Chapter 22
The scholarship of teaching in a research-intensive university: Some reflections and future possibilities

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This book has brought together a diverse range of activities which can best be described as reflecting the scholarship of teaching and learning at the University of Sydney. The papers in this monograph represent examples of practice from a wide range of disciplines, using a range of approaches and operating at a variety of levels. Importantly, they describe how this type of research can be used to change and improve practice. Through their publication they provide various examples of Hutchings and Schulman’s (1999) conception of the scholarship of teaching as being public, open to critique and evaluation, in a form that others can build on. These examples clearly reflect question-asking, inquiry and investigation, particularly around issues of student learning. They contribute to improvement in teaching practices, institutional knowledge and intelligence and hopefully improvement in student learning.

In this chapter I draw together some common themes and identify some issues that have emerged over a period of time where the scholarship of teaching and learning has been used as a strategy to reward, recognise and develop teaching and learning at the University of Sydney. The book was commissioned at a time when I held the position of Pro-Vice Chancellor (Learning and Teaching). In this role I was responsible for developing a cross institutional strategy to enhance and improve learning and teaching. My predecessor Paul Ramsden initiated two major initiatives that were aimed at developing a performance culture across the university: the Scholarship Index and the Teaching Dividend as described in Chapter 1. After Paul left I had the challenge of implementing and embedding these into university practice. Both of these initiatives distribute funds from the centre as a means of recognising and rewarding improved practice in teaching and learning.

These initiatives indicate the commitment to achieving and rewarding quality teaching in a research intensive environment. At a time when the RQF has been stressing the importance of research, they are an important counterpoint to a preoccupation with research. The importance of teaching at Sydney is recognised in two ways: the allocation of resources through these initiatives, and the opportunity to be promoted on the basis of outstanding teaching. These two activities are clear messages that the University recognises and rewards teaching.

Some reflections on the scholarship of teaching at Sydney
Clearly the papers in this monograph indicate that the scholarship of teaching is widespread, and embedded into the policies and practices of the institution. There are examples from the faculties of Health Sciences, Science, Arts, Business and Economics, Education and Social Work, Veterinary Science, Engineering, The Sydney College of Arts, the Sydney Conservatorium of Music, Architecture, Medicine, Pharmacy and Dentistry. It is pleasing to note that there are several contributions from academics in Science, an area that one might usually consider to be more focussed on more traditional and scientific research.
The papers all reflect the values for learning and teaching at the University of Sydney as presented in the Learning and Teaching Plan 2007-2010, in particular the values of excellence and intellectual inquiry. Moreover they operationalise the principles presented in the plan, especially to promote research-enhanced learning and teaching, to promote student centred learning and teaching, and to strive to continuously improve and enhance the quality of student learning and teaching.

The papers also indicate how the scholarship of teaching and learning can operate at the institutional, group/faculty and individual level. At the institutional level the papers have clearly demonstrated the existence of a culture of scholarship across the whole institution, supported through policies and rewarded through the allocation of funding. At the group/faculty level there are several examples of how research has been used to improve practice. Curriculum renewal and responding to student needs are two common themes which exemplify this. At the individual level measuring the ability of first year students to use skills and knowledge learned in mathematics courses is a case in point. So returning to Hutchings and Shulman’s earlier quote, what then are the questions being asked, and what are the issues around student learning reflected in these chapters.

The following themes and issues are addressed in this volume: subject specific investigations, curriculum interventions and improvements, student learning strategies and experiences, learning in an information rich environment and cultural change.

Subject specific investigations
The extent to which students developed and used concepts which reflected the conventions of pharmacy is the focus of Sainsbury and Walker’s research. They identify a number of implications for enhancing student learning, including “the importance of collaboration in group work and of providing opportunities for students to discuss their understanding and approaches to problem solving”.

Batmanian and Lingard in their research on learning and teaching of basic sciences in the health related professions pinpoint the difficulties of teaching and learning of compulsory basic science in professionally oriented faculties. On the basis of their investigations they came to the conclusion that academics teaching in this subject have varied their teaching methods to include only minimal necessary factual information so that students are overwhelmed by content which in turn would lead them to adopt a surface level approach to learning. A variety of delivery strategies were introduced to ensure that content and professional needs were accommodated. Most importantly though was the conclusion that “students need to be taught exactly what constitutes deep learning and to value it not only for their immediate learning but as a lifelong learning tool.”

Assessment stands at the core of the teaching and learning process. In their chapter Manjula Sharma and Ian Sefton examine assessment practices in Physics. The original purpose of the research was to gain some understanding of students’ thinking that would enable them and their colleagues to become more effective teachers. Trying to understand the variation in the distribution of marks which seemed to be unrelated to differences in students conceptual understanding was the trigger for this research. They believed that ‘gaining some understanding of students’ thinking would enable them and their colleagues to become more effective teachers. Sharma and Sefton take the view that doing research on students’ understanding almost inevitably leads to a more learner focussed approach to teaching.
Interventions and interruptions
Finding ways to attract and support Indigenous students is a challenge for many institutions. In their chapter, Farrington, Page and Daniel di Gregorio undertook research to elucidate the factors that promote Indigenous students’ academic success. From this research they identified strategies to induct students into the university learning environment and suggest some changes in curriculum that would help students in their studies.

