



RESEARCH IN HIGHER EDUCATION REPORTS

Interdisciplinary Research Education and Staff Development: An Interdisciplinary Study

By Catherine Manathunga

Brief Description of Project

This research project investigated the issues involved in developing interdisciplinary research education and academic staff development across an Australian university. It also developed a systematic program of interdisciplinary research activities in an interdisciplinary chemical engineering/microbiology research centre and in a health science school. Our project team involved an interdisciplinary group, including A/Professor Paul Lant, a chemical engineer, and A/Professor George Mellick, a health science researcher and myself, taking the leading role and coming from an interdisciplinary historian/higher education background.

In the first part of the study, I interviewed experienced interdisciplinary researchers. These researchers conducted cutting edge research in this range of interdisciplines:

- Biotechnology;
- Cognitive Psychology;
- Communication Studies;
- Materials Science working with a range of Social Sciences;
- Health Sciences working with a range of Social Sciences; and
- E-Commerce.

In particular, these interviews explored successful interdisciplinary researchers' beliefs about the knowledge, attitudes and skills required for interdisciplinary research and identified examples of successful interdisciplinary research education programs across the university.

The two case studies involved the project team members working in collaboration with academics, research-only staff and research students to develop two diverse strategies for developing research students' interdisciplinary research knowledge and skills. These strategies were systematically evaluated.

Research Findings

In the first part of the research project, interdisciplinary researchers outlined some of the significant emotional and intellectual rewards involved in conducting interdisciplinary research. In particular, they spoke of the mental stimulation, creativity and innovation that came from working with people from different disciplinary perspectives. They also indicated, however, that there remained significant structural challenges in doing interdisciplinary research. These included difficulties with promotion panels, gaining recognition for publications in other fields, crossing administrative faculty barriers, accessing grants, communicating across disciplinary

Contents

Interdisciplinary Research Education and Staff Development: An Interdisciplinary Study By Catherine Manathunga	1
From the Editor.....	2
President's Report.....	4
HERDSA 2007 Conference.....	5
From Problem-based to Studio Learning for Requirements Engineering By Jocelyn Armarego	7
Becoming a Tertiary Teacher in New Zealand: Learning in Communities of Practice By Alison Viskovic.....	9
Report on a Research Project Investigating the Ability of Students to Transfer Mathematical Skills and Knowledge By Sandra Britton, Peter New & Manju Sharma	10
Conducting Assessment Online: Educational Developers' Perspectives By Peter Donnan	12
Detecting and Dealing with Warning Signs in Postgraduate Research Supervision By Catherine Manathunga	15
Report on the 31st International Conference on Improving University Teaching, Dunedin, New Zealand By Rachel Spronken-Smith	17
A Study of Resilience Reflected in Lives of Academic Staff By Kay Salehi	18
INTERNATIONAL COLUMN EXCHANGE In the Spotlight: Teaching and Learning as a National Enterprise By Shelda Debowski, President of HERDSA	19
I.T. IN HIGHER EDUCATION COLUMN Podcasting: Do You Really Need to Know? By Roger Atkinson	20
News of Members.....	23
HERDSA: New Zealand Branch Report - 2006 By Neil Haigh, Chairperson	24
Response to Reviews of "A Guide to Learning Independently" and "A Learning Companion" in September 2006 HERDSA News By Lorraine Marshall and Francis Rowland.....	26
Higher Education in the Headlines Compiled By Peter Kandlbinder	27

continued page 3

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Newsletter Editor

Roger Landbeck QLD

Public Officer

John Dearn ACT

HERDSA Office

Jennifer Ungaro (Administration Manager)

PO Box 27, Milperra NSW 2214

Phone: +61 2 9773 3911

Fax: +61 2 9773 4299

Email: office@herdsa.org.au

Website: www.herdsa.org.au

HERDSA News

Editor Roger Landbeck

22/34 Canberra Tce, Caloundra, QLD 4551

Phone: +61 7 5438 2789

Email: landbeck@ozemail.com.au

Editorial Committee

Christine Bruce & Linda Conrad

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From the Editor

This issue is largely taken up with reports on research in higher education undertaken by members of HERDSA. The projects span a wide variety of academic disciplines, which reflects the diverse nature of the membership. It also reflects the R for research in the name of the Society. The researchers were asked to write in a popular style in order to communicate effectively with readers and they have accomplished that well, I believe. They have included references to their work in refereed journals for those who wish to follow up the projects in more detail. The projects were initially described in their early stages in the December 2002 issue of *HERDSA News* and so I followed up the researchers and invited them to write up a report for the *News*, which they all kindly agreed to do. It would be good to have more reports of this kind and to hear about those in the early planning stage. I, therefore, encourage members to contact me about their current projects.

There is a new feature in this issue, namely "News of Members". This is intended to share news about new appointments, honours and awards and any other points of interest. This feature, however, will only work well if members are prepared to send me news about themselves and their colleagues. I appeal

to you all not to be backward in coming forward to keep this column alive.

I would like to draw attention to the response by Lorraine Marshall and Francis Rowland to the reviews of their latest study skill books. I believed that it was important to try and get answers to the questions I posed at the end of the review since these had implications for the teaching of study skills. I am grateful for the willingness of Lorraine and Francis to write a response.

I recently attended a lunch at Griffith University to farewell Linda Conrad, who was retiring from the University. Linda has achieved much in academic development particularly in the area of postgraduate supervision. She served on the Editorial Committee for *HERDSA News* since it was formed in 1998 and I wish to thank her not only for her work on this but also for being a wonderful colleague to work with. She is enjoying retirement, long may she do so.

Finally apologies to Donella Caspersz and Judy Skene for getting them mixed up in the picture taken after the launch of the new HERDSA Guide "Managing Student Teams" which appeared in the September 2006 issue - see below. It was Judy in the picture with Allan Goody and Royce Sadler, not Donella.

Roger Landbeck



Judy Skene, Allan Goody (HERDSA Occasional Publications Editor) and Royce Sadler.



boundaries and finding the necessary time to undertake interdisciplinary work. Many of the people interviewed also indicated that they continued to experience disciplinary chauvinism based on stereotypical assumptions about disciplinary hierarchies.

The researchers' believed that the following key knowledge, skills and attributes were required for effective interdisciplinary research:

- Holistic thinking;
- Creative and critical thinking;
- Intercultural competence; and
- Communication, team and leadership skills.

A number of current university strategies for developing research students' interdisciplinary knowledges and skills were identified. These included:

- Concurrent Graduate Certificate/PhD scheme;
- Graduate Certificate in Social Science (Interprofessional Leadership);
- Graduate Certificate in Education (University Teaching);
- Seminar programs on methods and skills;
- Research groups;
- Interdisciplinary postgraduate student conferences;
- Observer, exchange, and "shadow" programs;
- Interdisciplinary supervision; and
- Co-locating students.

For more information on these initiatives, please read the paper (Manathunga, Lant & Mellick, 2006).

Case Study Programs

The different interdisciplinary research education programs established in the interdisciplinary chemical engineering/microbiology research centre and in the health science school emphasised the importance of collaboratively developing locally tailored strategies. In the first centre, the program involved the development of the Research Student Virtual Portfolio (RSVP™). RSVP™ is a research student portfolio that identifies and documents students' achievement of key graduate attributes, which included interdisciplinary knowledge, attitudes and skills. It consists of a:

- Disciplinary/locally determined set of research students' graduate attributes;

- Reflective review tool with key performance indicators for each graduate attribute, which provide students and supervisors with tangible and practical means of addressing each attribute;
- Portfolio based on evidence of achievement of the key performance indicators;
- Resource package for students and supervisors; and
- Training program for supervisors.

The disciplinary/locally determined graduate attributes are identified through an interactive collaboration with academics, research-only staff, research students and, where possible, employer groups or professional associations. Then each of the disciplinary graduate attributes is described in detail and a list of key performance indicators is developed, which forms the basis of the reflective review tool.

Students complete their reflections on their achievement of graduate attributes, identifying the particular graduate attributes that they need to enhance further given their stage of candidature and their eventual career goals. Their supervisors then engage in a dialogue with them about their reflections, helping students to refine their plans and develop an action plan every 6 to 12 months of candidature. The students also begin to systematically compile a portfolio of evidence of their achievement of each graduate attribute. A portfolio template listing some possible examples of evidence students could include is provided.

RSVP™ was introduced and piloted in the research centre in 2003 and a number of minor modifications were made based on feedback from students and supervisors. Subsequently, RSVP™ has been adapted and piloted in diverse disciplinary and interdisciplinary settings across the university, winning a university Award for Enhancing Student Learning in 2005. It also has been commercialised and internationally licensed (Manathunga & Lant, 2006). RSVP™ also informed the development of the university's new policy on RHD students' graduate attributes in 2004. Senior policy makers were happy to select RSVP™ as the process that is now being used to map and embed this policy across the university.

In the health science school, plans were developed to establish a Research Students' Focus Group, which would meet every month to explore students' interdisciplinary research projects and attempt to address common challenges facing research students. This group proved difficult to sustain because of students' workloads, organisational inertia and a general lack of an inclusive, vibrant research culture.

Although different, each of these programs incorporated the principles of experiential, active, and interactive learning and the development of reflective practice skills. We also recognised the need to embed interdisciplinary research skill development within students' current research projects rather than requiring them to do additional ("bolt-on") courses.

Finally, this research project generated significant recommendations for the university about how to improve recognition, career development and support for interdisciplinary researchers and how to offer RHD students more opportunities to develop their interdisciplinary skills and knowledge. It also resulted in the development of a successful ARC Linkage grant proposal to investigate research graduate employment outcomes and destinations and whether research graduates felt their doctoral education prepared them for their diverse workplaces.

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Catherine Manathunga is a Lecturer in Higher Education in TEDI and the UQ Graduate School at the University of Queensland. She coordinates and teaches professional development programs for supervisors and researches in the areas of supervision, doctoral education and interdisciplinarity. She has acted as a consultant to several other Australian and overseas universities in the area of postgraduate supervision and has led a team that won a UQ Award for Enhancing Student Learning in 2005. Contact: c.manathunga@uq.edu.au

President's Report

On behalf of the HERDSA Executive, may I convey our best wishes to you all for a restful and enjoyable festive season. We hope the year has been an eventful and fulfilling period in your professional journey and that the coming break offers a valuable chance to reflect on the past year and plan for the next.

It has certainly been a time of change for higher education. Australia and New Zealand are both experiencing ongoing reformation of their university structures, policies and practices as national reforms take further hold. This offers many exciting opportunities for renewal and development for those working in academic roles. However, massive change also necessitates careful consideration of likely shifts in expectations of academics and those who support higher education academic enterprise.

There are clear indications of the future directions our sector is pursuing. A strong change across the sector relates to the strategic positioning of our universities. There is a better sense of direction and branding to differentiate one institution from another. The increased profiling of university league tables has forced universities to consider how they are placed comparatively. This concern for external reputation and image has been allied with increased competition for student numbers in a deregulated international market and a desire to increase economies of scale with larger student populations. The changing nature of higher education as an enterprise has generated a shift in the expectations of our academic communities. The dual focus on both research and teaching is clearly apparent. Academics are, more than ever, expected to demonstrate high level capabilities in both areas of professional activity. This increased concentration on academic enterprise has stimulated a growth in related support services. Academic development has escalated in importance, with many new roles at more senior levels emerging. Universities are appointing both pro vice chancellors and deputy vice chancellors to guide their internal strategy in both teaching and research. Sharing of knowledge and expertise is more critical as the rate of

change forces rapid adjustments to both strategy and practice. Despite increased competition, there is also evidence of increased collaboration as economies of scale and reduced duplication are sought.

