options were:

- a) Create a CV or resumé
- b) Record critical reflections on my learning experiences
- c) Demonstrate my learning to others
- d) Submit an assessment piece using the ePortfolio
- e) Work collaboratively with peers
- f) Record evidence of competency

The total number of responses was 1,335 (see Figure 7). Interestingly, option b) about reflection was the highest response at 23 per cent, followed closely by f) evidence of competency at 21 per cent. Somewhat lower, given the large number of overall responses, was a) create a CV at 17 per cent, d) submit an assessment at 16 per cent, and c) demonstrate learning to others at 14 per cent. Collaboration (e) was considerably lower at eight per cent.

DISCUSSION

Effective ePortfolio use aligns with a constructivist view that emphasises student-centred learning, which requires self-regulation and autonomy (Hartnell-Young, 2006). In practice, this process of student development is challenging. Using an ePortfolio system involve agency, user input, pedagogy and other complexities that denies its consideration as only a technological tool (Hallam and Creagh, 2010). Understanding early student aspirations, attitudes and conceptual understanding enables insight into the baseline capacity of new users and mediating actions required by implementation managers.

Attitudes towards anticipated use of ePortfolios

The majority of student respondents in this research saw themselves as innovators, active early adopters or willing later adopters in their computer use (91 per cent). While it could be argued that this is not surprising as the largest cohorts (75 per cent) of younger students are digital natives, it must be considered that older aged students, aged 28+ (25 per cent) are also part of this active computer group. Therefore, caution is needed about using age as an indicator of active and/or willing computer user and further research would provide details of what respondents considered as computer use. Yet, such a high number of positive responses to this self-rating question suggests that this is a good foundation on which to introduce ePortfolios, particularly in the first year of academic study.

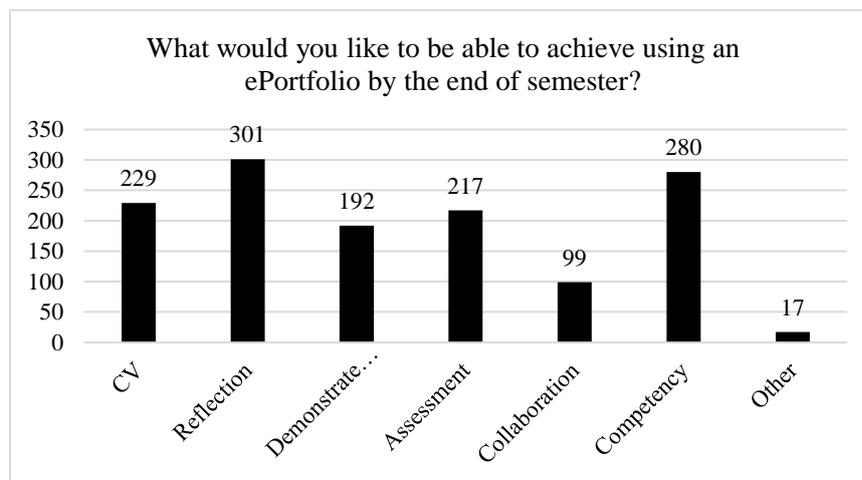


Figure 7. Anticipated outputs from ePortfolios

Students were then asked how they felt about using an ePortfolio in their course. Nearly half of the students indicated that they were either enthusiastic or positive about the upcoming experience, which was lower than the positive self-rating as computer users. Another thirty-four per cent reported they were neutral about the upcoming usage. This suggests that other factors are involved in translating confidence and willingness in computer use to the anticipated reality of using ePortfolio software. As Tosh et al (2005) noted, a clear introduction to the value of using an ePortfolio is vital for effective uptake and this is an area where more work could be done in motivating students to ‘buy-in’ at a pre-use stage. Of course, ongoing motivational conversations are required as there can be a lag time where the value of using ePortfolios may not be so apparent. For example, if the transition for first year students to becoming professionals-in-training comes later in their degree program or when the educator is externally motivating students to add artifacts into their ePortfolio, either through assessment or teaching activities, because they know what is ahead for the students. Yet the students tire of this process until their final year/s when belatedly they realise its importance.

Conceptual understanding of ePortfolios

Students not only need to be willing and confident in approaching a new technology, but it is essential they have a clear conceptual understanding of the purpose of an ePortfolio and its application to their current and future needs. The second half of this research looked at the respondents’ conceptual understanding of an ePortfolio, its expected purposes in their particular course and what ePortfolio outputs they would like to achieve by the end of the semester.

There was a significant number of responses to the first two questions in this section which shows that students understand the versatility of an ePortfolio. The most commonly reported response in question one involved the concept of self-assessment, which aligns with a student-learning approach, rather than a simple concept of converting a portfolio online which was the second highest choice. The responses also exhibited understanding of an online repository that would collect evidence of competency and knowledge, followed by reflection on learning. Reflective practice was the most commonly reported response to the next question about expected purposes of using an ePortfolio, followed by student learning and continuing professional development. Interestingly, the option about submitting an assessment piece was less reported even though a number of courses in this research used ePortfolios as part of an assessment task. The most commonly reported response to the third question about anticipated outputs of using an ePortfolio by the end of semester was reflection, followed by evidence of competency. Again assessment, demonstration of learning and collaboration were less chosen options.

The overall indications from this section are that the student respondents have a relatively mature understanding as pre-users of the purpose of ePortfolios for reflection on learning; one of the more conceptual and challenging steps in the ePortfolio processes (see Becta, 2007). They also see benefit in the collection and secure online storage of evidence of competency but the options related to future careers and practice, such as graduate career showcase, accreditation and creating a CV were chosen less frequently. Given that the largest cohorts in this research were first year undergraduates this may be unsurprising. Consideration is needed, however, as to when to escalate the development of intrinsically motivated students who increasing use their ePortfolios towards employability, accreditation and preparation for ongoing professional development, rather than waiting until final year capstone courses.