Many students in the science areas come to university with poorly developed writing skills. Charlotte Taylor and Helen Drury’s research examined the integrated writing program within a first year biology course. In this program students improved their scientific writing skills. Their research confirmed the view that students need a structured and explicit approach to the teaching of writing; one which modelled good writing and provided students with systematic feedback on the quality of their scientific writing.

The Arts Network Mentoring Program was an initiative put in place in the Faculty of Arts to foster a sense of identity and belonging for first year students. The importance of relationships, creativity and image emerged as clear factors in this program. The use of a participatory action research cycle with its collaborative and integrative dimensions provided Nerida Jarkey and her team with a clear understanding of the benefits and outcomes and enabled the faculty to put in place a strategy that has been positively received by new and ‘old’ students alike.

When we think of interventions and interruptions we usually think about these coming from academics or from central administration. Ann Elias describes a situation where students complained about ‘the offensive nature of contemporary art while enrolled in a program that aims to develop contemporary artists.’ This research led her to pose the question of ‘how to facilitate discussions that are inclusive, but not stressful to students’. The research confirmed the importance of the ethics of teaching, attained through discussions that are sensitive to the social and intellectual anxieties of students and a curriculum that is transparent to the key philosophical underpinning of the discipline and profession’.

Student learning strategies and experiences
Patricia Lyon writes about the operating theatre as a learning site. She identifies the learning strategies that students use to manage their learning across three domains; the physical environment and the emotional impact of surgery as work, educational tasks and the social relations of work. She advocates the need to develop specific curriculum initiatives to provide students with formal opportunities to actively prepare for the experience of being in the operating theatre in order to help them get the most out of the experience; one which is likely to be challenging and difficult.

Competence in mathematics is important for science and engineering students. Britton et al were interested in measuring the ability of first year science students to use skills and knowledge learned in mathematics courses, in other contexts – specifically science. To date most of their emphasis has been on the development of tests to measure transfer and to find ways to interpret their data. While for them their research unearths more questions than answers, it does provide the opportunity to build a community of practice across disciplines that might nor have occurred otherwise.
Group work is an integral learning and teaching strategy in higher education. As Fiona White and colleagues point out in their chapter on Evaluating Student Perceptions of Group work and Group Assessment, it can be a challenge to implement effectively—from both teacher and student points of view. Surprisingly, the research indicates that for her students group work is preferred above individual work irrespective of the method of assessment.

Academic honesty and plagiarism is challenging staff in universities in Australia and elsewhere. Mark Freeman and colleagues undertook a research project aimed at improving academic honesty in the Faculty of Economics and Business. The approach developed in his faculty has been collaborative and has involved all staff in the design, implementation and research. The faculty efforts have facilitated a cultural change in academic honesty but also acknowledged and rewarded staff for their participation.

The Global Studio as described by Anna Rubbo weaves a narrative about teaching and learning in an international setting. The Global Studio demands that students develop critical thinking skills and brings together design teaching and research in a form of problematization. Importantly it also relies on the development of social participation and critical reflection. This project clearly is ongoing and has great potential to enhance students learning experiences moving them from local to global perspectives.

*Learning in an information rich environment*

eLearning has become ubiquitous as a mode of delivery in higher education. Several chapters investigated this as a tool to support student learning but from different perspectives.

Peter Goodyear and Robert Ellis are concerned with learning for the 21st century especially how it relates to the characteristics of knowledge work and the development of epistemic fluency. Their research indicates that many of those they interviewed are still looking for authentic ways of using ICT. Students expect it to be used, but don’t have definitive views about how it is to be used. While this research is still in its early stages, it does point to the need for a better alignment between technological capability and educational purpose.

At a more specific and applied level Rafael Calvo and colleagues have focused on how evidence-based research into students’ experience of eLearning has been used to inform software development process in a large number of eLearning projects. This chapter reports on students’ experience of learning using two learning software approaches: Beehive – a software system to help trainee teachers design synchronous collaborative learning activities and dotFolio – an electronic portfolio tool for learning that promotes reflection. This project endorsed the need for the development of communities of practitioners to undertake cross-disciplinary work to search for approaches and tools to enhance the student learning experience.