As the sector and institutions change, we need to consider our own contribution to these developments. Change of this magnitude also requires adjustments on the part of each individual. As universities establish their strategic niche and focus, each individual will need to reposition and adjust both focus and goals to match their institution's expectations. While some may feel this is an imposition, it is an exciting time to be associated with higher education. We have a stronger sense of purpose, performance expectations and long-term goals.

Of course, the shifts in expectation need to be matched by a concomitant institutional investment in its staff and their development. There are some basic strategies so far in place. For example, at present the sector has placed considerable energy in encouraging good skill development in new academics. This is an excellent beginning, but insufficient to meet the emergent challenges. There is a critical need to expand that support to those assuming leadership roles in either teaching or research. Leadership skills will be particularly critical in this evolutionary phase. In the case of teaching and learning, leadership roles are adopted by many people: from curriculum or course team leaders to those who are assuming senior executive positions. Similarly, in research there is an increasing focus on how project and programme leaders can encourage optimal outcomes, along with increased focus on how we drive institutional reform and reputation through the work of many research and organisational leaders. The development of leadership capabilities across university communities is insufficiently supported as yet, but likely to be an area of increased focus over the coming years.

These changes in the sector also impact on the work of societies like HERDSA. The current executive has focused on building effective services for its members to better match current expectations. It is now strongly positioned



to explore some new initiatives to assist the higher education community in meeting these many emergent challenges. For example, we are talking with other national societies regarding how we might better collaborate to increase outcomes with minimal additional resourcing.

As noted in previous columns, we see a particular need to encourage more interaction across our local communities. However, this is a focus that requires your engagement too. As part of your New Year resolutions we hope you will consider how you might contribute to your higher education community. Perhaps you might like to play a part in building your local HERDSA community? Maybe you are attracted to nominating for the HERDSA Executive when the call comes out? At the least, plan now for attendance at the HERDSA conference in July and start planning your conference paper for submission. The conference offers a chance to renew and engage with the inspirational work of higher education. It offers a chance to review your current practices, build new research collaborations and share your expertise and knowledge with like-minded souls. It is an ideal forum to learn, share and reflect.

Happy holidays and we look forward to interacting with you in some way in the new year.

Shelda Debowski



HERDSA 2007 Conference

Adelaide, 8–11 July

The annual HERDSA Conference is always a keenly sought after chance for members and colleagues to engage in scholarly discourse, discover new possibilities in learning and teaching, and a time to have fun. One of the daunting prospects for each new HERDSA conference committee is to live up to the high standard established by past conferences! Members can be assured that the HERDSA 2007 Conference Committee is working hard to maintain this well-deserved reputation. The 2007 Committee consists of Co-convenors Geoffrey Crisp (University of Adelaide) and Margaret Hicks (University of South Australia), and committee members Tracey Winning (University of Adelaide), Jane Burdett (University of South Australia), Deanne Gannaway and Leone Maddox (both Flinders University).

The 2007 HERDSA Conference will take place from 8–11 July in the beautiful city of Adelaide, South Australia. The conference venue is located conveniently in the city centre, at the Hilton Hotel. Conference delegates will be able to enjoy the first class facilities of the Hilton, engaging conversations with colleagues and the opportunity to sample the rich array of nearby food and superb South Australian wines. Some unbiased people would say that South Australian wines are the best in the world, but you should come to Adelaide and insist on a personal evidenced-based trial!

HERDSA conferences encourage collaborative engagement between students, academics, researchers, organisational and academic developers, university managers and policy makers. HERDSA members have an international perspective, and this is reflected in the participation of conference delegates from around the world, and the ability of those involved in enhancing higher education outcomes to bridge particular national and cultural approaches to student learning.

HERDSA members will be excited to hear that Simon Marginson, Sue Clegg and Andrée Sursock have agreed to be

keynote speakers for 2007. Professor Simon Marginson is Chair in Higher Education at the University of Melbourne's Centre for the Study of Higher Education. Simon has an international reputation for his publications in the area of higher education policy, the global context of higher education, and the consequences arising from an increasingly competitive and strategic environment for universities. Professor Sue Clegg, from the Learning and Teaching Institute at Sheffield Hallam University, has an international reputation for her publications related to the theory of the higher education context, evidence-based practice in educational research and new concepts of academic development. Dr. Andrée Sursock is Deputy Secretary General of the European University Association, where she is responsible for the Institutional Evaluation Programme, and is involved in quality assurance policy discussions at the European level, including the Bologna Process.

The conference theme is "Enhancing Higher Education, Theory and Scholarship" and provides an opportunity for delegates to engage with critical issues associated with higher education theory and scholarship and focus on how enhancements to teaching and learning activities might translate into an enhanced student experience. Delegates are encouraged to bring different perspectives to these discussions – ranging from disciplinary expertise, academic development, learning support, research education and policy development. The focus of these explorations may be from a transition perspective, undergraduate or postgraduate experiences, or from those involved in research education.

The theoretical frameworks of learning and teaching will be explored through discussions on current theories used in higher education learning and teaching, including new and emerging understandings of curriculum development and assessment design frameworks, and the implications of these new understandings for educational policy development. Key

questions that potential presenters might wish to address include:

- How are current theories being tested?
- What current challenges (system-wide, institutional, individual) are there to the predominant theories of learning and teaching?
- How are policy developments shaping higher education?

The scholarship of learning and teaching has been discussed for a number of years now, and members might be wondering what new insights could be generated that will add value to the current discourse. Although the theory associated with both scholarly teaching and the scholarship of educational practice has been discussed, the practical implication of being a scholarly teacher, or articulating what is scholarly teaching, is still a lively topic. Models for developing the scholarship of learning and teaching, including the associated challenges and outcomes for individual educational practitioners, are still to be fully explored. The tensions associated with the transformation of higher education teaching to a scholarly basis have given rise to a new scholarship in its own right. Key questions that potential presenters might wish to address include:

- What models are effective in developing the scholarship of learning and teaching?
- What are the challenges to the maintenance of learning and teaching scholarship?
- What are the outcomes of models used to recognise scholarship in learning and teaching?
- Given the current trends and practices in higher education what new areas require a more scholarly approach and how might they be addressed?

Students are our partners in higher education, so it is imperative that we explore how the theory and scholarship of our practice translates into a meaningful student experience. The 2007 conference

will provide opportunities for presenters to connect theoretical frameworks to the student experience. This prompts the immediate question of what is a meaningful student experience. This theme provides the opportunity to explore innovative teaching and learning practices and discuss new frontiers, new experiences and new learning. Key questions that potential presenters might wish to address include:

- How are theoretical frameworks being translated into practical outcomes for students?
- How do we know that students are benefiting from scholarly teaching?

The conference committee is exploring a variety of presentation formats for 2007, including keynote and invited speakers;

interactive workshops, discussion and symposia sessions; refereed and non-refereed research papers and showcase presentations, opportunities for reporting "work in progress"; as well as formal poster presentations.

Important dates for the conference include the opening of presentation submissions for all sessions on **4 December 2006** and the absolute deadline for all submissions and proposals for presentations on **23 March 2007**. There will be no extensions beyond 23 March 2007 for any presentation format, so it is worth submitting your proposal well in advance of the final date in case heavy workloads delay your planned timetable.

Further details can be found on the conference website at <http://conference.>

herdsa.org.au/2007 and the conference committee can be contacted by email at herdsa2007@adelaide.edu.au. Information on accommodation, and registration can be found on the website, and the conference manager is Plevins and Associates Pty Ltd (events@plevin.com.au, Telephone: +61 8 8379 8222).

We look forward to seeing you in Adelaide next July for stimulating discussions and know that you will enjoy the social activities available in the picturesque city of Adelaide.

Geoffrey Crisp and Tracey Winning (University of Adelaide), Margaret Hicks and Jane Burdett (University of South Australia), Deanne Gannaway and Leone Muddox (Flinders University)

The First Year- Sources of Information and Initiatives

One Quality Enhancement theme in Scotland in 2006/7 will focus on The First Year. The theme is all embracing and includes pre-entry initiatives. We would particularly welcome suggestions about source of information and details on initiatives. Use is being made of a recent literature search undertaken by Lee Harvey on behalf of The Higher Education Academy.

We would be grateful for insights into initiatives in institutions, wither institution-wide or more localised, especially any designed to promote student engagement or to empower students, via for example, skills development.

Please send contributions/suggestions to George Gordon, University of Strathclyde in Glasgow at g.gordon@strath.ac.uk.

Thank you

Prof George Gordon

Centre for Academic Practice & Learning Enhancement, University of Strathclyde

Graham Hills Building, 50 George Street GLASGOW G1 1QE

From Problem-based to Studio Learning for Requirements Engineering

By Jocelyn Armarego

Studies of practitioners of software development have resulted in a gap being identified between what students learn in their formal education, and the skills sought by industry.

A study (Minor, 2004) of the model curricula and Bodies of Knowledge (BoKs) on which many university programs in IT are based shows that, in general terms, the base case of discipline knowledge is covered comprehensively. However, non-technical skills are usually addressed at a more abstract level and often in association with ethics, management or social concern, with little assistance provided on how these soft skills should be incorporated within a study programme. Yet practitioner studies indicate they place great importance on these skills – they require personable professionals who integrate into the organisational structure. Industry also looks for graduates who, rather than cope specifically with today's perceived problems, have models, skills and analytical techniques that allow them to learn, evaluate and apply appropriate emerging technologies in a collaborative environment (see, for example Lee, 2004; Macauley & Mylopoulos, 1995).

I wanted to identify what generic and soft skills IT practitioners considered important, and explore how learning models could address them within a tertiary curriculum. Rather than encompassing the broader IT domain (where Software Engineering (SE), Computer Science (CS) and Information Systems (IS) are identified as the more visible disciplines), I decided to focus on Requirements Engineering (RE) (sometimes called system/software analysis), acknowledged as one of the most problematic of the activities undertaken in developing and implementing IT systems. Studies show that the root cause of many of the problems with systems in general can be traced back to RE issues (Boehm, 1981). Examining perceptions of competence in RE could go some way towards addressing these issues.

A preliminary investigation isolated characteristics of the RE discipline on the one hand (identified as complex, cognitive,

opportunistic, creative, emergent) and of learning on the other. This suggested that the elements highlighted as either:

- *practitioner* needs (eg generic intellectual abilities and skills such as initiative, ability to deal with complexity and illstructure and organisational (self, task and information) skills; or
- *domain* needs of formal education (eg a focus on flexibility, productive thinking and creativity enhancing activities, and effort spent on higher (metacognitive) learning skills, including abstraction and reflection)

could be best addressed through less traditional approaches to learning, with a focus on advanced knowledge acquisition (Spiro, Feltovich, Jacobson, & Coulson, 1991).

From 1995 to 2005 Murdoch University Engineering (MUE)¹ provided a suite of programmes in Software Engineering. The teaching objectives have focused on producing graduates with a special skill in software: we expected our graduates to find career opportunities in both professional engineering industries that have a strong interest in software as well as in IT disciplines. From 2002 students enrolled in the first of the core SE units (addressing RE) participated in an Action Research study that looked at how learning models addressed specific elements drawn from the practitioner studies, and also how they aligned with the students' models of learning and approaches to study. Later work looked at developing a conceptual alignment between the practitioners' needs, the curriculum and the students' learning characteristics.

Kember and Kelly (1993)'s categories of observation techniques informed data collection in order to provide both a qualitative and quantitative perspective (Creswell, 2003) – the latter based on results of instruments surveys and assessment items, the former, of greater importance, based on the students' own words, recorded in reflective components of portfolios, assessment elements and reflective journals, as well as the comments

attached to formal (ie University-based) and informal surveys and focus group discussion. These data were the basis of a thematic analysis of student perceptions of their learning environment.