CONCLUSIONS

Effective uptake of ePortfolios requires understanding of the users' foundational attitudes, early conceptualisation of the technology and its perceived relevance to their context. This research offers insights into the perceptions of students at the beginning of their ePortfolio learning journey in a regional university. The research showed that most of the student respondents were confident and willing computer users but only about half, however, were enthusiastic or positive about the introduction of an ePortfolio into their course. Yet, conceptually the students had a relatively mature understanding of using an ePortfolio for reflective practice and the collection and storage of their evidence of competency. The next stage of this research is to analyse the data collected from the corresponding post-usage surveys. Although the number of post-use surveys will be less than the pre-use due to a number of external factors, this matching process allows the researchers to gain a deeper understanding of student ePortfolio experience over time and whether early perceptions are met.

BIOGRAPHICAL NOTE

Dr Christine Slade is Academic Developer (ePortfolios) in the Centre for the Support and Advancement of Learning & Teaching, at the University of the Sunshine Coast. Christine is leading the university-wide implementation of ePortfolios using the PebblePad software platform. She recently won a prestigious national LearnX platinum award for this work.

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SHARING LESSONS LEARNT FROM THE ISO 55001 CERTIFICATION JOURNEY

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ABSTRACT

Facilities are complex. They consist of building fabric, internal fittings, service assets and external assets all of which provide functionality and allow utilisation of the facility. All of these systems have different design lives, operational methods and maintenance requirements and yet they are expected to provide a consistent and reliable service both individually, and as a whole facility, from their inception through to the end of their life. In this paper, the authors share the lessons they learnt: the challenges, some of the key successes in their journey to towards achieving certification, and suggestions on how to move beyond the standard towards asset management excellence.

KEY WORDS

asset management, ISO 55000, asset management system, facility management, assets

INTRODUCTION

What is asset management?

According to International Standard 55000, an asset is an ‘item, thing or entity that has potential or actual value to an organisation’ (ISO, 2014, p. 3). Asset management according to this Standard involves the ‘balancing of costs, opportunities and risks against the desired performance of assets, to achieve the organizational objectives’ (ISO, 2014, p. 3). ‘Asset Management enables an organisation to examine the need for, and performance of, assets and asset systems at different levels. It enables the application of analytical approaches towards managing an asset over the different stages of its life cycle (which can start with the conception of the need for the asset, through to its disposal, and includes the managing of any potential post disposal liabilities)’.

What is ISO 55001?

The rise of asset management in delivering strategic facility management has been rapid. Changing contract delivery models, the introduction of Public Private Partnerships into the Australian market in the early 2000s and the challenging economic cycles have all been catalysts for this strategic shift. The ISO 55000 series is a standard for asset management. According to the Asset Management Book of Knowledge, the standards set out the frame work for managing the use of assets, asset management system and processes (AMBoK, n.d., p. 3).

With this in mind, facility management stakeholders are required now more than ever to optimise resources, understand their assets, respond effectively to asset failures, deal with ageing assets and renewal issues and understand how technology advancement can provide proactive solutions for asset management. This is our journey.

OUR JOURNEY

Our asset management excellence journey commenced in August 2014. The journey so far is illustrated in the below figure:

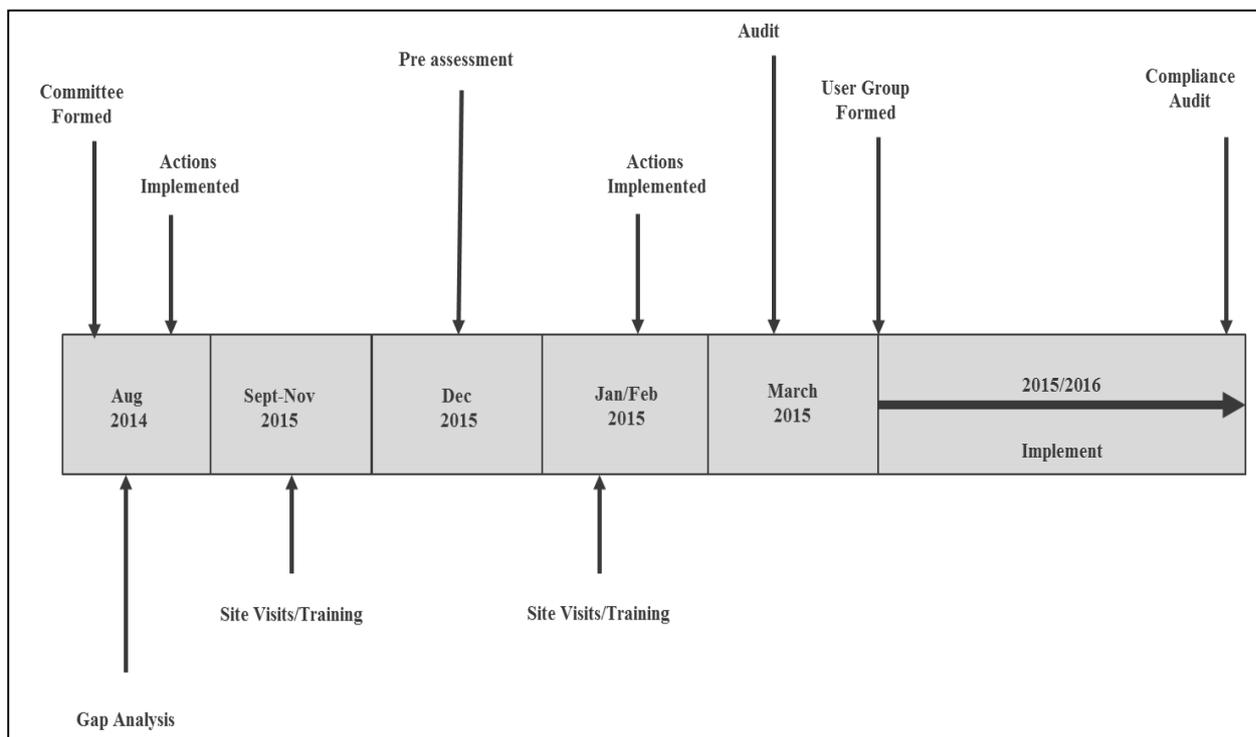


Figure 1. Asset Management Excellence Journey

Milestones

The project was broken into several milestones these included:

- conception and planning
- strategic assessment and improvement
- operational assessment and improvement
- certification and
- realising the benefits through key successes

Conception and Planning

An Asset Management Steering Group was established in August 2014 to develop the strategic asset management plan and provide professional input to the management of assets that Programmed Facility Management is responsible for or manages on behalf of a client or customer.