Online discussions provide students with flexibility to learn in virtual environments. Wozniak, Silveira and Devonshire draw on their experiences in fostering online learning discussions in the blended learning environment of an undergraduate allied health science courses. Drawing on evidence from learning cycles from 2000 to 2006 they note the move away from a technology focus to an understanding of the underlying pedagogy of elearning. This research ascertained that through careful preparation and structure of asynchronous discussion activities student group leaders emerge naturally and the focus of discussion can reflect higher order learning and team work.
Cultural change
Change is inevitable in the current climate and Faculties are responding to it in a variety of ways. Paul Canfield and Rosanne Taylor describe how the Faculty of Veterinary Science changed its direction to become a leader in veterinary education and research. They describe a change in culture brought about through the application of shared leadership, and a series of substantial structural and organisational initiatives. Improving the quality of teaching, the instigation of a culture of scholarly teaching, and a focus on student centred learning were at the centre of these changes. The impact of these changes has been substantial with a dramatic improvement in student satisfaction. In addition, a number of staff members have gained excellence in teaching awards.

Some observations and lessons
It is clear that the above themes are indicative of the diverse areas in which the scholarship of teaching is enacted. In what follows I want to briefly reflect on two issues that need to be considered in order for the scholarship of teaching to be able to be embedded in institutional practice and then to flourish. The two issues are advocacy and sustainability. In some respects these represent two ends of a management continuum. Advocacy is fundamental for the Scholarship of Teaching to be accepted institutionally. Advocacy from the centre legitimates this as a valuable initiative and thus gives it status. It also gives out the clear message that teaching and the scholarship of teaching are rewarded and important in the university’s set of priorities.

Consideration of sustainability is integral to thinking about the future of the Scholarship of Teaching at the institutional and individual level. Implementing change and new initiatives are relatively straightforward, sustaining them and keeping the momentum going is much more difficult. Much of the research detailed in this volume has been sustained by committed staff over a long period of time. How to sustain the effort and interest of staff, when there are competing demands, especially in a research intensive environment, needs to be considered at the individual and corporate level. Administrators and academics alike have to ask can we sustain interest, funds and effort in such activities. Interest can easily be redirected if other priorities emerge and there are reward structures in place for them; certainly the allocation of funds through the Scholarship Index and the opportunity for staff to give presentations at teaching and learning fora legitimated the effort of staff doing this kind of systematic investigation in student learning and their teaching.

Developing the scholarship of teaching and learning at the University of Sydney has taken place alongside the implementation of systematic and sustained implementation of quality assurance processes designed to ascertain students’ learning experiences. This information has been used to gauge the success of strategic teaching and learning interventions and to inform the processes of curriculum change. Also important has been policy renewal which has led to clear articulation of values and principles and coherent strategies that underpin them, including policies on generic graduate attributes and research-enhanced learning and teaching.

Conclusion
This volume and the critical work undertaken by the writers represents an institutional response to the development of an activist teacher professional (Sachs 2003). In various ways these projects are about a politics of transformation insofar as they are concerned with changing teachers’ beliefs, perspectives and opinions regarding the importance of
teaching in a research intensive environment. In its most obvious form the politics of transformation is rooted in everyday life, and this is its strength. In the examples in this volume, academics have looked behind some of their taken for granted assumptions about their practice and the design and pedagogy of that practice.

Activist teacher professionals work collectively and collaboratively which enables them to draw together a range of intellectual, social, cultural and other resources. At times when academics workload is intensified it also ensures the development of a sense of community which is important in sustaining high levels of energy and interest.

The development of trust and mutual respect is fundamental to developing the type of activist teachers I am suggesting. Activism requires trust in people and processes. When trust erodes, so too does the goodwill and energy that sustains an organization. Thus, it is important that strategies and processes to support and reaffirm trust are used to focus and mobilize action.

Clearly then activist teacher professionalism is not for the faint hearted. It requires risk-taking and working collectively and tactically with others. Like any form of action it demands conviction and strategy. However, the benefits outweigh the demands. Such a professional creates new spaces for debate about practice and an understanding of the conditions that shape practice. New cultures that recognise and reward quality teaching are institutionalized with improvements in student learning and the student experience their outcome.

The Scholarship of Teaching at the University of Sydney has the following characteristics: it is embedded into policies and practices, characterised by a variety of approaches, aimed at improving practice, tests and questions taken for granted about assumptions about student learning and teaching, contributes to the transfer of knowledge across disciplines, provides a basis for communicating and sharing good practice, provides information about the student experience and finally makes a significant contribution to the field.

This volume recognises and celebrates the work of many academics and administrative staff working across the University. Such work contributes to what Brew (2006) refers to as a type of ‘inclusive scholarly community’ where important distinctions are made between research-led teaching and the scholarship of teaching, where the former focuses on disciplinary research and the latter pedagogical research. Both types of research build capacity within individuals and across the institution. The development of the scholarship of teaching in particular, suggests a maturity in an institution, where despite external pressures from government and internal ones for increased research productivity, the role of teaching is formally acknowledged as a central platform of academic activity. An institutional tradition supporting the scholarship of teaching reinforces the research-teaching nexus and is an important strategy for migrating good practice across the University. Most importantly, it reinforces the idea that a mature institution learns from its own activities and has this as a publicly espoused value. To this end, The University of Sydney has achieved a great deal and hopefully others will be able to learn from our experience.