The three cycles of the study (2002, 2003 and 2005) investigated the Cognitive Apprenticeship model (Collins, Brown, & Newman, 1989), a *CreativePBL* model (Armarego, 2005) and finally Studio Learning, which focusses on Schön's (1987) reflecting-in-action. He argued that reflection is central to the ability to act effectively in the unique, ambiguous, or divergent situations that become central to professional practice.

The student perception of these learning environments shows that the success of the specific environment was, to some extent, determined by its alignment to the students' learning approaches:

- students participating in the Cognitive Apprenticeship implementation (2002) were comfortable with the model – as Assimilators and Convergors (typical of engineering) in the main, they expected the teacher to function as a coach. However, they were less comfortable in the *fading* phase of the model – while students were willing to take some control of their learning in a capstone project unit, they perceived that a formal unit should be “taught”. In addition, student perception of the learning situation suggested some of the traits of surface learning (Entwistle & Ramsden, 1983).
- the *CreativePBL* model implemented in 2003 addressed the issue of student-centring as early as feasible and focussed on strategies to enhance deep learning. Here students were immersed in a Problem-based Learning (PBL) process – considered an ideal pedagogical strategy for disciplines which deal with illstructured problems. In terms of learning approaches, the shortened version of the Approaches to Study Inventory (ASI) by Entwistle and Ramsden (1983) indicated students were very much sitting on the fence between learning for meaning

(MO) (mean 2.53, standard deviation 0.43) and learning for reproduction (RO) (mean 2.56, standard deviation 0.41). This confirmed qualitative data collected - that as a cohort they perceived that they had learnt neither more nor less from this approach.

Some alignment could be discerned between the tenor of comments made and results of the ASI. In effect, supporting the work of Entwistle and Tait (1990; 1995) meaning-oriented students were more likely to see their learning environment in positive terms while reproduction orientation was associated with the view that the learning environment was difficult.

However, the major issue identified was the fact that PBL is process-oriented, implying process is of greater importance than the product. This raised issues of several types: IT students are very product oriented - they see the artefact (generally the code they develop) as the primary goal of the activities they undertake. Being made to focus on process to (in their perception) the detriment of the product was very frustrating; the dependence on process also had some detrimental effect on the creativity-enhancing environment that had been developed - in theory students were required to follow process stages in sequence, even if the *aha!* factor suggested otherwise. Ultimately PBL was in conflict with the ultimate aim of the intervention - to model professionals in practice.

By 2005 the decision had been made in MUE to migrate all discipline teaching to years 3 and 4 of the BE, and that learning would be based on an adaptation of the environment developed in the SE programme. The benefit to this research was all students were required to undertake an orientation Design Week to facilitate a common understanding of Design Studios and the PBL process. Within the Studio Learning model applied in the SE programme, it was therefore possible to de-emphasise the process and focus to a greater extent on reflection as a strategy to enhance deeper learning. Most students perceived this learning environment favourably (though, as a caveat, they exhibited learning approaches that aligned most closely with the learning model). As one student noted

I have noticed that the design studios require a lot more work from me than if I was working alone. For example I have to spend more time working on problems because of the extra overhead of working in a team (meetings and social interaction). There is also the

need to do extra research to gain information that is normally just handed out in a lecture. However I don't mind putting in the extra effort because I feel the extra effort is worth it because I feel more confident that I do know the material (not an impostor) and can apply it to future situations.

This cohort was observed in their subsequent Studio, specifically the unit where previous cohorts had insisted on being "taught". On this occasion, students exhibited a willingness to work independently, and to vary their interactions (eg teacher explaining, students discussing together, students working individually, etc) depending on the needs of the learning situation, calling on the teacher only as required. Students expressed confidence in their own ability to learn and apply new knowledge as well as adapt what was learned.

An indication of employer satisfaction is provided by graduate career prospects. While empirical evidence is in the process of being accumulated - there are still too few SE graduates to provide statistically significant results, the anecdotal evidence is encouraging. Where one (20%) 2004 graduate Software Engineer was employed by a global software development organisation, of the 2005 cohort 50% (six graduates) are now employed there. Both 2006 graduates (100%) are also with the same organisation, as are SE students who will graduate in 2007.

As we learn more about how students learn, and what they need to learn in order to practice as competent professionals in their chosen discipline, we move further from traditional teaching and closer to the concept of learning as a reflection on professional practice undertaken by both teachers and learners. This view of professional education has implications for the design of teaching (Laurillard, 1993):

- academic learning must be situated in the domain of the objective: the activities must match that domain; and
- academic teaching must address both the direct experience of the world, and the reflection on that experience that will produce the intended way of representing it.

The progression to Studio Learning has been a journey undertaken to empower graduates to be industry-ready IT professionals, and provided learning situations to examine and experiment with theories of action (Argyris & Schön, 1974). For the student, the collaborative nature of the learning environment that has evolved transcends the classroom, fostering self-

directed learning and reflective practice that integrates class and work experience. Future research will examine the validity of this perception.

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Endnote

1 The School name has changed several times over the period of the study

Jocelyn Armarego is a Senior Lecturer in the School of IT, Murdoch University and has just submitted her PhD through the University of SA. She has been involved in investigating the gap between practitioner expectations of

graduate Software Engineers and their formal education. This has led to the development of several strategies to address these gaps, founded on models of learning that purport to address those elements. Her current research looks to investigating the "success" of those graduates in the profession, from both their own perception and that of their employers.

Contact: J.Armarego@murdoch.edu.au

Becoming a Tertiary Teacher in New Zealand: Learning in Communities of Practice

By Alison Viskovic

Alison Viskovic, who has been a New Zealand member of HERDSA since 1988, last year completed this PhD study of tertiary teacher development in NZ. It was based on case studies of three institutions: a polytechnic, a wananga (Maori tertiary institution) and a university. A qualitative, interpretive framework was used, and data were gathered from institutional documents and interviews with educational developers and a selection of experienced staff members. The findings showed that most tertiary teachers' learning about teaching and how to teach was in-service (on-the-job), mainly informal and experiential, and the knowledge gained was mainly tacit and process-oriented. Although that was complemented by varying amounts of formal learning, gained through courses or professional development activities, few tertiary teachers had sought or gained teaching qualifications. While institutions had central policies and procedures to support in-service teacher development, their implementation was often uneven. Differences of practice were observed both between institutions, and between departments within institutions, indicating the importance of context for teacher development. The literature survey also showed that few studies of tertiary teaching and professional development had linked teachers' workplace learning with the concept of learning in a community of practice.

It was concluded that, since informal workplace learning was likely to continue to be the mainstay of tertiary teacher development, it should be refocussed and approached from a fresh angle. The concept of *situated learning in a community of teaching practice*, based on the work of Wenger (1998), was used to propose a framework for integrating various forms of support for tertiary teachers. Recommendations for strengthening teacher development focused on three levels: institutions (as social learning systems); communities of practice within those institutions (such as departments, discipline groups, programme teams or campus whanau); and individual teachers (whose teaching identities develop within those communities). A key recommendation of interest to HERDSA members was that, while central courses (often leading to teaching qualifications) should be maintained, educational development units should give more attention to decentralised ways of supporting the informal learning of groups of teachers in their local communities of practice.

An article based on this work has been published in the *Journal of Vocational Education and Training* 57(3), 2005 ("Community of practice" as a framework for supporting tertiary teachers' informal workplace learning, pp. 389-410) and a second article is to be published in

HERD, 25(4). Alison has also presented related papers at HERDSA conferences over recent years, and is about to start a follow-up case study focusing on newly appointed teachers and heads of department. She would be very pleased to hear from other HERDSA members about examples of informal teacher support in their communities of practice.

Reference

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Alison Viskovic has been a member of HERDSA since 1988. She was involved in academic staff development at Wellington Polytechnic from 1981 to 1999, and was programme leader of New Zealand's first BEd for tertiary teachers from 1995 to 2006. In 1999 the Polytechnic merged with Massey University, and the degree continued to be offered from Massey's College of Education. Alison retired from Massey in February this year, and has since been working part-time at Whitireia Community Polytechnic, teaching in DipALT and doing a research project on RPL processes.

Contact: aviskovic@paradise.net.au

Report on a Research Project Investigating the Ability of Students to Transfer Mathematical Skills and Knowledge

By Sandra Britton, Peter New & Manju Sharma

The Importance of Transfer

"Transfer of learning" refers, in general, to the use of skills and knowledge in a context different from that in which the skills and knowledge were initially learned. The importance of transfer can hardly be overstated. If knowledge acquired in one context cannot be applied outside that context, then its usefulness is extremely limited. Indeed, some researchers consider transfer to be the ultimate goal of all education. A substantial amount of research has been conducted by psychologists into the extent to which knowledge, skills and attitudes are able to be transferred from training sessions to the work context, and from one job or task to another. There is also a considerable amount of research on the extent to which mathematical skills transfer to problem solving in real world situations. There is little work, however, which specifically addresses the question of whether or not university students are able to transfer mathematical skills and knowledge.

Transfer of Mathematics by Undergraduate Students

Science and engineering degrees typically require students to study mathematics as a subject in its own right, with the expectation that students will be able to use the skills and knowledge acquired from their mathematics courses in other disciplines. The ability to do so is, of course, crucial to their success in other disciplines. Lecturers in engineering and scientific disciplines typically complain, however, that students are unable to apply mathematics in context. Such complaints are not new, nor are they restricted to the University of Sydney. In universities across the world there has been a proliferation of courses which teach mathematics "in context", purportedly as

a solution to the problem. Unfortunately, there is little evidence to suggest that such courses solve the problem at all. Indeed, some researchers suggest that teaching mathematics in a particular context ties the mathematics to that context and hence impedes transfer ability.

The project reported here was not an attempt to add to the debate about the best way to teach mathematics in order to facilitate transfer. Rather, it was an attempt to quantify the extent to which university students are able to transfer mathematical skills to other disciplines.

The project had two distinct phases.

First Phase of the Project

The original project team consisted of four academics from the Faculty of Science at the University of Sydney – a physicist, a microbiologist, a computer scientist and a mathematician. We set out to design an instrument to test transfer ability. The instrument would consist of questions based on exponential and logarithmic functions, a topic which is taught in high school in NSW. Some purely mathematical questions were written by the mathematician, and the other members of the project team wrote questions set in the context of their particular discipline. Their brief was to write problems which contained enough discipline specific information so that the problems could be solved using mathematical knowledge only, without any previous knowledge of the particular discipline. This proved to be rather a difficult task. The first draft of the instrument included some explanations which were not entirely comprehensible to those of us who had not written the questions. It is clearly difficult for academics to correctly gauge the general understanding of their specialist areas when writing background information.

This fact has obvious implications for teaching.

The instrument was revised many times until all the researchers were happy with the wording of the questions, and then first year students at the University of Sydney were asked to volunteer to attempt the questions. Forty-seven students volunteered. All forty-seven students were enrolled in mathematics, and all but one were enrolled in at least one other science subject.

Measuring Transfer

The student responses on the mathematics component of the instrument, and on the discipline-specific components were marked, and from the results we eventually calculated a "transfer rating" for each student. In order to do so, the fact that the students scored differently on the mathematics component of the instrument had to be taken into account. It is relatively easy to compare transfer ability amongst students with the same amount of mathematical knowledge, simply by considering scores on the discipline-specific components. However, consider a student who scores 10 in mathematics and 6 in physics, compared with one who scores 2 in mathematics and 5 in physics. Although the first student scored better in physics, that student is worse at transferring the (substantial) mathematical skills possessed than the second student, who is excellent at transferring the (meagre) mathematical skills he/she possessed. The second student should probably, therefore, be rated higher than the first in terms of transfer ability. The use of z-scores removes some of these difficulties, and so we calculated a transfer rating for each student as the difference between their z-score for first attempted discipline-specific component, and their z-score for the mathematics component.