The group comprises senior management from advisory, business systems, operations, finance, health and safety, environment and quality, sales and strategic development. They conduct the following reviews:

- policies, procedures and guide lines related to asset management
- random samples of asset analyse data ensuring compliance with policies and guide lines
- legislation changes to ensure they are communicated to operation teams

- review and recommendations to the management team on the creation of, or changes to asset management policy, standards and guides
- communication of asset management activities to provide knowledge across Programmed FM, through asset management alerts and workshops.

Strategic Assessment and Improvement

Mapping the current state of the strategic asset management systems against the strategic plan was conducted by a nominated Asset Management Champion Team. This team reviewed the current culture, processes and procedures to the strategic plan. A strategic improvement plan was developed to re-align the business to the ISO 55001. Some of the strategic actions from the improvement plan implemented through site visits and workshops are listed below:

- development of the asset management policy
- development of a strategic asset management plan
- development of asset management training modules
- alignment of processes and procedures to the standard
- development of an asset management process manual that documents the whole of life asset phase processes
- re-alignment of existing and development of asset management plans at operational level
- facilitation of root cause analysis workshops and
- facilitation of reliability centred maintenance workshops.

Operational Assessment and Improvement

At operational level, the Asset Management Champion Team conducted asset management excellence assessments using our in house tool. This tool assesses the current status of the processes and procedures not only to the ISO 55001 standard but to industry best practices. An example of a particular contract is shown in the diagram below:

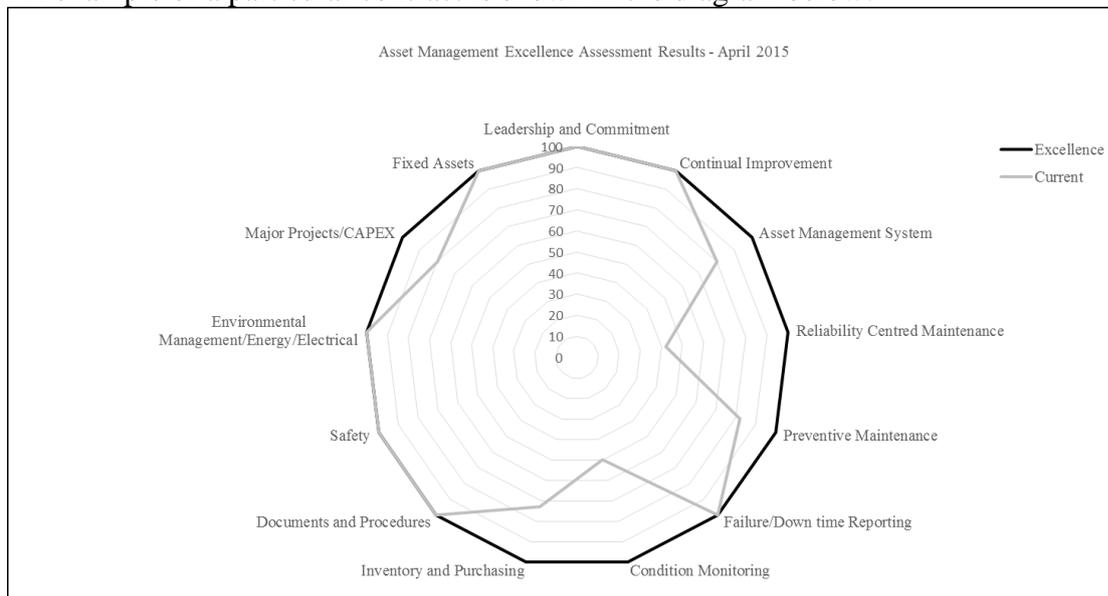


Figure 2: Asset Management Excellence Assessment Results (Example April 2015)

As shown in Figure 2, the outer ring is the Excellence status, the grey line is the current status of the operation.

Some of the improvements implemented so far include:

- having a nominated and trained reliability centred maintenance facilitator on site
- reviewing critical spares and develop bills of materials to critical assets
- review and analyse the condition monitoring program and
- ensuring processes are adhered to ISO 55001.

Within the last four months of these improvement plans being implemented, this particular operation has moved significantly from the current status towards excellence status. This is shown in Figure 3.

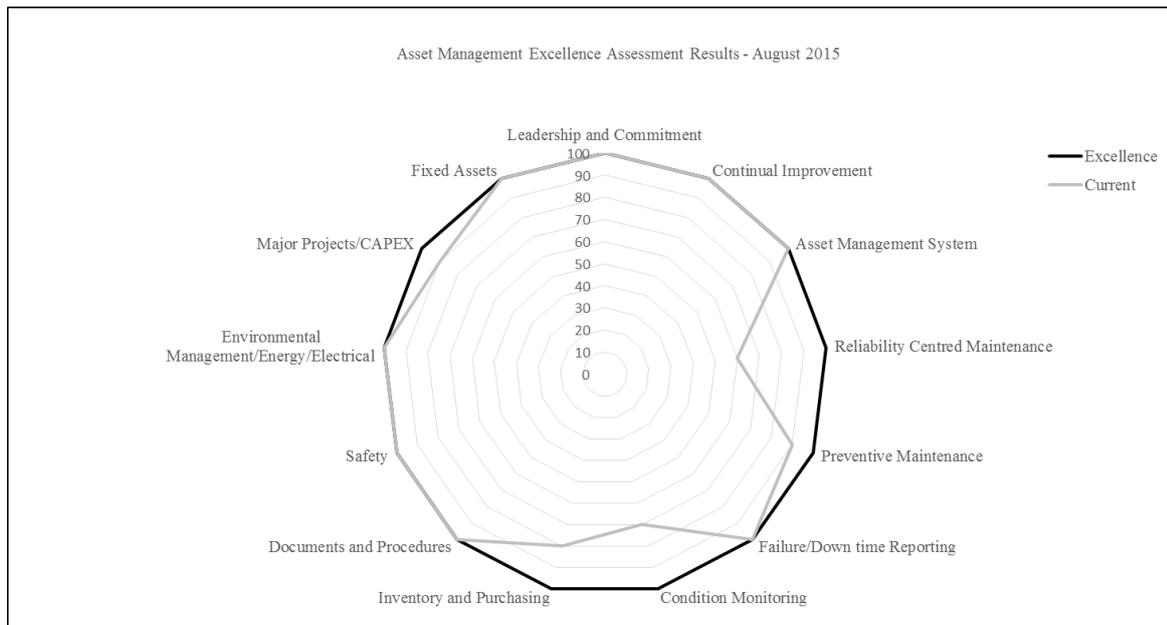


Figure 3: Asset Management Excellence Assessment Results (Example August 2015)

Certification

The Asset Management Champion Team led the business through the asset management excellence journey to certification in March 2015. After achieving certification with SAI Global, the business is now awaiting the JAS ANZ accredited certificate.

Realising the benefits

The benefits are being realised by both an operational level as those described above, and at a strategic level. This is being achieved through the use of an Asset Management User Group that is cross functional across the business. The Asset Management User Group, comprises of operation managers and their asset management champions. The Asset Management User Group provides leadership to facilitate the effective implementation and management of the asset management system and processes in line with the ISO 55001 asset management standard and industry best practice. These monthly workshops are forums where:

- issues, risks and opportunities, the reports, key performance indicators and other matters relevant to the asset management system and processes (including performance issues related to the services) are discussed and solutions proposed for consideration
- progress and performance of the asset management implementation is monitored
- knowledge and experience of the asset management processes across the business is shared
- workshops relating to asset management continuous improvement are conducted
- industry experts are invited to provide insights into best practice asset management.

LESSONS LEARNT

The lessons learnt along the asset management excellence journey are continuing. The journey is not stopping at the achievement of ISO 55001 certification but moving beyond the standard to industry best practice asset management excellence. Some of the lessons learnt so far on this journey include:

- Not to underestimate the work involved and dedicate full time resources.
- Develop a realistic budget.
- Use technical resources with writing skills and knowledge/experience. Programmed Facility Management used external consultants as ‘sounding boards’ to review progress and gain further insight to the ISO 55001 standard. This was invaluable.
- Don’t reinvent the wheel, the gap analysis at the beginning of the journey highlighted that many of the processes existed but needed to be realigned to the ISO 55001. This saved a lot of time and effort. And
- Set realistic time frames for the culture change.

CHALLENGES

One of the initial challenges that Programmed Facility Management faced was to raise awareness of the asset management approach. So one of the first tasks of the Asset Management Champion Team was develop and roll out an Asset Management 101 on line training module. This is now conducted as business as usual for all existing employees, new inductees and contractors.

Having enough resources to deal with operational culture change. Since achieving certification the momentum of the asset management excellence journey has been rapid. Constant communication is a must and having the appropriate level of resources to manage the change has been a constant challenge. This is being addressed by the recruitment of asset managers in the operational teams.

Upskilling the workforce with the appropriate competencies and the use of mobility tools to ensure the right information is captured in the field. The challenge now is ensure asset related decisions are made in a timely manner. This is being assisted through the use of business intelligence reporting.

KEY SUCCESSES

Some key successes to date that Programmed Facility Management are realising include:

- The Asset Management User Group has been a vehicle to reduce the silo based culture. Asset management is now considered a One Team Approach.
- Client and customer buy in through value add initiatives. The Asset Management User Group work on resolving potential problematic and actual problematic assets across different facility types. With the input of different skilled and experienced personnel across the business, many ideas and learnings area shared. These initiatives have provided further qualitative and quantitative data that provides factual decision making criteria which in turn has optimised asset life and achieved bottom line cost savings.

For example a problematic asset at one contract in Victoria was workshopped with other similar type facilities across Australia. Since the improvement initiatives being implemented the non-conformances of this asset have reduced significantly.

- Continuous improvement through the use of an asset management excellence assessment tool. This tool compares the processes with industry best practices and the international standard. The tool is used on operational contracts and provides strategic improvement plans for each operation to achieve alignment across the business. The assessments are conducted every six months and are reported to the Asset Management Steering Group for review. The main areas of focus so far include:
 - reviewing and trending data analysis and implementing corrective actions,
 - conducting root cause analysis on non-conformances using across business mini working groups,
 - conducting potential non-conformance analysis working groups through the use of reliability centred maintenance,
 - ensuring the management of change process is adhered to and the asset register is management and updated regularly and
 - learning from capital projects and documenting hand over procedures from capital to maintenance.
- Achievement of the certification. Programmed Facility Management achieved this certification in March 2015. Programmed Facility Management are the first company to achieve the certification with SAI Global, and are currently awaiting the accredited certificate from the JAS ANZ accredited body.

BEYOND ISO 55001

From the outset of the journey, senior management have communicated the commitment of achieving asset management excellence for all Programmed Facility Management operational teams. This does not stop at obtaining the certification. Rather achieving the ISO 55001 is the foundation for asset management excellence. Moving beyond the certification includes the following plans:

- adoption of industry best practice as business as usual
- conducting benchmarking nationally and internationally
- implementing future technology and innovations and
- implementing industry think tanks.

CONCLUSION

Assets, and value realised from them, are the basis for any organisation delivering what it aims to do. Whether public or private sector, and whether the assets are physical, financial, human or 'intangible', it is good asset management that maximises value-for-money and satisfaction of stakeholders expectations. The culture within Programmed Facility Management has embraced the change and the momentum is rapid. Programmed Facility Management realise that good asset management does not mean having indefinite amount of money to do everything, but rather having reliable data to make the right decisions so that the value adding initiatives can be implemented within the available budgets and resources.

While Programmed Facility Management continues on the asset management excellence journey, there is evidence of excitement and support for asset management both internally

and externally. To achieve this, facility management stakeholders need to optimise resources, understand their assets and respond effectively to asset failures, deal with ageing assets and renewal issues, and understand how technology advancement can provide solutions for asset management.