As might have been expected, the transfer ratings were approximately normally distributed, and most of the students in the sample were identified as of average transfer ability. A detailed analysis of the results has been reported in Britton, New, Sharma & Yardley (2005).

Second Phase of the Project

The second phase sought to rectify two perceived shortcomings in the first phase. Firstly, the instrument was too long, and most students had not been able to complete it in the time we had thought appropriate. Secondly, the formula used to calculate transfer ratings had some serious limitations, in that it did not give an accurate measure of transfer ability for those who did either very well or very poorly in both components.

The instrument was revised, and the new instrument consisted of some purely mathematical questions based on logarithmic and exponential functions, and a multi-part microbiology question about bacterial concentration that used the same mathematical skills and knowledge as the mathematics questions. Microbiology was chosen as the discipline-specific question since it is not taught until second year at the University of Sydney, and so no student would necessarily be advantaged by being intimately familiar with the context. Again, student volunteers were sought, and forty-nine first year science students attempted the questions on the new instrument.

Using the results of the test, a measure of transfer was devised, based upon

correlating performance on matching questions between the two sections of the test, in terms of the mathematics involved in answering the questions.

The correlation scheme attempts to overcome the shortfalls of the z-score treatment used in the first phase, while still giving an accurate report of a student's level of transfer. Simply, a mark is given for each correlated pair - a high mark if the particular piece of mathematics skill or knowledge has been used correctly in both sections, and a low mark if it was used in Section A but not in Section B. So each correlated pair then has a transfer score, and overall transfer is the sum of these scores. With this scheme, someone who achieves well in both sections is likely to get a high transfer rating, thus overcoming the earlier shortcoming. Full details are reported in Roberts, Sharma, Britton & New (in press).

Further Analysis

For thirty-six of the students involved in the second phase we obtained university entrance scores, high school marks in mathematics and science subjects, as well as university marks in mathematics and science. Statistical correlations were performed using these variables, the transfer index and a mark calculated from the student's response to those questions on the instrument which were related to graphs. There has been some research to suggest a link between an ability to understand graphs (known as "graphicacy") and mathematical ability.

We were interested to explore whether or not our results indicated such a link.

Of the many correlations performed, two particularly interesting results were:

- (a) a strong association exists between the graph mark and the transfer index; and
- (b) the transfer index is a significant predictor of results in university mathematics and science subjects.

(Full details of all the correlations are reported in Roberts, Sharma, Britton & New (in press)).

Future Work

We believe that we have found a reliable way to measure transfer ability. A future study using a large random sample would be instructive. Further exploration of the link between graphicacy and transfer would be most interesting.

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- Note: Both papers contain numerous references to the literature on transfer.

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Conducting Assessment Online: Educational Developers' Perspectives

By Peter Donnan

Introduction

This doctoral project focused on educational developers' perspectives about the conduct of assessment in courses conducted partially or fully online in Australian universities.

In a professional sense, the origin of the study arose from a sense of curiosity about how educational developers conceptualised formal assessment when they advised teaching staff convening blended or fully online courses. In broad terms the researcher was interested in the critical elements underpinning the design and delivery of educational development in the area of e-assessment. Were there strategies, theoretical frameworks, institutional practices or other dimensions that were of particular importance? Of interest was the relevance of concepts such as affordances, interactivity and synchronous/asynchronous learning, more associated with evolving discourse in technology-mediated teaching, and not commonly associated with established thinking about assessment.

A springboard in the literature was Robin Mason's (2001) observation about:

...confusion over the term online assessment. At one end of the spectrum, there is web-based assessment, which usually describes various types of multiple choice questions delivered on the Web and marked electronically. These types of questions have become very sophisticated and the presentations can draw on the full graphical and multimedia potential of the Web ... At the other end of the spectrum are individual learning contracts, negotiated online with the tutor. These are generally regarded as hard work by students, but immensely rewarding. They are also very time consuming for tutors to manage and mark. In the middle are various forms of collaborative assignments which build on both the communicative and the resource-based potential of the Web. (p. 30)

To advance the inquiry the following four research questions were developed:

- Q1) What characteristics of educational developers influenced the assessment advice they provided to academics?
- Q2) What were significant influences upon the thinking of educational developers about assessment when it was conducted partially or fully online?
- Q3) What were the critical assessment issues identified by educational developers when online components were introduced?
- Q4) How were educational developers' perspectives about assessment represented when it was conducted online?

In this qualitative study, the sample group consisted of six educational developers involved in supporting staff in the integration of ICTs into learning and teaching in their respective institutions. Each of the participants worked with teaching staff from a broad range of disciplines and they encapsulated a rich repository of perspectives and experience on teaching, learning and assessment. All were well acquainted with the capabilities of the educational technology. Eighteen interviews scheduled at six month intervals were conducted with participants between 29 June 2004 and 28 July, 2005. The interviews were digitally recorded, transcribed and then imported into Nvivo, version 2.0 for coding, linking and analysis.

Some Findings about Conducting Assessment Online

An interesting finding was in relation to the term "e-assessment" or "online assessment". Despite widespread usage of the term in the literature on assessment, respondents did not recognise e-assessment as a separate category of assessment. Assessment that was

conducted in an online environment was conceptualised by educational developers in the same way as assessment in face-to-face settings, or assessment conducted in print, or any other mode of learning.

After the primary learning and assessment issues had been resolved however, and a decision was made to conduct an assessment item online, a secondary consideration was how to most efficiently design assessment for the online environment to optimise the enabling features of the technologies and the learning affordances they offered. So first order assessment questions related to the alignment of assessment in the unit, the mix of assessment items, formative and summative assessment, and weightings for different assessment components. Secondary questions related to obtaining the best efficiencies from the online technologies and this included lecturer/tutor time involved in marking.

From the literature one can identify various forms of assessment that have been conducted online and these are represented in Table 1. Byrnes and Ellis (2006) have conducted a national study of the prevalence and characteristics of e-assessment in Australian universities and their paper is a good coverage of existing practice in this field. What becomes apparent when one examines the various forms of assessment that may be employed online is that some particular categories, such as automated assessment or online discussions can, with experience, be reasonably adopted by individual academics. In contrast there are other forms of assessment in Table 1, such as automated assessment (advanced options), authentic assessment and advanced problem-based learning that are more problematic. The integration of pedagogy and technology is an important issue because individual academics rarely possess all the skills to teach in a flexible



delivery mode that makes more extensive use of online technologies.

It is also the case, given levels of resourcing and staffing in Academic Development Units (ADUs), that many academic staff do not interact directly with individual developers but may use such units' websites and resources. In terms of supporting staff in e-learning, some institutions have adopted a more strategic, top-down approach that is project-focused and employs course teams to achieve goals in the integration of ICT into teaching, whereas others have devolved models with the employment of contract staff as part of their business model. Findings in this study are in agreement with an earlier, UK study (Beetham, Jones & Gornall, 2001) that:

Educational developers have a critical role to play in supporting and facilitating the new specialists to acquire the core educational development and "change agent" skills needed to assist in the process. However educational developers must also ensure that they acquire skills in learning technology in order to be effective in supporting these new methods. (p. 3)

In a brief report, it is difficult to convey the complexities of findings but Figure 1 represents some of the major elements in the thinking of participants about conducting assessment online.

Conclusion

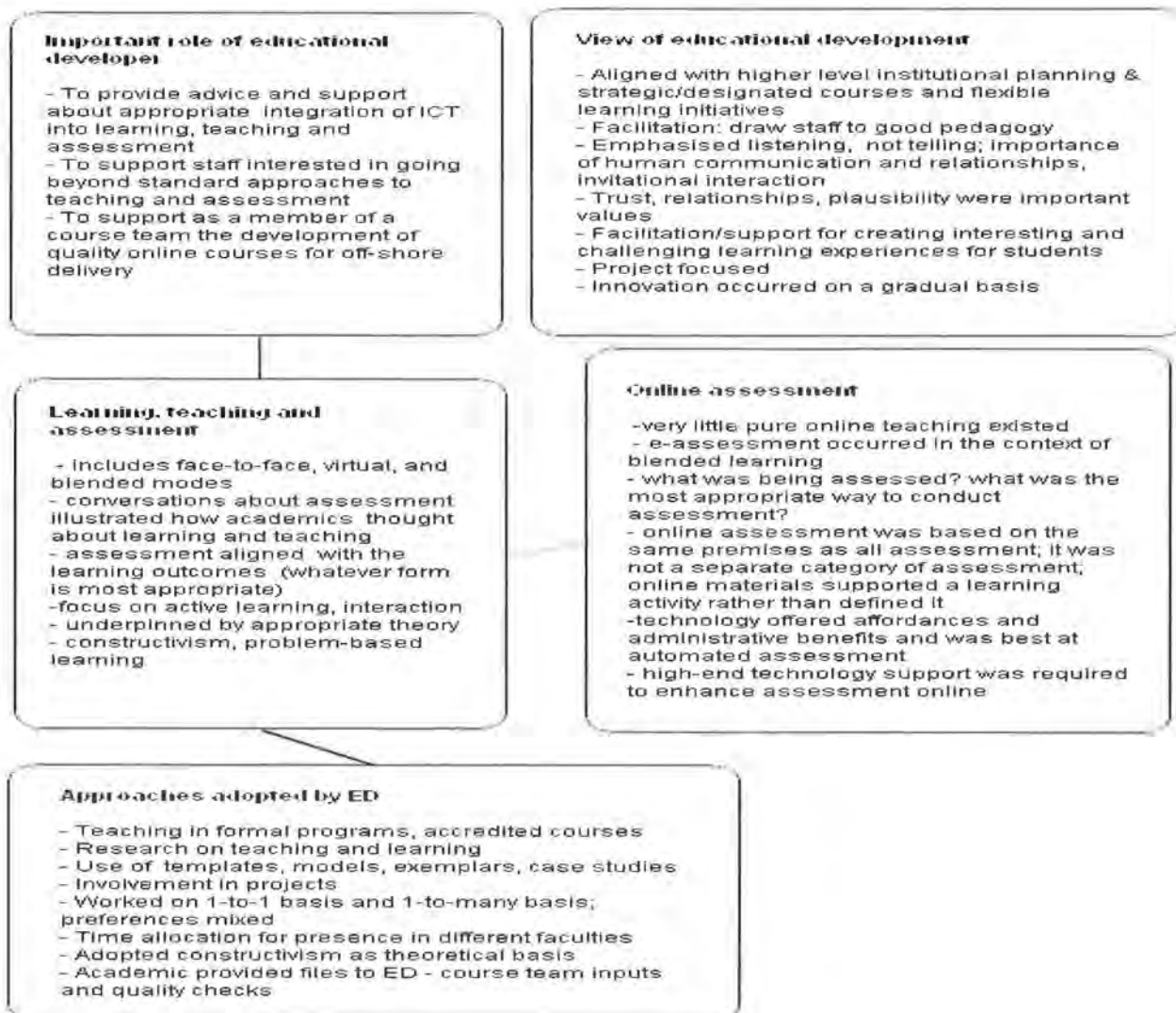
An important perspective in Table 1 was that participants identified very little pure online teaching and assessment although they observed that innovation was occurring in this field on a gradual basis. The implication was that no matter how scholarly and capable educational developers were in the area of conducting assessment online, their professional practice, relationships and advice to academics could be enhanced or constrained by many settings within institutional contexts. This was a peripheral area of research in this study because it moved the focus away from assessment in online environments towards the realm of higher education management, strategic leadership and implementation approaches. Nevertheless these institutional factors have particular relevance for e-assessment and their impact on practice is identified as an area for future research.