Programmed Facility Management has taken a proactive approach to our customer's requirements we have adopted a lead by example approach and are embarking on our own journey to asset management excellence including the implementation of the game changing ISO 55001 asset management system international standard.

BIOGRAPHICAL NOTES

Liz Topolcsanyi is a mechanical engineer and is a senior member of the advisory team at Programmed Facility Management specialising in maintenance, reliability and Computerised Maintenance Management Systems implementation and support.

Rob Norton is the Operations Manager for Programmed Facility Management NSW, specialising in the delivery of service excellence across contracts in this region. He has a background in electrical engineering, continuous improvement and general management.

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CURRENT PRACTICE IN ACADEMIC WORKLOAD ALLOCATION PROCESSES IN AUSTRALIA

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ABSTRACT

Embarking on a large-scale research project to investigate aspects of academic workload management, it was first necessary to gain some understanding of current practice in that context within Australia. With that aim a pilot survey was conducted in 2013 that targeted Deans of Science on the one hand, and workload managers on the other. Survey questions covered three key areas related to workload management: models and rules; process and policy; and systems and software. Comparisons between different types of university, different allocation models for teaching, research and service components of academic workload, and different sizes of academic unit were explored. While the number of responses in absolute terms was relatively limited, and hence the outcomes were not always statistically testable or generalisable, broad trends were readily identifiable. This paper reports on the method and outcomes of the survey, and describes how the information that was obtained has informed the development of an in-depth research project.

KEY WORDS

academic workload management, academic workload models

INTRODUCTION

Academic work in Australia, and also in many other countries, has become increasingly regulated. There have always been more or less formal rules within institutions that describe work expectations for academics, and attendant processes of varying formality. Drivers such as larger student enrolments and decreased funding have contributed to higher teaching loads which in turn require closer regulation in order to avoid overloading staff which can lead to a range of personal and professional issues (Hemer, 2014; Boyd, 2014). With increasing regulation, those rules and processes have become more clearly defined, and have begun to appear, in part at least, in the enterprise agreements negotiated at universities (Rea, 2012). The rules are commonly called a ‘workload model’ or henceforth just ‘model’.

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Because models and their deployment can have a huge effect on staff, students, and organisations, they have become the subject of numerous studies (see Dekeyser et al., (2014) for a useful introduction). Most studies investigate some aspects of model usage such as staff satisfaction (e.g. Vardi, 2008; Houston et al., 2006)) or are case studies within a single institution or at most a small number of institutions (e.g. Barrett & Barrett, 2010; Dobeles et al., 2010). The survey reported here is part of an ongoing study of much larger scope, to inventory a wide range of models seeking to understand and compare models on a quantitative basis, with the eventual aim of being able to make clear judgments about utility and applicability of models.

The pilot survey was intended to inform the authors in the design of a further more detailed and extensive survey, and to guide them in the acquisition of information about actual models that are available for study. It was anticipated that some questions would provide expected answers, others would expose novel results, but that a third group would result in inconclusive or ambiguous results. These are all seen as excellent outcomes in the context of planning for subsequent investigation.

The paper first briefly describes the survey methodology. Results are then presented and discussed; some of the ambiguous or inconclusive results are omitted so that the noteworthy can be presented. A discussion of overall conclusions follows the results, and the paper concludes with a presentation of ongoing work informed in part by this survey.

THE SURVEY

The survey consisted of 39 multiple choice and 4 open ended questions related to three main areas: Models and Rules (21 questions); Process and Policy (10 questions); System and Software (6 questions). Two additional questions were related to the respondent's role within their institution and the type of institution within which they are employed. All multiple choice questions required the selection of one categorical response from a varying number of options, depending on the question.

The Models and Rules group of questions focused on identifying the specific workload model used by the respondent's academic unit and the rules that make up that model. The Policy and Process group of questions focused on the how academic workload policy at an institutional level is implemented through business processes at the academic unit level. The Software and Systems group of questions related to the software used to manage academic workload allocations.

Because of wide variation in understanding of the term 'workload model' a clear definition was provided as part of the survey introduction. A model was defined as 'a collection of detailed rules that determine workload allocations for staff and/or units or courses'; this was further amplified by examples such as 'assessment of one student in a semester course/unit attracts 1 hour of workload'.

The survey was created by the authors based on their experiences managing academic workload and assisting others to do so across a range of models and disciplines. It was also informed by informal discussions with academic managers from Australian universities who participated in LHMartin Institute for Leadership and Management in Higher Education (LHMI) workshops prior to the survey.

Over half of the questions related to the models, as understanding the range of approaches was seen as fundamental to determining the direction that more focussed research could take. Questions were designed to elicit information about the overall style of model, especially with regards to the ways of dealing with teaching, research, and service, as well as the kinds of rules that make up a model. The respondents were also asked to evaluate aspects of the model's deployment.

The process and system questions aimed to capture a view of the environment in which workload models were being deployed. The smaller number of questions in these areas reflect the fact that this investigation is still in the early, exploratory stage.

The survey instrument used was a Google Docs spreadsheet presented as a web form, open to any person who obtained its link. All questions were shown in a single web page, with drop-down boxes and radio buttons to enable easy data entry as well as ensure consistency. The web survey also presented a link to a short document explaining terminology used. After the survey closing date, the data was exported in spreadsheet format and subsequently loaded into SPSS version 21.0 for analysis.

In March 2013 the online survey link was sent via email to 37 Deans of Science across Australian universities and 63 past attendees of three LHMI workshops run between 2010 and 2012. No information which would enable direct identification of respondents was collected in this survey. Ethics clearance was obtained from the Melbourne Graduate School of Education Human Ethics Advisory Group. Two reminders were sent prior to the survey closing on 5 April, at which point 34 of the 100 recipients had responded.

RESULTS

In this section the more significant results of the survey are presented. Responses to individual questions are presented where they appear to show an interesting result. Associations between pairs of questions are also presented: an association is considered significant if, for a particular response to question A, a high proportion (greater than 80 per cent) of those that chose that response also chose a particular response to question B. It is acknowledged that it is impossible to attach statistical significance to these results due to the small sample size. However that was not the aim of the pilot survey; rather the survey has identified areas of interest that should be explored further in a variety of wider and more systematically designed investigations.

Demographics

The survey response rate was 34 per cent, the majority of whom (74 per cent) identified their role within their university as one associated with academic management e.g. Dean or Associate Dean of Faculty or School, Head of Department or School, Faculty Manager or Workload Co-ordinator. Respondents were from a range of institution types including: Group of Eight members (Go8, four respondents), Innovative Research Universities (IRU, five), Regional Universities Network members (RUN, nine), Australian Technology Network (ATN, six). A further ten respondents were from unaligned universities.

Respondents managed predominantly larger organisational units (68 per cent with at least 100 academic staff) and unsurprisingly the units were quite diverse (82 per cent of units managed comprised at least three disciplines, with half of the units including at least five disciplines).

Twenty two respondents (64 per cent) identified the dominant discipline within their unit as Science, Engineering, ICT or Health, which reflects the bias introduced by directly inviting Deans of Science to participate.

Models and Rules

Models universally group academic work into at least three categories: teaching, research and service. (The precise names differ between institutions, and some institutions have other categories such as research student supervision and administration.) A survey question asked whether the relative sizes of these categories was fixed for all staff, variable between staff or determined using some other scheme. The majority of models (71 per cent) used the ‘variable’ scheme, while the ‘fixed’ method accounted for almost all (24 per cent) of the remainder. This challenges a commonly-heard assumption that most Australian universities still follow a long established fixed 40/40/20 per cent distribution.

Work allocated within the research and service categories are similar in that associated duties are not as simple to identify and in particular quantify compared to work allocated within the teaching category. Respondents were asked, for both research and service, whether work was allocated as a single non-specific ‘block’, to specifically identified duties, or by using another method. Just over half (56 and 52 per cent respectively for research and service) of the models used a block allocation, with a strong association between the two results. Specific duty allocation accounted for most of the remaining responses, being used in 32 per cent (research) and 44 per cent (service) of the cases. It would be useful to know more about the specific duties in these two cases, and indeed to have a clearer definition of the research and service categories. If academic administration roles such as program coordinator, and research-related roles such as student supervision were excluded from the categories it may well show a much more common use of block allocations.

A much wider range of options exist for allocating teaching workload. Five ways of allocation teaching workload have been identified in the literature:

1. constant per-course/unit allocation (Hull, 2006),
2. contact/lecture hour based (Burgess, 1996),
3. based on estimated hours to perform the task (Vardi, 2009),
4. points-based—like the estimated hours method but using a notional point value (Ringwood et al., 2005), and
5. cost based: depending on income generated by course/unit (Filby and Higson, 2005).
- 6.

Respondents showed a range of responses, with the majority (85 per cent) relatively evenly spread between methods 2, 3 and 4 (24, 32 and 29 per cent respectively). However if the estimated hours and points based responses are combined, because they both attempt to estimate the relative effort required to complete a specific academic task (albeit using different units), they together account for 61 per cent of the responses. Both these methods account for work at a relatively low (task specific) level, which places an onus on the workload manager and requires appropriate accounting systems.

Respondents were asked to judge the complexity of their model and also to estimate how many distinct rules the workload model contained. The results appear in Figure 1. It would be expected that the more complex models have more rules, which is largely borne out by the results, though there were some apparent inconsistencies. Almost half of the respondents thought their model was complex, yet only 32 per cent of models had more than 30 rules. This could imply that the minimum number of rules to render a model ‘complex’ is somewhere

between 10 and 30. However, respondents may have assessed complexity over the whole of the model, to a lesser or larger degree independent of the rules used to allocate teaching.

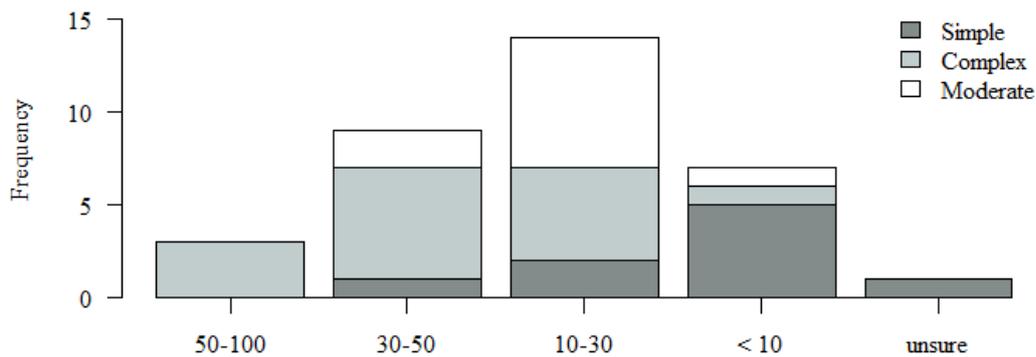


Figure 1. Model size and complexity

The complexity of individual rules was estimated based on whether or not all rules could be expressed as a linear function of a single variable. Linear rules are deemed relatively simple. The question gave as an example of a linear rule: ‘workload hours [that] scale with the number of enrolments or with the number of contact/delivery hours’. While the majority (68 per cent) thought their rules linear (i.e. simple) a significant proportion did not. This contradicts the authors’ subsequent experience of examining over 25 detailed institutional models (almost all of them using linear rules only), and points to the need for more investigation.

The respondents’ view of model clarity (‘is it unambiguous?’) was solicited, as well as the very subjective ‘Does your unit’s workload model work for you?’. The second question specifically asked if the respondent believed that the model’s deployment was ‘beneficial to the academic unit’. Figure 2 shows the combined results of these two questions. There is a very strong association between clear unambiguous rules and the perceived benefit of the use of the model.