Table 1: Forms of assessment that may be conducted online

Assessment Form	Examples
<i>Traditional assessment submitted online</i>	Essays Reviews Reports Case Studies
<i>Automated assessment</i>	Multiple choice Short answer Matching Calculation
<i>Automated assessment – advanced options</i>	Multiple choice (sound files and graphics options) Short answer Matching/label matching Calculations/randomly generated answers Drag & drop
<i>Invigilated online exams – (mid/final semester)</i>	Range of formats Multiple choice/ short answer, automated Longer essay type etc
<i>Group projects</i>	PowerPoint presentations CD-ROMs Group online projects Laboratory reports Networked collaborative learning
<i>Online discussions</i>	Forums Online debates/role plays Invited online guests Allocation of roles (lead, summarise, weave, provoke)
<i>Authentic assessment</i>	Simulations Critical incident analysis Case studies Access to external databases
<i>Critical reflection and meta-cognition</i>	Electronic portfolios Online journals Embedded reflective activities
<i>Advanced problem-solving</i>	Problem-based learning scenarios Complex case studies

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Assumptions

The individual academic was primarily responsible for learning, teaching and assessment.

A course team, including the educational developer, supported academics teaching in fully online courses and this means diverse forms of expertise were available to support academic staff.

University policy provided guidelines about learning, teaching and assessment.

The individual academic was interested in advancing upon standard approaches to learning and teaching.

Academics had to be willing and motivated to work with the educational developer and had to choose to change their teaching practice.

The provision of support for flexible education, educational design and educational technologies was an important consideration.

Educational development was not a one-off activity; significant staff development occurred in projects.

Figure 1 Composite of participants' thinking about online assessment

Supervisors of Project: Dr Gwyn Brickell and Dr Christine Brown from the University of Wollongong

Peter Donnan is a lecturer in the Centre for the Enhancement of Learning, Teaching and Scholarship (CELTS) at

the University of Canberra where he works as an academic staff developer. He teaches in the Graduate Certificate of Higher Education and assists staff who are adopting elements of e-learning in their teaching. His background is

in open, distance and flexible learning and he is a doctoral student in the Faculty of Education at the University of Wollongong.

Contact:

Peter.Donnan@canberra.edu.au

Detecting and Dealing with Warning Signs in Postgraduate Research Supervision

By Catherine Manathunga

Brief Description of Project

This research project explored how experienced supervisors detect and deal with early warning signs that their research students are experiencing difficulty. It also investigated the wide range of reasons some students describe for not discussing these difficulties directly with their supervisors.

I interviewed experienced supervisors from a range of disciplines who had won university supervision awards, as well as several learning advisors and support staff working as administrators in the graduate school. In addition, I held several focus groups with students who were at various stages of candidature and represented a cross-section of genders, domestic and international students, and disciplines. I also gathered written comments from a number of remote students.

I was looking to see which particular cues supervisors recognised as indications of difficulties that threatened to derail a student's progress. I was also trying to uncover how they were able to detect this. In addition, I wanted to find out the strategies they used to help their students regain momentum. In talking with students, I wanted to find out more about the difficulties they had experienced and which issues they would be unlikely to discuss directly with their supervisors.

Research Findings

People in the study believed that students displayed four key types of behaviour when they were going through difficulties during their research. These included:

1. constantly changing the topic or planned work;
2. avoiding all forms of communication with the supervisor;
3. isolating themselves from the school and other students; and
4. avoiding submitting work for review.

In many cases, students avoided discussing some difficulties with their supervisors. Some students suggested that they would not discuss personal issues with their supervisors. In one startling case, a student indicated that she was not able to tell her supervisor that she had had a cancer-related operation, as she believed this would be perceived as a sign of weakness (support staff interview). Generally, students felt under a great deal of pressure to live up to the example set by their supervisors and not to show any signs of weakness. In many cases, "weakness" included having family commitments.

Some students were also reluctant to talk about supervision relationship issues with their supervisors. These issues included unrealistic or unclarified expectations; insufficient supervision; a lack of consistency and trust in the relationship; disagreements between supervisors; and an overall lack of supervisor interest in students' research.

They were sometimes not prepared to tell their supervisors that they were having problems with their research project. This stemmed mainly from the students' desire to always "look professional" (focus group) in front of their supervisors. Finally, some students did not talk to their

supervisors about difficulties they were having in accessing the research culture in their school or discipline. In some cases, students felt that schools did not value postgraduate students or include them in the research culture at all. One student used the phrase "a culture of disinterest" to describe her perception of her school's reaction to postgraduate students (focus group).

In the cases of the experienced supervisors in the study, each of these issues was dealt with as a normal part of their supervision approach. Table 1 summarises these strategies in response to student problems which most of these supervisors regarded as a normal part of RHD study experiences.

In providing personal guidance, these supervisors indicated that they worked hard to establish and build supportive relationships with their students, encouraging them to develop trust and confidence in them. This helped to ensure that students were more willing to raise issues or problems of any nature directly with supervisors so that there was no real need to detect implicit cues or warning signs. They also ensured that they met their students regularly and tailored

Table 1: Student problems and experienced supervisors' strategies

Student Problems	Experienced Supervisors' Strategies
1. Personal issues	• personal guidance
2. Supervision relationship issues	• regular and individualised supervision • pedagogical focus • scaffolding • focus on students' personal and professional development
3. Research project issues	• building students' confidence
4. Accessing research cultures	• providing students' access to research cultures

Table 2: Reflective student appraisal

1. Quality of work – commitment, mistakes, comprehensive consideration of all relevant aspects
2. Creativity – originality of approach, thoroughness of thoughts
3. Productivity, preparation and planning – ability to cope with work load, disposition, setting of priorities
4. Cooperation – group commitment and contribution, interest in others, loyalty
5. Communication – written and oral
6. Initiative and independence – interest in improvements, makes suggestions, supervisor dependency
7. Decisions – ability to decide independently, willingness to take risks
8. Character – student's special character traits and their influence on their work, standing in group and relation to supervisors
9. Supervisor – supervisor's general impression of student, progress of research
10. Research topic – relevance to the group, significance, possible changes, new direction (Daniel, 2002)

their supervision style to each student's individual learning needs.

Supervisors in this study believed that supervision was a form of teaching as opposed to being an extension of their own research and tried not to necessarily assume students automatically understood all of the intricacies of the research game. They used a number of teaching strategies to help their students develop research skills and knowledge. These included modelling how to accomplish research tasks, such as planning a research proposal (Jane1, interview), and breaking down tasks into more manageable steps or providing scaffolding to support their students' learning.

These supervisors not only gave their students guidance on their theses but also on their overall professional and personal development. In this way, they were particularly conscious of their need to mentor students. One supervisor completed an appraisal with his students every six months. He asked students to reflect over a number of months on the following topics:

He reads through these students' reflections and adds his own comments that sometimes serve to give the student encouragement and a sense of perspective about their work and achievements.

All of the experienced supervisors interviewed emphasised the importance of building research students' confidence as a fundamental teaching and learning strategy. For example, one supervisor argued that identifying "the strengths and real possibilities of this thesis and what might be really unique about it" (supervisor interview) is an important part of the supervisor's job in the early stages of a student's candidature. The importance of helping their students to become part of the research culture of the school or discipline and to become part of a supportive student peer group were also emphasised by these supervisors. A number of the supervisors interviewed in this study also established research or reading groups and more formal seminar programs as an important way of incorporating their students into a supportive research culture. This was particularly significant in the humanities and social sciences where students were less likely to be part of research teams. These findings have been outlined in more detail in a published paper (Manathunga, 2005).

As a result, it became clear that highly effective supervisors were able to detect and deal with warning signs that their research students were experiencing difficulties. Indeed, in some cases there was little need for detection because many of the supervision strategies they used

acted to prevent some of the difficulties that other students experienced.

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- Catherine Manathunga is a Lecturer in Higher Education in TEDI and the UQ Graduate School at the University of Queensland. She coordinates and teaches professional development programs for supervisors and researches in the areas of supervision, doctoral education and interdisciplinarity. She has acted as a consultant to several other Australian and overseas universities in the area of postgraduate supervision and has led a team that won a UQ Award for Enhancing Student Learning in 2005. Contact: c.manathunga@uq.edu.au.*

Endnotes

- 1 All names have been changed.

Report on the 31st International Conference on Improving University Teaching, Dunedin, New Zealand

By Rachel Spronken-Smith

Improving University Teaching (IUT) is a conference that brings together people from many different countries – all with an interest in teaching and learning. This year was the 31st international conference and was hosted by the Higher Education Development Centre at the University of Otago in Dunedin, southern New Zealand. About 100 participants gathered for the conference from many countries including America, Australia, Canada, China, Hong Kong, Japan, India, Israel, Pakistan, Saudi Arabia, Singapore, South Africa, and the United Kingdom.

The conference was titled “Extending our boundaries: New solutions for complex problems in higher education”. There were three main themes: empowering students; embracing accountability; and enhancing integrity. The academic programme is fairly unique for a higher education conference. Fully refereed papers are available online in advance of the conference, and each paper session has three or four speakers each presenting for about 10 minutes to relay key findings, leaving up to an hour for discussion. Highlights in the academic programme included keynotes by:

- Tania Ka’ia (University of Otago, New Zealand), who spoke on “He waiu whenua, he whakamahuri totara: from an indigenous base, the sapling [learner] matures”;
- Tom Angelo (Victoria University of Wellington, New Zealand) on “Enhancing assessment and feedback”;
- Gerrie Jacobs (University of Johannesburg, South Africa) and Kathleen Maas Weigert (Georgetown University, USA) on “Justice, integrity and action: Individuals and Institutions”;
- A wonderful duo of Peter Seldin (Pace University, USA) and Tom Angelo on evaluating teaching. Try out these following questions (answers are at the end). Respond by answering NOT from your personal experience with students ratings/evaluation, but rather from

your knowledge of or best guess about what the preponderance of research indicates. Answer true or false:

1. There is a moderate to high correlation between the grades students receive and their ratings of teaching/teachers. [T] [F]
2. Teachers of large classes (over 100) generally receive lower student ratings than do their colleagues teaching classes of 35–100. [T] [F]
3. Research has shown that the teachers obtaining the best student ratings are typically “substance” teachers, not merely entertainers. [T] [F]
4. There is a low correlation between students and alumni (graduates’) ratings of the same teacher. [T] [F]
5. Research has shown a positive, moderate correlation between students’ and academic colleagues’ ratings of the same teacher. [T] [F]
6. Students generally rate teachers who assign heavy workloads lower than they rate teachers of other, similar courses with lighter loads. [T] [F]
7. Average student ratings are lower in some disciplines than in others. [T] [F]
8. Academics teaching required courses tend to get lower student ratings than those teaching electives. [T] [F]
9. Academics’ research productivity is moderately positively correlated with student ratings of their teaching. [T] [F]

The conference is well known for its collegiality – many members have been going to this conference for over 20 years. Despite this, the conference is very welcoming of newcomers and has a full social programme to enable networking. Social highlights of the conference were:

- The opening by the Kapa Haka and Pasifika group at Te Tumu;
- Conference delegate Hedi Salanki-Rubardt playing a wonderful piece

on a concert piano at the Art Gallery during a wine and cheese reception and Dunedin’s mayor the Honourable Peter Chin singing a song of welcome to the city;

- Peter Seldin, Jane Halonen and David Stout partaking in a haggis ceremony at the conference dinner at Larnach Castle; and
- The pre-conference field trip to the Otago Peninsula to view Royal Albatrosses and Yellow-eyed Penguins, and the post-conference field trips to Cadbury’s Chocolate World (the most favoured or should we say, flavoured option), Speights Brewery and historic Olveston House.

The conference evaluated extremely well with many commenting it was the best IUT conference they had been to, which just goes to show that Dunedin in winter can win over hearts with southern hospitality!