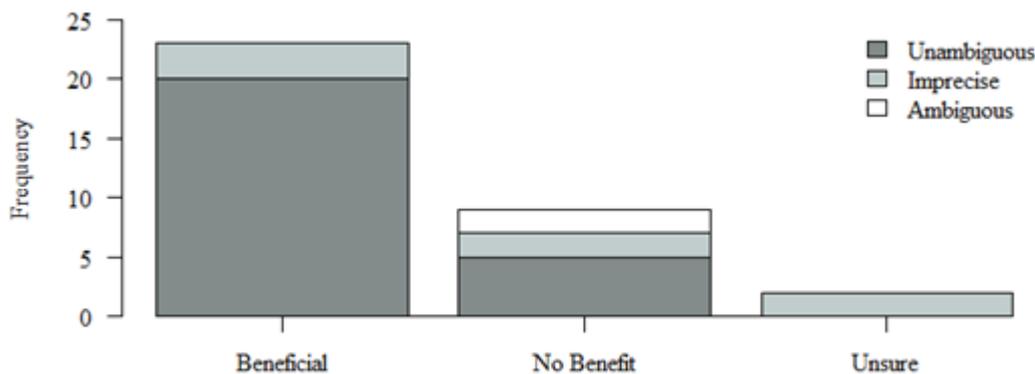


Figure 2. Model utility and clarity

Model generosity describes whether a model allocates sufficient time to complete the associate academic task (generous), or allocates insufficient time (ungenerous). While only 24 per cent of respondents judged their model as ungenerous, 59 per cent believed that their staff considered the model ungenerous. This seems to confirm anecdotal evidence of the tension between managers’ desire to contain costs and academics’ perceptions about the effort needed to deliver university courses.

One question addressed the perceived relationship between workload model and the cost of running the academic unit; four responses were possible: that model usage increased costs, decreased costs, had no effect, or that the respondent was unable to judge. Interestingly this had a very even range of responses, between 21 and 29 per cent for each possible response.

When comparing answers to the question about generosity, 90 per cent of the ‘decreases costs’ respondents believed their model was ungenerous. However, the reverse did not hold as only 11 per cent of ‘increases costs’ respondents believed the model to be generous.

Process and policy

The questions in this part of the survey were somewhat exploratory or speculative in nature, as the issues associated with applying a workload model are unclear. The responses in general were unsurprising and so will be reported mostly without comment.

The majority (88 per cent) of models were deemed to be either fully or mostly compliant with the institution’s enterprise agreement. However the authors’ subsequent experience, based on interviews with workload managers, indicates that practice at institutions that officially state a fixed 40/40/20 per cent of distribution of teaching, research and service, is often much more flexible and hence only matches policy to a degree.

Almost half the models (47 per cent) were deployed in a single academic unit, and a further 32 per cent were used across a small number of units. The smallest grouping was for institution-wide deployment (21 per cent).

Respondents were asked how well workload management processes were integrated with other traditional HR processes such as promotion or performance management. There was an equal division between ‘not integrated or unsure’ responses and the ‘integrated’ responses.

A question asked whether managers were adequately trained in either the workload policy or in the process aspects including supporting software systems. A surprisingly large proportion (41 per cent) of respondents believed that managers were not well trained in either aspect and only 35 per cent answered that managers were trained in both aspects.

Workload allocation was performed mostly by the head of the academic unit (62 per cent) with a workload coordinator—who is identified as an academic staff member—accounting for another 26 per cent of responses. There were two instances of a deputy/associate dean being involved but only one instance of management being performed by a non-academic staff member.

The majority (71 per cent) of respondents believed that the workload allocation process is relatively efficient while 21 per cent thought it took too long. There was no association found between these answers and possible influencing factors such as model complexity or the kind of model used to allocate teaching.

System and software

The kinds of supporting software used to support the workload allocation process are of particular interest as two of the authors have had experience in both developing workload management software and in using it while in the department head role.

There are two key aspects of workload management software applications: the underlying architecture (spreadsheet or database) and whether it is a single-user application or it can be accessed by multiple users. The use of spreadsheets is anecdotally widespread but they are notoriously error prone, while single-user applications preclude both cooperation between a group managing workloads and easy dissemination of individualised information to staff. The use of spreadsheets predominates (68 per cent) while almost half (44 per cent) of the

applications are single-user. This shows clearly that the majority of respondents are managing their staff workload with systems that are far from optimal.

Most of the software (71 per cent) used was developed within the institution as compared with commercial off-the-shelf software (24 per cent). No clear associations were found to link either kind of software with aspects of model or process.

Respondents were asked about the breadth of deployment of the software system that they use. The frequency of answers was inversely proportional to the size of the academic unit. The proportions of use within a single unit, a group of units (e.g. a faculty) and the entire institution are respectively 41, 29 and 18 per cent, with 12 per cent unsure. Unsurprisingly, all of the 'institution wide' software users also had an institution wide model. The reverse was almost true, with a single exception: one of the seven institution wide model users reported the use of 'faculty level' software.

Transparency can be seen as either a model, process or system issue. Transparency has a number of interpretations, but in this survey it was defined as the degree to which staff in the respondent's unit can see the workload allocations of their peers. It is becoming common to see the principle of transparency enshrined in university enterprise agreements. Some 29 recent EBAs from different universities agreed since 2009, available from the Fairwork Australia website, have been examined. All require the workload allocation process to be fair and equitable, and 24 require transparency, though only four of these EBAs mandate the publication of workload allocations of all staff in an academic unit to other members of that academic unit. Local rules made within the framework of the EBA may require publication to demonstrate transparency but this is not mandated by an Agreement.

Almost half (47 per cent) of the systems allow full transparency and a further 26 per cent can see some of their peers' workload (e.g. that associated with units/courses that both staff members teach into). Some 24 per cent reported an opaque system where staff were by design unable to access any details of their peers' workload.

Free-form survey questions

Four questions asked for a free text response. The questions sought the respondents' views on

1. issues with their current workload model (16 responses),
2. what alternatives/improvements would they suggest (8 responses, 7 expressed dissatisfaction with current model),
3. issues with current policy/process (13 responses) and
4. issues with overall workload tool (9 responses).
- 5.