Next year the 32nd International IUT conference is in Jaen, Spain from July 4–7. See conference details at: <http://www.iutconference.org/>

Answers to Tom Angelo and Peter Seldin’s quiz: 1F 2F 3T 4F 5T 6F 7T 8T 9F

Rachel Spronken-Smith is a senior lecturer in the Higher Education Development Centre at the University of Otago. She teaches and researches, mainly in the area of academic staff development, but also continues to contribute both teaching and research to her first discipline - Geography. Her current research interests include inquiry-based learning and aspects of the student experience such as expectations and experiences of higher education. She was the Local Convener for the IUT conference, Dunedin July 2006.

Contact: rachel.spronken-smith@stonebow.otago.ac.nz

A Study of Resilience Reflected in Lives of Academic Staff

By Kay Salehi

This article is a brief summary of a Masters research paper

Over the past fifteen years there have been major changes to the working environment of Australian Universities, changes relating to Government funding, the introduction of new information and communication technologies, increased decentralisation and globalisation of education, and the new managerial approaches to university decision-making processes. Organisational needs of industry have impacted on requirements for individuals to secure quality educational undergraduate and postgraduate qualifications. As suggested by Henkel (2005), academic self-esteem and sense of meaning is strongly linked to a sense of academic identity that is formed and sustained by individual and a collective set of values that set apart the academic profession.

Resilience studies suggest that when faced with continuous change, individuals and communities need to have; a consultative leadership, sense of community, mission and reasons for change, and a sense of control and autonomy in their professional lives if they are to be able to effectively adapt to change.

As part of a Masters project, this research study examined ideas of resilience as pertaining to the working lives of business academics in an Australian University. A framework was devised from the work of Coutu (2002) and Welck (1993) to research the a number of themes around the dimension of change; role, leadership, support, mission, collegial relationships and sense of meaning.

The conclusion suggests that academic staff are not averse to change, if they are well prepared, given opportunities to have input and are able to have access to the adequate resources to support the change process will demonstrate not only resilience but also in some cases a strong sense of self-efficacy.

There are a number of important findings that have emerged as a result of this study that are summarised below:

Academics will be more adaptive to the changing environment if they are

in a non-competitive and unambiguous environment. Change will not be seen as a threat if it is introduced with opportunities for staff to develop new skills. Academics need to be supported to prepare for the changing technological and social educational environment. Open communication from the university on reasons for change, and opportunities for academics to have input are also a critical part of the process. Previous experiences of a positive change process and combined with supportive colleagues will assist academics through the change process

Collegial community is paramount in assisting individuals to build supportive networks that assist them enhancing their self-efficacy and thus resilience. The university needs to recognise and support the collegial networks.

It is important to academics that they feel valued in their work and that the change does not affect their sense of professionalism, or autonomy in their work which is an important aspect of the identity. Leadership plays a very important part in how the change process will be perceived, academics need to have faith in the leadership, they need to have an understanding of clear roles, guidance and common purpose, otherwise individuals will look for self-protection options when the going gets tough. Academics need to trust their senior leadership.

Academics face a loss of identity when facing multiple demanding roles that are not clearly specified and require a highly adaptive intellectual process, and this is often a hidden source of stress. Academics need to be able to be able to develop skills to be pro-active when facing ambiguous change situations and this will then lead to a sense of their own capacity to have a choice.

Conclusion

If university decision makers are interested in providing a sustainable work place, where academic staff are creative, adaptable, and innovative and share a strong identification with the mission of the organisation, they need to be aware of what elements make up a supportive workplace. Policy-making needs to be a

more transparent and inclusive process. Academics need to feel valued enough to be able to have real input into the directions of the organisation and to feel they are being heard. Opportunities to support staff to build skills of "portability" must be made available for them to maintain a sense of self-efficacy, so that they feel they have a real choice as to where they wish to be.

This project has identified the importance of providing support for the individual academic through institutional and collegial avenues. Academic staff who are part of a strong community of peers, sharing a mission and sense that their contributions are valued will be able to not only adapt to change, but will be able to innovate and develop new opportunities to the benefit of all.

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Kay Salehi works at Swinburne University as an Educational Development Advisor. Her background includes a BA Psychology/Stats, dabbings in computer graphics and later a Graduate Diploma in Instructional Design (Deakin). She is now completing her Masters in Professional Education and Training (Deakin), and this study was part of a year long project.

She is keen to continue working in the area of resilience and how it is reflected in current academic university life.

Contact: ksalehi@swin.edu.au



INTERNATIONAL COLUMN EXCHANGE

In the Spotlight: Teaching and Learning as a National Enterprise

By Shelda Debowski, President of HERDSA

This article was written as part of the Canadian, Australians and US Presidents of Higher Education Societies newsletter column exchange. It is the first article in the second round of the exchange.

Both Australia and New Zealand have placed a high priority on profiling teaching and learning in their current national reform strategies. While New Zealand is still in the process of determining its focus Australia has progressed rapidly with its push toward recognising and rewarding quality teaching.

When first implemented in 2005, the *Learning and Teaching Performance Fund* prompted considerable discussion as it tied university funding to the rankings from the assessment process. There have been amendments to the criteria for the second round to increase the accuracy of the analysis, but there remain significant challenges in finding suitable measures for national benchmarking of institutional teaching outcomes. The strategy is being reviewed with some interest in New Zealand as a way of recognising institutions who have aimed to build strong support for teaching and learning. The exercise has been very beneficial in encouraging institutional consideration of the ways they can generate positive and effective student experiences and outcomes.

The *Carrick Institute for Learning and Teaching in Higher Education* is a second recent Australian government initiative. The Institute acts as a national focal point for encouraging quality teaching and exploration of teaching-related issues. Its areas of major activity relate to rewarding quality teaching, promoting scholarship of teaching and learning and encouraging discipline-based activities.

The Australian Awards for University Teaching, a highly regarded and long-standing national recognition scheme, have now been expanded from 13 to 260 awards. This has been carefully handled to ensure the value of being recognised is not diminished. 210 citations recognised teaching leaders, librarians, student support officers and university teachers who have strongly assisted student learning. In addition, the Institute will continue its smaller scheme where it recognises individual teaching excellence and programs that enhance learning. These awards are very prestigious and strongly profile the need to provide quality learning and teaching leadership.

Scholarship of learning and teaching is receiving a similar boost with the recent bestowal of three inaugural Carrick Senior Fellowships and eight Associate Fellowships. These prestigious awards will promote the value and importance of research relating to learning and teaching in a more public and credible manner. This is particularly critical as a new Research Quantum Framework emerges in 2007. (The Research Quantum will identify and reward quality research – but it is likely that teaching and learning will be only marginally recognised through this system as the publication routes are less well-recognised.)

It is very exciting to see the increased emphasis on teaching and learning across the two nations. The government initiatives have provided an important stimulus to the higher education community through their recognition and encouragement of quality learning and teaching. This level of sponsorship also promotes increased consideration of teaching and learning by policy makers and university leaders. The advocacy roles of the Carrick Institute for Learning and Teaching in Higher

Education, its New Zealand equivalent and HERDSA in promoting the value of learning and teaching research and scholarship to those who judge research outcomes will also be very important.

As the stakes for teaching and learning increase, there will be an increasing focus on how each academic can contribute to the overall institutional and national positioning of this critical activity. Although the government strategies are generating wider interest and commitment from institutions, the effecting of change is largely dependent on the work of each individual. There is still much work to be done by HERDSA and its members in making teaching and learning a fundamental concern for all who work in universities. But at least we are now in good company!

Contact:

Shelda.Debowski@uwa.edu.au

I.T. IN HIGHER EDUCATION COLUMN

Podcasting: Do You Really Need to Know?

By Roger Atkinson

No doubt many members of HERDSA have experienced the feeling that there are just too many new technologies being foisted upon us. Do you want to say, or even *scream*, that you have reached your technological saturation point? We understand, and in recognition of that feeling, here is a column asking the question "Podcasting: Do I really need to know?", and giving an answer, "No", in the first paragraph.

However, I invite you to read on, because it's not exactly an unequivocal "No", and there are interesting ramifications. To start with, it's highly likely that you have encountered the *iPod* from Apple Computer, Inc [1]. Teenagers (and occasionally other kinds of persons) listening to their *iPods*. Advertisements for *iPods* from all the major retailers, your Harvey Normans, Myers, etc. Numerous imitators also in the market. Even the writers of email viruses are on the *iPod* bandwagon (I wasn't fooled by free *iPod* offered by the email quoted below, and anyway, as a Mac user, I'm immune to virus attachments :-)

Dear user rjatkison,
You have been picked to receive a free prize!
Check the attachment in this email for claiming your prize.
Thank you
The YourFreeiPod Team
+++ Attachment: No Virus (Clean)
+++ Bigpond Antivirus - www.bigpond.com

Here is a illustrative excerpt from *iPod* advertising, that also takes us on to the main topic, podcasts [1]:

How much can your pocket hold? That's up to you and your iPod. It holds up to 20,000 songs, up to 25,000 photos and up to 100 hours of video — or any combination of each ... So you can browse music on the iTunes Store, download the ones you want,

then sync it to your iPod. Same goes for new iPod games, best-selling audiobooks, and an entire universe of free podcasts. Go ahead. Fill 'er up.

Note the lovely new, recently invented words, *iTunes*, *sync*, *audiobooks* and *podcasts*. Fortunately for Apple Inc's bottom line, *podcasting* seems to have slipped into our everyday language. In particular, broadcasters and publishers have adopted it. Here are several of my favourite examples, starting with a definition from our own ABC [2]:

What is Podcasting

Podcasting is a way of automatically downloading audio files to your computer. You can then listen to this audio on your computer or transfer them to an MP3 player.

- What is a podcast?
- How do I subscribe to a podcast?
- Where do I get podcasting software?
- Where can I get more information?
- Terms of Use

The best known "MP3 player" is probably Apple's *iPod*; numerous competitors are available in the form of portable, pocket sized devices, even some that are also mobile phones, and as computer software such as Apple's *QuickTime*. In passing we could note that even our ABC has some uncertainties on its web pages. Should *podcasting* encompass video and audio files or should we adopt the term *vodcasting* to distinguish video from audio only, reflecting the difference between radio and television? [3] The word *vodcasting* very conveniently seems related to "video on demand", linking the concept, the practice, and, pre-eminently, the marketing, to the worlds of entertainment, journalism, the big, multinational media players, pay TV, and

even some players in academic publishing. That brings me to the next example, from *Nature*, after this digression into another of my favourites from our dearly beloved 50 year old Auntie TV. Of the various explanations given by the ABC for its adoption of *vodcasting*, the one that appeals to me most relates to the ABC TV program *The Chaser's War on Everything*. Now available on vodcast [3]:



All year, people have told us they missed our show because they were in the pub. So we have come up with a way you can watch it in the pub, or anywhere. So the only

excuse for missing the show now is that you just don't like it very much

Back to the serious stuff. *Nature* is a very well known, highly prestigious publication dating from 1869 [4]. Definitely not a teenager in scholarly publishing, but nevertheless *Nature* is into podcasting [5]:

Subscription to the Nature Podcast is FREE! ... The Nature Podcast is an audio file you can play

on any computer - you don't need an iPod ... See our podcast index page to enjoy more specially-commissioned broadcasts ... You can post comments using our discussion blog. Listen to the latest show and join in the debate.

Browsing recently in another academic journal, the *International Review of Research in Open and Distance Learning* (IRRODL) [6], I encountered its invitation, "Please complete the online readership survey". The first paragraph of this survey's welcome to the reader is [7]:

Welcome to the new IRRODL, which along with a new technical backbone

supported by open source PKP publishing technology and the adoption of Creative Commons Licensing now comes with MP3 audio downloads starting from volume, Vol. 7, No. 1, forward. MP3 audio technology will enable those with mobile phones and mobile devices to access IRRODL's content anytime, anywhere.