Often the answers to one question related more closely to the one of the other questions. Responses have been regrouped accordingly and will be considered under items 1—3 listed above. The 'tool' comments have been included in the other three groups. These optional comments clearly are not a majority opinion but do give an insight into the concerns of workload managers. Comments have been reworded for clarity, and in order to unify a number of related responses.

Current model issues. The following are representative of responses.

The use of performance based research allocations can have a negative effect on teaching quality. It is difficult to quantify and model the resources required for non-traditional modes of delivery such as online teaching. Rigid and explicit models can impact staff behaviour. For

instance they may be unwilling to do some requested task (by a peer or supervisor) unless it is listed specifically in their workload. Also tight teaching allocations discourage experimentation with pedagogy that could be beneficial. It is difficult to identify and quantify all aspects of academic work.

Alternative and improvements. Most respondents indicated that the workload model worked for them, though they stressed the importance of equity and the need for a consistent system. Simplicity was a common theme—respondents would prefer a simpler system. Another theme related to model rules: how could the relative value of different types of work be established, and the need for flexibility to cater for new types of work?

Issues with policy and process. Time constraints were identified: both the amount of time required to perform the allocations, and the need to allocate work before final enrolments are known. Different models across schools, departments and faculties within a university lead to inequity or at least a perception thereof. Processes to review the model are not seen to be timely or effective. Workload allocation systems need to be better integrated with other university systems such as performance management.

Transparency was a common concern from a number of respondents. This applied within a unit, where individuals' workload was opaque, as well as across an institution where comparison of different models in place was not possible.

Associations

While only a few notable associations between question results have been reported above, a very widespread association appeared that was related to one particular response. Seventy four per cent of respondents answered 'Yes' when asked 'Do you, in your current role, believe that having the model in place is beneficial to the academic unit?' (see Figure 2). For many other questions, a particular answer was very well associated with this response. For example, over 80 percent of the respondents who answered that their model was generous also believed that use of their model was beneficial. Other responses in the over 80 percent category include:

- respondent was a dean,
- very heterogeneous model,
- estimated hours used to allocate teaching work,
- moderately complex model and between 10—30 rules,
- deployed within a single unit,
- work allocation tied in with performance,
- head of unit allocates workload,
- acceptable efficiency and
- transparent system.

DISCUSSION

The small sample size of the survey makes it impossible to make statistically supported statements about the results and especially about relationships between the responses to pairs of questions. The results do however identify apparent dominant practice in the sector such as

- use of individually variable proportions for teaching, research and service allocations,
- teaching allocations use task-based allocations (either estimated hours or points),
- models are mostly compliant with enterprise agreements,
- systems are mostly transparent and

- most systems are spreadsheet-based.

Many results were unsurprising, such as workload management being performed by academic supervisors, the respondents' views on model generosity, and the strong association between institution-wide model and system deployment.

Other results were somewhat unexpected, and warrant further investigation or at least monitoring to determine whether the situation is changing over time. For instance, the continued use of inflexible and error prone spreadsheet software, and the lack of integration of workload systems and processes with other institutional systems and processes seems problematic and likely to change in the future. The rate of use of institutional models is quite low (21 per cent); this may increase over time as pressure for better budgetary control and transparency across an institution increases.

There are still many open questions which could not be answered given the small sample size. It was not possible to find any associations between, for example, model complexity and other process issues like perceived efficiency. Likewise the kind of institution or size of unit was not associated with any of the answers reported in the survey.

Another issue is the way research and service allocations are managed, in particular the role of 'block' allocations compared to specific task allocations. The survey did not look at these in detail, but they can be very important as, for the dominant variable allocation scheme, staff members' teaching allocations can vary greatly depending on these allocations.

The relationship between workload allocation systems and institutional budgets and financial models is largely unexplored and only touched upon lightly here, with little useful result. It would be interesting to test the hypothesis that models influence costs only when the model is created at the same level of the institution where budgets are set.

SHAPING THE DIRECTION OF THE RESEARCH PROJECT

As mentioned in the introduction, the pilot survey was originally intended to inform the authors in the design of a further, more detailed and extensive survey. However, some of the outcomes necessitated a review of that objective. Firstly, it was clear that obtaining a significantly larger sample set would be non-trivial; workload managers are relatively few in number compared to the overall academic body, and the nature of their duties possibly precludes having capacity to complete a detailed list of questions.

But more importantly, the results in some critical areas (for example, complexity and cost-effectiveness) hint that respondents may have a local, non-common, understanding of key components of workload management. The possible different interpretations of some of the questions, driven by the local context, may explain the even range of responses in such cases. The authors concluded that any attempt to create a common understanding of a wide range of aspects of academic workload management among respondents in a larger scale survey would be problematic, and would likely reduce the response rate in any case.

While the plan of a subsequent large-scale survey was hence abandoned, the outcomes of the pilot were nonetheless instrumental in the further development of a revised in-depth research project. The overall, ambitious objective of the project remains the same: understanding current

practice in academic workload allocation processes in the Australian higher education sector, and their effects on a wide range of issues such as research productivity and casualisation of teaching.

Instead of attempting to gain that understanding through asking managers a set of standard questions, the authors have decided to first create an inventory of workload models currently used in Australian universities. This phase of the project is proceeding well, with descriptions of more than 25 models now stored in the project repository. The original textual descriptions of these models are being translated into standardised or canonical representations so that direct comparisons can be made. Where uncertainty of interpretation of the published institutional models exist, managers at the associated institution are interviewed to seek clarification.

While canonicalisation is labour-intensive, it has already led to new insights into the creation of workload models (Dekeyser et al., 2014).

Two of the authors have developed workload management software, called WAMS, that employs a web interface, fine grained role based access control, and a sophisticated generic database design. The teaching components of some of the models that have been gathered have been recorded using WAMS. A number of 'standard' units or courses have been defined, with parameters such as enrollment, number of lecture and tutorial hours and marking time allocation. The WAMS software can calculate the effort required for each model-course pairing. These imaginary standard courses/units form a benchmark suite: by using WAMS the relative 'cost' of the teaching component of models can be calculated and compared. Preliminary results indicate a surprisingly wide range of resource allocation for the same input, and are identifying a number of open questions that will require additional study.

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