Now I can understand the teenage desire to have songs galore podcasted to them, and I can understand *Nature* making podcasts for those parts of its content that relate more to science journalism than to conventional academic reporting of scientific research findings. But I rather doubt the existence of a demand for audio files containing review articles on academic topics in distance education and open learning. This is partly because I already have a mechanism for "anytime, anywhere" access to journal content. Instead of downloading to an iPod or other MP3 player (that I don't have), I dump to printer and I can read that "anytime, anywhere", though, in practice, I rarely dump to printer. Over 95% of my academic reading is on screen only, using 100% recycled electrons, and I hope you do the same (*HERDSA News* excepted :-)

There are several other reasons for being lukewarm towards podcasting for academic journals. The podcasts may be accompanied by advertisements, just like commercial radio (e.g. *Nature* podcasts). In my humble opinion, that's an irritant. More significantly, audio files do incur much greater traffic volumes than plain text files. For example, from *Nature's* website I tested one audio file and its plain text transcript, finding audio file 10,700 kB, about 31 minutes playing time [8] compared with transcript 80 kB, about 5600 words [9]. Ouch, 10.7 MB!! I had to abandon that investigation and also I should qualify a comment I made in an earlier edition of *HERDSA News*, "With marginal costs of digital network transport approaching zero, let's be indulgent in the number of articles that we download!" [10]. Add "...excluding podcasts". To summarise, podcasting is appropriate for a "song" or "clip" with duration 3-4 minutes, but for other kinds of content, conserve bandwidth and read rather than listen. If you need really need portability of content, use your printer rather than your MP3 player.

Whilst podcasting is an additional method of distribution for producers of

radio and TV broadcast content (e.g. the ABC, *National Geographic* [11], *Nature*), does it have applications in higher education? Here we need to consider another aspect, deftly summarised by Mark Lee from Charles Sturt University [12]:

Many of our students - even the young ones straight out of high school - tell us that they set aside specific times to listen to our podcasts, whether this be on their portable devices (e.g. iPods) or on their PCs. They generally don't seem to be comfortable multitasking these learning activities with other (household, work, leisure etc) activities, perhaps because they are inclined to treat them as formal, deliberate learning efforts. Many think that they have to sit and concentrate!

As a method of distribution, podcasting is likely to have only a minimal impact upon higher education teaching and learning. There are other methods of distribution, in particular conventional reading and viewing of files (mostly text, diagrams, illustrations) web served by LMS software such as *WebCT*. Concepts such as "subscribe to a podcast" are not especially relevant (higher education uses "unit enrolment"), and in many or most cases portability via an MP3 player is of little relevance, given the intense interaction and concentration demanded by higher education learning activities ("...have to sit and concentrate!" [12]).

However, the lack of impact from podcasting as a method of *distribution* should not lead us into overlooking the significant influence that *podcast creation tools* are developing in education (see [13] for one supplier's list of "creation tools"). The emerging developmental and research direction seems to me to be learning through *creating* podcasts and similar, in contrast to learning *from* podcasts. Especially in the schools sectors, podcasts are being created mainly as experiential, authentic, group based, constructivist learning experiences. The providing of information to others is a secondary and lesser purpose. Although at present there is relatively little research to support this prediction (see [12] and [14] to [18] for examples), there is a growing number of school podcasting sites which illustrate the prediction very well indeed. For excellent examples from Western Australia, see *Blitto's* (Rod Blitvich, [19], [20]) and *Podkids* (Paul Fuller, [21]).

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Roger Atkinson retired from Murdoch University's Teaching and Learning Centre in June 2001. His current activities include publishing AJET and honorary work on TL Forum and other academic conference support and publishing activities. Website: <http://www.users.bigpond.net.au/atkinson-mcbeath/roger/>
Contact: rjatinson@bigpond.com

HERDSA Local Area Contacts

The following have kindly agreed to act as contacts for HERDSA members in their area. Please contact them for news of HERDSA activities in your area and any queries about the Society.

Western Australia	Craig Baird, c.baird@ecu.edu.au
Northern Territory	Penny Wurm, penny.wurm@cdu.edu.au
Queensland	Kay Martinez, kay.martinez@jcu.edu.au
News South Wales	Maureen Bell, mbell@uow.edu.au
Victoria	Peter Ling, pling@groupwise.swin.edu.au
Tasmania	Natalie Brown, natalie.brown@utas.edu.au
South Australia	Geoffrey Crisp, geoffrey.crisp@adelaide.edu.au
New Zealand	Mark Barrow, m.barrow@auckland.ac.nz
Hong Kong	Sue Donoghue, sue.donoghue@gmail.com
Singapore	Please contact Maureen Bell if you are interested



News of Members

This is a new feature of HERDSA News and we are dependent on members to provide the information for each issue. We thought it would be of interest to read about things like, awards to HERDSA members and any new positions they had taken up and any other interesting news so here is the first entry.

There were a large number of Carrick Awards for University Teaching-Citations for Outstanding Contributions to Student learning and I recognised a number of HERDSA members among them, but I am sure that I will have missed some. My apologies to these people. Please email me and let me know so I can include you in the next issue.

Roger Landbeck, Editor.

Awards to Members

Carrick Fellowships 2006

Carrick Fellowships are highly prestigious, awarded to outstanding scholars who are respected advocates for excellence in excellence in learning and teaching in higher education

Senior Fellowships

Professor Sally Kift, Director of 1st year experience project, School of Law, Queensland University of Technology.

Articulating a transition pedagogy to scaffold and to enhance the first year student learning experience in Australian higher education.

Three Senior Fellowships were awarded in 2006. Many congratulations to Sally.

Associate Fellows

Associate Professor Geoffrey Crisp, Director Centre for Learning and Professional Development University of Adelaide.

Raising the profile of diagnostic, formative and summative e-assessments. Providing e-assessment design principles and disciplinary examples for higher education academic staff.

Professor Ron Oliver Associate Dean (T & L) School of Communications & Creative Arts Edith Cowan University.

Promoting the uptake of reusable ICT based learning designs.

Nine Associate Fellowships were awarded in 2006. Congratulations to Geoff and Ron.

2006 Carrick Australian Award for University Teaching - Citations for Outstanding Contributions to Student Learning

Beena Giridharan. Beena also received a HERDSA fellowship in 2006. She is Acting Director, Pre-University Studies, Curtin University of Technology, Sarawak, Malaysia.

Samantha Hardy. She also received a HERDSA fellowship in 2006.

Cristina Poyatas Matas.

Peter Petocz

Lorraine Marshall. See also article by Lorraine in this issue.

Tai Peseta.

New Appointments

Samantha Hardy has been appointed Senior Lecturer in Conflict Resolution at the Centre for Conflict Resolution, La Trobe University, from February next year.

Mark Barrow, Vice President of HERDSA has been appointed as Associate Dean (Education) in the Faculty of Medical and Health Sciences at Auckland University.

Lynne Hunt, a HERDSA Fellow, has been appointed to the position of Professor and Director of the Learning and Teaching Support Unit at the University of Southern Queensland.

Lynne has recently co-authored *The Realities of Change in Higher Education* which explores the theory and practice of the everyday reality of change to promote learning and teaching in universities. Drawing on international case studies, it analyses a range of practical strategies to promote change that enhances students' learning.

Details of the book are:

The Realities of Change in Higher Education: Interventions to Promote Learning and Teaching

List Price: £24.99 stlg (UK)

ISBN: 9780415385800

ISBN-10: 0415385806

Publisher: Routledge

Publication Date: 04/08/2006

Pages: 192

Editor(s)

Lynne Hunt, The University of Southern Queensland, Australia

Adrian Bromage, Coventry University Centre for the Study of Higher Education

Bland Tomkinson, University of Manchester, UK

News from Bob Cannon

Bob is a long standing member of HERDSA, joined in the early days of the Society. He was former Director of the Advisory Centre for University Education, (ACUE) at the University of Adelaide. For the last few years he has been working on an interesting education project in Indonesia. He writes:

Robert (Bob) Cannon, a HERDSA member continuously since 1974, is working in Indonesia with a USAID funded project in basic education.

Since leaving his appointment as Director of the Advisory Centre for University Education at Adelaide University in 2001, Bob has undertaken consultancy assignments for the Asian Development Bank (ADB), AusAID, UNICEF and USAID. His varied work has included the application of stronger capacity building principles in the AusAID scholarships programme, project evaluations and ADB audits and basic education development. His assignments have required work in Australia as well as in Mongolia, the Philippines but mostly in Indonesia where he now has an appointment as a management and governance specialist on the USAID *Managing Basic Education Project* in Java and Aceh.

Bob leads a team of Jakarta-based Indonesian consultants. This team works together with 21 locally-based District Co-ordinators and over 250 Facilitators who, in turn, help local governments and schools



with issues as diverse as school-based management, community participation, learning and teaching, educational finance, resource management, governance and dissemination strategies. Bob is currently

completing the final monitoring and evaluation report on the Project.

Bob finds that the challenges in developing basic education are, in principle, much the same as the challenges

he faced over more than 20 years in working to develop university teaching, but in retrospect, he believes that changing university teaching in Australia was very much more difficult than changing basic education in Indonesia today!

Bob says that participating in the transition from the authoritarian Suharto era to democracy in Indonesia is a fascinating and deeply rewarding experience. In this new, open and democratic society, the impact of the release of energy, creativity and responsibility at school and District level has been astonishing. Contrary to the media image of Indonesia as a dangerous country controlled by the military and populated by grim Islamic militants, it is in fact a democratic, friendly and tolerant country. According to Bob, the greatest physical danger on school visits is sprained facial muscles from responding to the smiles of teachers, parents and students expressing their genuine pleasure in having you there.

He expects to return to Australia at the conclusion of his contract in early 2007. Bob would love to hear from friends and former colleagues and he can be contacted at cannon@indo.net.id

HERDSA: New Zealand Branch Report - 2006

By Neil Haigh, Chairperson

The continuing good health of the NZ branch is reflected in the number of members in the branch, the commitment and vitality of the Branch committee members and the activities sustained during the year.

New Zealand Tertiary Sector and the Branch

Ako Aotearoa / National Centre for Tertiary Teaching Excellence

Events associated with the establishment of Ako Aotearoa (National Centre for Tertiary Teaching Excellence) have been a significant background to our activities this year. Those events include

a bidding process for determining the hosts for Ako Aotearoa, negotiation of a funding agreement between the hosts and the Tertiary Education Commission and the beginning steps required to bring Ako Aotearoa to life. Structurally, Ako Aotearoa will take the form of a Coordinating Centre based in Wellington and three regional Hubs located in Auckland, Palmerston North and Christchurch. Members of our Branch have had central roles in all of these events and we anticipate HERDSA will have a very strong continuing relationship with, and involvement, in Ako Aotearoa. It will make it easier for us to realise some of the proposals and plans that we have been developing. For example, this

year we investigated further the notion of a retreat for recipients of the National Tertiary Teaching Excellence awards as a way of ensuring that their insights could be gathered and disseminated more effectively. A proposal was prepared and submitted to a potential sponsor 3M New Zealand. 3M declined because of their current sponsorship commitments. That idea has now evolved, in the context of Ako Aotearoa, into the commitment to establish an Academy for recipients that will provide an infrastructure for their ongoing support for colleagues as experts and mentors, and a context for gathering and disseminating their knowledge and learning and teaching. Another

related Branch initiative has been the preparation of a bibliography of literature on Indigenous Higher Education in New Zealand. The bibliography has been completed recently and will be available in the New Zealand Branch section of the HERDSA WWW site. Other copies will be disseminated to institutions and it will ultimately be incorporated in an Ako Aotearoa data base of New Zealand tertiary education research literature. It may be that HERDSA will tender in the future for comparable projects initiated by Ako Aotearoa.

New Tertiary Education Strategy

This year has also foreshadowed major shifts in Government policy for tertiary education. A new Tertiary Education Strategy is being developed for the period 2017 – 2102. Prospective “reforms” are associated with the degree of distinctiveness of categories of institutions within the overall system, the approach for funding learning and teaching within institutions and regimes for assuring, monitoring and reporting on institutions performance. The reforms are intended to “shift the focus of providers away from seeking enrolments in high volume, low value courses to one that is much more driven by a focus on quality and relevance”. (Tertiary Education Reforms: The Next Steps, Cabinet Policy Committee Paper). As the reforms will obviously impact on HERDSA members and we have views and expertise that are relevant to the formulation of related new policies, a HERDSA submission was prepared. This was in response to a

discussion document – *Developing the Second Tertiary Education Strategy*.

HERDSA New Zealand Visiting Scholar – Professor Mick Healey

A feature of the Branch programme this year has been the presence of Professor Mick Healey as our Visiting Scholar. A precedent for this scheme was established last year when Professor Jean McNiff was our Visiting Scholar. Mick is well known to many HERDSA members through his scholarship and attendance at HERDSA Conferences. He visited the following institutions during July–August: AUT University, University of Auckland, UNITEC, Manukau Institute of Technology, Massey University Victoria University and Wellington Tertiary Institutions, University of Canterbury and Christchurch Institutions, University of Otago. At each institution, he facilitated several events, a total of 22 across the programme, and met with key academic staff. The most frequently requested sessions were on linking discipline-based research and teaching, a very topical matter. Other sessions were on the learning experiences of disabled students, developing the scholarship of teaching, encouraging active learning through application of Kolb’s experiential learning theory, and active learning. The feedback up and down the country was consistently very positive with appreciation expressed for both the substance of the sessions and Mick’s approach to working with staff. As the relationship between research

and teaching is being considered in the context of the current tertiary education reforms, his visit was very timely. We are appreciative of the support that the HERDSA Executive has given to this programme.

Tertiary Education Research New Zealand Conference (TERNZ) and HERDSA

In 2002, three New Zealand HERDSA members initiated the first TERNZ conference. This bold initiative was taken by Tony Harland, Kathryn Sutherland and Stanley Frielick. Described as a conference for teachers in the tertiary sector to research and re-assess their teaching, share new ideas, and articulate their educational values and as highly participatory and aiming to create a critical space in which to develop research conversations within a supportive community, the conference has become an important annual event. This year, the organisation of TERNZ is occurring under the auspices of HERDSA. On an interim basis, the Higher Education Development Centre at University of Otago is also continuing to sponsor the conference. We appreciate the confidence that our colleagues have in our capacity to ensure that TERNZ endures. The conference is occurring at University of Canterbury, 23rd and 24th November and is hosted by the University Centre for Teaching and Learning. In succeeding years, it will move to different centres.

Clearly, 2007 will be as busy and rewarding as this year has been.

Contact: neil.haigh@aut.ac.nz

2007 Conference

International Society for the Scholarship of Teaching and Learning

2–5 July 2007

Sydney, Australia

For full details of this conference including dates for submission go to the conference website

<http://www.indiana.edu/~issotl07/>

Response to Reviews of “A Guide to Learning Independently” and “A Learning Companion” in September 2006 *HERDSA News*

By Lorraine Marshall and Francis Rowland

I invited the authors to respond to the questions I posed at the conclusion of my review of the two books because I thought it would be valuable for readers to learn of their experiences using the books and because of the wider implications for the teaching of study skills. Editor.

At the end of a very positive review, the reviewer raises several important questions about *A Guide to Learning Independently*. Would students buy the book? Could they be convinced to spend time using the book to help them learn how to learn? What evidence is there about the use of book by students? The reviewer also suggests that it would be appropriate to include material on various theories of learning in the book.

Many of today's tertiary students are financially constrained and time poor. This is why the fourth edition of *A Guide to Learning Independently* continues to be designed for use as a guide and reference when needed, rather than for reading from cover to cover. Students who buy the book find that it is value for money, since rather than focusing on a few aspects of study it is comprehensive and can be used in all disciplines and over an entire degree. In addition, what makes *A Guide to Learning Independently* different from many other study skills books is its emphasis on students reflecting on their own learning goals, instead of encouraging them to focus on meeting academics' expectations. In the current situation in tertiary education, when many students have reduced access to academic help than previously, we believe that students will benefit from and find this approach rewarding.

We agree with the reviewer that the most effective use of the book occurs

when it is integrated into the teaching and assessment of courses. The book is premised in part on a belief that, delivering and developing study skills, is most effective when linked with content. We imagine that many academics will continue to refer students to particular parts of the book so that their students, including the increasing number admitted to tertiary study with weaker academic backgrounds, have written material that complements oral advice from their teachers.

At Murdoch University *A Guide to Learning Independently* (and *A Learning Companion*) are embedded in a large first year unit aimed at introducing students to university culture. The texts work well in this context, and unit survey results indicate that a high percentage of these students find that the books significantly enhance their study experience. In addition, positive anecdotal evidence from current and past Murdoch students abounds. One such student claims that *A Guide to Learning Independently* is “invaluable” and identified as “fantastic” the chapter on essay preparation and the way in which *A Learning Companion* breaks down tasks. On unit websites students recommend both books to their peers.

Readers might be interested to know that *A Guide to Learning Independently* has sold over 120,000 copies since it was first published 25 years ago, indicating the large numbers of students who have chosen to purchase the book in addition to the many other texts required for their studies. We also know that parts of it are frequently photocopied as handouts! While the book is used widely at Murdoch University, this counts for only a small percentage of the book sales. The *Guide*

has been used consistently in New Zealand, Hong Kong and Singapore and has been particularly popular with Open University students in the UK.

Following the release of the fourth edition of *A Guide to Learning Independently* the publisher, Pearson Education, conducted four focus groups of postgraduate students to examine the index, and these focus groups also commented on the text. Students were satisfied with the detail, comprehensiveness and academic relevance of the text. However, like the reviewer, they suggested that explicit information on various educational theories could have been included, for example, on Freire's concept of liberation education. While the *Guide* is informed by decades of acquaintance with a wide range of educational theories, we are well aware that unless the book was expanded to incorporate a range of theories we would be criticised for including some and omitting others. Students would then have to buy or borrow a weightier and more expensive tome, and the publishers would certainly have wanted to edit some of the current contents. The *Guide's* purpose is to help students understand university culture and their place within it; and to offer them a range of learning skills strategies from which they can choose according to their needs. The presence of theory is therefore implicit rather than explicit. We anticipate that academics who use the book in their units will draw students' attention to relevant educational theories.

The reviewer correctly notes that *A Learning Companion* enhances and reinforces the content of *A Guide to Learning Independently*, and this will certainly affect general sales of the more recent book. However, *A Learning*

Companion is most appropriate when integrated into unit materials and has been very effectively used in this way at Murdoch University. Many of the exercises are used in units designed specifically to develop study skills while other units use parts of the book more selectively. It serves to lead students through a series of activities as they practice and reflect on their skill development in a way that is not possible in a more general text.

The future of these study skills books and other like them is undoubtedly linked to a number of developments. These include the ability of secondary schools to prepare students for university study, the

number of mature age students attracted to tertiary education, the influence of the internet on reading and the use of hard copy texts, and the effectiveness of online materials as a substitute skills development tool.

Associate Professor Lorraine Marshall, the Foundation Head of Student Learning at Murdoch University, is currently Convener of Murdoch University's seven first year Foundation Units. In 2006 she received a Carrick Citation for her work on these Foundation Units and a Carrick Program Award for the development of a series of Quick Skills interactive online

modules. Lorraine also coordinates a large online first year unit, Introduction to University Learning, through Open Universities Australia that attracts up to 2,000 students each year.

Frances Rowland has had a dual career in teaching and writing, and has been teaching at Murdoch University for more than 30 years in equity courses, distance education and multidisciplinary units in social sciences and education. She has also taught in community courses and developed professional education units.

Contact: L.Marshall@murdoch.edu.au

Higher Education in the Headlines

Compiled By Peter Kandlbinder

A summary of the top stories on higher education from the last 3 months of Australian Higher Education (www.theaustralian.news.com.au), Times Higher Education Supplement (www.thes.co.uk) and the Chronicle of Higher Education (chronicle.com)

In **August**, The Australian Higher Education reported that the Howard Government was asking universities to assist in the "war on terror". Citation rates set to injure the reputation of Australian research. The Minister for Education, Science and Training ruled out limiting the number of ARC applications. Funding continues to be an issue with the rate of full fees continues to climb and universities looking to alumni for money.

Financial matters also dominated the Chronicle of Higher Education. Colleges in the US were reported making profit from student loans, closures due to a lack of profitability and closures due to the war in Lebanon.

The Times Higher Education Supplement reports that academics in the UK are self-censoring on sensitive issues, while research students are have the best job prospects ever experienced. Religious extremism is also at work on campuses. Private provides attempt to attract students

by highlighting higher education's under-funding.

September had the Australian Higher Education reporting the demise of the AVCC, increased competition for the best students and researchers and an OECD test to compare students

With only only elite researchers being eligible for research grants which will be judged on their economic merit, along with crumbling campus infrastructure, it is little surprise that The Times Higher Education Supplement reported many dissatisfied academics planning to leave the UK.

The Chronicle of Higher Education focussed on the international standing of US higher education, with a report into performance of colleges as slipping along with student performance in the SAT Scores. Given the funding situation it is perhaps just as well that the majority of young PhDs say that collegiality is more important to them than salary.

October The Australian Higher Education reports that more Australian students are overseas exchange, Go8 reject the research impact model, that many academics are wasting their time applying for ARC grants and Vice Chancellors continue their campaign VCs

for higher fees and decreased government regulation.s

The Times Higher Education Supplement reported that academic workloads "go through roof", performance based pay has become increasingly commonplace, academics are being asked to enlist in the "war on terror" with most academics seeing managerialism has become endemic in higher education.

The Chronicle of Higher Education reports on the future directions of higher education presented by Spellings. Colleges are concerned about the influence of large CMS like Blackboard. There was a special report on the Sustainable University and protests at Gallaudet University that led to the withdrawal of its candidate for University President.

Peter Kandlbinder is a Senior Lecturer in the Institute for Interactive Media and Learning at the University of Technology, Sydney. His main responsibility is for academic development in area of assessment and over the past 15 years he has been providing similar support for problem-based learning, postgraduate supervision and other forms of small group learning at a number of universities in Australia and the South Pacific.

Contact:

Peter.Kandlbinder@uts.edu.au

A New Book about Working in Groups

Groups Work!

A guide for working in groups

By Jane L Fowler, Amanda Gudmundsson and Leanne Whicker

Groups Work! is designed for university and college students undertaking group assignments. It contains activities and information about working groups and follows the journey a group may take from formation to termination, providing useful processes for readers to engage in along the way.

Jane Fowler is a senior lecturer in the School of Human Services at Griffith University. She was one of the first HERDSA Fellows.

Amanda Gudmundsson is a lecturer in the School of management at Queensland University of Technology.

Leanne Whicker has over ten years' experience in organisational development and humans resources management consulting.

Published by Australian Academic Press, Brisbane, Australia.

ISBN 1 875378 71 5

The book is available online from www.australianacademicpress.com.au

Costs in Australia. AUD29.70 plus \$5 post and packing.

Costs outside Australia. AUD 27.00 plus \$12.50 post and packing.